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Level of knowledge on national infant and young child feeding recommendations among mothers with infants of 0-24 months in Nakuru municipality, Kenya

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Abstract

Optimal infant and young child feeding (IYCF) is the World Health Organization (WHO) recommended way of feeding children. There is a lot that has been done on IYCF but there still remains a dearth of information in areas related to the application of IYCF recommendations in various regions. The study was designed to assess levels compliance with IYCF recommendations amongst mothers with infants aged 0-24 months in Nakuru Municipality targeting five health facilities. Based on the study, this paper examines the mothers' level of knowledge on IYCF recommendations. Data was collected using an interview questionnaire adopted from the WHO questionnaire on the 24-hour recall food diversity. Nine research assistants were trained and used to collect data from 377 mothers with children aged 0-24 months. It was established that the mothers' knowledge on IYCF recommendation was good (66%). The study underscored the areas that require strengthening as the insufficient breast milk management and the frequency of complementary meals during the transition period from breast milk to solids, semi-solid and soft food. It was thus suggested that the dissemination of information by health workers should emphasize on IYCF aspect of complementary feeding and continued breastfeeding up to two years and beyond when giving IYCF information to mothers.

Keywords: Level, Knowledge, National IYCF, Recommendations, Mothers, Infants, Nakuru, Kenya

Introduction

Infant and Young Child Feeding (IYCF) in the first two years of life is a key determinant of growth and development in children (Lamberti *et al.*, 2011; Lahariya, 2008). Children below 2 years old grow rapidly and are vulnerable to illness (Senarath & Dibley, 2012; WABA, 2010). While under-nutrition usually spikes at the age of 3-18 months making the child's first two years of life are considered 'a critical window of opportunity' for the prevention of growth faltering and under-nutrition (Victora *et al.*, 2010). Prudence, therefore, calls for capturing of children at this period in life with appropriate interventions to ensure children reach their full growth potential and help prevent irreversible stunting and acute under nutrition (Dewel & Adu-Afarwuah, 2008). In order to engage effective measures to control and eliminate child malnutrition, there is need for mothers' compliance with optimal IYCF recommendations (Arabi *et al.*, 2012).

Indicators for monitoring IYCF that are utilized in this study on the basis of literature review on WHO IYCF indicators include; initiating breastfeeding (BF) within one hour of delivery, exclusive breastfeeding (EBF) for the first six months, introduction of solid, semi-solid and soft foods in 6-8 months of age, minimum dietary diversity, minimum meal frequency and continued breastfeeding for 2 years (Senarath & Dibley, 2012; GOK, 2007). Globally about 8.8 million children under five years die each year mostly due to preventable causes such as under-nutrition, diarrhoea, pneumonia, measles, malaria and HIV/AIDS (UNICEF, 2009a; Black *et al.*, 2003). Globally, the disease burden can be attributed to under-nutrition whereas malnutrition has been responsible, directly or indirectly, for 60% of the 10.9 million deaths annually amongst children under five year (Lahariya, 2008). Over two-thirds of these deaths are associated with inappropriate feeding practices and occur during the first year of life (WHO, 2009a; WHO, 2003). Sub-optimal breastfeeding especially non-exclusive breastfeeding in the first six months results in 1.4 million deaths and 10% of disease burden in children younger than five years (WHO, 2009a). Worldwide the exclusive breast fed children

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rates are 34.8% (WHO, 2009a). Malnutrition in sub-Saharan Africa contributes to high rates of childhood morbidity and mortality (Olack *et al.*, 2011). Fortunately, the EBF rate in sub-Saharan Africa has increased from 22% to 30% (UNICEF, 2007). However, these rates are still low.

IYCF Recommendations

The recommended practices include; exclusive breastfeeding for six months, continued breastfeeding for two years and beyond and appropriate, adequate and indigenous complementary feeding after six months (WHO, 2009b). Exclusive breastfeeding (EBF) is one of the key indicators of optimal IYCF. Other indicators are timely introduction of solids, semi-solids and soft foods after six months of age; continued breastfeeding which means that children aged 6-24 months are fed on breast-milk and also receive solids, semi solid or soft foods (WHO, 2010).

Universally, optimal IYCF key indicators are low and current IYCF practices remain far from recommended levels. Only 35% of infants worldwide are exclusively breastfed during the first four months of life and in developing countries. The EBF rates amongst children aged less than 6 months are at 39% (UNICEF, 2009a). In addition, introduction of solids, semi solids or soft foods often begins too early or too late and is inadequate and unsafe (KNBS and ICF Macro, 2010). Only 50% of children aged 0-24 months receive breast milk (WHO/UNICEF, 2007; UNICEF, 2009b). Therefore, inappropriate IYCF remains one amongst others, a great threat to child survival (WHO/UNICEF, 2007).

Mothers' Level of Knowledge of IYCF Recommendations

The Kenyan MOPHS in conjunction with Division of Nutrition and NASCOP (2007) have made among other efforts, brochures available with health messages on "how to feed a baby after six months" which enables the mother to be aware of the recommended IYCF after six months. The recommendation for complementary feeding of infant and young child includes; introduction of solids, semi-solids and soft foods after six months with appropriate, adequate and indigenous complementary foods while breastfeeding is continued for two years and beyond.

IYCF messages given to the mothers at various levels in their life culminate to their level of knowledge in IYCF recommendations. The IYCF messages are tailored in a manner to capture the key aspects of IYCF recommended practices. The IYCF messages include: information on how to prepare for breastfeeding of their infants, how to enable their infants latch on the breast and when to introduce solids, semi-solids and soft foods. IYCF information is disseminated to mothers attending CWC, MCH and reproductive health clinic (RH/FP) in the health facility through individualized one to one talk, group teaching and through posters and pamphlets (MOPHS/DON/NASCOP, 2007).

Content of the health messages includes: initiate solids, semi solids and soft foods at 6 months such as cereal porridge that should be thin initially then made thicker as the infant grows older. Thereafter, between 6-12 months, leguminous and vegetables foods should be added to the cereal porridge. At 9 months of age, the infant may be introduced gradually to foods from the family pot and thereafter between ages 12-24 months continue progressively omitting spices. Introducing foods from the family pot gives the infant a varied taste of foods, variety of foods and also ensure nutritional needs are met (Liyanage, 2010). The infant should be given small frequent feeds; about 4-6 feeds in a day. Meanwhile

breastfeeding is continued on demand (Liyanage, 2010; King & Burgess, 2000).

Mothers' IYCF knowledge gaps as identified in various studies for causing inappropriate IYCF practices include: infants' diet effects on the child's health in subsequent years and long term conditions (Gage *et al.*, 2011), practical aspect of IYCF (Schawtz *et al.*, 2011), practical aspect regarding breastfeeding challenges (Foss, 2010) and exclusive breastfeeding duration (Fjeld *et al.*, 2008; Bartick & Reyes, 2012). Furthermore, mothers' lack of knowledge on IYCF recommendations and proper nutrition education was revealed in studies done in Kenya and Nigeria (Arusei *et al.*, 2011; Onuoha *et al.*, 2011). Mothers' IYCF recommendations knowledge gaps impact on the IYCF practices as revealed in a study done in Eldoret, Kenya by Cherop *et al.*, (2009) which showed that mothers who had no knowledge about IYCF recommendations were nine-fold more likely to start mixed feeding by 10 weeks of age.

Benefits of EBF for 6 Months and Continued Breastfeeding for Two Years and beyond

Initiation of EBF within one hour of delivery ensures that the child gets to consume colostrum which is the initial special breast milk produced within the first 2 days after delivery and is rich in antibodies, anti-infective proteins, white blood cells and growth factors (WHO, 2005). It also has purgative effects that help clear the infant's gut of meconium and bilirubin thus preventing jaundice (Liyanage, 2010). Initiating exclusive breastfeeding (EBF) early in life is associated with greater appetite regulation later in childhood leading to reduction of early overweight (Disantis *et al.*, 2011). When EBF is initiated early and is continued for six months, it reduces risks of severe malnutrition, cough incidences, hypoxemia incidences and duration in children with pneumonia, diarrhoea, gastro-intestinal tract conditions, respiratory conditions, infections and anaemia (Cervantes-Rios *et al.*, 2012; Chisti *et al.*, 2011; Lahariya, 2008; Sawasdivorn & Taexiriyakul, 2011; Horta *et al.*, 2007; Quigley *et al.*, 2007). The breast fed children have less digestive troubles, colic pains and best working immune system (Cohen *et al.*, 2012). Breast milk is the best source of alpha-linolenic acid (ALA) and docosahexaenoic acid (DHA) which are known to play a role in the development of the brain and the retina (Huffman *et al.*, 2011). Therefore, breastfeeding enhances good outcomes on the child's intelligence quotient (IQ), education and behaviour of the child (Heikkila *et al.*, 2011; Quigley *et al.*, 2012). In addition, breast feeding for four months and longer has better outcomes on fine motor skills at age one and three years; higher adaptability at age two years and higher communication skills at ages one and three years (Oddy *et al.*, 2011). Furthermore, continued breastfeeding at 12-15 months of age is associated with reduction of higher risks of child underweight (Marriot *et al.*, 2012). Other benefits of breastfeeding include the breast milk's vitamin A important role in assisting a child to build up hepatic stores of vitamin A that later become critical for survival after introduction of solids, semi-solids and soft foods (Fujita *et al.*, 2011).

Benefits of Introduction of Solids, Semi-solid and Soft Foods at Six Months

Timely introduction of solid, semi-solid and soft foods (complementary feeding) at 6 months of age is associated with reduction in risk of underweight, illness and mortality in children (Joshi *et al.*, 2012). According to a study done in 14 poor countries, complementary feeding at 6-8 months was

associated significantly with lower risks of both stunting and underweight (Marriot *et al.*, 2012). Stunting in older children shows failure of growth and development during the first two years of life as revealed in a study done in Nairobi's informal urban settlements (Olack *et al.*, 2011). Hence, evidence of the need of nutrition intervention between 0-2 years of age. As a child grows there is need for increased energy intake as from six months (Liyanage, 2010; WHO, 2009b). However, due to poor breastfeeding and complementary feeding practices the child is exposed to greater risks of nutritional deficiency and growth retardation which occurs at three to fifteen months (Shrimpton *et al.*, 2001).

Cases of malnutrition are more frequently observed during the transitional period of 6-24 months than in the first 4-6 months and is largely because the families may not be aware of the special needs of the child or they may not know how to prepare complementary foods from available ingredients or they are too poor to ensure food security at family level (UNICEF/USAID, 2011). In addition to complementary feeding is the importance to continue breastfeeding for 24 months and beyond since it provides up to half of the child's nutritional needs during the second year of life (WHO, 2010). According to Ramakrishnan *et al.* (2009), complementary feeding is the most effective intervention that can significantly reduce stunting during the first two years of life.

The minimum age for the introduction of the solids, semi-solids and soft foods is at times dictated by the neuromuscular development of infants as pertaining to when they can ingest particular types of foods. There is evidence of a "critical window" for introducing "lumpy" solid foods: if these are delayed beyond ten months of age, it may increase the risk of feeding difficulties later (Northstone *et al.*, 2001). Semi-solid or pureed foods are needed at first, until the ability for "munching" (up and down mandibular movements) or chewing (use of teeth) appears.

There is also need to give the child minimum meal frequency which is defined as; two times for breastfed infants at six to eight months, three times for breastfed children aged nine to twelve months and five times for breastfed children aged thirteen to twenty-four months which includes 1-2 snacks (Liyanage, 2010). Snacks are foods given in between meals which are usually self-fed, convenient and easy to prepare (UNICEF/WHO/USAID/URC, 2007). The complementary food should also meet the minimum dietary diversity defined as receiving food from four or more food groups namely: grains, roots and tubers; legumes and nuts; dairy products; flesh meat (animal source foods); eggs; vitamin A rich fruits and vegetables (yellow fruits and vegetable); oil and other fruits and vegetables (Senarath & Dibley, 2012). Such varied foods in a child's meal ensure that nutritional needs are met (Liyanage, 2010). However, foods low in nutrient value such as tea, sugary drinks and sodas should be avoided (Liyanage, 2010).

Evidence from study by Dewey and Brown (2003) indicates that by 12 months, most infants are able to consume "family foods" of a solid consistency. Family food provide adequate nutrient density for protein, thiamine, riboflavin, vitamin B₆, B₁₂ and C but not vitamin A, niacin, folate, calcium, iron and zinc (Vossenaar & Solomons, 2012). However, many of the children are still offered semi-solid foods presumably because they can ingest them more efficiently, and thus less time for feeding is required of the mother (Dewey & Brown, 2003).

IYCF Sanitation Recommendations

Infants aged six months and older should be given water that

has been treated or boiled. The food should be prepared in a clean area and needs to be covered. The use of open cup is also recommended. The use of bottles and teats should be avoided due to the difficulty in cleaning them and can lead to infection in the infant if not well cleaned (MOPHS/DON/NASCOP, 2007). Boiling water for drinking is a common strategy recommended for young children and is supported the study findings of Sodha *et al.* (2011) which show that households that do not boil water for drinking are more likely to have contaminated stored water.

Gaps in Mothers' Level of Knowledge on Various Aspects of IYCF

Mothers are reported to be more knowledgeable about recommendations related to breastfeeding but are less aware of solids, semi-solids and soft foods recommendations (Memon *et al.*, 2010). According to Wen *et al.* (2012), mothers' awareness of the breastfeeding recommendation, indicator of 6-month exclusive breastfeeding duration, was an independent positive predictor of breastfeeding initiation and duration. Therefore, gaps in mothers' knowledge on EBF information would lead to non-compliance with recommendations. Other gaps in the area of mothers' knowledge on IYCF recommendation was depicted in a study done in Uganda which revealed mothers' lack of information on benefits of adding oil to complementary food to improve its palatability (Wamani *et al.*, 2005). In Kenya, mothers need to have information that locally available food is operationally feasible and it improves child's weight and reduces child malnutrition as revealed in a study by Tomedi *et al.* (2012).

Statement of the Problem

Infant Young Child Feeding (IYCF) recommendations in Kenya are given to ensure child survival through interventions that are cost effective. Child malnutrition, morbidity and mortality are reduced when mothers comply with the national IYCF recommendations (Nduati, 2012). Compliance with national IYCF recommendations is in the mothers' domain as they make decisions as to how their children will be fed in terms of types of foods in a meal, frequency as well as timing of when to commence and stop breastfeeding. Mothers' non-compliance is manifested in outcomes of children health. No study had addressed the most current mothers' compliance with IYCF recommendations in Nakuru Municipality. Therefore, the study sought to fill the gap by assessing the current situation in mothers' compliance to national IYCF recommendations. There is need to be in touch with current IYCF practice status frequently so as to be aware of the current trends and make interventions in good time to ensure achievement of reduction of child mortality by two thirds by 2015 (World Bank, 2006).

Materials and Methods

The study utilized the cross-section descriptive research design to assess mothers' compliance with the five core IYCF indicators and six optional IYCF recommendations amongst children within their first two years of life. It was conducted in Nakuru Municipality. The Municipality is a dynamic urban area with a varied representation of people from different cultures and tribes. Since IYCF varies widely within and between populations for various reasons, Nakuru Municipality was chosen as an urban set-up to identify different aspect of IYCF information that is only available in a cosmopolitan area. This would assist in deciding approaches to IYCF recommendation in response to urban settings. The

Nakuru Municipality hosts 39 health facilities. There are four hospitals and 3 health centres, five dispensaries, two nursing homes and over 110 private health facilities (Municipality of Nakuru, 2010).

The target population for the study comprised all children within two years of life who attended clinics on a monthly basis. There was a total of 4356 children aged below two years in Nakuru Municipality (DHIS, Nakuru). The mothers with children aged 0-24 months who resided in Nakuru Municipality attending 5 clinics in Nakuru Municipality and were willing to participate in the study were the eligible respondents.

Mothers with children aged 0-24 months residing in Nakuru Municipality but had children too ill requiring immediate medical interventions or were unwilling to participate in the study were excluded. The health facilities in Nakuru Municipality were stratified into management strata namely central government, local government, faith based and private health facilities. Purposive sampling was used to select 5 health facilities with the largest mean monthly attendance amongst the health services offered to the mother and child. The health facilities selected were: PGH (Government), Mother Kevin (Faith Based), Gate House (Private), Langa Langa and Lanet (Local Government). Purposive sampling was done to obtain dates to visit the health facilities. Every mother with a child aged from 0-24 months seeking health care services on the day the health facility was visited had an equal chance to be interviewed. Consecutive sampling was done to select the respondents in the health facility. The minimum sample size determined was 330 and for each of the five health facility, 13% was added to increase the sample size proportionately leading to a total of 377 subjects. The sample distributed to the five health facilities were as shown in Table 1 below.

Table 1: Sample Size in Five Health Facilities

Health facility	Average Monthly attendance	% total	Sample number
Langa Langa H.C	1113	14	47
Lanet H.C	708	9	30
PGH Nakuru	4032	52	170
Gate house	697	9	29
Mother Kevin	1268	16	54
Total	7818	100	330

Administration of questionnaire was done to 377 mothers whereby interview of respondent by the researcher and research assistants on IYFC indicators was done. The author was the principal investigator who supervised the research assistants as well as provided guidance all through the data collection period. The information gathered through interview included data on infants' and mothers' characteristics, mother's level of knowledge on infant feeding guidelines', current practice of mothers' IYCF obtained from a 24 hour recall and support for optimal IYCF was collected.

Maternal level of knowledge on IYCF were assessed using a knowledge scale developed consisting of 13 knowledge items which took approximately five minute to complete. Each correct response received a score of one allowing an overall range in scores of 0-17. Current IYCF practices are the mothers' behaviour relating to what is fed and how often. The core indicators assessed in the study relating to mothers' IYCF practices included early initiation of breastfeeding,

exclusive breastfeeding for children under six months, continued breastfeeding at 24 months, time introduction of solids, semi-solids or soft foods was done, minimum dietary diversity and minimum meal frequency. To assess dietary diversity, information was collected on different foods from different food groups that would have been given the last 24 hours. Other information gathered included the optimal indicators namely: children ever breastfed, continued breastfeeding at 24 months, duration of breastfeeding and bottle feeding. Observation of CWC cards (road to health) was used to confirm the age of infant. All the collected data were coded, entered, and analysed using SPSS version 20. Descriptive statistics were computed to determine proportion of timely initiation of breastfeeding and timely introduction of solids, semi-solids and soft foods. Chi-square analysis was computed to determine whether there was any relationship between variables.

Results

The study sought to establish mothers' level of knowledge on National IYCF recommendations amongst mothers with infants 0-24 months in Nakuru Municipality, Kenya. The IYCF knowledge on recommendations results were divided into two sections: the knowledge on exclusive breastfeeding and second, continued breastfeeding and complementary feeding knowledge.

Mothers' Knowledge on Optimal Breastfeeding Recommendations

Parameters of breastfeeding that were assessed in knowledge were: initiation of breastfeeding within one hour of birth, on demand breast feeding frequency and suckling the baby on one breast for as long as baby wants. Other parameters included: exclusive breastfeeding being defined as giving baby breast milk and nothing else, benefits of colostrum, breastfeeding cessation time of two years and beyond and management of breast milk insufficiency.

Majority (336, 89.1%) of the mothers indicated that it was appropriate to put the baby on the breast for the first time within one hour after delivery while 41(11%) indicated that it is appropriate within a period of 24 hours. Another majority (337, 89.4%) of the respondents indicated that an infant should be breastfed on demand compared to 23(6%) and 9(5%) who indicated 5-7 and 8-10 times, respectively. While responding to the question on how long a baby should be allowed to suckle the breast, 264(70%) indicated that the baby should be allowed to suckle for as long as he/she wanted to; 94(25%) indicated 10-15 minutes while 19(5%) indicated varying other durations.

About two-thirds (249, 66%) of the mothers had knowledge that exclusive breastfeeding means giving a baby nothing else except breast-milk while 128(34%) lacked the knowledge. Majority (368, 97.6%) of the mothers were aware of the benefits of colostrum, namely nutritive, bonding, cost effective and protective. About three-thirds (287, 76%) of the respondents indicated that the appropriate age to stop breastfeeding the baby was 21-24 months while 64(17%) and 26(7%) indicated 16-20 and 11-15 months, respectively. Lastly, only 54(14.3%) of the mothers knew that if a four month old baby was not getting enough breast milk then they should increase the breastfeeding frequency (Figure 1). The findings indicate that the mothers' knowledge on seven core areas of breastfeeding was good (72%).

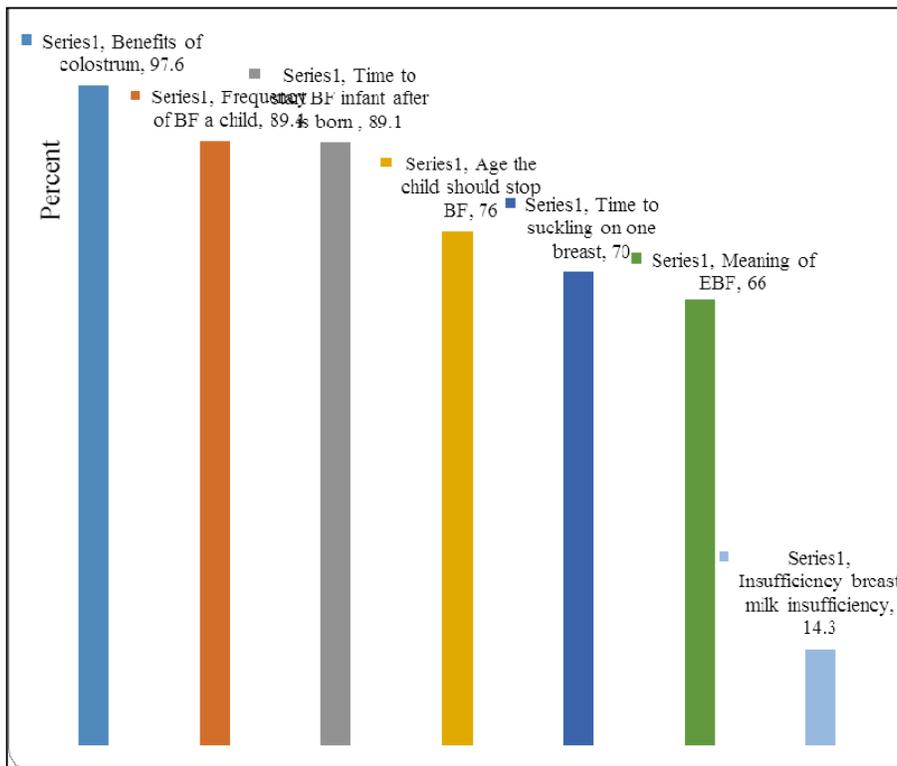


Fig 1: Mothers' level of knowledge on optimal breastfeeding

Mothers' Level of Knowledge on Complementary Feeding Recommendations

The mothers' level of knowledge on the appropriate time to introduce solids, semi-solid and soft foods was established. Majority (275, 73%) of the mothers indicated that the appropriate time to introduce solids, semi-solid and soft foods was 7-8 months; 79(21%) indicated 5-6 months; 23(6%), 3-4 months while those who indicated 1-2 months were an insignificant 4(1%) (Figure 2). The results of mothers' level of knowledge of the frequency of giving an infant, who is breastfeeding, soft porridge and mashed foods at 6 months, revealed that 151(40%) and 147(39%) was three and two times respectively compared to 53(14%), 283(75%) and 8(2%) who indicated once, four times and five times respectively (Figure 2).

The findings suggest that though mothers have good knowledge on timely introduction of complementary food, the initial frequency of meals for a six-month old was poor since only 53(16%) of respondent gave the frequency of meals at six months as once as recommended. On how often a breast feeding infant should be given solid, semi-solids or soft foods in a day at 7-8 months, 237(63%) of the mothers responded

three times which is the recommended frequency, 75(20%), four times; 38(10%), twice; 26(7%), five times while only 4(1%) indicated once (Figure 2). The mothers' knowledge on frequency of meals improve from 53(14%) for a child at 6 months to 237(63%) for child at 7-8 months. However, the findings indicate that mother may introduce complementary food at six months at a frequency more than the recommended frequency compromising on the benefits of breast-milk.

Less than half, 162(43%), of the mothers indicated that the appropriate age at which the baby should receive food from the family pot was 12-14 months; 139(37%) at 9-11 months which is recommended time; 53(14%) at 18-20 months and 23(6%) at 15-17 months (Figure 2). These findings suggest that there was slight delay of introducing varied food taste and consistency from family pot.

The investigation into mothers' knowledge on feeding a baby after six months according to IYCF Knowledge indexes revealed that: majority (274, 72.7%) had knowledge of the right age to start complementary food, 238(63%) of frequency to feed child at 7-8 months, 236(62.7%) of age to start child on family pot and 145(38.5%) of frequency of feeding child at 6 months (Figure 2).

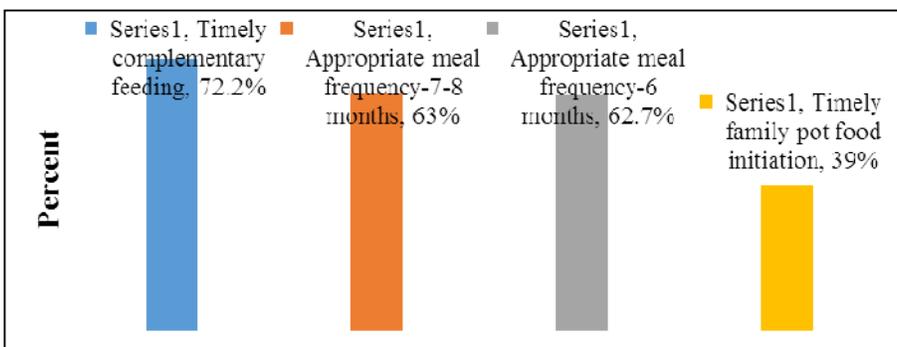


Fig 2: Mothers' level of knowledge of complementary feeding

The average score for seven knowledge items on breastfeeding was 72% while the average score for four knowledge items complementary feeding was 59%. Therefore, the total score for mothers' knowledge on IYCF recommendations was 66%.

Discussion

The mothers' level of knowledge of IYCF recommendations was good (72%) in the assessed indexes of breastfeeding. The index of breast feeding recommendation reported as best known amongst the mothers in Nakuru Municipality was the benefits of colostrum to the infant (97.6%) compared to that of management of breast-milk insufficiency which had low score of 14.3%. It showed that the mothers had the knowledge that the 'breast is best for the baby', but when faced with a common breast milk insufficiency problem, they were not able to apply the best solution due to inadequate information. The gap in mothers' knowledge index of breastfeeding recommendation on practical aspects of handling breast milk insufficiency was similar to findings depicted in a study by Foss (2010). Poor knowledge on how to handle breast milk insufficiency during the EBF period of 0-6 months may have lead to mothers' non-compliance to EBF recommendations. Mothers' exposure to information on the lactation let down which allows more milk to be produced in response to the frequency the child is put on the breast may have helped to build up on the knowledge deficit.

It was evident from findings of the study that the mothers' level of knowledge on the meaning of EBF was the lowest amongst the other breastfeeding practice indicators. Lack of clear understanding of what EBF means may have compromised the EBF recommendations practices and lead to non-compliance as revealed in this study. The findings of a study conducted in Eldoret, Kenya revealed that mothers who had no knowledge about IYCF recommendation were nine-fold more likely to start mixed feeding by 10 weeks of age (Arusei *et al.*, 2011).

The mothers had reasonable knowledge on the most appropriate time to initiate breastfeeding and by extension give the baby colostrum which was recommended due to its many benefits to the infant as depicted in various studies (Disantis *et al.*, 2011; Cohen *et al.*, 2012). This may have been attributed to the fact that majority (72%) of the mothers had attended ante-natal clinic in BFHI accredited health facilities three or four times and had been guided on the initial step of the ten steps to successful breastfeeding practices undertaken in respect to introduction of the infant to breast milk.

Mothers' knowledge on IYCF of indicators on complementary feeding that was scored as the highest (72.7%) was the appropriate time to start solids, semi-solids and soft foods as compared to scores (38.5%) on the frequency of feeding solids, semi-solid and soft foods to infants at six months and at 7-8 months (63%). This finding was in agreement with a study done in Korogocho and Viwandani Slums of Nairobi, Kenya (Kimani *et al.*, 2011). The knowledge on complementary feeding indicator that was scored poorest (38.5%) was the frequency of giving solids, semi-solids and soft foods at 6 months of age. This age period being the transition period from EBF to complementary foods, mothers need to be conversant with the recommended practice.

The finding of the study indicated that the content on the frequency of giving solids and semi-solids and soft foods at the stage of transition may not be clear or may be missing

from the health education sessions given to the mothers. Strategies for such means of information dissemination would need to be identified to ensure the mothers are exposed during the entire two years' period of a child's life which is a critical period for interventions to prevent growth faltering (Victoria *et al.*, 2010; Dewel & Adu-Afarwuah, 2008).

Conclusion and Recommendations

Generally, mothers' level of knowledge on national IYCF recommendation is good, although there improvement is needed on knowledge on management of breastfeeding problem and minimum frequency of feeding children aged 6-7 months. Therefore, it is recommended that dissemination of information by the implementers of the IYCF recommendations in the health system such as the newly established cadre community health extension workers (CHEWs), community health workers (CHW), CHN and other health workers (HW) should emphasize on IYCF aspect of complementary feeding and continued breastfeeding up to two years and beyond when giving IYCF information to mothers.

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