



## EVALUATING THE KNOWLEDGE, ATTITUDE AND PRACTICES OF NURSING MOTHERS TOWARDS EXCLUSIVE BREASTFEEDING IN TANO NORTH DISTRICT

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### ABSTRACT

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Ghana.

The objective of the study was to evaluate the knowledge, attitude and practices of exclusive breastfeeding among nursing mothers in the Tano North District. Cross sectional study type was used to conduct the study. A semi structured questionnaire was used in the study to collect data from the respondents. Random sampling technique was used to select 100 nursing mothers who were breastfeeding in the Tano North District. The study revealed that maternal knowledge, practices, age, marital status and level of education can influence exclusive breastfeeding. It was again revealed that 86% of the respondents were mature mothers. It was recommended that mothers should introduce exclusively breastfeeding to their babies at least for the first six months of life to achieve optimal growth, development and health.

**Contribution/Originality:** This study contributes in the existing literature by evaluating the knowledge, attitude and practices of exclusive breastfeeding among nursing mothers in Tano North District of Ghana.

### 1. INTRODUCTION

Literature is replete with information on the benefits of breastfeeding to mothers and their infants [1-3]. Exclusive breastfeeding is defined as the use of breast milk as the only source of food, to the total exclusive of other supplementary foods such as formulas, water, juices or teas [4, 5]. Studies have shown that breastfeeding is superior to infant formula feeding because of its protective properties against illness, in addition to its nutritional advantages [6-8]. Considering the extensive benefits of breastfeeding, the World Health Organization and the American Dietetic Association recommend exclusive breastfeeding of infants for the first six months and continued breastfeeding with complementary foods up to 12 months [9] mainly due to their weak immune system and their propensity to attract diseases through food poisoning.

Previous research has shown that maternal attitudes toward breastfeeding, perceptions of infant health and benefits of breastfeeding influence the decision of nursing mothers to breastfeed their babies [1-3]. Many demographic factors such as maternal age, marital status, education, race, socio-economic status, culture factors, parity, number of children at home, and social support have been shown to potentially influence a woman's decision to breastfeed [7, 10-12].

Along with a number of demographic factors, poor or negative attitudes towards breastfeeding have been shown to be barriers to initiating and sustaining breastfeeding patterns [7, 8]. Previous studies have shown that

mothers who do not breastfeed or individuals who do not support breastfeeding have negative attitude towards breastfeeding [1, 13, 14].

The decline in the practice of breastfeeding which started in developed countries like United State has been observed in developing countries with Ghana not being an exception [15]. This decrease in breastfeeding rates around the world and has led to serious implications such as increase in the prevalence of protein energy malnutrition (PEM) for infants in Africa Amador, et al. [16]. Scarlett, et al. [17] have shown that though high initiation rate of breastfeeding in most developing countries is exceptional yet, the duration of exclusive breastfeeding is very low in some countries. This research therefore seeks to evaluate the knowledge and attitude of nursing mothers towards exclusive breastfeeding in Tano North District.

## 2. MATERIAL AND METHODS

### 2.1. Research Design

The study was based on both qualitative and quantitative approaches. Cross sectional study type was used to conduct the study at Duayaw Nkwanta St. John's of God Hospital to ascertain the perception knowledge, attitude and practice of mothers or draw conclusion from the finding to represent lactating mothers with children 0-6 months, Cross-Sectional study was designed to find out the prevalence of a phenomenon, problem, attitude or issue by taking a picture or cross-section of the population.

### 2.2. Research Area

The area for the study is Tano North District in the Brong Ahafo Region of Ghana. The Tano North District is one of the 22 administrative districts of Brong Ahafo Region of Ghana. It was carved out of the then Tano North District in 2004 with its administrative capital Duayaw-Nkwanta. It shares boundaries with Offinso and Ahafo-Ano Districts both in the Ashanti Region in the North-East and South –West respectively. Other districts that share boundaries with the Tano North include Tano South in the South, Asutifi in the west and Sunyani municipal in the North. The District lies between longitude 7°00' 25 latitude 1°45'W and 2°15'W with a total land areas of 876 square kilometres, constituting about 1.8% of the total land area of the Brong Ahafo. The Tano North District has a total population of 78,415 comprising 39,338 males and 39,077 females as at 2010. The District has a population growth rate of 2.4%. The District lies in the semi-equatorial zone which experiences two (2) rainy seasons (major and minor). Agriculture is the main occupation in the District employing about 64.4% of the total work force in the District. Figure 1 depicts the map of Tano North District.

### 2.3. Population

The population for the study comprises all nursing mothers caring for babies aged between 0-6 months in the Tano North District attending child welfare clinic. It is estimated to be around 500 mothers according to the medical director.

### 2.4. Sampling Techniques and Sampling Size

Random sampling was used to select nursing mothers who were still breastfeeding in the Tano North District. A sample size of 100 was used for the study.

### 2.5. Instruments for Data Collection

A semi-structured questionnaire was used to collect data from the respondents. The respondents completed the questionnaire in a confidential setting, therefore diminishing possible bias connected to researchers' presence and devoid of instant time constraints.



Figure-1. Map of Tano North.

Source: GSS [18].

### 2.6. Data Analysis

Data collected was edited, coded and fed into the computer using statistical package for social science (SPSS). Data was presented in tables and graphs to give visual impression of the data.

### 2.7. Ethical Consideration

Permission was sought from the Medical Director of Duayaw Nkwanta St. John’s of God Hospital to undertake the research. The respondents were informed of the purpose of the research to seek the consent to participate in the research process. The respondents were assured that the use of the response were for academic purposes only. Moreover, ethically anonymity and non-traceability was assured.

### 3. RESULTS AND DISCUSSIONS

**Table-1. Age Distribution of Respondents (n=100).**

Age (years)	Frequency (N)	Percentage (%)
<16	3	3.0
16-25	7	7.0
26-35	31	31.0
36-45	44	44.0
>45	15	15.0
Total	100	100.0

Source: Field work, 2016.

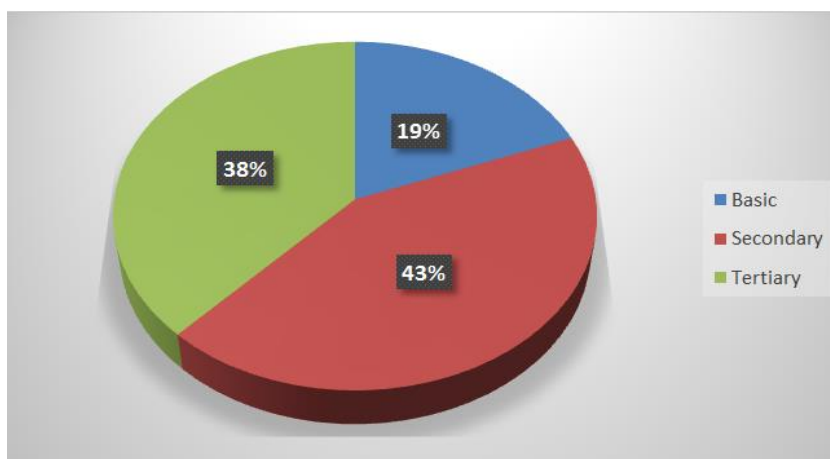
Table 1 represents the selected number of nursing mothers who were involved in the study. With these numbers, their age group revealed that majority (44%) of nursing mothers was within the age group of 36-45 years. The second age group of nursing mothers representing 31% was within the range of 26-35 years. The age group of 45 years and above as well as 16 – 25 years recorded 15% and 7% respectively whereas the least age group of nursing mothers representing 7% was below 16. The data showed that majority of the respondents were matured and experienced nursing mothers when it comes to breastfeeding a child. This varies with the study conducted by Chalmers, et al. [19]; Chin, et al. [20] which says, with increased age, there is often an increased in the level of education; both factors are associated with higher breastfeeding rates.

**Table-2. Marital Status (n=100).**

Marital Status	Frequency (N)	Percentage (%)
Married	71	71.0
Single	7	7.0
Divorce	3	3.0
Separate	19	19.0
Total	100	100.0

Source: Field work, 2016.

Marital status also affects breastfeeding initiation and duration. Married Black women are twice as likely to breastfeed as unmarried Black women [20, 21]. This therefore contradicts this finding because 71% of nursing mothers were married yet, do not exclusively breastfeed. Marital status of nursing mothers was gathered for the study. Table 2 gives detail information of marital status from the data gathered. The data gathered from the study revealed that majority of the respondents, representing 71% of nursing mothers in Tano North District were married. The study further showed that 19% were separated and three percent 3% divorced while seven percent 7% were single. This indicates that majority of the nursing mothers are married.



**Figure-2. Level of Education (n=100).**

Source: Field work, 2016.

Women of higher educational status also have higher rates of breastfeeding. In the study by Chin, et al. [20] women who graduated from high school 70% were more likely to breastfeed than those who did not; women who attended college were four times more likely to breastfeed than women who graduated from high school. This therefore confirms with this findings. The level of education of the nursing mothers was investigated in the study. Figure 2 shows the educational background of the respondents.

The educational level of nursing mothers determines to a large extent their attitudes towards breastfeeding their children. Figure 2 showed that majority (43%) obtained secondary education followed by (38%) with tertiary education and (19%) with basic education.

**Table-3. Practice of exclusive breastfeeding (n=100).**

Responses	Frequency	Percentage (%)
Matured mothers	86	86.0
Teenage mothers	6	6.0
Experienced mothers	8	8.0
Total	100	100.0

Source: Field work, 2016.

Data on options of nursing mothers regarding the practice of exclusive breastfeeding was investigated and the findings are presented in the Table 3. The study options of nursing mothers on who practice exclusive breastfeeding revealed that, majority of the nursing mothers (86%) affirmed that exclusive breastfeeding needs to be practiced by matured mothers, eight percent (8%) said it needs to be practiced experience mothers and six percent (6%) said that exclusive breastfeeding needs to be practiced by teenage mothers.

**Table-4. Breastfeeding patterns of babies in a day.**

Responses	Frequency	Percentage (%)
On demand	84	84.0
By routine	2	2.0
Does not know	8	8.0
Total	100	100.0

Source: Field work, 2016.

Table 4 reveals on how often should a baby is breastfed in a day and majority of the nursing mothers (84%) affirmed that babies should be breastfed on demand, two (2) nursing mothers representing 2% also declared that babies should be breastfed routinely. However, eight (8) nursing mothers representing 8% confirmed that they do not know.

**Table-5. Duration for breastfeeding a baby.**

Responses	Frequency	Percentage (%)
2 – 3 months	51	51.0
4 – 5 months	49	49.0
0 – 6 months	0	0.0
Total	100	100.0

Source: Field work, 2016.

Table 5 shows how long should breast milk alone be given to a baby without adding water. Majority of the nursing mothers (51%) affirmed 2 – 3 months while forty – nine percent (49%) stated 4 – 5 months. However, none of the nursing mothers indicated 0 – 6 months. The study has revealed that majority of the nursing mothers stated that 2 – 3 months is adequate for breast milk alone without addition of water. WHO also recommends that mothers should breastfeed frequently and on demand until two years of age or beyond. This means breastfeeding the infants as often as it wants, day and night. This therefore contradicts with these findings.

**Table-6.** Appropriate age to give solid foods to a baby (n=100).

Responses(Months)	Frequency (N)	Percentage (%)
2 – 3	3	3.0
4 – 5	21	21.0
> 6	76	76.0
Total	100	100.0

Source: Field work, 2016.

Negative effects of early introduction of solid foods are very important for the health of infants. In this study majority of the respondents 76% were of the view that the appropriate age to start giving solid foods to a baby is when the child is above 6 months. The result from this study is not in line with findings from the TDHS [22], which identified that most babies in Tanzania are not exclusively breastfed for the first six months of life. A study was conducted to ascertain the appropriate age to start giving solid foods to a baby. The findings are presented in the table 6. Table 6 illustrates the findings of appropriate age to start giving solid foods to a baby. Majority of respondents (76%) confirmed that the appropriate age to give solid foods to a baby is when the child is Above 6 months. Twenty – one percent (21%) asserted that it should be done when the baby is between 4 – 5 months and three percent (3%) were of the view that it should be done when the baby is between 2 – 3 months.

**Table-7.** Responses on breastfeeding duration as well as giving a baby a formula milk in the first 6 months of life (n=100).

Statement	Responses			Total
	Yes	No	Does not know	
Baby should be allowed to breastfeed for at least 10 – 20 minutes for each feeding.	54 (54%)	12 (12%)	34 (34%)	100 (100%)
Do you intend to give your baby formula milk in the first 6 months of life?	72 (72%)	28 (28%)	- -	100 (100%)

Source: Field work, 2016.

The researchers conducted the study to obtain options of nursing mothers on breast feeding duration as well as giving formula milk to babies in the first 6 months of life. The researchers' findings are presented in this table. Table 7 demonstrates that out of the 100 respondents, 54% affirmed that babies should be allowed to breastfeed for at least 10 – 20 minutes for each feeding whereas 12% of the nursing mothers were not in support of this. Moreover, majority of nursing mothers (72%) declared that they intend to give their babies formula milk in the first 6 months of life whilst 28% thought otherwise.

**Table-8.** True or false (n=100).

Statement	Responses		Total
	True	False	
Breastfeeding should be continued up to 2 years even though the baby has received solid food	90 (90%)	10 (10%)	100 (100%)
Mothers may mix breastfeeding and formula feeding once baby start taking solid food.	68 (68%)	32 (32%)	100 (100%)
Giving water to baby is encouraged after every breastfeeding	31 (31%)	69 (69%)	100 (100%)
Baby who receives breast milk is less prone to get diarrhea	53 (50%)	47 (47%)	100 (100%)
Breastfeeding causes good development of baby's teeth and gum	58 (58%)	42 (42%)	100 (100%)

Source: Field work, 2016.

The researchers conducted the study to obtain options of nursing mothers on some assertions. The findings and their analysis are presented. Out of the 100 respondents, 90 respondents representing 90% said it is true that breastfeeding should be continued up to 2 years even though the baby has received solid food whereas the

remaining 10% thought otherwise. Also majority of the nursing mothers (68%) said it is true that mothers may mix breastfeeding and formula feeding once baby start taking solid food and off course the remaining 32% thought otherwise. Again, Table 8 illustrates that majority (69%) of the respondents reacted negatively to the assertion that giving water to baby is encouraged after every breastfeeding. On the issue of the benefits of breastfeeding babies, majority (53%) stated that babies who receive breast milk are less prone to diarrhea and 58% out of the 100 respondents affirmed that breastfeeding causes good development of baby's teeth and gum.

**Table-9.** Nursing mothers opinions on benefits and effects of exclusive breastfeeding (n=100).

Statement	Responses			Total
	Strongly Agree	Agree	Disagree	
Breastfeeding reduces the risk of lung infections among babies.	70 (70%)	10 (10%)	20 (20%)	100 (100%)
Breastfeeding is beneficial for the mother.	12 (12%)	76 (76%)	12 (12%)	100 (100%)
Exclusive breastfeeding is beneficial in birth spacing.	17 (17%)	65 (65%)	18 (18%)	100 (100%)
Mothers who practice breastfeeding are less likely to experience breast problems.	2 (2%)	77 (77%)	21 (21%)	100 (100%)
Babies will gain weight if they receive effective breastfeeding	62 (62%)	14 (14%)	24 (24%)	100 (100%)
Exclusive breastfeeding is for 12 months.	15 (15%)	3 (3%)	82 (82%)	100 (100%)
Exclusive breastfeeding involves feeding with infant formula.	71 (71%)	17 (17%)	12 (12%)	100 (100%)
Colostrum contains antibodies	23 (23%)	74 (74%)	3 (3%)	100 (100%)

Source: Field work, 2016.

Table 9 illustrates that majority of the respondents (70%+10%=80%) agreed that breastfeeding reduces the risk of lung infections among babies while the remaining 20% disagreed, most nursing mothers (12%+76%=88%) agreed that breastfeeding is beneficial for them whereas the rest (12%) disagreed to the assertion, 82% (17%+65%) agreed that exclusive breastfeeding is beneficial in birth spacing while the remaining 18% disagreed, 79% (2%+77%) agreed that mothers who practice breastfeeding are less likely to experience breast problems but the remaining 21% did not agree, 76% (62%+14%) agreed to the assertion that babies will gain weight if they receive effective breastfeeding whereas 24% disagreed. However, majority of the nursing mothers (82%) disagreed that exclusive breastfeeding is for 12 months whilst the 18% agreed. On the issue of infant formula, 88% (71%+17%) agreed that exclusive breastfeeding involves feeding with infant formula and 12% disagreed. Finally the study revealed that majority of the nursing mothers encountered (97%) agreed that colostrum contains antibodies whilst 3% disagreed.

#### 4. CONCLUSIONS

The study had confirmed that exclusive breastfeeding for a minimum of six months from birth and continuing till two years, improved the cognitive skills, prevented stunting, wasting and obesity with its attendant complications. Also, exclusive breastfeeding has the potential of prolonging a baby's life and drastically reducing under-five mortality as well as maternal mortality because it makes babies less prone to get diarrhea, causes good development of their teeth and gum, reduces the risk of lung infection and prevent breast problems. To this end babies are to be breastfed on demand, which is as often as the child wants (day and night) as discovered.

The study also affirms that babies that were not exclusively breastfed but introduced to infant formulas were susceptible to various disease and infections and were either less or overweight.

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