

Exclusive Breast Feeding Practice in Gangawatakoralya MOH area, Sri Lanka

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Abstract- Breastfeeding is an unequalled way of providing optimal and complete nutrition for the healthy growth and development of infants. Even though the Sri Lankan mothers increasingly choosing to breastfeed their babies', the rates of exclusive breast feeding for first six months still remain low. The purpose of this study was to determine the prevalence of exclusive breastfeeding practice in Gangawatakoralya MOH area in Sri Lanka. The study variables were the mother's occupation, level of education, parity and the sex of the baby. The statistical significance of the study variables were tested by chi-square test using SAS 9.1 and significant effects were tested using Fisher's Exact Test. An effect was considered statistically significant if $p < 0.05$. Out of the 350 subjects, 215 (61.43 %) mothers exclusively breast fed their children for first six months. Beside breast feeding 77 (22.0%) mothers were given water to their children during the first six months. Statistically significant number of housemaid mothers was exclusively breast fed their children compared to working mothers. Health care workers have a greater responsibility in promoting exclusive breast feeding practice thorough effective health education strategies in Sri Lanka.

Index Terms- Exclusive Breast Feeding, Medical officer of Health(MOH), Public Health Midwife (PHM), Infant Mortality Rate(IMR)

I. INTRODUCTION

Human breast milk is the natural source of optimal nutrition for the human infant. In addition to the nutritive value, it is well recognized to protect against various infections including diarrheal diseases, and respiratory infections. Breastfeeding and the use of human milk confer unique nutritional and non nutritional benefits to the infant and the mother and, in turn, optimize infant, child, and adult health as well as child growth and development. According to the Infant Feeding Survey 2005, 76% of UK mothers had initiated breastfeeding, but only 48% continued breastfeeding at age six weeks, and only 35% were breastfed at age four months [1].

Infant feeding should not be considered as a lifestyle choice but rather as a basic health issue. In 2001, WHO recommended that infants should be exclusively breastfed for the first six months of their life and thereafter to be introduced nutritious complementary food and continue breastfeeding up to the age of two years or beyond [2]. The meaning of Exclusive breastfeeding is the infant only receives breast milk and not even water. A survey conducted in Sri Lanka in 2011, reported that only 62.2% of infants were exclusively breastfed up to 6 months of age [3].

Sri Lanka is a developing country situated in South Asian region. Kandy district is situated in the central province in the country. The Infant Mortality Rate (IMR) and Neonatal Mortality Rate (NNMR) has declined over the last few decades and the figure for the Central Province of IMR for the 2007 is 11.3 per 1000 live births is much higher than the national figure of 8.5 per 1000 live births. The NNMR for the Central Province is 8.6 per 1000 live births for the year 2007 [4]. According to DHS 2006/2007 99.5% mothers in Kandy district have received antenatal care from a health care professional. According to Annual Health Bulletin, 2009, prevalence of mothers who have exclusively breast fed during the first 4 months at their last birth in Sri Lanka is 82.7% and this figure for the Kandy district is 84.8%. There are 23 MOH areas and 454 Public Health Midwife (PHM) areas in Kandy district. Gangawatakoralya MOH area is one of those MOH areas and consists of socio-economically mixed population. MOH area is one of the well margined health care units managed by a Medical Officer of Health (MOH). Public Health Midwife area (PHM areas) is the very valuable smallest health unit in the government health system. The PHM is providing care at the door step in the field. Each PHM has a well defined area consisting of a population ranging from 2000-4000. Though systematic and well organized home visits, the Public Health Midwife provides care to pregnant women, infants and pre-school children within her area [5].

Even though the reported breast feeding rate was high in the Kandy district, there are some inappropriate feeding practices prevailing among mothers. This study was conducted in Gangawatakoralya MOH area to determine the prevalence of exclusive breast feeding practice for first six months of infant's life.

II. MATERIALS AND METHOD

A community based, cross-sectional study was conducted at all the child welfare clinics at Gangawatakoralya MOH area, Kandy, Sri Lanka. The study was carried out from October 2013 to December 2013. Full term healthy infants who were between 6 months to 5 years of age and their mothers attending child welfare clinics were included in the study. Mothers with psychiatric disorders and language barriers were excluded from the study.

The information was gathered through a pre-tested interviewer administered questionnaire. Mothers were questioned about how they fed their children during first six months. Study was carried out among randomly selected three hundred and fifty maternal-infants units who have fulfilled the above inclusion and exclusion criteria. Data was gathered by the principal

investigator by participating to each child welfare clinic at Gangawatakoralaya MOH area. Before administering the questionnaire, purpose of the study was clearly explained and informed written consent was obtained from the mothers who took placed in the study.

Ethical clearance for the study was obtained from the Ethical Review Committee, Faculty of Allied Health Sciences, University of Peradeniya and permission to carry out the study was obtained from the Provincial Director of Health Services, Central Province. The statistical analysis was done with SAS 9.1 using Fisher's exact test. The p value < 0.05 was considered as significant.

III. RESULTS

Out of 350 mothers who were participated for the study, majority (88%) were educated up to secondary level where as 84.29% of mothers were housemaids. Among the 350 enrolled infants 171(48.86%) were male and 179 (51.14%) were female. Family income was varied between less than 17000 to above 88000 Sri Lankan rupees.

Table I: Characteristics of the study sample

Characteristic		Frequency (n)	(%)
Mother's level of education	Primary	17	4.86
	Secondary	308	88.00
	University	25	7.14
Mother's occupation	Housemaid	295	84.29
	Working mothers	55	15.71
Parity	Primiparous	177	50.6
	Multiparous	173	49.4
Sex of the infant	Male	171	48.86
	Female	179	51.14
Family Income (per month)* LKR	<17000	76	21.71
	>17000-26000	124	35.43
	>26000-38000	85	24.29
	>38000-60000	56	16.00
	>60000-88000	7	2.00
	>88000	2	0.57

*Five categories of income made by combining Mean and median monthly household income by household income decile and sector – 2009 [6].

The prevalence of exclusive breast feeding practice in Gangawatakoralaya MOH area was 61.43%. Out of 350 infants 124(35.43%) infants were introduced water before six months of age. Commencement of complementary feeding was 13.13% before the 7 months of age and 211 (60.28%) infants never experienced formula feeding where as 108 (30.86%) mother introduced formula feeding for their children after 6 months of age. A significantly large number of housemaid mothers (191/295, 64.7%) exclusively breast fed their babies for 6 months

compared to the working mothers (24/55, 43.6%) (p=0.0032). The practice of exclusive breast feeding was not significantly different between the mothers with different education levels, between primiparous and multiparous and also between male and female infants. Family income was also not a significant factor for practice of exclusive breast feeding.

Table II: Exclusive Breast Feeding

Age in months	Frequency (n)	(%)
Less than 1 month	5	1.43
Over 1 st month	9	2.57
Over first 2month	22	6.29
Over first 3month	44	12.57
Over first 4 month	55	15.71
Over first 6 month	215	61.43
Total	350	100.0%

Table III: Introduction of water

Age in months	Frequenc y (n)	(%)
During 1 st month	2	0.57
During 2 nd month	4	1.14
During 3 rd month	20	5.71
During 4 th month	42	12.00
During 5 th month	56	16.00
During 7 th months	226	64.57
Total	350	100.0%

Table IV: Commencement of Formula Feeding

Age in months	Frequency (n)	(%)
No formula feeding	211	60.29
During 1 st month	4	1.14
During 2 nd month	5	1.43
During 3 rd month	5	1.43
During 4 th month	9	2.57
During 5 th month	8	2.29
After 6 th months	108	30.86
Total	350	100.0%

Table V: Commencement of the complementary feeding

Age in months	Frequency (n)	(%)
During 3 rd month	2	0.57
During 4 th month	11	3.14
During 5 th month	33	9.42
At 7 th month	304	86.87
Total	350	100.0%

Table VI: Exclusive Breast feeding practice

		Exclusive Breast feeding for first six months of life	
		Yes (%)	No (%)
Education	Primary	10 (2.9%)	07 (2%)
	Secondary	184 (52.6%)	124 (35.4%)
	University	21 (6%)	04 (1.1%)
Occupation	House maid	191 (54.6%)	104 (29.7%)
	Working mothers	24 (6.9%)	31 (8.8%)
	Parity		
Parity	Primiparous	108 (30.9%)	69 (19.7%)
	Multiparous	107 (30.6%)	66 (18.8%)
Sex of the infant	Male	106 (30.2%)	65 (18.6%)
	Female	109 (31.1%)	70 (20%)

IV. DISCUSSION

There are number of studies have done on the prevalence of exclusive breast feeding among general population in various countries. In Sri Lanka, exclusive breast feeding for first six month of life has been adopted since 2005 with the WHO recommendation in 2001, and until that it was 4- 6 months [3].

According to a descriptive cross sectional study done by Perera *et al*, 2011, Ragama MOH area in Sri Lanka only 62.2% of infants were exclusively breast fed up to 6 months. In the current study out of 350 infants only 215 infants (61.43%) were exclusively breast and this finding is very similar to the previous study [3]. The results of the current study were possibly affected by different attitudes of the parents and grandparents of the infants of the study population.

Initiation of complementary feeding at 7th month was 86.87% in the current study, which was higher than previous studies [7]. The housemaid mothers showed significantly higher prevalence of exclusive breast feeding practice for first six months compared to working mothers.

V. CONCLUSION

There were 215 (61.43%) exclusive breast fed infants out of 350 in Gangawatakoralya MOH area. Some parents believe that it is essential to give water during early life to avoid dehydration

and there were 77(22.0%) infants who were introduced breast feeding plus water during the first six months of life. Even though the mothers knew the meaning of exclusive breast feeding, they were reluctant to practice it because of some myths and beliefs. With the increasing number of working mothers in the modern society, mothers are tending to wean their children before six months of age. Health care workers who are dealing with mothers and infants, especially the public health midwives have a greater responsibility in promoting exclusive breast feeding practice thorough effective health education strategies in Sri Lanka.

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