Prevalence, Knowledge, Practice and Problems Associated with Breastfeeding among Mothers/Caregivers Attending a Paediatric Out-Patient Clinic in Port Harcourt, Nigeria

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Abstract

Introduction: Breastfeeding is the optimal nutrition for children from birth to the first 2 years of life. Disseminating this message to mothers is aimed at improving breastfeeding practices among mothers.
Aim: This study is aimed at assessing the prevalence, knowledge, practice and problems associated with breastfeeding among mothers/caregivers attending the Paediatric out-patient clinic in Rivers State University Teaching Hospital.
Methodology: A cross sectional study was carried out among mothers/caregivers with children aged 0-24 months attending the Paediatric out-patient clinic between January and April 2017. A total of 343 participants were randomly recruited into the study. An interviewer administered questionnaire was used to collect data on breastfeeding knowledge, practice and problems.
Result: Majority of the mothers/caregivers were aged 30-39 years 198 (57.7%) and 269 (78.4%) worked outside their homes, for 5-8 hours per day. The ever breastfeeding rate (breastfeeding prevalence) was 339 (98.8%). A total of 275 (80.2%) knew that breastfeeding should be initiated within one hour of delivery and 88 (25.6%) knew that it should be stopped at ≥ 24 months but 83 (56.1%) of the mothers who had stopped breastfeeding stopped between 12-17 months. Mothers from high socio-economic class were statistically significantly associated with failure to breastfeed at least one child (p = 0.01). The commonest problem encountered during breastfeeding was cracked nipples 103 (30.0%).
Conclusion: Although majority of the children were breastfed, continuous education on the duration of breastfeeding and management of challenges associated with breastfeeding is needful.
Key word: Breastfeeding; Prevalence; Knowledge; practice; Problems; Port Harcourt

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I. Introduction

Breastfeeding is well known as a means of ensuring optimal nutrition for an infant.1 It is one of the most effective child survival strategies providing all the nutritional requirements for the infant in the first six months of life and up to half of the infant’s nutritional requirements in the second half of the first year.2,3 It remains the simplest, healthiest and cheapest feeding method that fulfills the infants’ needs.4 Exclusive breastfeeding which is giving breast milk only and no other liquids except for medications, is associated with a decreased risk for many early-life diseases such as respiratory tract infection, diarrhea and early childhood obesity.4,5

Breastfeeding is a well-recognized and documented determinant of infant nutrition, child morbidity and mortality.1,4,5 The Nigerian government in line with this, established the Baby-Friendly Hospital Initiative (BFHI) in several hospitals including the study center, with the aim of providing mothers and their babies with a supportive environment for breastfeeding and to promote appropriate breastfeeding practices.3

Globally, breastfeeding rates (babies ever-breastfed) are usually high as has been reported in Nigeria with a prevalence rate of 97.3%.5 However, exclusive breastfeeding rates continue to be low in many centers1,2,4,5 as also observed in the 2016-2017 Multiple Indicator Cluster Survey (MICS) of Nigeria which showed that only 23% of infants below 6 months of age were exclusively breastfed.5 The initiation and practice of breastfeeding is influenced by several factors such as socio-cultural and traditional beliefs, ignorance, maternal health, parity, mothers return to work as well as poor spousal and family support.1,2,4,6,8,9 Inappropriate advice from health care workers has also been identified as a factor influencing breastfeeding rates.10 Nigeria with an Infant mortality rate of over 70 per 1000 live births has more infant and under-five deaths than any other country in Africa.11
Given the importance of breastfeeding in the reduction of infant morbidity and mortality and the paucity of recent data on studies on breastfeeding rates in our locality, this study was carried out to determine the prevalence, knowledge, practice and problems associated with breastfeeding amongst mothers/caregivers attending the Paediatric clinic in Rivers State University Teaching Hospital.

II. Materials and Method

This cross sectional prospective study was carried out in the Paediatric Outpatient Clinic (POPC) of the Rivers State University Teaching Hospital (RSUTH), Port Harcourt, Rivers State, a tertiary health facility located in Port Harcourt Local Government Area of Rivers State, Nigeria. The clinic attends to an average of 210 children aged 0-16yrs weekly. It receives patients from the host community in addition to children referred from neighboring Bayelsa, Akwa Ibom, Abia and Imo states.

The study population was made up of mothers/caregivers attending the clinic with their children. The inclusion criteria were mothers/caregivers whose index child was aged 0-24 months and who gave consent to participate in the study. Mothers/caregivers who did not give consent to participate in the study and those whose index child was greater than 24 months were excluded from the study.

Five hundred and eighty-four children were brought to the Paediatric out-patient clinic by their mothers/caregivers during the period of study. Out of these, 343 participants who met the inclusion criteria for the study were randomly selected each clinic day from 23rd January 2017 to 24th April, 2017. The study procedure was explained to the mothers/caregivers, after which verbal informed consent was obtained from them. A structured pre-tested interviewer administered questionnaire was used to obtain information on biodata, knowledge and practice of breastfeeding from the mothers/caregivers. The Ethics Committee of the hospital gave approval for the study.

Social class was determined using the classification by Olusanya et al.\(^2\) The total score ranged from 1-5 in order of descending privileges and further divided into 3 equal parts to get upper, middle and low socioeconomic classes.

The data was computed into an excel spreadsheet and analysed with Statistical Package for the Social Sciences (SPSS) version 23. Test of statistical significance was set at 95% confidence interval with P value < 0.5.

III. Result

Five hundred and eighty-four children were seen in the Paediatric outpatient clinic during the period of study and 343 who met the inclusion criteria participated in the study.

Characteristics of the study population: The ages of the children ranged from 6days to 24 months and they were mostly aged 0-6months (39.1%). There were more males than females, with a M: F ratio of 1.4:1. Two hundred and forty-five(71.4%) where the 1st to 2nd born of their mothers who were mostly aged 30–39years (57.7%), married 336(98.0%) with tertiary level of education 199(58.0%) and from middle socioeconomic class 217(63.3%). Two hundred and sixty-nine (78.4%) of the mothers/caregivers worked outside their homes, most of whom worked for 5 - 8hours per day 136(39.7%) and had daytime jobs 206(60.1%) as opposed to night jobs, Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency n=343 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>201(58.6)</td>
</tr>
<tr>
<td>Female</td>
<td>142(41.4)</td>
</tr>
<tr>
<td>Age (months)</td>
<td></td>
</tr>
<tr>
<td>0-6</td>
<td>134(39.1)</td>
</tr>
<tr>
<td>7-12</td>
<td>86(25.1)</td>
</tr>
<tr>
<td>13-18</td>
<td>33(9.6)</td>
</tr>
<tr>
<td>19-24</td>
<td>90(26.2)</td>
</tr>
<tr>
<td>Birth order of index child</td>
<td></td>
</tr>
<tr>
<td>1st to 2nd</td>
<td>245(71.4)</td>
</tr>
<tr>
<td>3rd to 4th</td>
<td>85(24.8)</td>
</tr>
<tr>
<td>5th to 6th</td>
<td>13(3.8)</td>
</tr>
<tr>
<td>Mother’s Age (years)</td>
<td></td>
</tr>
<tr>
<td>&lt;20</td>
<td>1(0.3)</td>
</tr>
<tr>
<td>20 –29</td>
<td>115(33.5)</td>
</tr>
<tr>
<td>30 –39</td>
<td>198(57.7)</td>
</tr>
<tr>
<td>40 –49</td>
<td>22(6.5)</td>
</tr>
<tr>
<td>Undisclosed</td>
<td>7(2.0)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>336(98.0)</td>
</tr>
<tr>
<td>Single</td>
<td>7(2.0)</td>
</tr>
</tbody>
</table>

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Prevalence, Knowledge, Practice And Problems Associated With Breastfeeding

Mothers level of education
- Tertiary: 199(58.0)
- Secondary: 128(37.3)
- Primary: 13(3.8)
- No formal education: 3(0.9)

Social class Score
- 1.0-1.7 (upper): 82(23.9)
- 1.8-3.3(Middle): 217(63.3)
- 3.4-5.0(low): 44(12.8)

Mothers official work hours/day outside the home (Hours)
- 0: 74(21.6)
- 1 – 4: 185(5.2)
- 5 – 8: 136(39.6)
- 9 – 12: 96(28.0)
- 13 – 16: 16(4.7)
- 17 – 24: 3(0.9)

Time of the day out of home working
- Day only: 206(60.0)
- Night only: 3(0.9)
- Both day and Night (not specific): 60(17.5)
- Not applicable: 74(21.6)

Breastfeeding rates: Majority of the mothers had 1 to 2 children, 240(70.0%). The prevalence of breastfeeding (ever breastfed) among the index children seen in the hospital was 339(98.8%). There was a total of 688 children (1st to 5th born) reported from the 343 families among whom 24(3.5%) from 20 families were not breastfed. Of the children ever breastfed, 12 (100%) from the 5th birth order was breastfed. Table 2

Table 2: Breastfeeding rates

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency, n = 343 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children per mother</td>
<td></td>
</tr>
<tr>
<td>1 – 2</td>
<td>240(70.0)</td>
</tr>
<tr>
<td>3 – 4</td>
<td>89(25.9)</td>
</tr>
<tr>
<td>5 – 6</td>
<td>13(3.8)</td>
</tr>
<tr>
<td>&gt;6</td>
<td>1(0.3)</td>
</tr>
</tbody>
</table>

Prevalence of breastfeeding by birth order, n = 688
- 1st child n= 343
  - Yes | 334(97.4) |
  - No | 9(2.6) |
- 2nd child n= 200
  - Yes | 189(94.5) |
  - No | 11(5.5) |
- 3rd Child n= 98
  - Yes | 95(96.9) |
  - No | 3(3.1) |
- 4th child n=35
  - Yes | 34(97.1) |
  - No | 1(2.9) |
- 5th child n=12
  - Yes | 12(100.0) |
  - No | 0(0.0) |

Total 1st to 5th children breastfed, n = 688
- Yes | 664(96.5) |
- No | 24(3.5) |

Breastfeeding index child, n = 343
- Yes | 339(98.8) |
- No | 4(1.2) |

Reasons for mothers not breastfeeding at least one child
The most common reason for mothers not breastfeeding at least one child out of all their children was maternal death 9(37.0%) while the least common reason was due to inverted nipples, 1(4.0%). Figure 1.
Breastfeeding problems: Breastfeeding problems were reported in 103(30.0%) of the mothers/caregivers. The common problems were cracked nipples 43(41.7%), baby biting on nipples 16(15.5%) and baby’s continuous cry even after breastfeeding which made mothers conclude that the breast milk was not satisfying the child 15(14.6%). Breastfeeding problems grouped under others included: 5 mothers who did not specify their problems and 2 mothers that reported having colored milk and poor suck respectively Fig 2.
Breastfeeding knowledge and practice: Most of the mothers/caregivers knew that breastfeeding should be initiated within one hour of delivery 240(80.2%) but majority thought that it should be stopped between 12 to 17 months 170(49.6%). Although in practice among the 148(43.1%) mothers who had stopped breastfeeding their children, most stopped between the ages of 12 to 17 months 83(56.0%) while only one mother stopped breastfeeding at 24 months. The mean duration of breastfeeding was 12.03 ± 4.08 months. One hundred and ninety-five (56.9%) mothers/caregivers however were still breastfeeding their children, Table 3.

Table 3: Breastfeeding knowledge and practice

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency, n = 343(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>When is breastfeeding to be initiated (hours)</td>
<td></td>
</tr>
<tr>
<td>≤ 1</td>
<td>275 (80.2)</td>
</tr>
<tr>
<td>&gt;1</td>
<td>40(11.7)</td>
</tr>
<tr>
<td>Do not know</td>
<td>28(8.1)</td>
</tr>
<tr>
<td>When did you initiate breastfeeding (hours)</td>
<td></td>
</tr>
<tr>
<td>≤ 1</td>
<td>140 (40.8)</td>
</tr>
<tr>
<td>&gt;1</td>
<td>197 (57.4)</td>
</tr>
<tr>
<td>Cannot remember</td>
<td>6 (1.8)</td>
</tr>
<tr>
<td>When should breastfeeding be stopped (months)</td>
<td></td>
</tr>
<tr>
<td>&lt;6</td>
<td>0(0.0)</td>
</tr>
<tr>
<td>6-11</td>
<td>33(9.6)</td>
</tr>
<tr>
<td>12-17</td>
<td>170(49.6)</td>
</tr>
<tr>
<td>18-23</td>
<td>37(10.8)</td>
</tr>
<tr>
<td>≥24</td>
<td>88(25.6)</td>
</tr>
<tr>
<td>No specific time line</td>
<td>15(4.4)</td>
</tr>
<tr>
<td>At what age did you stop breastfeeding (months), n=148</td>
<td></td>
</tr>
<tr>
<td>≤ 6</td>
<td>11(7.4)</td>
</tr>
<tr>
<td>6-11</td>
<td>39(26.3)</td>
</tr>
<tr>
<td>12-17</td>
<td>83(56.1)</td>
</tr>
<tr>
<td>18-23</td>
<td>14(9.5)</td>
</tr>
<tr>
<td>≥24</td>
<td>10(7.7)</td>
</tr>
</tbody>
</table>
Among the 148 mothers who stopped breastfeeding before 24 months, the common reasons were thinking that baby is big enough to stop 68 (46.3%), baby abruptly stopped on their own 16 (10.9%) and mother deciding to stop because she had gotten pregnant for another child 15 (10.2%). Other reasons given by one person each included: Child’s health problem, baby started walking, mother stopped lactating, baby is sucking too much and mother’s desire to conceive Figure 3.

Table 4: Factors associated with not breastfeeding at least one child

<table>
<thead>
<tr>
<th>Variable</th>
<th>N(%)</th>
<th>OR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper social class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>8(12.3)</td>
<td>3(1.2 – 7.9)</td>
<td>0.01</td>
</tr>
<tr>
<td>No</td>
<td>12(4.43)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IV. Discussion

There was a high breastfeeding rate of 98.8% among caregivers attending the Paediatric out-patient clinic in Port Harcourt, Nigeria. This was comparable with the national breastfeeding rate in Nigeria of 97.3% and 97.0% reported in Lagos, Nigeria. This could be due to the fact that more than half of the mothers/caregivers (58.0%) had tertiary education and as such were more educated and possibly had more knowledge about breastfeeding. Similarly, this trend was observed in studies done in Nnewi, Lagos and Abakaliki in Nigeria where mothers/caregivers with high educational attainment were more likely to breastfeed their babies. It could also be attributed to the fact that about 98.0% of the caregivers were married so the possibility of better family support as lack of family support affects a mother’s ability to breastfeed successfully. The high breastfeeding rate in the present study is commendable as optimal breastfeeding play important role in improving the health and development of children as well as reduction of childhood morbidity and mortality.  

Fig 3: Reason for stopping breastfeeding at less than 24 months
Prevalence, Knowledge, Practice And Problems Associated With Breastfeeding.

Mothers/caregivers with fewer children were more likely to breastfeed (1-2 children: 70.0%) than those with more children. (5-6 children: 3.8%; > 6 children: 0.3%). This could be attributed to the fact that first babies probably tend to get more attention from mothers/caregivers than subsequent babies. This trend was also observed in Abakaliki,18 Southeastern Nigeria where the majority (75.0%) of mothers who had breastfed at least one baby exclusively for 6 months did so for their first child.

The commonest reason for mothers not breastfeeding at least one child was maternal death (37.0%) followed by child’s illness (17.0%) and the reason that mothers milk was not flowing (13.0%). No reason was ascertained in about 17.0% of cases. Maternal death being the commonest reason is not surprising as breast milk banks are unavailable in this part of the world as seen in developed countries and the use of surrogate breast milk is still very unpopular.18 This suboptimal feeding practice can be prevented by increasing public awareness about the importance of breastfeeding as well as the establishment of breast milk banks.

Thirty percent of the mothers had breastfeeding problems in the present study. The commonest problems observed were cracked nipples (41.7%), baby biting on the nipple (15.5%) and baby’s continuous cry even after breastfeeding which made mothers to conclude that the breast milk was not satisfying the child (14.6%). Similarly, cracked nipple accounting for 32.0% was reported among post-partum mothers in Brazil.20 Cracked nipple especially in the first one-month post-partum has also been known to interrupt breastfeeding.21,22 It is also not surprising that these women complained about the baby biting on the nipples as poor latching technique by baby sucking only the nipples as against the areolar predisposes to cracked nipples.23 Poor breastfeeding technique can also prevent a baby from sucking enough milk in one feed leading to an unsatisfied child that is always hungry causing the mother to conclude that the breast milk is insufficient as has been seen in the present study.

Eighty percent of the mothers had knowledge that breastfeeding should be initiated within an hour of delivery. This was comparable with the prospective study in Anambra state23 which reported that 91.2% of mothers were knowledgeable about breastfeeding. Another study in Benin24 among medical women revealed that all the respondents had knowledge that breastfeeding should commence immediately after delivery. This however contrast the studies in Nsukka25 and Enugu26 which reported poor knowledge of breastfeeding. The very high knowledge observed in Benin24 was because they are medical personnel thus very well informed about breastfeeding practices. Only about a quarter of the mothers/caregivers in the present study had knowledge that breastfeeding should be stopped at ≥ 24 months. This was at variance with the study in Benin24 which revealed that up to 60.0% of respondents knew that breastfeeding should stop at 24 months. Health information on breastfeeding should thus be widely disseminated, not only in the health facilities but also via mass media such as radio and television.

In practice, 40.8% of mothers initiated breastfeeding within an hour of delivery. It is pertinent to note that although the mothers/caregivers had a good knowledge of breastfeeding initiation, in practice only about a half did. This could be attributable to possible negative influences around these mothers at the time of delivery such as lack of family support and encouragement. The early breastfeeding initiation rate of 40.8% observed in the present study is similar to the 48.2% observed in Anambra state25 but higher than the 32.8%, 27.0% and 23.5% reported in Turkey,27 Lagos,13 and Benin,24 Nigeria respectively. A rate as low as 3.4% was also reported among Nepalese women.28 It is however much lower than the 78.3% and 78.0% reported in Ile-Ife, Nigeria29 and Madagascar.30 It is worthy of note that in Nasarawa state in Nigeria,31 none of the children had breastfeeding initiated within an hour of delivery. Contrary to the report from Nasarawa state, another study on early initiation of breastfeeding amongst female health workers in a tertiary hospital in Lagos32 revealed a very high rate of 99.0% suggesting a better breastfeeding knowledge among the study participants in the Lagos study who had breastfeeding experience. The reasons for these discrepancies could be as a result of perceived breastfeeding problems such as mothers who had cesarean section, low milk production, refusal to give colostrum and baby’s refusal to suckle. It is important to know that initiating breastfeeding within an hour of life could reduce the rate of neonatal mortality by up to 22.0%.33

Only 1.0% of the mothers continued breastfeeding up to 24 months and beyond in the present study. Majority of mothers (56.0%) stopped breastfeeding at 12-17 months. This pattern is similar to the study on the practice of breastfeeding by health care workers in Abakaliki, Nigeria18 which revealed that only 8.0% of the respondents breastfed at least one child for up to 24 months and only 1.0% breastfed all their children for up to 24 months. The mean duration of breastfeeding of 12.03 months in the present study is comparable with the 11.5 months reported in Lagos,13 Nigeria but much lower than the 18.6 months,16.2 months and 14 months in Katsina,34 Ilorin35 and Abakaliki,18 Nigeria respectively. The mean duration of breastfeeding in the present study was however much longer than the 7.5 months and 6.24 months in Benin36 and Edo state37 in Nigeria respectively. These differences could be attributed to the varying geographic locations reflecting differences in their socio-cultural practices. This may also reflect poor knowledge of the benefit of early breastfeeding initiation and duration of breastfeeding.

Common reasons for stopping breastfeeding before 24 months in the present study was the fact that the mothers/caregivers thought that the babies were old enough to stop breastfeeding in close to 70.0% of cases...
whereas other reasons like baby stopped sucking, pregnancy and commencement of work accounted for about 10% each.

Similar reason was observed in Lagos, South-western Nigeria where 47.3% of mothers stopped breastfeeding because they thought the duration they had achieved was adequate. In Abakaliki, Southeastern Nigeria 32.6% accounted for babies stopping on their own, mother expecting another baby (30.4%) while in 8.7%, the baby was perceived as too old to suckle after their 1st birthday. This therefore calls for more public enlightenment on breastfeeding duration.

In the present study, mothers of upper socioeconomic class were significantly associated with not breastfeeding at least one child. This is not surprising as mothers of higher socioeconomic class may have higher demand from their work thus may be unable to breastfeed. Such mothers/caregivers who are also economically empowered could readily afford breast milk substitutes.

V. Conclusion

The prevalence of breastfeeding amongst mothers/caregivers attending the Paediatric out-patient clinic in Port Harcourt is high (98.8%). There is however a disparity between the knowledge and the actual practice of breastfeeding with regards to early initiation of breastfeeding. There was poor knowledge and practice with regards to duration of breastfeeding. The main reasons for not breastfeeding for at least 24 months include wrong perception concerning duration of breastfeeding, early return to work and getting pregnant. There is therefore a need to increase public awareness about the practice and benefits of breastfeeding. There is also a need to encourage work-place support for breastfeeding mothers and the establishment of breast milk banks in Nigeria.

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Prevalence, Knowledge, Practice And Problems Associated With Breastfeeding...
