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Assessment of Weaning Practices of Mothers of Under-Five Children Attending Infant Welfare Clinic, Wesley Guild Hospital, Ilesa, Osun State

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Abstract

This study was conducted to assess the weaning practices of mothers of under-five children attending Infant Welfare Clinic, Wesley Guild Hospital, Ilesa, Osun State. The aim was to assess the knowledge, weaning practices, nutritional status of the under-fives and factors affecting weaning practices. Findings will help improve mothers' weaning practices and also provide empirical evidences for nurses for health education. A descriptive survey design was adopted and samples selected though convenient sampling. 135 questionnaires were administered and filled by the participants.

Findings showed that majority (92.6%) had good knowledge about weaning practices. A 55.6% initiated weaning at 4-6months of age. About two-third (65.2%) wean their babies with solid foods and larger percentage used milk substitutes for their child. Maternal smoking, lack of knowledge, lack of support, low maternal education, and low socio-economic status were factors identified influencing weaning practices of mothers. Moreover, the study determined the nutritional status of the under-five children. The findings also showed that 65.9% of the respondents' babies had normal weight, while 28.9% had underweight. Significant association was found between maternal education, occupation and the age of initiation of weaning (P = .001)

In conclusion, despite adequate knowledge of weaning and exclusive breastfeeding among mothers, only about half started weaning at 4-6month, more than a quarter of the children were under-nourished. This shows a gap between knowledge and practice. Therefore, it is recommended that nurses at all levels should educate mothers on exclusive breastfeeding and good weaning practices to promote the health of under-five.

Keywords: *Weaning Practices of Under-five mothers*

Introduction

An appropriate diet is critical in the growth and development of children especially in the first two years of life (Aggarwal, Verma, Faridi & Dayachand, 2008). Mother is the most important person in a baby's life for both its physical as well as its psychosocial care and growth. The mother-infant relationship is the most vital formative relationship for the child. From the very first moments of life, a baby begins interacting with its mother. Thus, mother's health, her education, her beliefs & attitude regarding child rearing are important milestones on the road of child's health right from in utero period. Also, faulty breast-feeding and weaning practices have their roots in socioeconomic and educational status of the parents, their cultural beliefs, number & spacing of siblings and the employment status of the mother. Improved breast feeding practices & reduction of artificial feeding could save an estimated 1.5 million children a year (UNICEF, 2011). The delayed introduction of semisolid foods is a major cause of child malnutrition in South Asia. Most children do not receive semisolids until after 9 months of age, and many not until their second year of life (UNICEF, 2007).

Every day, on an average, more than 26000 children under the age of five die around the world. Malnutrition contributes to more than half of these deaths (UNICEF, 2008). Malnourished children often suffer the loss of precious mental capacities. They fall ill more often. If they survive, they may grow up with lasting mental or physical disabilities.

Malnutrition prevents children from reaching their full physical and mental potential. Health and physical consequences of prolonged states of malnourishment among children are: delay in their physical growth and motor development; lower intellectual quotient (IQ), greater behavioural problems and deficient social skills; susceptibility to contracting diseases (FAO: State of Food Insecurity in the World, 2008). Furthermore, child malnutrition is associated with approximately 60 percent of under-five mortality in Sub-Saharan Africa countries (UNICEF, 2008).

The majority of studies on child nutritional status have described prevalence of malnutrition among under-five children and analyzed socioeconomic, demographic and cultural factors associated with child malnutrition (Pongou, Ezzati & Salomon, 2006)

Weaning should be started after the age of 6 months and should contain energy rich semi – solid food. Natural weaning occurs as the infant begins to accept increasing amounts and types of complementary feedings while still breastfeeding on demand. When natural weaning is practiced, complete weaning usually takes place between two and four years of age. Planned weaning occurs when the mother decides to wean without receiving signals from the infant that he is ready to stop breastfeeding. Some reasons commonly given for planned weaning include the following: not enough milk or concerns about the baby's growth, painful feedings or mastitis, returning to work, a new pregnancy etc. (Imtiaz & Izhar, 2004).

Malnutrition makes a child susceptible to infections and delays recovery, thus increasing mortality and morbidity (Chatterjee & Saha, 2008). Rapid growth of baby during the first year of life and specifically the first 6 months postpartum requires an adequate supply of nutrients to cope with rapid build-up of body muscle and other tissues (Domellof, Lonnerdal, Abram & Hernell, 2006). This critical transition period is associated with dramatic increase in malnutrition among infants.

Appropriate complementary feeding depends on accurate information and skilled support from the family, community and health care system. Inadequate knowledge about appropriate foods and feeding practices is often a greater determinant of malnutrition than the lack of food (WHO, 2009). A study was conducted to assess the determinants of early weaning in infants, it was noted that young maternal age, low maternal education, low socioeconomic status, absence or short duration of breastfeeding, maternal smoking, and lack of information or advice from health care providers were statistically associated with early weaning (Wijndaele, Lakshman, Landsbaugh, Ong & Ogilvie, 2009).

Infants are particularly vulnerable during the transition period when complementary feeding begins. Ensuring that the nutritional needs of the infants are met thus requires that complementary foods be: timely – meaning that they are introduced when; the need for energy and nutrients exceeds what can be provided through exclusive and frequent breastfeeding; adequate – meaning that they provide sufficient energy, protein and micronutrients to meet a growing child's nutritional needs; safe – meaning that they are hygienically stored and prepared, and fed with clean hands using clean utensils and not bottles and teats; properly fed – meaning that they are given consistent with a child's signals of appetite and satiety, and that meal frequency and feeding method – actively encouraging the child, even during illness, to consume sufficient food using fingers, spoon or self-feeding –are suitable for age.

The optimal practice of breastfeeding (BF) is exclusive breastfeeding for the first six months of life and thereafter cereals are introduced while BF is continued till the age of two years and beyond (WHO, 2005). The barriers for BF and weaning practices include lack of mothers' knowledge regarding BF and weaning practices, inadequate IEC activities in hospital, advertisement of breast milk substitutes, lack of support for the act and also many women identify employment as barrier (Stewart-Glenn, 2009).

Methodology

This research employed a descriptive survey design. The study was conducted at Infant Welfare Clinic, Wesley Guild Hospital, Ilesa Osun State. Wesley Guild Hospital was

established in 1912 by the Methodist Church Nigeria as a missionary Hospital. In 1974, the Federal Government of Nigeria took over to be incorporated to the Teaching Hospital Complex for the new Medical School in Ile-Ife about twenty miles away. The initial missionary name was retained to differentiate it from other three hospitals that made up the complex. The location is along Bolorunduro Street, Ijofi in Ilesa East Local Government, Ilesa. The hospital has 17 wards with 212 beds; it also serves as a referral centre for neighbouring towns and states. An average number of 200 mothers of under-five attend the clinic on weekly basis. This number was gotten from the medical record register.

The instrument used for the study was a well structured questionnaire which contains five sections from A to D. Section A: is a 10-item question, deals with the socio-demographic distribution of the respondents. Section B: is a 7-item question, which assesses the knowledge of mothers on weaning practices. Section C: is a 5-item question that investigates the weaning practices of mothers. Section D: is also 11-item question which identifies factors influencing the weaning practices of mothers.

Initial visit was made to the clinic to intimate the staffs about the modalities of data collection and the purpose of the study. I was notified about the clinic days, which was Tuesdays and Thursdays. All the women with children under-five who were willing to partake in the study were given questionnaire having explained the purpose of the study and informed consent was gained. About 135 questionnaires were administered, and areas of ambiguities were clarified.

The data collected will be analyzed with the use of statistical package of social sciences (SPSS), version 20. Analysis will be done in sections and data will be represented using percentile and frequency tables as the statistical tools.

Results

Table 1. Demographic data of the respondents

Variables		**Frequency**	**Percentage**
Age	18-25	34	25.2
	26-34	71	52.6
	35-40	30	22.2
Marital status	Married	116	85.9
	Single	19	14.1
Religion	Christianity	98	72.6
	Islam	37	27.4
Ethnicity	Yoruba	122	90.4
	Igbo	10	7.4
	Hausa	3	2.2
Occupation	Unemployed	34	25.2
	House wife	16	11.9
	Employed	85	63.0
Level of education	No formal education	14	10.4
	Primary education	3	2.2
	Secondary education	33	24.4
	Tertiary education	85	63.0
How many children do you have?	One	71	52.6
	Two	51	37.8
	Three	13	9.6
How old is your last child?	<1 year	44	32.6

(in months) Mean = 18.79 SD = 9.95	1-2years	61	45.2
	>2-3years	24	17.8
	>3-4years	6	4.4
Weight of the last Child (kg) Mean = 11.55 SD = 2.31	5-10kg	53	39.3
	11-15kg	70	51.9
	16-20kg	12	8.9

The table above presents the demographic data of the respondents. A little above half of the respondents (52.6%) were within age range of 26-34, majority were married and about three quarter (72.6%) were Christians. Almost all were of Yoruba ethnicity and about two-third were employed. About two-third (63%) equally had tertiary education and half (52.6%) of them have only one child. The mean age of children of the respondents was 18.79 and the standard deviation was 9.95. 45.2% of them were aged 1-2years. The mean weight of the children was 11.55 and the standard deviation was 2.31. Half of them weighed 11-15kg.

Table 2. Knowledge of mothers about weaning practices

Variables	**Yes (%)**	**No (%)**
What do you understand by exclusive breastfeeding? Breastfeed plus water for 6 months.	30 (22.2)	
• Breastfeed only for 4 months	14 (10.4)	
• Breastfeed only for 6 months	91(67.4)	
When do you think is ideal to start weaning process? • 7-9 months	54 (40.0)	
• 4-6 months	81(60.0)	
Do you think weaning process could affect the nutritional status of under-five?	105(77.8)	30 (22.2)
Do you think weaning processes could cause the following?		
Diarrhoea	125 (92.6)	10(7.4)
Allergy	108 (80.0)	27 (20.0)
Stunt growth	125 (92.6)	10(7.4)
Vulnerability to diseases	125 (92.6)	10(7.4)

The table above showed that about two-third of the respondents understood exclusive breastfeeding to be breastfeed only for 6months; the ideal time to start weaning process by 60% is 4-6month. About three-quarter (77.8%) thought weaning process could affect the nutritional status of under-five. Majority (80% and above) felt weaning process could cause diarrhoea, allergy, stunt growth and vulnerability to diseases.

Table 2.1. Summary of the knowledge of the respondents

Variables	Frequency	Percent
Good Knowledge	125	92.6
Fair Knowledge	10	7.4
Total	135	100.0

All the questions in table 4.2 above were rated and scores were awarded. The highest possible score was 18 and the lowest was 7. Scores above 70% had good knowledge; 50-69% had fair knowledge, while scores less than 50% had fair knowledge.

Therefore, the table above showed that almost all (92.6%) the patients had good knowledge about weaning practices.

Table 3. Weaning practices of mothers

Variables		**Frequency**	**Percent**
Age of initiation of weaning (in months)	1-3 months	13	9.6
	4-6	75	55.6
	7-9	47	34.8
Did you immediately stop breastfeeding following initiation of weaning?	Yes	14	10.4
	No	121	89.6
For how long did you breastfeed your child?	6 months	10	7.4
	1year	95	70.4
	11/2 years	24	17.8
	2years	6	4.4
Type of weaning food	Liquid	47	34.8
	Solid	88	65.2
Did you use milk substitutes for your child?	No	36	26.7
	Yes	99	73.3

The table above showed the weaning practices of the respondents. A little above average (55.6%) initiated weaning at 4-6months of age. Majority (89.6%) did not immediately stop breastfeeding following initiation of weaning. 70.4% breastfeed their babies for a year. About two-third (65.2%) wean their babies with solid. Larger percentage (73.3%) used milk substitutes for their child.

Table 4. Factors influencing weaning practices of mothers

Variables	**Yes (%)**	**No (%)**
Young maternal age	71 (52.6)	64 (47.4)
Low maternal education	99 (73.3)	36 (26.7)
Low socioeconomic status	115 (85.2)	20 (14.8)
Absence or short duration of breastfeeding	101 (74.8)	34 (25.2)
Maternal smoking	135 (100.0)	
Lack of information or advice from healthcare providers	125 (92.6)	10 (7.4)
Lack of mothers' knowledge regarding breastfeeding and weaning practices	135 (100.0)	
Inadequate IEC activities in hospital	112 (83.0)	23 (17.0)
Advertisement of breast milk substitutes	85 (63.0)	50(37.0)
Lack of support	135 (100.0)	
Employment as barrier	122 (90.4)	13 (9.6)

All the respondents (100%) signified that maternal smoking, lack of mothers' knowledge regarding breastfeeding and weaning practices and lack of support were factors that influence weaning practices of mothers. More than 70% indicated that low maternal education, low socioeconomic status, absence or short duration of breastfeeding, lack of information or advice from healthcare providers, inadequate IEC activities in hospital and employment as barrier are factors influencing weaning practice of the respondents.

Table 5. Nutritional status of respondents' children

Variables	**Frequency**	**Percentage**
Underweight	39	28.9
Normal Weight	89	65.9
Overweight	7	5.2

The weight/age chart was used to determine the nutritional status of the respondents. Those weight within the growth curve are said to have normal weight, those above the curve are said to be overweight, while those below the curve were underweight. The table above showed that about two-third (65.9%) of the respondents' babies had normal weight, while 28.9% had underweight.

Table 6.1. Association between maternal age and nutritional status of their children

		Weight Per Age			Total	
		Underweight	Normal Weight	Overweight		
Age	18-25	8	26	0	34	**X^2= 4.766[a]**
	26-34	22	43	6	71	**Df = 4**
	35-40	9	20	1	30	**P-value = .312**
Total		39	89	7	135	

The table above showed that the sig-value is 0.312 which is greater than 0.05, we accept the null hypothesis (H_0) and conclude that "there is no significant relationship between the maternal age and the nutritional status of their children.

Table 6.2. Association between maternal education and age of initiation of weaning

		Age Of Initiation Of Weaning (In Months)			Total	
		1-3	4-6	7-9		
Occupation	Unemployed	0	34	0	34	**X^2= 49.259[a]**
	House Wife	3	0	13	16	**Df = 4**
	Employed	10	41	34	85	**P-value = .001**
Total		13	75	47	135	

The table above showed that the sig-value is 0.001 which is less than 0.05, we reject the null hypothesis (H_0) and conclude that "there is a significant relationship between the maternal education and the age of initiation of weaning.

Discussion of findings

This study assessed the weaning practices of mothers and nutritional status of under-five children attending Infant Welfare Clinic, Lagos State University Teaching Hospitals, Lagos State. One hundred and thirty-five women were included in the study.

The socio-demographic data revealed that a little above half of the respondents were within age range of 26-34, majority were married and about three quarter was Christians. Almost all were of Yoruba ethnicity and about two-third were employed. About two-third equally had tertiary education and half of them have only one child. The mean age of children of the respondents was 18.79 and the standard deviation was 9.95, meanwhile a little below half were aged 1-2years. The mean weight of the children was 11.55 and the standard deviation was 2.31. Half of them weighed 11-15kg.

The study assessed the knowledge of the respondents on weaning practices. The result showed that almost all the patients had good knowledge about weaning practices. About two-third understood exclusive breastfeeding to be breastfeed only for 6months and that ideal time to start weaning process is 4-6month. This is consistent with recommendations by WHO (2009) that exclusive breast feeding for the first six months of life, with the addition of complementary feeds at six months with continued breast feeds until at least the age of two. Majority thought weaning process could affect the nutritional status of under-five, and could cause diarrhoea, allergy, stunt growth and vulnerability to diseases. This agrees with WHO (2007) in a statement that inadequate knowledge about appropriate foods and feeding practices is often a greater determinant of malnutrition than the lack of food. Wright et al,

(2004) opined that early weaning may cause diarrhea, damage the immature gut, kidneys and immune function.

Furthermore, the study sought the weaning practices of the study participants. The finding revealed that a little above average initiated weaning at 4-6months of age. This result agrees with Shadia, and Bedor (2013) in their study on infant feeding and weaning food practice among mothers in Hail. 61.2% weaned their babies at 4 to <6 months age. 62.4% preferred semi solids like mashed fruits or potatoes as the first weaning foods. However, this showed that although just above half of mothers initiated at 4-6months, significant number of them did not. Findings by Bolling *et al* (2007) and that of Imonikebe (2009) in Isoko North and South Local Government Areas in Delta State, Nigeria showed that most mothers started weaning their infants in the fourth month.

Also, the study examined the factors influencing the weaning practices of mothers. The result showed that all the respondents signified that maternal smoking, lack of mothers' knowledge regarding breastfeeding and weaning practices and lack of support were factors that influence weaning practices of mothers. Meanwhile, more than seventy percent indicated that low maternal education, low socioeconomic status, absence or short duration of breastfeeding, lack of information or advice from healthcare providers, inadequate IEC activities in hospital and employment as barrier are factors influencing weaning practice of the respondents. This supports Stewart-Glenn (2009) who highlighted similar factors as barriers for breast feeding and weaning practices. Amuna *et al* (2010) also submitted that weaning practices are influenced by socioeconomic status, cultural and religious beliefs and practices.

Moreover, the study determined the nutritional status of the under-five children. The findings showed that two-third of the respondents' babies had normal weight, while 28.9% had underweight. This finding is contrary to that of Olagunju and Babatunde (2011) in a survey that examined the prevalence and determinants of malnutrition among under-five children of farming households in Kwara State, Nigeria. They found that 23.6%, 22.0% and 14.2% of the sample children were stunted, underweight and wasted respectively. Aggarwal et al, (2008) asserted that initiating complementary feeds too early or too late can lead to malnutrition.

Furthermore, the study found a significant association between the maternal education and age of initiation of weaning, (X^2= 76.443[a], df = 6 P-value = .001); and also between maternal occupation and the age of initiation of weaning, (X^2= 49.259[a], df = 4 P-value = .001).

Conclusion

This study concludes that the study participants were knowledgeable about weaning practices and the consequences associated with inappropriate weaning practices. Despite good knowledge by almost all the respondents, only half of them started weaning their child at 4-6months. Also, most of the participant breastfed their babies only for one year, as opposed to two year periods recommended by WHO.

The following recommendations were made to further enhance weaning practices among women of under-five. Mother is principal fostering figure for the child. Her perceptions regarding feeding practices directly influence the health of the child. Therefore;

- False beliefs & myths attached to child's feeding deeply rooted in all strata of community need to be replaced by sound & scientific messages. Therefore, health care providers at all levels need to educate mothers on good weaning practices and major role of this in laying a strong foundation of physical, mental & social health in the first five precious years of child's life.
- Along with public awareness programmes for breast-feeding, the appropriate use of semi-solids after 6 months of age need to be promoted as an essential health message.
- All sources of information including electronic and print media should be tapped to strengthen the knowledge about infant feeding practices need to introduce educational programs for improvement in weaning practices to prevent malnutrition in children.

Mothers need instructions in preparing infant food from main family ingredients to make it soft, palatable and nutritionally balanced for children.

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