

## Assessment of Socio-Cultural Factors Affecting Nigerian Mothers' Weaning Practice

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**Abstract:** Complementary feeding is an important determinant of child growth and development. The practice of weaning is declining despite efforts at all levels to improve it; and with globalization there is concern of possible drift in the traditional weaning practices among Nigerian mothers.

**Aim:** Assess the socio-cultural factors affecting Nigerian mothers' weaning practice.

**Subjects and Method:** A cross sectional design was conducted on 308 mothers attending at 15 maternal and child health centers in Birnin Kudu Local Government, Nigeria during the researcher visits. Five structured interviews were used to assess sociodemographic and economic characteristics, knowledge, subjective practice, sociocultural factors and attitude of mothers towards weaning practice.

**Results:** More than three fourths (78.9%) of the studied mothers had improper category of subjective weaning practice. Less than half (47.1%) of them denied their children eating egg as part of their taboo practice. There was a statistically significant association between sociocultural factors and mothers' subjective weaning practice.

**Conclusion:** Mothers' knowledge regarding weaning was poor and subjective practices were improper. Majority of them were not aware of the current recommendations of weaning practice. Additionally, there was a statistically significant association between sociocultural factors and mothers' subjective weaning practice.

**Recommendations:** Provide public health educations campaigns to promote optimal weaning practices, especially in woman within the reproductive age group. Health education program should be conducted to enlighten mothers on the effect of socio cultural factors on breastfeeding and weaning practice.

**Key Words:** Weaning, Socio-Cultural factors, Knowledge, Practice, Attitude

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### I. Introduction

Childhood malnutrition is the major cause of infant mortality which hugely contribute to under five death worldwide. About 178 million children have been suppressed worldwide and Africa has the highest rates. (1). However Undernourishment causes 35 % of disease burden on children under the age of five. In fact, the greatest practices in the areas of breastfeeding and weaning are important degree with the ability to save the lives of 1.5 million children under five every year (2).

Analysts of weaning practices vary between and within countries. Urban and rural differences, age, breast problems, societal barriers, inadequate care from family, knowledge about good lactation, method of delivery, health system practices and community or cultural beliefs have all been found to influence breastfeeding and weaning. Unwillingness of the infant to eat while exerting favorite to beverage rather than eating, allergic reactions and health problems with child including vomiting, abdominal colic and diarrhea may ascend due to wrong feeding practices adopted by mothers (3). However, it was estimated that, there were 10 million annual deaths of under-five year old children. Over one third of under-five mortality is caused by malnourishment related to inadequate complementary feeding during weaning practice. Initiate safe and nutritionally adequate complementary foods at 6 month is vital to achieve optimal growth, development and health of the children (4).

In Nigeria, nearly half of under five children were underdeveloped, with a less than one third increase from 6 months to half of them at two years, this is exactly a time when weaning is reached its peak. However, the prevalence of malnutrition among children aged 6month to 2 years is 24%; Wasting was 13% and 17% among infant from 6month to 2years and obesity was 9% (5) Moreover, nearly one million children die in Nigeria before they reach the age of five every year and worldwide is about 11 million. In 2006, there was a forecast of nearly 10 million deaths of infant internationally and inadequate food to children directly increased the risk of child hood illness and contributed to infant mortality significantly. Malnourished children are easily predisposed to childhood illness (6).

## **II. Aims of the study**

The aim of the study is to assess the socio-cultural factors affecting Nigerian mothers' weaning practice.

### **Research questions**

1. How is the Nigerian mothers' knowledge regarding weaning practice?
2. What are the Nigerian mothers' practices related to weaning practice?
3. What is the effect of socio-cultural factors on Nigerian mothers' weaning practice?

## **III. Subjects And Method**

### **3.1 Study design:**

A cross-sectional design was utilized.

### **3.2. Study Setting:**

This study was conducted at 15 maternal and child health centers in Birnin Kudu Local Government in Nigeria.

### **3.3 Subjects and sampling:**

The subjects of this study were recruited from mothers attending maternal and child health centers during the researcher visits. Proportion allocation was used to select 308 mothers representing the required sample size based on attendance rate at maternal and child health centers in Birnin Kudu Local Government.

### **3.4 Data collection**

The duration of data collection approximately was 12 weeks from May to July 2016. The researcher introduced himself to the heads of the selected maternal and child health centers and gave them a brief orientation about aim of the study in order to gain their cooperation and the mothers. The researcher visited maternal and child health centers three times/week, Mondays, Wednesdays, and Thursdays from 9:00 a.m. to 12:00 after noon.

### **3.5 Tools used in the study:**

Five tools were developed by the researcher after reviewing the related literature.

**Tool I:** A structured interview to assess socio demographic and economic characteristics of the mothers

This tool was utilized to assess socio demographic and economic characteristics of mothers such as; age, language, occupation, number of children, religion, level of education, and monthly income.

**Tool II:** A structured interview to assess mothers' knowledge

This tool was used to assess mothers' knowledge regarding weaning practice such as; meaning of weaning, importance, proper time to start weaning, types of food, amount and number of meals per day, methods of cooking food, and food allergy.

**Tool III:** A structured interview to assess mothers' subjective weaning practice

This tool was developed to assess mothers' subjective weaning practice such as; preparation of meals, and cooking of weaning food.

**Tool IV:** A structured interview to assess mothers' socio-cultural factors

This tool was utilized to assess socio-cultural factors which effect on weaning practice such as: Social factors affecting weaning practice, Taboos in weaning practice, native weaning food.

**Tool V:** A structured interview to assess mothers' attitude

This tool would be Likert like scale concerned with mothers' attitude regarding weaning practice.

### **3.6 Pilot study**

A pilot study was conducted on 10% of the mothers (31 mothers) they were selected randomly from the same setting and excluded from the studied sample to evaluate the clarity, applicability, and reliability of the research tools and estimate the approximate time required for data collection. Accordingly, the necessary modification was done, some questions were added and others were clarified or omitted.

### **3.7 Statistical analysis**

SPSS software package (Stand for statistical product and service solutions version 16) was used for data analysis. Descriptive statistics including frequency, distribution, mean, and standard deviation were used to describe different characteristics. Chi-Square test was used to test the significance of results. P-value of less than 0.05 was considered as denoting statistical significance. Reliability of the tool by Cronbach alpha test ( $\alpha$ ) were =.966.

### **3.8 Ethical considerations**

An approval was obtained from Research Ethics Committee of Faculty of Nursing, Mansoura University. The mothers' verbal approval was obtained. The researcher introduces himself and a simple

explanation about the aim of the study was given to them. They were assured that their participation in the study was voluntary and that collected data will be treated confidentially and would be only used for the purpose of the study. Participants were informed that they have the right to withdraw at any time from the study without giving any reason.

#### IV. Results

**Table (1):** Shows that the age of the studied mothers ranges from 18 up to 35 with a mean age of (18.98± 1.96), majority (89.3%) of them lie in age category from 18 to less than 27 years. Almost two thirds (64.9%) of the studied mothers were Hausas. Half (50.0%) of the studied mothers had secondary education. Less than two thirds (63.3%) of the studied mothers were full house wife. Less than half (44.8%) earn less than ten thousand naira monthly. Majority (80.5%) of studied mothers belongs to extended.

**Table (2):** Reveals that, 192 (62.3%) of the studied mothers had poor knowledge score level about weaning while 87 (28.2%) had good knowledge score level about weaning.

**Table (3):** Shows that 243 (78.9%) of the studied mothers had improper category of subjective weaning practice while 65 (21.1%) had proper category of subjective weaning practice.

**Table (4):** Indicate that 145 (47.1%) of the studied mothers denied their children eating egg as part of their taboo practice.

**Table (5):** shows that more than half (55.8%), less than half (46.4%, & 43.8%) of the studied mothers reported positive attitude as they mentioned; gradual weaning is better for the child, baby should be given breast milk only up to 4months, and complementary feeding after 6 months is good for the child respectively while more than one third (36.7%) of the studied mothers reported negative attitude as they stated; child should be separated from the mother during complete weaning.

**Table (6):** Shows that there was a statistically significant association between sociocultural factors and mothers' subjective weaning practice.

**Table (1)** Socio demographic and economic characteristics of the studied mothers (n= 308)

Items	No.	%
<b>Age ( in years)</b>		
18 - <27	275	89.3
27 - ≥ 35	33	10.7
<b>Mean ± SD</b>	<b>18.98±1.96</b>	
<b>Language</b>		
Hausa	200	64.9
Fulani	51	16.6
Kanuri and Igbo	33	7.8
Yoruba	24	10.7
<b>Level of education</b>		
Cannot read and write	40	12.9
Primary	89	28.9
Secondary /Technical	154	50.0
University	25	8.2
<b>Occupation</b>		
House wife/unemployed	192	62.3
Civil servant	62	20.2
Skilled worker	30	9.7
Clerk, professional and trade	24	7.8
<b>Income/month</b>		
< 10000 N	138	44.8
10000 N - <20000N	120	38.9
>20000 N	50	16.3
<b>Type of family</b>		
Extended	248	80.5
Nuclear	60	19.5
<b>Number of family members</b>		
< 5	50	16.2
5- 10	150	48.7
11- ≥15	180	35.1
<b>Number of children</b>		
1-5	80	25.9
6-10	180	58.6
11- ≥15	48	15.5

N= Naira

**Table (2)** Distribution of studied mothers regarding their knowledge score level about weaning (n=308)

Items	Poor		Fair		Good	
	No.	%	No.	%	No.	%
Meaning of weaning	21	6.8	71	23.0	261	84.7
Principles of weaning	208	67.5	75	24.3	25	8.1
Importance of weaning	80	25.9	20	6.5	208	67.5
Types of weaning food	40	12.9	80	25.9	188	61.0
Proper age of starting weaning	190	61.7	8	2.6	110	35.7
Preferred season of weaning	299	97.0	4	1.3	5	1.6
Time of starting weaning based on child health	58	18.8	5	1.6	245	79.5
Amount of food	250	81.1	40	12.9	18	5.8
Number of meals/day	260	84.4	35		13	
Weaning schedule	265	86.0	20	6.5	23	7.5
Administration of food	255	82.8	35	11.4	18	5.8
Method of cooking food	281	91.2	15	4.9	12	3.9
Food allergy	289	93.8	11	3.6	8	2.6
<b>Total Score</b>	<b>192</b>	<b>62.3</b>	<b>29</b>	<b>9.5</b>	<b>87</b>	<b>28.2</b>
<b>Mean + SD</b>	<b>24.18±6.31</b>					

Poor < 50% of the total score (< 20.5)

Fair = 50% - 70% of total score (20.5 – 30.75)

Good >75% of the total score (> 30.75)

**Table (3)** Distribution of studied mothers regarding their category of subjective weaning practice (n=308)

Items	Proper practice		Improper practice	
	No.	%	No.	%
Selection criteria	48	15.6	260	84.4
Food hygiene	75	24.3	233	75.7
Food Preparation	76	24.7	232	75.3
Meals preparation	38	12.3	270	87.7
Cooking of food	77	25.0	231	75.0
Serving of food	99	32.1	209	67.9
Food administration	43	14.0	265	86.0
<b>Total score</b>	<b>65</b>	<b>21.1</b>	<b>243</b>	<b>78.9</b>
<b>Mean ± SD</b>	<b>14.61 ± 2.12</b>			

Proper practice > 75% of total score (> 27.75)

Improper practice < 75% of the total score (< 27.75)

**Table (4)** Distribution of the studied mothers regarding their sociocultural factors affecting weaning practice (n=308)

Items	No.	%
<b>Socio cultural factors</b>		
Panting of breast	80	25.9
Use of rubutu	50	16.2
Du'a by malam	120	38.9
Use of herbal preparation	30	9.7
Avoidance of protein food	10	3.2
Taking of raw egg.	18	5.8
<b>Native weaning food</b>		
Tuwo	50	16.2
Kanzo	10	3.2
Rice and beans	80	25.9
Gruel	60	19.5
Pap	128	41.5
<b>Native weaning practice</b>		
Child separation	150	48.7
Putting of dusa on the breast	80	25.9
Early weaning	20	6.5
Use of guru and laya	58	18.8
<b>Taboos in weaning practice</b>		
Egg is prohibited for the child	145	47.1
meat is prohibited for the child	54	17.5
it is very dangerous to withhold water from the infant because the child will grow as a dull	52	16.9

Herbal preparation is given as food and as medicine to ward off evil spirit	41	13.3
Introduction of water before six months promote child intelligence	14	4.5
infant formula can cause diarrhea	2	.6
<b>Prohibited food</b>		
Oily food	30	9.7
Egg	50	16.2
Meat	40	12.9
Kanzo	50	16.2
Tuwo	30	9.7
Millet	10	3.2
Fruits and vegetables	80	25.9
Fish	18	5.8
<b>Prohibited practice</b>		
Separation	40	12.9
Use of infant formula	180	58.4
Given raw egg	80	25.9
Weaning of first baby by the mother	8	2.5

**Table (5)** Distribution of the studied mothers regarding their attitude about weaning (n= 308)

Attitude categories	Strongly agree		Agree		Disagree		Strongly disagree	
	No.	%	No.	%	No.	%	No.	%
<b>Positive attitude</b>								
Gradual weaning is better for the child (4mks )	40	13.0	172	55.8	19	6.2	77	25.0
<b>Mean ± SD</b>	<b>2.00± 1.27</b>							
Baby should be given breast milk only up to 4 months (4mks)	43	14.0	143	46.4	43	14.0	79	25.6
<b>Mean ± SD</b>	<b>2.18± 1.26</b>							
Baby should be given breast milk only up to 6month (4mks)	55	17.9	91	29.5	69	22.4	93	30.2
<b>Mean ± SD</b>	<b>2.53± 1.20</b>							
Breast feeding should be continued during weaning(4mks)	58	18.8	96	31.2	55	17.9	99	32.1
<b>Mean ± SD</b>	<b>2.50± 1.23</b>							
Complementary feeding before 6 months is good for the child (4mks)	58	18.8	93	30.2	62	20.1	95	30.8
<b>Mean ± SD</b>	<b>2.51± 1.21</b>							
Complementary feeding after 6 month is good for the child (4mks)	109	35.4	135	43.8	35	11.4	29	9.4
<b>Mean ± SD</b>	<b>1.86± 0.95</b>							
<b>Negative attitude</b>								
Abrupt weaning is better for the child (4mks )	57	18.5	46	14.9	42	13.6	162	52.6
<b>Mean ± SD</b>	<b>3.04± 1.14</b>							
Early weaning is better for the child (4mks )	45	14.6	51	16.6	52	16.9	160	51.9
<b>Mean ± SD</b>	<b>3.04± 1.15</b>							
Late weaning is better for the child (4mks )	54	17.5	176	57.1	29	9.4	49	15.9
<b>Mean ± SD</b>	<b>1.84± 1.13</b>							
Child should be separated from the mother during complete weaning (4mks )	113	36.7	132	42.9	23	7.5	40	13.0
<b>Mean ± SD</b>	<b>1.90± 1.00</b>							
<b>Total attitude (40 )</b>	<b>Mean ± SD 2.15 ±1.15</b>							

**Table (6)** Association between the studied mothers' sociocultural factors affecting weaning practice and their total score of subjective weaning practice (n= 308)

Items	Total weaning practice				X <sup>2</sup>	P
	Improper practice		Proper practice			
<b>Socio cultural factors</b>	No.	%	No.	%		
Painting of breast	80	26	0	0	418.348	0.001
Use of rubutu	80	26	0	0		
Du'a by malam	100	32.5	0	0		
Use of herbal remedy	20	6.5	0	0		
Avoidance of protein	3	0.9	17	5.6		
Taking of raw egg	0	0	8	2.6		

<b>Native weaning food</b>						
Tuwo	50	16.2	0	0	165.159	0.000
Kanzo	10	3.2	0	0		
Rice and beans	80	26	0	0		
Gruel	60	19.4	0	0		
Pap	83	27	25	8.1		
<b>Native weaning practice</b>						
Child separation	150	49	0	0	256.418	0.004
Putting of dusa on the breast	80	26	0	0		
Early weaning	20	6.5	0	0		
Use of guru and laya	33	10.7	25	8.1		
<b>Taboos in weaning practice</b>						
Egg is prohibited for the child	145	47.0	0	0	400.369	0.000
Meat is prohibited for the child	54	17.5	0	0		
It is dangerous not to give water	52	16.8	0	0		
Herbal preparation is given	32	10.3	11	3.6		
Given of water promote intelligence	0	0	12	3.9		
Infant formula can cause diarrhea	0	0	2	0.6		
<b>Prohibited food</b>						
Oily food	30	9.7	0	0	353.424	0.2
Egg	50	16.2	0	0		
Meat	40	12.9	0	0		
Kanzo	50	16.2	0	0		
Tuwo	30	9.7	0	0		
Millet	10	3.2	0	0		
Fruits and vegetables	73	23.7	7	2.2		
Fish	0	0	18	6		
<b>Prohibited practice</b>						
Seperation	41	13.3	0	0	179.876	0.000
Use of infant formula	178	57.8	0	0		
Given raw egg	64	20.7	16	5.1		
Weaning of first baby by mother	0	0	9	2.9		

X<sup>2</sup>=Chi square test

Statistically significant at P<0.05

## V. Discussion

Weaning is often beneficial because it reduces early infant mortality. Although the time of weaning differs from society to societies, but always determined by the characteristics, choice, knowledge and perceptions of the mother about the child's health or related to cultural beliefs and diet. Mothers adopt general child health obligations, and mothers' knowledge may be an obstacle to weaning practices (7). However, during weaning practice the mother prechewed the food for the child and this gives the baby long-term immunological benefits through factors in the mother's saliva (8). Proper weaning practice transforms the baby into a time of dietary independence from breastfeeding and confirms appropriate growth and development of the child. Proper weaning practice takes into consideration dietary need, right timing, adequate food consistency, frequency and hygiene. In addition, if weaning practice is not properly done, failure to succeed can be a complication which can lead to infant mortality and morbidity (9).

The present study results revealed that less than one third of the studied mothers had good knowledge score level related to weaning practice. The current finding was disagreeing with (10) who found that less than one third of studied mothers had poor knowledge of complementary feeding. This probably due to fact that majority of the studied mothers were living in a rural area. Less than one fifth of studied mothers had proper category of subjective weaning practice. The present study was in line with (11), who found that, most of studied mothers had improper weaning practices. The reason for improper practice was probably due strong adherence to some traditional practice.

In relation to sociocultural factors, less than half of the studied mothers stated that egg is prohibited for the child during weaning. The current study was in the same vein with (12), who reported that, most of the studied mothers denied eating egg to their children, as well it was in line with (13) who revealed that most of the studied mothers do not give egg to their children. The belief is that it leads children to theft when grow older.

Regarding mothers attitude towards weaning, more than half, and less than half of the studied mothers reported positive attitude as they mentioned; gradual weaning is better for the child, and baby should be given breast milk only up to 4months, and complementary feeding after 6 months is good for the child respectively. The present finding was in agreement with (14), who reported that, more than one third of the studied mothers gradually weaned their children; less than half of them commenced complementary feeding after 6 months of delivery. However, more than one third of the studied mothers reported negative attitude towards child separation during weaning. This finding was in line with (14), who reported that less than one fifth of the

studied mothers send their children away from home during weaning while majority of them remained with their mothers during the weaning process.

However, from the researcher point of view studied mothers positive attitude toward weaning were due to health talk given to the mothers at maternal and child health center, while their negative attitude was probably due to strict adherence to their cultural tradition.

Concerning association between mothers' sociocultural factors and subjective weaning practice, the present study indicates that, there was statistically significant association between socio cultural factors and mothers' subjective weaning practice. This study was in agreement with (15), who reported that weaning practice among studied mothers was heavily influenced by cultural beliefs and tradition.

## **VI. Conclusion & Recommendations**

### **Conclusion**

In conclusion, mothers' knowledge regarding weaning was poor and subjective practices were improper. Majority of them were not aware of the current recommendations of weaning practice. Additionally, there was a statistically significant association between sociocultural factors and mothers' subjective weaning practice.

### **Recommendations**

The following recommendations were made based on the findings and conclusion drawn from the study.

- There is need for health care system interventions, family interventions, and public health educations campaigns to promote optimal weaning practices, especially in woman within the reproductive age group.
- It is recommended to develop successful infant-feeding interventions aimed at promoting overall health of the infant,
- It is recommended that; health education program should be reactivated to enlighten mothers on the effect of socio cultural factors on breastfeeding and weaning practice.

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