

## RESEARCH ARTICLE

# Factors Influencing the Intended Duration of Breastfeeding among Nursing Mothers in Jos, Nigeria

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## Abstract

Breastfeeding for two (2) years and beyond is one of the strategies for optimal Infant and Young Child Nutrition (IYCF). A mother's disposition for a breastfeeding type and duration is an important factor in determining eventual practice. The actual practice of proper breastfeeding usually starts with a deliberate intention to do so. Information on the reasons behind mothers' preferred duration of breastfeeding and its associated factors may be used to influence mothers' desire and plan for longer breastfeeding duration.

This was a cross-sectional study among 434 breastfeeding mothers attending immunization and postnatal clinics in Jos. Data was collected through an interviewer-administered questionnaire. Bivariate analysis was done to determine the factors associated with intended duration of breastfeeding using SPSS version 21.

Of 434 studied, 34 (7.8%) intended to breastfeed for < 12 months, 82 (18.9%) for exactly 12 months, 260 (59.9%) for >12-18 months and 58 (13.4%) for >18months. Reason given by most of the mothers (41.2%) who intended to stop breastfeeding less than 12 months was returning to school or work. Out of those who desired to breastfeed for longer than 18months, the largest proportions (36.7% and 30.0%) were for nonspecific reasons and maturity of the child respectively. Noticeably, 11.8% of mothers who intended to breastfeed for less than 12 months attributed their preference to Health workers' recommendation. Mothers intended duration of breastfeeding varied and was associated with mother's educational level, occupational type, socioeconomic status, parity and attendance of Antenatal clinic (p-0.001, 0.001, 0.001, 0.001, 0.003) respectively.

Health workers should be trained in breastfeeding education with emphasis of management of breastfeeding even in the mothers' absence and discouragement of excuses for shorter breastfeeding duration. Policies to support, protect and promote breastfeeding should be put in place to help working and schooling mothers' breastfeed for longer.

**Keywords:** Breastfeeding; Duration; Factors; Intended; Mothers

## Introduction

Breastfeeding is the ideal method of feeding an infant. Breast milk itself is nutrient and calorie packed such that it can provide half or more of a child's energy needs between the ages of 6 and 12 months, and one third of energy needs between 12 and 24 months [1]. Breastfeeding confers both short and long term advantages to both mother and child though the full benefits are gained when the recommendation of the World Health Organization (WHO) is followed, namely: Initiation of breastfeeding within one hour of delivery, exclusive breastfeeding for six months, while initiating nutritionally adequate and safe complementary foods at six months and continued breastfeeding for up to two years and beyond [2]. Non-compliance in any of these aspects results in suboptimal breastfeeding practices with implication to child and maternal health outcomes. Studies in both developing and developed countries demonstrate that longer and frequent breastfeeding is associated with greater linear growth, language development, cognitive performance and educational attainment [3-6]. Significantly lower incidence of asthma, obesity, gastro-intestinal and respiratory-tract infections have been found in infants that have been breastfed for longer duration when compared with those that have not [7-10].

Although there are fewer studies that demonstrate the advantages of breastfeeding for mothers than for infants, some studies have identified extended duration of breastfeeding as an important protective factor against breast cancer generally and pregnancy associated breast cancer specifically [11-13]. This duration dependent protective effect of breastfeeding is also observed in other female reproductive cancers such as ovarian and uterine cancers [14]. Furthermore, increased predisposition to type 2 Diabetes

Mellitus has been found among insufficiently breastfed individuals and interestingly among women who had shorter breastfeeding duration [14,15].

Despite the immense benefits from optimal breastfeeding, continued breastfeeding is one of the components of IYCF which is least emphasized and practiced [16,17]. Currently in Nigeria, breastfeeding rates have remained relatively high across the country, but continued breastfeeding at one and two years have remained very low [18,19]. Among the many factors known to influence breastfeeding is the mother's expectation and her plan for breastfeeding [20,21]. It has been shown that perception and intention for breastfeeding at an early stage after birth predicted the duration of breastfeeding [22]. This maternal expectation has effect on the forms, duration and quality of breastfeeding practices [21-23].

In a bid to achieve the benefits of optimal breastfeeding through continued breastfeeding, determining preferred breastfeeding duration and the reasons behind these choices are important. This may provide information useful for closing the gap between the current breastfeeding duration and the recommended, to improve maternal and child health outcomes.

## Objectives

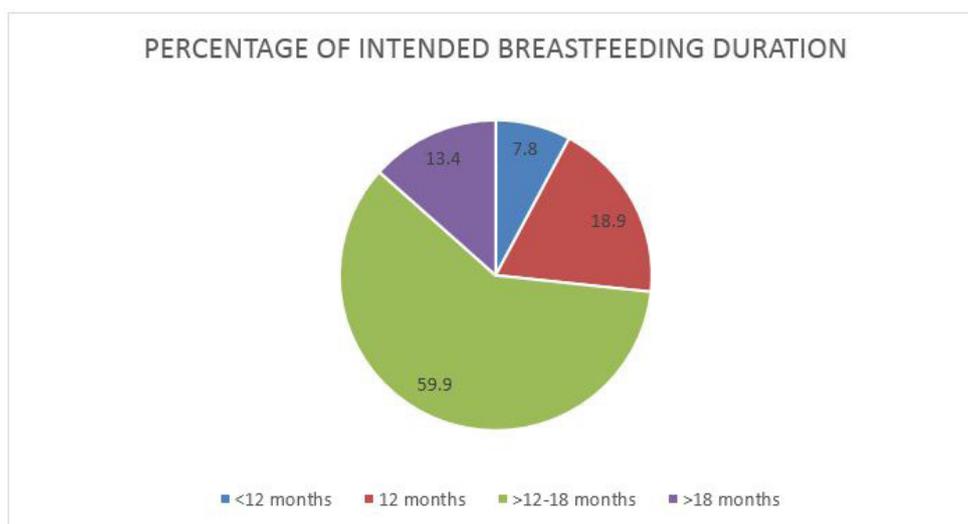
To assess the intended duration of breast feeding of nursing mothers, the underlying reasons and associated factors in Jos, Plateau State.

## Materials and Methods

Four hundred and thirty-four breastfeeding mothers attending immunization and postnatal clinics were selected in both public and private hospitals (1 tertiary, 2 secondary, 1 Primary Health Care center and 2 private health facilities) in Jos North Local Government Area by multistage sampling. Ethical clearance for the study was obtained from the Ethics and Research Committee of the Jos University Teaching Hospital. Two research assistants were trained to administer a semi structured interviewer-administered questionnaire along with the researchers. Questions were on Mothers Socio-demographics, intended duration of breastfeeding and reasons for choice. Socioeconomic status was determined by application of the scoring system designed by Olusanya [24]. All data from filled questionnaires including those with variables that had no responses were imputed into the Statistical Package for Social Sciences [SPSS] software version 21. Socio-demographic data and intended duration of breastfeeding were categorized and the relationship between intended duration, reasons given and other variable of interest was analyzed using chi-square test. P-value of less than 0.05 was considered statistically significant.

## Results

Mother's ages ranged from 18 to 45 years with a mean of  $27.04 \pm 4.98$ . Most (66.4%) mothers fell into the 21-30 year age group. Mothers from low socioeconomic class (SEC) accounted for 45.3%, Middle-29.6% and Upper SEC- 25.1%.



**Figure 1:** Mothers Intended duration of breastfeeding

The majority of mothers (59.9%) intended to breastfeed for a duration of between >12-18 months, while a very small proportion (7.8%) intended to breastfeed for less than 12 months.

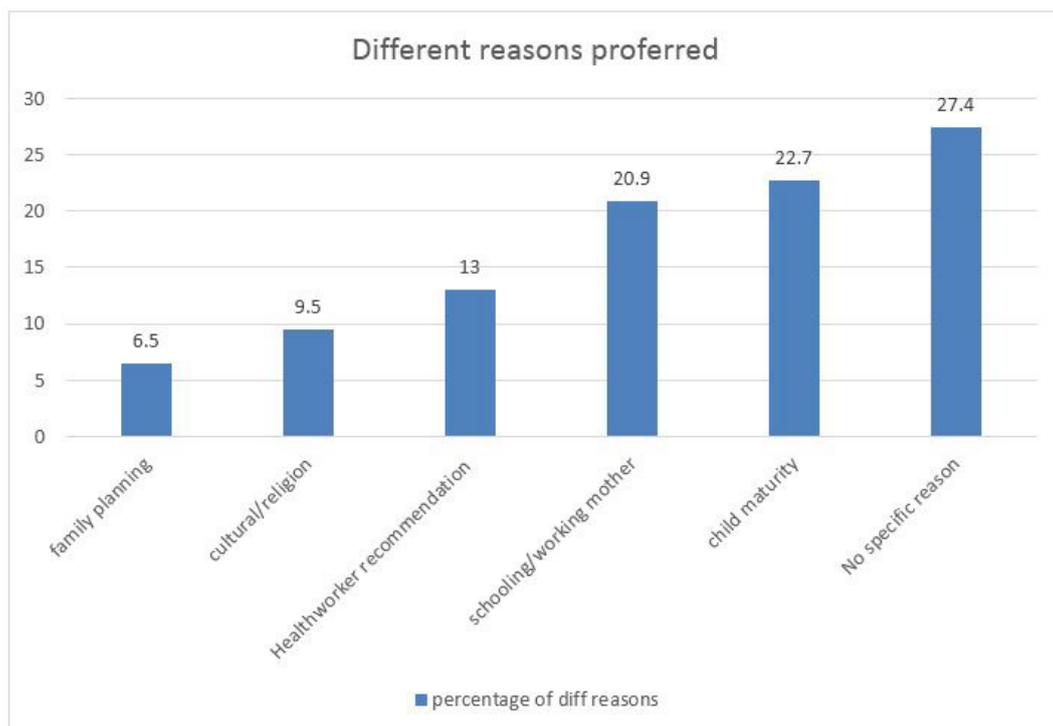
Though intention to breastfeed for >12-18 months was highest across all the educational levels, more mothers with low educational status intended to breastfeed for longer than 18 months ( $p=0.001$ ). A similar pattern is observed among the different occupations and socioeconomic classes ( $p=0.001$  and  $0.001$ ). Similarly, a higher proportion of women who were professionals intended to breastfeed for less than 12 months ( $0.001$ ). There were a significant larger proportion of mothers with a higher parity intending to breastfeed for longer than those with lower parity ( $p=0.001$ ).

Despite having a small proportion of women who attended ANC  $\geq 4$  times in index pregnancy intending to breastfeed for less than a 12 months, not many (11.2%) intended to continue breastfeeding beyond 18 months.

characteristics	Intended duration of breastfeeding					X2	P
	< 12 months	12 months	>12-18 months	>18 months	Total		
<b>Mothers Education</b>							
Tertiary	10(11.6)	32(37.2)	40(46.5)	4(4.7)	86	50.966	0.001*
Secondary	20(8.8)	44(19.3)	138(60.5)	26(11.4)	228		
None-primary	4(3.3)	6(5.0)	82(68.3)	28(23.3)	120		
<b>Mothers occupation</b>							
Professional	10(31.3)	12(37.5)	8(25.0)	2(6.3)	32	39.366	0.001*
Middle level	8(7.4)	18(16.6)	68(63.0)	14(13.0)	108		
Unskilled/unemployed	16(5.5)	50(17.2)	182(62.8)	42(14.5)	290		
<b>Socioeconomic class</b>							
Upper	14(13.2)	40(37.7)	46(43.4)	6(5.7)	106	48.807	0.001*
Middle	6(5.1)	20(16.9)	76(64.4)	16(13.6)	118		
Low	14(6.8)	20(9.7)	136(66.0)	36(17.5)	206		
<b>Frequency of attending ANC#</b>							
< 4 times	6(10.3)	6(10.3)	30(51.7)	16(27.6)	58	13.651	0.003*
$\geq 4$ times	26(7.3)	70(19.7)	222(61.8)	40(11.2)	356		
<b>Number of children</b>							
1-2	24(9.5)	54(21.4)	150(59.5)	24(9.5)	252	38.707	0.001*
3-4	8(6.9)	24(20.7)	74(63.8)	10(8.6)	116		
>4	2(3.3)	4(6.7)	32(53.3)	22(36.7)	60		

\*Statistically significant ; # Antenatal Clinic

**Table 1:** Relationship between variables and mothers intended duration of breastfeeding



**Figure 2:** Reasons behind intended duration of breastfeeding

The highest proportion of mothers (27.4%) had no specific reason, while child maturity (22.7%) and schooling/working mother (22.7%) followed closely behind. Note that 13% intended duration were influenced by health workers' recommendation.

Only 312(71.9%) mothers gave a specific reason for the choice. The highest proportion of women who wanted to stop breastfeeding at less than 12 months (41.2%) and at 12 months exactly (26.8%), gave returning to work/school as their reasons. While the highest proportion of those who wanted to go beyond 18 months had no specific reason (36.7%) or believed the child would have reached some form of maturity as reason for their choice (30.0%).

Intended durations							
Reasons	<12 months	12 months	>12-18 months	>18 months	Total	X2	P
Family Planning	2(5.9)	6(7.3)	19(7.5)	1(1.7)	28(6.5)	36.379	0.02*
Child is matured enough	6(17.6)	16(19.5)	58(22.7)	18(30.0)	98(22.7)		
Cultural/religious	6(17.6)	6(7.3)	28(11.0)	1(1.7)	41(9.5)		
Mother working or schooling	14(41.2)	22(26.8)	42(16.5)	12(20.0)	90(20.9)		
Health worker recommendation	4(11.8)	16(19.5)	30(11.8)	6(10.0)	56(13.0)		
No Specific reason	2(5.9)	16(19.5)	78(30.6)	22(36.7)	118(27.4)		
<b>Total</b>	<b>34(100)</b>	<b>82(100)</b>	<b>255(100)</b>	<b>60(100)</b>	<b>431(100)</b>		

\*Statistically significant

Table 2: Various reasons given by mothers and relationship with intended duration of breastfeeding

## Discussion

The current study found that most (59.9%) mothers wanted to breastfeed for about 12 months up to 18 months. However, the small percentage (13.4%) of mothers who intended to continue breastfeeding beyond 18 months suggests either a lack of knowledge or unacceptability of breastfeeding for up to 2 years and beyond. The last Nigerian Multiple Indicator Cluster Survey (MICS 2017) shows same pattern in practice where continued breastfeeding at one year was at 85.9% and only 37.1% continued breastfeeding to 2 years [18]. Implications could be that these children and mothers may not reap the optimal benefits of breastfeeding [9-15]. This could be contributory to the high rates of child and maternal mortality recorded in Nigeria. Higher level of education, socioeconomic class and type of occupation were associated with shorter intended duration of breastfeeding. This is not unexpected as other studies show similar findings where higher education and professional occupation types which are also proxy for upper socioeconomic class were associated with lower rates and duration of breastfeeding [23,25]. Women who are fully employed, run their businesses outside the home or are schooling often return to work/school and may plan to shorten total duration of breastfeeding to enable them do so. Unskilled mothers are usually unemployed or work in informal settings affording them flexible itinerary for longer breastfeeding period. They also are less likely to be able to afford breast milk substitute which has been shown to be an associated factor to the intention to breast feed for longer [25].

Though most mothers had intention to breastfeed for between >12-18 months irrespective of the frequency of ANC attendance, a larger proportion of mothers with the least ANC attendance (< 4 times) intended to breastfeed for less than 12 months. Surprisingly, the proportion of mothers who attended  $\geq 4$  sessions of ANC had a relatively lower proportion of those intending to continue breastfeeding beyond 18 months. This may call to question the effect of ANC breastfeeding education on recommended breastfeeding practices as shown in a systemic review by Lumbiganon, *et al.* that found little effect of ANC breastfeeding education on breastfeeding duration [26]. This highlights issues such as health workers knowledge, the content and delivery of key breastfeeding messages to mothers attending ANC in Jos.

Mothers with higher parity intended to breastfeed for longer than those with lower parity. This finding is in agreement with studies that have shown that women with higher parity breastfeed for longer durations [27-29]. This result goes further to support the theory that intention to breastfeed for longer eventually leads to practice. Women with higher parity may desire and plan to breastfeed for longer due to the confidence from experience which aids in motivation and preparation for longer breastfeeding duration [29]. Also mothers with lower parity may be keen to have more children, thus they may desire to shorten breastfeeding period for readiness towards the next pregnancy compared to mothers with more  $\geq 4$  children who are more likely to have completed or nearly completed their family size. Although there were a variety of reasons given for the planned duration of breastfeeding, a large proportion of mothers had no specific reason for their choices. This group still had significantly more women choosing to breastfeed for between 12 and 18 months which may mean a sociocultural norm. Clearly, very few mothers associated their planned breastfeeding duration with health workers recommendation, which underlies the need for frontline health workers to influence optimal breastfeeding practices. Specifically, it is somewhat disconcerting for a proportion of women to report that health workers recommended breastfeeding for less than 12 months. This again is likely to be linked to the gap in knowledge and capacity of the health workers who pass health information to women which has previously been documented [30].

It is noteworthy that when mothers considered the optimal health and maturity of the child, they tended to prefer longer breastfeeding periods as opposed to shorter durations when the consideration was for mothers' schooling and career. The knowledge could be used to enrich breastfeeding messages in our setting to motivate mothers to breastfeed for longer. Mothers' career has also been the main reason for mothers' early cessation of breastfeeding in other cultural settings [31]. There may be a general perception that work and school are not compatible with longer duration of breastfeeding. However, since there is no indication that working women are less interested in breastfeeding than non-working women there must be some balance such that pursuing a career should not constitute a hindrance to successful breastfeeding [21].

## Conclusion

Findings of this study suggest that higher education, professional occupation and upper socioeconomic class were associated with

shorter intended durations of breastfeeding. More mothers that attended ANC less than 4 times intended to breastfeed below 12 months. While a large proportion of mothers had no specific reason for their preferred breastfeeding duration, the most frequent reasons underlying preferred breastfeeding duration was for the maturity of child and these mothers tended to desire longer breastfeeding periods. Returning back to school/work was the reason given by mothers who intended to breastfeed for the shortest period of less than 12 months. Health workers reportedly recommended varying durations of breastfeeding for mothers including to breastfeed for less than 12 months.

## Recommendation

The results of this study suggest that the breastfeeding education in Jos Nigeria should address mothers who are professionals, with higher education, of upper socioeconomic class and those who have lower parity. Health workers that educate pregnant women and nursing mothers should be trained and re-trained on the core messages of IYCF, specifically continued breastfeeding for 2 years and beyond. There is need for development of baby friendly work policies which should extend to tertiary centers to address female students who are have infants and young children.

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