

## Factors Influencing Initiation of Breast Feeding among Post-Partum Mothers in a Teaching Hospital of Osun State, Nigeria.

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### Abstract

**INTRODUCTION:-** Breastfeeding is well recognized as the best food source for infants. It has been advocated as a cost effective means of improving the child's health, mother's health and mother - infant bonding. The study was carried out to determine the factors that influence the initiation of breast feeding among post partum mothers in a teaching hospital of Osun State, Nigeria.

**METHOD:-** A descriptive cross sectional research design was used, with 317 respondents selected randomly. Data were collected using a self-designed questionnaire. The data were analyzed using statistical product and service solutions window version 21. Six research hypotheses were set and analyzed while only one research questions was answered.

**RESULT:** Results showed that maternal age was the only factor found to influence breast feeding initiation. Majority of respondents lack adequate understanding of the factors that are major predictors of breast feeding initiation.

**CONCLUSION:-** It was concluded that mothers should be given health information on factors that can influence initiation of

**Keywords:** Factors influencing, Initiation, Post partum mothers, breast feeding.

### INTRODUCTION

There is a universal consensus about the fundamental importance of breastfeeding of children's adequate growth and development and for their physical and mental health. Breastfeeding, particularly exclusive breastfeeding, and appropriate complementary feeding practices are universally accepted as essential elements for the satisfactory growth and development of infants as well as for prevention of child-hood illness. This has culminated in a publication by the World Health Organization (WHO) recommending that infants up to 6 months of age should be exclusively breastfed<sup>(1)</sup>. Infant Mortality Rate (IMR) is regarded as an important sensitive indicator of health status of a community. It reflects the effectiveness of interventions for improving maternal and child health<sup>(2)</sup>. Major part of Infant Mortality Rate is contributed by a neonatal mortality rate. It has been said that 50% infant deaths occurs within the neonatal period<sup>3,4,5</sup>. Exclusive breast-feeding is the most natural and scientific way of feeding infants in the first 6 months of life<sup>6</sup>. Breast feeding can contribute to the reduction of mortality and morbidity<sup>7</sup>. Benefits of breast-feeding like a decrease in the incidence, severity of infectious diseases such as diarrhea, respiratory tract infections, otitis media and urinary tract infection, decreased incidence of types 1 and 2 diabetes mellitus, overweight, obesity and asthma were reported<sup>8</sup>. Too early introduction of breast milk substitutes and too late introduction of semi-solid complementary feeds are common and are responsible for rapid increase in the prevalence of under nutrition between 6 – 24 months<sup>9</sup>. Some studies reveal factors positively associated with exclusive breastfeeding, such as higher maternal educational level, gestational age greater than 37 weeks, mothers with previous experience of breastfeeding<sup>10</sup>. There are also studies that relate factors leading to interruption of exclusive breastfeeding such as low family income, low maternal age, prim parity and mothers returning to work. Several studies intended to define determinant variables in the success or failure of breastfeeding which could ease the planning of promotional strategies<sup>12,13</sup>. It was established that socio-demographic variables like maternal education, paternal education and socio-economic status have positive association for influencing decision on exclusive breast feeding<sup>14</sup>. Number of antenatal visits taken, older maternal age<sup>15</sup> and low birth weight<sup>16</sup> reported positive impact on breast-feeding initiation. Association was found between breastfeeding pattern and variables, classically considered as supportive for breastfeeding such as three or more antenatal visits, breastfeeding advice receiving during antenatal visits, during post natal visits delivery interval 24 months or more, and birth weight 2500gms or more<sup>14</sup>. Some researchers<sup>15</sup> in their study did not find any association between breastfeeding advice received during antenatal and delivery intervals. It was observed that there are a lots of new born that did not get breastfeeding at birth due to some maternal problems like parity, education and working status<sup>16</sup>. A younger maternal age

especially under the age of 18 years is thought to be related to a significantly shorter duration of actual of intended breast-feeding. Older mothers, typically women over the age of 30 years are reported to be more likely to initiate breastfeeding, and to this act for a longer period of time<sup>17</sup>. Previous findings suggest that young age and low income have a negative impact on the successful outcomes of breastfeeding<sup>17</sup>. Maternal education was positively associated with the duration of breast-feeding. Non- smoking mothers were more likely to breastfeed longer than smoker<sup>20</sup>. Nevertheless, it is always prudent to consider that as an eating habit, breastfeeding is intrinsically related to social cultural and traditional pattern of a given population. This fact justifies need for regional studies that allows more efficient action in regard to measures for intervention, based on knowledge of local reality. Therefore, the objective of this study was to assess factors influencing initiation of breast feeding in newborn infants in a State University Teaching hospital in Nigeria.

**Theoretical Frame Work:** - For This Study Theory of Planned Behavior was adopted. The theory of planned behavior (TPB) provides a frame - work for visualizing by which psycho-bio-social factors can influencing breast feeding initiation. According to the TPB, behavior is a function of intention to perform the behavior (e.g. planned duration of breast feeding). In addition to attitude and perceived control, the TPB postulates a link between beliefs of those who provide social support.

Some authors<sup>17</sup> in their research works discovered there was no relationship between marital status and breastfeeding practice among post-partum women. It was equally observed that maternal education was not associated with breast feeding initiation. Morrow, Guerero, Shults et al<sup>17</sup>. opined that there was no relationship between marital status and breast feeding practice, equally there was no relationship between maternal educational level and breast feeding initiation.

**Research Question:** - What is the level of knowledge of mother on initiation of Breast feeding in infants?

**Research Hypotheses:-** for the purpose of this research six null hypotheses were set and tested at 0.05 level of significance and they were:-

- (1) There is no significant relationship between age of the mother and the initiation of breastfeeding at post partum
- (2) There is no significant relationship between marital status of respondents and the initiation of breast feeding of post-partum.
- (3) There is no significant relationship between the maternal educational level and breast-feeding initiation at post-partum.
- (4) There is no significant relationship between maternal employment status and breastfeeding initiation at post partum.
- (5) There is no significant relationship between number of children and initiation of breastfeeding at post-partum.
- (6) There is no significant relationship between the psychological state of mothers and the initiation of breast feeding at post partum.

## METHODOLOGY

**Research Setting:-** Ladoko Akintola University of Technology Teaching Hospital, Osogbo, Osun State is one of the tertiary health institutions in Osun State concerned with both curative and palliative health care delivery, research and education of health students. It was located in Ajegunle behind Idi - Seke of Olorunda Local Government of Osun State Capital, Osogbo. The institution is owned by both Oyo and Osun State governments. It came into existence by an edict that was gazette in 1997 and was amended in 1999 by the Osun State military administration of LT. Col. Anthony Obi. The hospital is comprised of several units and wards, such as the accident and emergency, antenatal unit, post-natal unit, female and male medical wards, female and male surgical wards, pediatric medical and surgical wards, eye, ear, nose and throat unit, burns unit, intensive care unit, orthopedics ward, mental health/psychiatric unit, special baby care unit, HIV/AIDS unit, etc.

For the purpose of this research, the infant welfare and post-natal unit were used. The yearly attendance of patients in the two units was put at 1517 by the medical record.

**Design of the Study:-** This study was carried out using a cross – sectional descriptive design among 317 mothers that were selected consecutively for a period of four (4) months (January – April, 2013). They were mothers who delivered at LTH or brought their children to the infants' welfare clinic.

**Research Population:** - The populations used for the study were lactating mothers whose babies were within 1 day to 6 weeks.

Inclusion criteria: - (1) Mothers who delivered at the labor ward of LTH and initiated breastfeeding within 30 minutes of delivery.

(2) Mothers that brought their children to the infant welfare clinic with the children's age not more than 6 weeks.

Exclusion Criteria: - (1) Mothers with health problem post natally.

(2) Mothers with children with health problems.

**Sample Size Determination:** - The previous year clinic attendant was used to determine the sample size. Yamane calculation method was employed. It states thus

$$n = \frac{N}{1 + N(e)^2} \quad \text{where}$$

n	=	Sample Size	=	?
N	=	Population Size	=	1517
e	=	Level of precision	=	0.05

Therefore, n =  $\frac{1517}{1 + 1517(0.05)^2}$  n = 316.5

The sample size n= 317.

**Sample and Sampling Technique** - Simple random Technique was used to select the respondent at the post natal ward and infant welfare clinic between January and April, 2013, until the required sample size of 317 was attained.

**Research Instrument:** Researcher self- designed instrument was used for the research. The instrument was divided into 3 sections (A - C). Section “A” was on the demographic information, and consisted of 6 items; Section “B” was on knowledge of mothers about the initiation of breastfeeding, it consisted of 6 items while the last part of the instrument “C” was on factors influencing initiation of breastfeeding, and it consisted of 7 items.

**Psychometric Properties of Instrument:** This involved the validity and reliability of the instrument. The face validity and content validity of the instrument were carried out by showing the instrument to Gynecologists and the experts in the field of Maternal and Child Health Care. They confirmed the face validity and content validity of the instrument. Those items that were believed to be ambiguous and not relevant to the study were jettisoned.

Reliability of the instrument was determined through pre-test among 20 post-natal mothers in State Hospital, Asubiaro, Osogbo. The cronbatch’s coefficient yielded 0.785. This depicted 79% reliability, which means the instrument, could be used for the study.

**Procedure for Data Collection** - The instrument designed for the research was administered to the respondents having selected them through the issuance of numbers. The researcher assistants who had been trained in the transliteration of the items on the instrument administered the instrument to the randomly selected respondents at each clinic for the infant welfare and at the post-natal ward. Each respondent was allowed to spend between 10 and 15 minutes in answering the items on the instrument and same was collected here and there.

**Method of Data Analysis:** Data collected were validated and analyzed using the statistical product and problem solutions (SPSS) version 21. The only research question was answered using frequency and percentages while the null hypotheses were analyzed and tested using the chi-square ( $\chi^2$ ) analysis.

**Ethical Consideration:** The research instrument was reviewed by the ethical committee of LTH and necessary forms were filled after which the approval was given to conduct the research. The respondents were given an informed consent to sign. They were made to realize that filling of the instrument was free and they would not be reprimanded if they refused to answer the instrument.

## RESULTS

A total of 317 questionnaires were administered to the mothers that delivered at LTH and those that brought their baby to infants’ welfare clinic of the hospital for immunization. The age distribution of the respondents (table 1) showed that more than half of the mothers 51% were within 26-33 years of age, 29% were within 18-25 years of age while 14% were within 34 and 41 years of age, and 6% were above 42 years of age. 80% of the respondents were married, 6% of respondents were single, 3% divorced, and the remaining 3% were widows. In term of the educational level of respondents, 44% of respondents were graduates of higher institutions, 36% had only secondary education certificates while 14% had primary school education, and 6% had no formal education. Regarding the ethnicity of the respondents, majority of them were Yoruba 236(74%). The explanation for this was that the hospital is situated in South West of Nigeria which is predominantly occupied by Yoruba. 21% of respondents were Igbos while the remaining 4% (14) respondents were Hausa. The employment status of the respondents table 1 showed that 43% were employed by government, 31% employed themselves, involved petit trading, 8% (24) of the respondents were students while 18%(57) were not employed at all. On the basis of the number of children (table 1), 60% (190) had either one(1) or two (2) children, 33% of the respondents had either three (3) or four(4) children while just 7% had either five (5) or more than five children.

Concerning the knowledge of mothers about the initiation of breastfeeding. Majority of the respondents 87% displayed good knowledge of breastfeeding initiation when they agreed that breast feeding initiation occurs when the child is put to the breast between minute to thirty minutes after birth (Table 2). They equally agreed

that initiation of breastfeeding allows for immediate skin to skin contact between the new born baby and the mother, 91% believed that it encourages skin contact, while 8% sees no reason for early skin contact. 91% of respondent agreed that initiation of breast milk would afford the baby to be given colostrums that contains antibiotics that prevents the baby from infection (table 2), 96% of respondents agreed that initiation of breastfeeding encourages early bonding between the mother and the baby, while 4% did not support this assertion (see table 2).

On factors influencing initiation of breast feeding, table 3 showed that 66% (187) of respondents agreed that psychological state of the mother could influence the initiation of breast feeding, closely followed by the age at marriage which accounted for 58%(165) Educational level of the mother carried 47%(133), Employment status of the mother accounted for 43%(122) while marital status accounted for 32%(92) and number of children was the least factor that would influence initiation of breast feeding among mothers (table 3). In testing the hypotheses 1 to 6, hypotheses 1-5 showed no significant relationship among the variables analyzed but hypotheses 6 showed that there was a significant relationship between psychological states of mothers and the initiation of breastfeeding (table 4). The result in table 4 with reference to hypothesis 1 showed that 58% of the respondents agreed that age at marriage could influence the initiation of breastfeeding, 42% of respondents did not see age at marriage as factor that can influence breast-feeding. To validate whether to or not to reject the null hypothesis that there is no significant relationship between age at marriage and initiation of breast-feeding, chi-square( $\chi^2$ ) analysis was carried out. The calculated chi-square (0.54) was below the critical value of 0.05 significant level (3.84), suggesting that differences in responses were not statistically different from one another. On marital status, 32% of the respondents agreed that it influences the initiation of breastfeeding while 68% did not agree, The calculated value of chi-square for the responses of the respondents was 55.8, which is greater than the critical value of the 0.05 significant level (3.84); the null hypothesis could not be rejected (table 3).

## DISCUSSION OF FINDINGS

This study was based on factors influencing initiation of breastfeeding among the post-partum mothers attending Ladoke Akintola University Teaching Hospital. 317 questionnaires were distributed among mothers in the post-natal ward and lactating mothers attending the infant welfare clinic. All the questionnaires were retrieved and analyzed.

The analysis revealed that slightly more than half of the respondents 51% were within the age bracket of 26 – 33 years. Results of the study showed that majority of the respondents were married (80%). It was also discovered that 44% were highly educated while the majority of the respondents were Yorubas. According to table 9, 58% of the respondents agreed that maternal age was a significant predictor for the initiation of breastfeeding<sup>6, 10,11,12,14</sup>. 32% of the respondents agreed that marital status was a significant predictor for the initiation of breastfeeding while 68% believed that marital status could not predict the initiation of breast feeding<sup>19, 20</sup>. 47% of the respondents agreed that the mother educational level could influence the initiation of breast feeding<sup>10, 11, 15, 16</sup>. 43% of the respondents agreed that maternal employment had an influence on the initiation of breast feeding<sup>14, 16</sup>. 66% of respondents agreed to the assumption that the psychological state of the mothers could influence the initiation of breast feeding<sup>14, 16</sup>.

Present study alerts us that in spite of prevalent practice of breast feeding, promoting and strengthening reproductive and child health services were of paramount importance, since unsatisfactory behavior, regarding exclusive breast feeding is still observed.

### Implication for Nursing Practice.

Breast feeding is of extreme importance for safe guarding the health and welfare of the growing infant and this practice must be preserved, protected and provided by all means. Training of health workers in primary care setting on need for appropriate and timely counseling of antenatal mothers on breast feeding must be stressed. The quality of knowledge and support has a crucial role in the success of breast feeding promotion.

The findings of this study appear to have some value to professional midwives. Since the rates of breast feeding are consistently lower than desired. It seems likely that Nurse-Midwives would address this problem by designing interventions and educational programs to teach the benefits and recommendations of breast feeding. Understanding which demographic factors predict breast feeding in early post partum period is useful when designing these programs to ensure that limited resources are directed to groups that might be amenable to change for example, this study indicates that younger single women with a high school level education are less likely to breast feed than are older married college educated women.

Industrial nurses could also benefit from the findings of current study when working with large corporations and companies by trying to influence policy change for example, the literature clearly proves that breast feeding is the healthiest option for both mother and child, resulting in less illness for babies, which in turn causes less of a financial drain on insurance monies and less time off work for mothers. The current study indicates that women who return to paid employment are less likely to breastfeed, and are therefore not

providing their child the healthiest option for infant feeding. If health educators are working with companies trying to effect a policy change that allow more flexibility for working mothers to pump breast milk during the work day, this information provides a strong argument for adoption of this policy, using data derived from a local sources, rather than national or international studies.

**Tables 1- Demographic Data**

Age (in yr)	Frequency	Percentage
18-15	92	29
26 – 33	163	51
34 – 44	43	14
≥ 42	19	06
<b>Total</b>	<b>317</b>	
<b>Educational Status</b>		
No formal Education	19	6
Primary School	43	14
Secondary School	14	36
Higher Education	141	44
<b>Total</b>	<b>317</b>	
<b>Employment</b>		
Student	24	8
Self-employed	100	31
Employed of Government	135	43
Unemployed	57	18
<b>Total</b>		
<b>Marital Status</b>		
Single	19	06
Married	255	80
Separated	24	03
Divorced	11	03
Widow	08	
<b>Total</b>	<b>317</b>	
<b>Ethnicity</b>		
Yoruba	236	74
Igbo	68	21
Hausa	14	04
<b>Total</b>	<b>317</b>	
Number of Children	Frequency	Percentage
1 – 2	190	60
3 – 4	105	33
≥ 5	22	07
<b>Total</b>	<b>317</b>	

**Table 2 - Knowledge of Mothers on the Initiation of Breast feeding.**

S/N	ITEMS	YES	%	NO	%	TOTAL
1.	Breastfeeding should be initiated within the first thirty minutes after the sixth of child.	276	87	41	13	317
2.	Skin to skin contact should be done to ensure successful breastfeeding initiation.	287	91	22	07	309
3.	It is important to give the first milk (colostrums to the baby immediately he is born).	287	91	30	09	317
4.	The baby should always be put to breast on demand.	200	63	111	35	311
5.	A mother is very likely to initiate breastfeeding if she is happy with the arrival of the baby.	282	89	35	11	317
6.	Initiation of breastfeeding allows for the establishment of building between the mother and her baby.	303	96	14	04	317

**Table 3: Factors Influencing Initiation of Breast feeding**

S/N	ITEMS	Frequency	Percentage	X <sup>2</sup>	
1.	Age at Manage	165	58	0.534	NS
2.	Marital Status	92	32	55.8	S
3.	Educational Status of Respondents	133	47	8.204	NS
4.	Number of children	68	24	103.34	NS
5.	Psychological State of Respondents	187	66	10.246	S

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