wjpmr, 2021,7(8), 324 – 329.

SJIF Impact Factor: 5.922

WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

Research Article

ISSN 2455-3301

WJPMR

DETERMINANTS OF BREASTFEEDING PRACTICES AMONG WOMEN WITH CHILDREN AGED 6 - 12 MONTHS ATTENDING WELL-BABY CLINIC AT NAIROBI WOMEN'S HOSPITAL, KENYA

Daniel Mwendwa Maweu*[1], Okova Rosemary[2] and Muthoni Ritho[3]

[1]Masters Student, [2]Senior Lecturer, and [3]Lecturer
School of Nursing Mount Kenya University Thika, Kenya.

***Corresponding Author: Daniel Mwendwa Maweu**
Masters Student School of Nursing Mount Kenya University Thika, Kenya.

Article Received on 17/05/2021 **Article Revised on 07/06/2021** **Article Accepted on 27/06/2021**

ABSTRACT

Breast milk is considered the most optimal nutrition for infants due to the many health benefits for women, families, and communities. The study aimed at determining the factors influencing breastfeeding among mothers with children aged 6 - 12 months. The study used a cross-sectional survey design for 206 mothers attending Well-Baby Clinic at Nairobi Women's Hospital. The rate of exclusive breastfeeding was 82.6% and 77.2%mixed feeding after 6 months. Chi squared results for Maternal age (X^2 = 10.78), level of education (X^2 = 11.42), occupation (X^2 = 14.23) and household income (X^2 = 12.03) were significant ($p< 0.05$). Logistic regression showed that positive predictors of exclusive breastfeeding included age above 30 (AOR = 1.89; 95% CI [1.12, 4.02]) and tertiary education level (AOR = 2.02; 95% CI [1.06, 2.06]). Socio-demographic characteristics, Maternal knowledge& access to information are determinants of optimum breastfeeding practices. There is need for private hospitals in Nairobi to improve maternal knowledge and access to information for promoting exclusive breastfeeding among the breastfeeding mothers attending well baby clinics. The ministry of health should encourage and support community-based strategies involving religious leaders to promote breastfeeding anywhere at any time with no stigmatization to the mothers.

KEYWORDS: Breastfeeding, children, mothers.

INTRODUCTION

Due to the many health benefits for women, families, and communities, breast milk is considered as the most optimal nutrition for infants. According to Joshi et.al. 2014, the importance of infant breastfeeding in their survival, growth and development are much documented. Apart from the benefits to the infant, breast feeding has been shown to be of importance to the health and well-being of a mother as well (Joshi P Mohan et al., 2014). According to World Health Organization (WHO), breastmilk contains essential nutritional need for the healthy growth and development of a baby. Breastmilk is considered the safest infant food and has antibodies necessary for protecting infants by boosting immunity. Breastfeeding has been shown to fight preventable neonatal morbidity and mortality like diarrhea and other diseases, (WHO, 2015; UNICEF, 2015). According to WHO and UNICEF, by achieving optimal breastfeeding practices, more than 800,000/year under 5 deaths globally will be preventable (WHO, 2015; UNICEF, 2015) especially when the practice is started within one hour of birth.

Experts advise that breast feeding should be done exclusively for the first 6 months before complimentary feeding is introduced for the next two years or more. Additionally, provision of safe, nutritionally balanced, complementary feeding starting in the 6th month of life have been found to reduce neonatal morbidity and mortality (Radha *et al.*, 2015).

Studies show that women in developing countries engage in mixed feeding of their babies due to a number of reasons including perceived lactation insufficiency and the thought that EBF is unhealthy for babies. In Nigeria for instance, exclusive breastfeeding (EBF) is low with the infants reported to be fed on formulary feeds, water and in some cases herbal tea, (Nwankwo & Brieger, 2002; Ogbo et al., 2015) while in Malawi, only 13.3% of the infants were exclusively breastfed (Kamudoni et al., 2015).

Over the years, Kenya as a country has experienced great socio-economic changes among the women population. In recent times, women have been more enlightened and can access education at young ages. This has led to women having higher chances for getting a formal job

leading to self-reliance that has been linked to poor breastfeeding practices, (APHRC, 2015).

To address inconsistencies in breastfeeding practice, it is necessary to understand maternal factors influencing the practice and role played by health facilities, the family unit, work environment and the community in acting as promoters or barriers to appropriate breastfeeding practices.

METHODOLOGY

The study was a health facility-based and utilized a descriptive cross-sectional survey design where women with children aged 6 - 12 months were sampled from the Well-Baby Clinic. This design is less time intensive and does not require follow-up which makes it less costly compared to other designs. This design allowed the researcher to solicit self-reported information directly from respondents.

Study Area

The study was conducted at Nairobi Women's Hospital (NWH) – Hurlingham & Adams branch. The NWH - Hurlingham branch is located along Argwings Kodhek road; about 4 kilometers from Nairobi City Centre. Nairobi County, Kenya. The Adams branch is located on Kileleshwa road off Ngong road and is approximately 2 kilometers from the Hurlingham branch. The two are part of the Nairobi Women 's Hospital group. There are three other branches of the hospital at OngataRongai, Kitengela and Nakuru. The hospitals have a bed capacity of 160 beds and serve patients from all the districts in the Nairobi County.

Nairobi has a population of approximately 3,138,369 individuals distributed in four districts, that is Nairobi West, Nairobi East, Nairobi North, and Westlands

Target Population

The target population for this study was women with children aged 6 - 12 months attending Well-Baby Clinic at the Nairobi Women's Hospital.This population was selected so as to assess the breastfeeding practices of the neonates within the first 6 months of age.

Inclusion criteria /Exclusion criteria

Inclusions criteria

All women aged above 18 years with children aged 6 - 12 months attending Well-Baby Clinic at Nairobi Women's Hospital who gave informed consent to participate in the present study voluntarily.

Exclusion criteria

The exclusion criteria comprised all women aged above 18 years who failed to give consent to participate in the study. In addition, all women aged below 18 years with children aged 6 - 12 months attending Well-Baby Clinic at Nairobi Women's Hospital were also excluded. Also, not included in the study were women with medical-surgical conditions like HIV/AIDS, breast abscess among others affecting breastfeeding. The study also excluded all women with adopted babies attending the Well-Baby Clinic.

Study Variables

Dependent Variable

The dependent variable for the study was breastfeeding practices among women with children aged 6 - 12 months attending Well-Baby Clinic.

Independent Variables

The independent variables comprised maternal socio-economic & demographic characteristics which included; maternal age in years, level of education, their marital status, occupation, and income sources. Another independent variable was maternal sources of breastfeeding information, and their knowledge on breastfeeding practices.

Other independent variables included were cultural factors like beliefs, norms and cultural breastfeeding practices. Contextual factors were determined by delivery history of the mother, which included place of delivery whether home or health facility and birth type whether normal or cesarean.

Sampling Procedures

Using records from Nairobi Women's Hospital Well-Baby Clinic covering January 2017 to December 2017, the researcher established that 444 women had brought their children for Well-Baby services. This formed the sampling frame.

The researcher used systematic random sampling whereby the study units were chosen at regular intervals from the sampling frame. This reduced the potential for bias in selecting of the women to be considered in the population sample. The systemic random sample provided a representative sample of the target population under study. To arrive at the interval of selecting the study participants, the researcher divided the estimated population of women with children 6 - 12 months attending Well-Baby Clinic at Nairobi Women's Hospital as per the 2017 data by the sample size as follows:

$$K = \frac{N}{n}$$

Where k is the sampling interval
N = the target population
n = the sample size.

$$K = \frac{444}{206} = 2.16$$

This means that every 2nd woman with a child aged 6-12 months attending the Well-Baby Clinic was sampled until a total of 206 participants were issued with a questionnaire. All women seeking Well-Baby Clinic services for their children were targeted for the data

collection. The researcher sought consent from those selected to fill the questionnaire.

Sample Size Determination

The sample size for this study was estimated using the formula recommended by Fischer's (1967). An estimate of 50% based on the population of women with children less than 12 months attending Well-Baby Clinic at Nairobi Women 's Hospital was used.

$$n = \frac{Z^2 pq}{e^2}$$

Where Z is the value for the corresponding confidence level (i.e., 1.96 for 95% confidence); e is the margin of error (i.e., 0.05 = ± 5%) and p is the estimated value for the proportion of a sample that have the condition of interest. P= 0.5

$$n = \frac{1.96^2 x 0.5 x .05}{0.05^2} = 384.16$$

Respondents

Since the target population for this study was 444 which was less than 10,000, the sample size was adjusted using the equation developed by Yamane *et al*. (1967):

$$nf = \frac{n}{1 + \frac{n-1}{N}}$$

Where;

nf = desired sample size (when the population is less than 10,000)

n = calculated sample size of 384

N = estimate of population in the study area

$$nf = \frac{n}{1 + \frac{(n-1)}{N}}$$

$$nf = \frac{384}{1 + \frac{(384-1)}{444}}$$

$$nf = 1 + \frac{384}{\frac{(383)}{243}}$$

$$nf = 1 + \frac{384}{1.86}$$

$$nf = 206$$

The total participants required for the research was 206.

Data Collection Tools and Methods

The data was collected through researcher-administered questionnaires that elicited for quantitative data from the women with children 6 - 12 months attending Well-Baby Clinic at Nairobi Women's Hospital. The questionnaires had structured questions and contained four sections: the first was designed to collect data on socio-economic and demographic characteristics, maternity knowledge, contextual factors, socio/cultural factors and breastfeeding practices.

Pre-Testing of the Data Collection Tool

In order to pre-test the questionnaire, eleven respondents (5 percent of the total sample) were issued with the questionnaires. Pre-testing was done at Nairobi Women's Hospital Ongata Rongai branch which share similar characteristics with the Adams & Hurlingham branch. The researcher reviewed the pre-tested questionnaire and made necessary amendments.

Validity and Reliability of the Questionnaire

Validity

To the ascertain the validity of the questionnaire, the researcher utilized content validity technique. To achieve this, supervisors' expert advice was consulted in order to ensure the questionnaire would gather the intended data from the selected respondents.

Reliability

The reliability of the questionnaire was ascertained through internal consistency of items. Cronbach alpha coefficient was used to establish the reliability of the scales used in the study. In order to assess the internal consistency of the constructs used in the study, two different Cronbach's Alpha statistics were computed as shown in Table 3.1.

Table 3. 1: Reliability Analysis.

Scale	No. of Items	Cronbach's Alpha (α)
Maternal Knowledge	14	0.791
Cultural factors	7	0.845

Hair, Black, Babin, Anderson, and Tatham (2006) suggested 0.60 to 0.70 to be in the lower limit of acceptability. From Table 3.1, all constructs returned Cronbach's Alpha coefficient greater than the minimum (0.70) indicating that there were strong correlations amongst the scales' inter-items. Thus, all constructs were reliable for any further analysis.

Data Management

Data Cleaning and Storage

The researcher checked the filled questionnaires for completeness then made a follow-up to ensure all the questions had been appropriately responded to. Once questionnaires were completed, the collected data was arranged systematically to facilitate analysis. Storage was under lock and key and were accessible by the principal researcher only.

Data Analysis

The collected data was coded, entered and cleaned using the Statistical Package for Social Sciences (SPSS) software version 20. Both descriptive and inferential statistics were used to address the study objectives. Descriptive statistics comprised means, standard deviations, frequencies, and percentages and were used to describe the study variables. Pearson's Chi-square tests were used to test the association between the socioeconomic characteristics and exclusive breastfeeding of infants. Logistic regression analysis was used to establish the influence of socioeconomic characteristics and contextual factors on exclusive breastfeeding of infants among mothers. Simple linear regression analysis was used to examine the relationships between maternal knowledge and cultural factors and exclusive breastfeeding among mothers.

Ethical Considerations

Approval to conduct the research was sought and obtained from Mount Kenya University Ethical Review Committee and from the Nairobi Women's Hospital administration. The respondents were informed about the purpose of the research and allowed to ask questions, before giving the informed consent. The respondent's names were included in the findings. All the respondents were also assured that the information provided was only used for the purposes of this study.

RESULTS

Socio-demographic Characteristics of Mothers and Breastfeeding practices of Infants under 12 Months

This section presents the results of socio-economic characteristics and their influence on exclusive breastfeeding of infants under 6 months among mothers. The socio-economic characteristics comprise age, marital status, religion, occupation, level of education completed, and household's total income per month. Results are presented in Table 4.2. More than half (62.0%) of mothers were aged less than 30 years. The majority of mothers, 156 (84.8%) were married. Most of the mothers (50.5%) were Protestants. The majority of mothers (90.2%) had completed tertiary education (college and/or University). Nearly half (47.8%) the mothers were in formal employment and their total household income ranged between KSh 60,001 – 80,000.

Table 4: 3. Socio-demographic characteristics of mothers attending Well-Baby Clinic at Nairobi Women's Hospital.

Variables	Category	Frequency	Percent (%)
Age in year	≤30	114	62.0
	>30	70	38.0
Marital status	Single	18	9.8
	Married	156	84.8
	Divorced	10	5.4
Religion	Catholic	74	40.2
	Protestant	93	50.5
	Muslim	17	9.2
Level of education completed	Secondary	18	9.8
	Tertiary	166	90.2
Occupation	Housewife	65	35.3
	Student	26	14.1
	Self-employed	5	2.7
	Formal employment	88	47.8
Household Income	20,000-40,000	26	14.1
	40,001-60,000	20	10.9
	60,001-80,000	83	45.1
	>80,000	55	29.9

Relationship between socioeconomic characteristics and breastfeeding practices among mothers

A chi-square test of independence was performed to examine the relation between socioeconomic characteristics of mothers and breastfeeding practices of infants below 12 months. Results are presented in Table 4.3. As indicated, the relationships between, age X^2 (1) = 10.78, $p< 0.05$, level of education X^2 (1) = 11.42, $p< 0.05$, occupation X^2 (3) = 14.23, $p< 0.05$ and household income X^2 (3) = 12.03, $p< 0.05$ were significant factors in influencing breastfeeding practices. However, marital status X^2 (2) = 11.23, $p> 0.05$ and religion X^2 (2) = 10.01, $p> 0.05$ were not significantly associated with differences in breastfeeding practices of infants below 12 months.

Table 4.4: Association between socioeconomic characteristics and breastfeeding practices.

Exclusive Breastfeeding of Infant below 6 months					
Socioeconomic characteristics	**Yes**	**No**			
Variables	**Category**	**% (n)**	**% (n)**	**X^2(df)**	***p*-value**
Age in year	<30 ≥30	42.8 (30) 85.9 (98)	40 (57.2) 14.1 (16)	10.78 (1)	**0.041***
Marital status	Single Married Divorced	38.9 (7) 64.7 (101) 80.0 (8)	61.1 (11) 55 (35.2) 20.0(2)	11.23 (2)	0.064
Religion	Catholic Protestant Muslim	59.5 (44) 66.7 (62) 41.2 (7)	40.5 (30) 33.3 (31) 58.8 (10)	10.01 (2)	0.061
Level of education completed	Secondary Tertiary	44.4 (8) 78.9 (131)	55.5 (10) 21.1 (35)	11.42 (1)	**0.014***
Occupation	Housewife Student Self-employed Formal employment	92.3 (60) 46.2 (12) 80.0 (4) 81.8 (72)	7.7 (5) 53.8 (14) 20.0 (1) 18.2 (16)	14.23 (3)	**0.011***
Household Income	20,000-40,000 40,001-60,000 60,001-80,000 >80,000	76.9 (20) 81.8 (9) 27.7 (23) 20.0 (11)	23.1 (6) 11 (18.2) 72.3 (60) 80.0 (44	12.03 (3)	**0.047***
Notes: CI = Confidence Interval, *p*< 0.05					

DISCUSSION

Results for this study suggested no significant relationships between the socioeconomic characteristics (age in year, marital status, religion, level of education, occupation, and household income) and breastfeeding practices of infants among mothers attending Well-Baby clinic were conducted using multivariate logistical regression analysis (Table 4.4). Results indicated that mothers whose age was ≥ 30 years were more likely to exclusively breastfed infants compared with mothers < 30 years old (AOR 1.89, 95% CI 1.12, 4.02). Mothers with tertiary level of education were more likely to exclusively breastfed infants compared with those that had completed secondary education (AOR 2.02, 95% CI 1.06, 2.06).

Table 4: 5. Socioeconomic characteristics and breastfeeding practices among mothers

Socioeconomic characteristics	**COR [95%CI]**	**AOR [95%CI]**	**p value**	
Variables	**Category**			
Age in year	<30 ≥30	1 2.17[1.16, 4.21]	1 1.89[1.12, 4.02]	**0.000**
Marital status	Single Married Divorced	1 0.78[0.78, 1.03] 0.36[0.69, 0.89]	1 0.67[0.69, 1.01] 0.31[0.54, 0.75]	 0.078 0.064
Religion	Catholic Protestant Muslim	1 1.23[0.89, 1.20] 1.02[0.84, 1.12]	1 1.12[0.78, 1.23] 0.99[0.78, 0.95]	 0.091 0.074
Level of education completed	Secondary Tertiary	1 2.23[1.12, 2.23]	1 2.02[1.06, 2.06]	**0.000**
Occupation	Housewife Student Self-employed Formal employment	2.65[0.89, 1.84] 1.89[1.12, 1.45] 1.75[0.99, 1.56] 1	2.23[0.78, 1.95] 1.71[1.14, 1.56] 1.62[0.87, 1.32] 1	**0.000** - -
Household Income	20,000-40,000 40,001-60,000 60,001-80,000 >80,000	2.31[1.36, 2.30] 1.15[0.69, 1.96] 1.12[0.87, 1.84] 1	2.03[1.21, 2.10] 1.10[0.78, 2.03] 1.08[0.78, 2.23] 1	**0.000**

CONCLUSION

Mothers who were housewives were more likely to practice better exclusive breastfeeding than their counterparts who were in formal employment (AOR 2.23, 95% CI 0.78, 1.95). Likewise, mothers who were students and self-employed were more likely to practice

exclusive breastfeeding than those formerly employed. With regard to household income, mothers earning between KSh 20,000 to 40, 000 were more likely to practice exclusive breastfeeding compared with those earning above KSh 40,000 (AOR 2.03, 95% CI 1.21, 2.10).

REFERENCES

1. Joshi P Mohan, Durge M Pushpa, Khan Shams, & Auvsi M Samina. (2014). Exclusive breastfeeding practices among postnatal mothers: how exclusive are they? National Journal of Community Medicine, 5(3), 276–279. http://njcmindia.org/uploads/5-3_276-2791.pdf
2. Kamudoni, P., Maleta, K., Shi, Z., & Holmboe-Ottesen, G. (2015). Exclusive breastfeeding duration during the first 6 months of life is positively associated with length-for-age among infants 6-12 months old, in Mangochi district, Malawi. European Journal of Clinical Nutrition, 69(1), 96–101. https://doi.org/10.1038/ejcn.2014.148
3. Njeri Milka. (2015, August 7). Breastfeeding and Work: Associated Challenges for Breastfeeding Mothers in Kenya - APHRC. African Population and Health Research Center. https://aphrc.org/blogarticle/breastfeeding-and-work-associated-challenges-for-breastfeeding-mothers-in-kenya/
4. Nwankwo, B. O., & Brieger, W. R. (2002). Exclusive breastfeeding is undermined by use of other liquids in rural southwestern Nigeria. Journal of Tropical Pediatrics, 48(2), 109–112. https://doi.org/10.1093/tropej/48.2.109
5. Ogbo, F. A., Agho, K. E., & Page, A. (2015). Determinants of suboptimal breastfeeding practices in Nigeria: Evidence from the 2008 demographic and health survey. BMC Public Health, 15(1), 1–12. https://doi.org/10.1186/s12889-015-1595-7
6. Radha, H.-B., Iellamo, A., Gupta, A., Smith, J. P., & Dadhich, J. P. (2015). Investing in breastfeeding - the world breastfeeding costing initiative. International Breastfeeding Journal, 10(1), 1–12. https://doi.org/10.1186/s13006-015-0032-y
7. UNICEF. (2015). Breastfeeding: Impact on child survival and global situation. In International Breastfeeding Journal (Vol. 11, Issue 1). BioMed Central Ltd. https://doi.org/10.1186/s13006-016-0085-6
8. WHO. (2015). Maternal, newborn, child and adolescent health: Breastfeeding. http://www.who.int/maternal_child_adolescent/topics/child/nutrition/breastfeeding/en/