

Assessing Exclusive Breastfeeding Knowledge and Practices among Breastfeeding Mothers at Kajiado County of Kenya: A Community-Based Study

Daniel Ganu¹ and Caleb Nyaranga Kogutu²

Abstract

The purpose of the study was to find out the extent to which breastfeeding knowledge and awareness of the mothers at Kajiado County of Kenya correlates positively with their practice. The World Health Organization recommends that every country should promote, protect and support breast-feeding program for infants and the mother's health. The study employed descriptive-correlational and participatory action research approach employing data collection techniques such as individual interviews using structured questionnaire. A Sample size of 200 breastfeeding mothers was used for the study. The study showed the mothers have high knowledge in exclusive breastfeeding with a total mean score of 4.27 on a five-point scale. The high exclusive breast-feeding knowledge did not correlate positively with their breastfeeding practice. Even though, 70% of the mothers had a normal delivery, 97% had their babies delivered at the hospital, and 92.5% delivered their babies healthy without any problem. The study showed that only 42% were able to exclusively breastfed for six months. Spearman Rho showed a strong positive correlation between motivation and breastfeeding ($R = .421^{**}$, $P > 0.01$). This study is important in devising strategies that will help mothers increase and adopt better exclusive breastfeeding practices at Kajiado County of Kenya.

Keywords: Exclusive Breastfeeding, Knowledge, Practice

¹Adventist University of Africa, School of Postgraduate Program, Private Mail Bag, 00503 Mbagathi, Nairobi, Kenya.

²University of Eastern Africa Baraton, Kenya PMB 2500,30100 Eldoret, Kenya.

1 Introduction

Exclusive breastfeeding is defined as no other food or drink, except breast milk (including milk expressed or from a wet nurse) for 6 months of life, but allows the infant to receive ORS, drops and syrups, vitamins, minerals and medicines (1). It is the most natural and normal way of providing young infants with the nutrients they need for healthy growth and development. The World Health Organization (WHO) and the United Nations International Children and Education Fund (UNICEF) have issued four basic guidelines for breastfeeding in the developing world. They recommend that mothers should initiate breastfeeding within the first hour after birth, mothers should exclusively breastfeed their infants on demand for six months, mothers should continue to supplement breastfeeding for two years and beyond, and mothers should avoid bottles, teats and pacifiers which may contribute to nipple confusion resulting in infants' reduced ability to nurse (2). Breastfeeding, as a result of its beneficial effects on child and maternal health, is universally recognized as the best feeding method for infants. There have been well-documented breastfeeding benefits for infants (3). Breastfeeding provides infants with superior nutritional content that is capable of improving infant immunity and possible reduction in future health care spending (4, 5). In addition to providing essential nutrients to infants, benefits of breastfeeding for both children and their mothers have been reported. There is clear evidence from research and practice that breastfeeding reduces the risk of breast and ovarian cancer of mothers and decreases respiratory tract infection of babies (6, 7). This study was undertaken to assess breastfeeding knowledge of mothers in Kenya and compare this against their attitudes and practices and identify factors, which mitigate breastfeeding knowledge and practice and make recommendations for minimizing obstacles to satisfactory exclusive breastfeeding.

The World Health Organization recommends that every country should promote, protect and support breast-feeding program for infants and the mother's health. Breast milk promotes sensory and cognitive development, and protects the infant against infectious and chronic diseases. Exclusive breastfeeding reduces infant mortality due to common childhood illnesses such as diarrhea or pneumonia, and helps for a quicker recovery during illness (8).

Exclusive breastfeeding ceases once something other than breast milk is introduced into the infant diet. The implication of this is that if a mother reports that she introduced solids to her infant when he/she was six months old, and had given the infant nothing other than breast milk until that time, then the infant was assumed to have been exclusively breastfed. Nankunda J. et al (9) discovered that insufficient breast milk, sore nipples, breast engorgement, mastitis and poor positioning at the breast were some of the problems encountered for poor breast-feeding by breastfeeding mothers. Universal exclusive breastfeeding for the first six months could reduce infant mortality by 13% (10). Also, Wamani et al, (11) found that about 99% women initiated breastfeeding in Uganda but exclusive breastfeeding rates remain low. The WHO and UNICEF have found that the basic determinants that may deprive women of exclusive breastfeeding include lack of family and social support; traditions of giving low household food priority to women; and young women's lack of status and power, allowing others to decide what they should do with their time and energy; and how babies are fed. Among additional factors are women's vulnerability to social pressures and to violence, their selection as targets for commercial messages, and the disproportionate demands made upon women to achieve family survival (12). Again, WHO indicated that the immediate determinants of poor breastfeeding outcomes include new or traditional mismanagement of lactation, such as early

supplementation, poor positioning and ineffective suckling, infrequent or abbreviated feedings, omission of night feedings, use of feeding bottles and pacifiers, and inadequate treatment of breast problems (13).

Initiation, exclusivity, and duration of breastfeeding

The infant possessed sensory abilities, and a language containing of smiles, gestures, eye-to-eye contact, and vocalizations, which helps the infant to develop a reciprocal communication with the mother that sets the stage for all future development (14). With this, the early initiation of breastfeeding and duration is crucial to the infant in developing bonding with and communication system.

The World Health Organization and UNICEF provided a guideline to promote breastfeeding advocacy and education. This document summarizes the maternity practices necessary to support the initiation and duration of breastfeeding (15). The "Ten Steps to Successful Breastfeeding" for facilities providing maternal infant care are as follows: (a) Have a written breastfeeding policy that is routinely communicated to all health care staff; (b) Train all health care staff in skills necessary to implement this policy; (c) Inform all pregnant women about the benefits and management of breastfeeding; (d) Help mothers initiate breastfeeding within half-hour of birth; (e) Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infant; (f) Give newborn infants no food or drink other than breast milk, unless medically indicated; (g) Practice rooming-in - allow mothers and infants to remain together – 24 hours a day; (h) Encourage breastfeeding on demand; (i) Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants; (j) Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic. (16). Lauer et al. (17) found that the rates of exclusive breastfeeding are low in the developing world (39%) with somewhat higher rates in South America and the Caribbean (45%).

2 Methodology

The study employed a cross sectional descriptive-correlation research design to investigate the relationships between exclusive breastfeeding and other variables. The population of the study consisted of breast-feeding mothers in the Kajiado County in Kenya with children with ages 6 months to 24 months. A sample size of 200 breastfeeding mothers was directly selected from the community using non-purposive sampling technique.

Lactating mothers who were currently breastfeeding within one-year period were contacted in the communities to ascertain their exclusive breastfeeding practices. Mothers who have consented to be included in the study were selected directly from the community midwifery hospitals and those who delivered at home. This was done to include participation of hospital and non-hospital based mothers. A structured questionnaire with close-ended question was formulated and self-administered using Research Assistants. The questionnaire was used as a means of gathering a primary source of information. Vital documents or information from the hospitals where mothers delivered were also obtained. This was useful in tracing any medical records related to medical condition of both mothers and babies; delivery status of the mothers and babies; and breastfeeding initiations.

The questionnaire comprised six items: the demographic profile of the participants, milk flow, knowledge and awareness, employment and time, motivation, support system, cultural and personal beliefs, environment and mass media, medical complication and

hospital practices.

The data analysis was performed using Statistical Package for Social Sciences (SPSS) version 20 software (SPSS Inc., Chicago, Illinois, USA). Descriptive statistics was used to describe the characteristics of the sampled participants.

3 Main Results

The descriptive statistics showed that the participants were well educated: 68% of the mothers had a college degree. However, 35% have monthly income below Ten Thousand Kenya Shilling, (equivalent to \$115). More over, 95% of the participants were Christian, 54.5% have children who are male and 45.5% female. Also, majority of the mothers (70%) had a normal delivery and 30% had a caesarean section. About 97% of the mothers had their babies delivered at the hospital and 92.5% delivered their babies healthy without any problem. Table 1 below showed breastfeeding initiation of mothers. The breastfeeding practice showed that 33.5% of mothers initiated breastfeeding less than an hour after delivery and 13.5% initiated after seven hours of delivery.

Table 1: Breastfeeding Initiation after Birth

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than an hour	67	33.5	33.5	33.5
	1-2 hours	62	31.0	31.0	64.5
	3-4 hours	26	13.0	13.0	77.5
	5-6 hours	18	9.0	9.0	86.5
	More than 7 hours	27	13.5	13.5	100.0
	Total	200	100.0	100.0	

The study also revealed that (Table 2 below) 42% (84) of the mothers who participated in the study were able to breast-feed their babies exclusively for six months without any supplement. This means that 58% (116) of the mothers were not able to exclusively breast-feed their babies for six months. The overall mean score of breastfeeding knowledge and awareness of mothers is 4.27 on a five-point scale with a standard deviation of 0.639. Even though, mothers have high knowledge and awareness of breastfeeding, this did not show in their breastfeeding practices.

Table 2: Exclusive Breast-feeding Without any Supplement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Up to 1 month	10	5.0	5.0	5.0
	Up to 2 months	17	8.5	8.5	13.5
	Up to 3 months	19	9.5	9.5	23.0
	Up to 4 months	26	13.0	13.0	36.0
	Up to 5 months	44	22.0	22.0	58.0
	Up to 6 months	84	42.0	42.0	100.0
	Total	200	100.0	100.0	

Spearman Rho correlation (Table 3) showed that there was no relationship between knowledge and exclusive breastfeeding practice. What this means is that knowledge does not necessary encourage practice. One may have knowledge but may lack the motivation to put the knowledge into practice. About 58.5% of mothers indicated that their husbands influenced their decision by way of motivating them to breastfeed while 63.5% received support from other family members. Again, Spearman Rho correlation (Table 3) showed a strong relationship between motivation and breastfeeding. The correlation showed that support system highly correlated positively with motivation ($r = .421^{**}$, $p > 0.01$). The correlation however showed (Table 3) that support and motivation correlated negatively with breastfeeding initiation ($r = -.146^*$, $p > .05$, $r = -.240^{**}$, $p > .01$ respectively). This means that support and motivation for mothers to initiate breastfeeding right after delivery was lacking. Table 1 above showed about 66% of the mothers initiated breastfeeding 2 hours after delivery even though, 97% of the mothers had their babies delivered at the hospital and 92.5% delivered their babies healthy without any problem.

Table 3: Spearman's Rho Correlation

	Knowledge	Exclusive BF	Support system	Employment	Motivation	BF initiation
Knowledge	-					
Exclusive BF	-.003	-				
Support	.043	-.112	-			
Employment	.032	.016	-.070	-		
Motivation	-.071	-.058	.421**	-.076	-	
BF initiation	.029	.084	-.146*	.045	-.240**	-

** Correlation is significant at the 0.01 (2-tailed)

* Correlation is significant at the 0.05 (2-tailed)

4 Discussions

The study found that though mothers at Kajiado County of Kenya had a high knowledge in exclusive breastfeeding yet, their breastfeeding practice did not correlate with the knowledge. Even though, these mothers breastfed their babies exclusively to some point and even continue breastfeeding with supplement, exclusive breastfeeding up to six months of baby's life was a common problem and was practiced by only 42% of mothers in this study. This percentage of exclusive breastfeeding was below the 90% level recommended by the WHO (18) quoted by (19). However, an 8% global increase in exclusive breastfeeding to six months is estimated to have reduced infant mortality by 1,000,000, decreased fertility by 600,000, and saved countries billions of dollars in breast milk substitutes (20).

The UNICEF (21) recommendations on breastfeeding states that in order to enable mothers to establish and sustain exclusive breastfeeding for 6 months should initiate breastfeeding within the first hour after the birth. They should practice exclusive breastfeeding for the first six months; and continued breastfeeding for two years or more, together with safe, nutritionally adequate, age appropriate, responsive complementary feeding starting in the sixth month.

The developed countries have high knowledge in and awareness of exclusive breastfeeding yet the practice of exclusive breastfeeding still needs more improvement. The Australian

breastfeeding statistics (22) showed that 96% of mothers initiate breastfeeding, thereafter, only 39% exclusively breastfed for less than 4 months, and 15% for less than 6 months, overall 35% of infants were introduced to solid foods by 4 months of age. In the United States of America, exclusive breastfeeding rate is 49% for 2013 (23). In Germany, 88.7% of the western group of mothers initiates breastfeeding at birth; this dropped to 60.5% exclusive breastfeeding at two months and 13.5% at six months (24).

Between attitude and knowledge, attitude was the only factor independently related to breastfeeding duration for the first year of life (25). Reliable measures of maternal attitude could be used as a first step in targeting and assessing interventions that promote and sustain breastfeeding. There is an urgent need to improve the practice of breastfeeding in general and exclusive breastfeeding in particular among mothers in Kajiado County of Kenya. The study showed no significant relationship between the mother's knowledge of exclusive breastfeeding and their practice of the same. This means that although mothers had enough knowledge of exclusive breastfeeding but this knowledge was not a factor for them to practice exclusive breastfeeding. It was found in Nigeria that only 28.6% of babies born were breastfed within 24 hours of birth. Although, breastfeeding is widely understood and practiced, none of the mothers were able to exclusively breastfed for six months. Mothers gave Prolactal feeds such as water, formula, and herbal tea to their children (26). Also, Agunbiade & Ogunleye (27) report a high level of knowledge and awareness of breastfeeding (94%) but only 19% of them practiced exclusive breastfeeding. The study also showed a strong relationship between support system, motivation and breastfeeding. The study showed that where they had support, they were motivated to breastfeed their babies exclusively. If strong support systems exist, breastfeeding mothers will be highly motivated to breastfeed. The study showed that there was a mean support of 3.6410 on a 5-point scale and a standard deviation of .87473. Batan et al (28) found that approximately 68% of lactating mothers maintained exclusive breastfeeding at 6 months when they received support. More so, a randomized control trial of breastfeeding duration showed that the support group breastfed exclusively for a median of 120 days compared with 41 days (29).

Trends in data suggest that the prevalence of exclusive breastfeeding among infants younger than six months in developing countries increased from 33% in 1995 to 39% in 2010. The prevalence increased in almost all regions in the developing world, with the biggest improvement seen in West and Central Africa where the prevalence of exclusive breastfeeding more than doubled from 12% in 1995 to 28% in 2010 (30). In spite of the well-documented benefits of exclusive breastfeeding, the practice is not widespread in the developing world. The practice even in the developed world leaves much room for improvement. In all, the prevalence of exclusive breastfeeding on the global level is still very modest which leaves much room for improvement.

5 Conclusions

This study showed a lack of understanding of the importance of and poor adherence to exclusive breastfeeding for the first six months postpartum among rural mothers in the Kajiado County of Kenya. As exclusive breastfeeding promotion has been proven to be one of the most effective ways to improve infant survival, more attention should be given to it, especially targeting the large proportion of rural women. A proper community-based program including the tools for monitoring the implementation exclusive breastfeeding and

effectiveness needed to be developed to transform policy recommendations into action in rural setting.

References

- [1] Agunbiade O.M., Ogunleye O.V. Constraints to exclusive breastfeeding practice among breastfeeding mothers in Southwest Nigeria: implications for scaling up. *International Breastfeeding Journal*, (2012) 7:5.
- [2] AU. (2012). Germany - The WHO Code and Breastfeeding: An International Comparative Overview. Retrieved on October 30, 2014 from <http://www.health.gov.au/internet/publications/publishing.nsf/Content/int-comp-whocode-bf-init~int-comp-whocode-bf-init-ico~int-comp-whocode-bf-init-ico-germany>
- [3] Batan M., Li R, Scanlon K. Association of Child Care Providers Breastfeeding Support with Breastfeeding Duration at 6 Months. *Journal of Maternal Child Health*, (2012). 17:708–713
- [4] Bertino E et al. Is breastfeeding duration influenced by maternal attitude and knowledge? A longitudinal study during the first year of life. *The Journal of Maternal-Fetal and Neonatal Medicine*, 2012; 25(S3): 32–36
- [5] Cai X., Wardlaw T., Brown D.W. (2012). *Global trends in exclusive breastfeeding. International Breastfeeding Journal*, (2012), 7:12. Pg. 7-12
- [6] Calrsen E.M., et al. Telephone-based support prolongs breastfeeding duration in obese women: a randomized trial. *American Journal of Clinical Nutrition*, (2013). Vol. 98, No. 5, Pp. 1226-1232
- [7] CDC. (2013). Breastfeeding Report. Retrieved on October 23, 2014 from <http://www.cdc.gov/breastfeeding/pdf/2013breastfeedingreportcard.pdf>
- [8] Gratier M., Trevarthen C. Voice, Vitality and Meaning: On the Shaping of the Infant's Utterances in Willing Engagement with Culture. *International Journal for Dialogical*. (2007). Vol. 2, No. 1, 169-181.
- [9] Hunt, Joseph M. "The potential impact of reducing global malnutrition on poverty reduction and economic development." *Asia Pacific Journal of Clinical Nutrition*, (2005). 14: 10-38.
- [10] Ip S, Chung M, et al., "Breastfeeding and maternal and infant health outcomes in developed countries," Evidence Report/Technology Assessment, 2007, No. 153, Pp. 1–186,
- [11] Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS. How many child deaths can we prevent this year? *Lancet*, (2003). 362:65-71.
- [12] Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS. How many child deaths can we prevent this year? *Lancet*, (2003). 362:65-71.
- [13] Kotsopoulos J. et al. Breastfeeding and the risk of breast cancer in BRCA1 and BRCA2 mutation carriers. *Breast Cancer Research*. (2012). Vol. 14, (2) pp. R42.
- [14] Kramer M et al. Promotion of Breastfeeding Intervention Trial: A randomized trial in the Republic of Belarus. *Journal of the American Medical Association*, 2001, 285(4): 413-420).

- [15] Lauer JA, Betran AP, Victora CG, Barros, M. Breastfeeding patterns and exposure to suboptimal breastfeeding among children in developing countries: review and analysis of nationally representative surveys. *BMC Med.* (2004). 2:26 published online <http://www.biomedcentral.com/1741-7015/2/26>.
- [16] Nankunda J. et al. Community Based Peer Counselors for Support of Exclusive Breast-feeding: Experience from rural Uganda. *International Breastfeeding Journal*, (2006). 1:19.
- [17] Okolo S.N., Adewunmi Y.B., Okonji M.C. Current breastfeeding knowledge, attitude, and practices of mothers in five rural communities in the Savannah region of Nigeria. *Journal of Tropical Pediatrics*, (1999). Vol. 45, Issue 6, Pp. 323-326
- [18] Refshauge A. Australian National Infant Feeding Survey. Australian Institute of Health and Welfare: (2011). Retrieved on October 23, 2014 from <http://www.aihw.gov.au/publication-detail/?id=10737420927>.
- [19] UNICEF. Breastfeeding. (2014). Retrieve on October 23, 2014 from http://www.unicef.org/nutrition/index_24824.html
- [20] UNICEF, WHO. *Breastfeeding management and promotion in a baby-friendly hospital: an 18-hour course for maternity staff.* (1993). New York: UNICEF.
- [21] UNICEF. Progress for children: A report card on Nutrition, 2006 Number 4. Retrieved on October 28, 2014 from
- [22] [http://www.unicef.org/progressforchildren/2006n4/index_breastfeeding.html#13]
- [23] Wamani H, Tylleskar T, Astrom AN, Tumwine JK, Peterson S: Mothers' education but not fathers' education, household assets or land ownership is the best predictor of child health inequalities in rural Uganda. *International Journal of Equity Health* 2004, 3:9.
- [24] WHO. Infant and young child nutrition: Global strategy for infant and young child feeding, (2001). Retrieved on October 29, 2014 from [http://apps.who.int/gb/archive/pdf_files/WHA55/ea5515.pdf]
- [25] WHO, UNICEF. *Breastfeeding counseling: a training course.* Geneva: WHO, 1993.
- [26] WHO. *The World Health Organization's infant feeding recommendation.* . (2001). Retrieved on October 30, 2014 from http://www.who.int/nutrition/topics/infantfeeding_recommendation/en/
- [27] WHO. Evidence for the Ten Steps to Successful Breastfeeding. (1998). Retrieved on November 3, 2014 from http://whqlibdoc.who.int/publications/2004/9241591544_eng.pdf.
- [28] WHO. WHO Collaborative study team on the role of breastfeeding on the prevention of infant mortality effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: A pooled analysis. *Lancet*, (2000). 355(9202): 451-455.
- [29] WHO. (2013). Retrieved October 29, 2014 from http://www.who.int/nutrition/topics/exclusive_breastfeeding/en/
- [30] WHO/UNICEF "Ten steps to successful breastfeeding. Retrieved on October 27, 2014 from www.who.int.