

ORIGINAL ARTICLE

## Breast Feeding Practice among Medical Women in Nigeria

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### ABSTRACT

**Background:** Health care workers are important in the promotion, protection and support of breast feeding. Their ability to do this may be influenced by their knowledge, personal experiences and work. **Patients and Method:** The breast feeding experience of 36 female medical doctors who had babies within the preceding two years and had resumed work was evaluated using a semi-structured self administered questionnaire. **Result:** All respondents knew that babies should be exclusively breast fed for the first six months of life but only 60% knew that breast feeding should continue until two years. The exclusive breast feeding rate for the studied doctors was 11.1%. Before their babies were six months old, about 75% of respondents had resumed work whilst over 50% had started taking calls. Most could not breast feed during working or call hours. Alternative feeds during working or call hours included expressed breast milk in 34.4% and infant formula in 21.9%. Feeding bottle was the major method (77.4%) for feeding these alternatives. Work schedule was rearranged to allow breast feeding in only 27.3% of respondents. **Conclusion:** Failure to carry out exclusive breast feeding, the use of infant formula and feeding bottles (rather than cup feeding) are practices that may be inimical to the practice of breast feeding in society in general. The suboptimal breast feeding experience in these doctors and the identified knowledge deficits may limit their effectiveness in promoting and supporting breast feeding among their patients and communities. Female medical personnel should be empowered to carry out optimal feeding of their own infants.

**Key words:** Breastfeeding experience, female medical doctors, work

### INTRODUCTION

It is well recognised that healthy nutrition is essential to normal growth and development during childhood and is central to establishing the foundation for lifelong health.<sup>1</sup> It is also widely agreed that breast milk is the ideal food for the human infant.<sup>1</sup> Breast feeding has benefits both for the mother and the baby.<sup>2</sup> It is thus within expectations that medical women would be aware of these facts and practice what is ideal for their own infants. We postulate that health care personnel will more likely promote a

practice which they practise and believe in. In a study on paediatricians and the promotion/-support of breast feeding, respondents with personal breast feeding experience were 2.3 times more likely to report supportive policies.<sup>3</sup>

Despite the many benefits of breast feeding it has been shown that there are barriers to the practice of optimal breast feeding which entails that a baby be exclusively breast fed for the first six months of life and thereafter cereals are introduced while breast feeding is continued till the age of two years and beyond.<sup>4</sup> Some of these barriers include hospital practices, advertisement of breast milk substitutes and lack of support for the breast feeding mother.<sup>5,6</sup> Many women identify employment as a barrier to breast feeding.<sup>7,9</sup> In a study on infant feeding practices among nursing personnel in Malaysia work was a major reason cited for termination of breast feeding.<sup>8</sup>

It is conceivable that women who go back to work before their babies are six months old will face challenges in adhering to the recommendation of exclusive breastfeeding for the first six months of life. In a study on working

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women in Bangladesh 46% had introduced other foods because they were returning to work.<sup>9</sup> Several studies have concluded that the provision of facilities to support breast feeding in the work place should be encouraged so that maternal employment does not hamper breast feeding.<sup>7,9,10</sup> Few studies if any have evaluated the experience of working female medical doctors in Nigeria with regards to breast feeding. Evaluating the experience of this group of women is important as health care personnel have an important role to play in promoting breast feeding.<sup>11,12</sup> In a study on Australian GP registrars, it was found that participants with more than 52 weeks cumulative personal (self or partner) breast feeding experience had the highest mean knowledge score, had more positive attitudes and were more confident and effective than all other participants.<sup>12</sup> In another study from Lebanon, a positive effect of female paediatricians on breast feeding continuation until 4 months was noted.<sup>13</sup> This study set out to evaluate the personal experience of working female medical doctors with regard to breast feeding.

**SUBJECTS AND METHODS**

The study was carried out in the University of Benin Teaching hospital, Benin City, a 700 bedded hospital and 626 doctors. Of these 345 were resident doctors undergoing postgraduate training in various specialties and medical officers employed in specific project areas. Consultants and house officers doing their one year mandatory training were 150 and 131 respectively at the time of the study (March to June 2009). The respondents were female medical doctors below the level of consultants who had had a baby within the preceding 24 months and who had resumed work.

A semi structured self administered questionnaire was utilised in obtaining information on the biodata of respondents, which included their age, marital status, parity ,number of years post graduation and the department where they were currently working. Information was also sought on their knowledge of certain aspects of breast feeding (when to initiate breast feeding, age at introduction of cereals, duration of breast feeding and periodicity of breast feeding). Another section of the questionnaire sought information on their practice of breast feeding as it pertained to their

youngest child. The age at initiation of breast feeding, practice of exclusive breast feeding and the duration of breast feeding were ascertained.

The questionnaire also sought information on the age of their babies at the time they returned to work, whether they were able to breast feed while at work and how feeding was carried out during working hours if breast feeding was not possible. Information on their perception of the support received from colleagues and bosses was also sought. It was also ascertained if their work schedule was adjusted to enable them breastfeed. The questionnaire also sought information on the ages of their babies when the respondents started taking calls and if breast feeding was possible during call hours

**RESULTS**

Thirty six female medical doctors responded to the questionnaire. Of these 9(25%) were in the age range 25- 29, 23(63.9%) in the range 30-34 while 4(11.1%) were in the range 35- 39 years. The mean parity of respondents was 1.67±0.72 with 47.2% of respondents having one child while 38.9% and 13.9% had two and three children respectively. All but one respondent were married. The mean age of the youngest children of the respondents was 12.82±5.58months

All the respondents were 10 or less years post graduation. Majority of the doctors were in child health (27.8%), family medicine (22.2%) and internal medicine (19.4%).

**Table 1 Distribution of female medical personnel according to departments**

Department	n	%
Family Medicine	8	22.2
Ophthalmology	3	8.3
Child Health	10	27.8
Internal Medicine	7	19.4
Surgery	2	5.6
*Others	6	16.8

\*One each from Radiology, Chemical pathology, Haematology, Dental surgery, Accident and Emergency, Monitoring and Evaluation

All the respondents knew that breast feeding should commence immediately after delivery. About 83%(30) knew that other drinks should be commenced at 6 months but 13.9%

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(5) thought this should be at 4 months while one respondent thought that other drinks should be introduced at 3 months. Concerning the introduction of cereals 88.6% (31/35) thought this should be at 6 months while 3(8.6%) and 1(2.9%) felt that cereals should be introduced at 4 and 9 months respectively.

Sixty percent (21/35) of respondents knew that breastfeeding should stop at 24months. Some 25.7% (9/35) of respondents thought breastfeeding should stop at 12months while another 11.4% (4/35) thought that this should be at 18 months.

Although all respondents had received antenatal care, breastfeeding was not discussed with about 25% (9/35) of them. Most respondents 72.2% (26/36) had vaginal delivery while about 30.6% (11/36) of the babies required special care. Of the 18 who had vaginal delivery and whose babies did not receive special care 17 responded to the question on initiation of breastfeeding after delivery. Initiation of breast feeding was within 30 minutes of delivery in 13(76.5%) while initiation was delayed in 4(23.5%) to one hour and beyond after delivery.

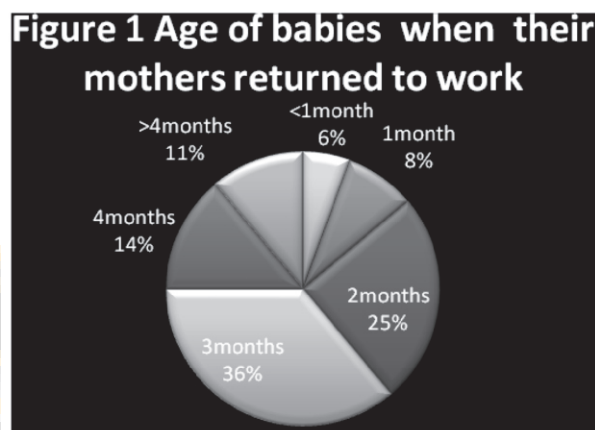
Four of the 36 respondents practised exclusive breastfeeding for six months giving an exclusive breastfeeding rate of 11.1%. About 61% (22/36) gave breast milk only for 3 months or less. The mean duration of giving only breast milk was  $2.9 \pm 1.8$  months. Among those who did not practise exclusive breast feeding infant formula was the most common form of alternative feeding introduced by 89.7% (26/29) respondents. Infant formula was introduced at varying ages from 0 to 5months with a mean of  $2.4 \pm 1.4$  months.

The mean age at commencement of cereals was  $5.8 \pm 1.5$  months with a range of 4 to 12 months. Most of the infants 22/31(70.9%) received commercial cereals with only three receiving home- made cereals. Some 6/31 (19.7%) infants received both home- made and commercial cereals.

At the time of the study, 55.6 % ( 20/36) of respondents had stopped breastfeeding. About 35% of these (7/20) had stopped when the baby was six months or younger while all but one had stopped by the time the baby was 12 months and older. The mean duration of breast feeding was  $8.15 \pm 3.50$  months. Of the 16 who were still breast feeding more than 60% (10) planned to

stop when the baby was 12 months old. Only one planned to stop at 24 months. Three quarters (27/36) of the respondents resumed work when their babies were three months or younger with almost 40% (14/36) commencing work when their babies were 2 months old or younger (Fig. 1). The mean age of the babies at commencement of work by their mothers was  $3.2 \pm 2.4$  months.

Most mothers (23/34; 67.7%) could not breast feed during work hours. Of those who could breast feed, only one breast feed was possible in 7 respondents while four respondents could breast feed up to four times. Almost 90% (32/36) respondents had to offer an alternative to breast feeding during working hours.



Of these 11(34.4%) gave expressed breast milk while 7(21.9%) gave infant formula. The others gave various combinations of expressed breast milk, infant formula, water and cereal. The method of feeding these alternatives to the baby was by feeding bottle in 24/31(77.4%), cup in 1/31(3.2%), cup and spoon in 4/31(12.9%) while 2 infants were fed using both feeding bottle and cup and spoon.

Work schedule was rearranged to allow for breast feeding among only 9(27.3%) of 33 respondents. Sixty percent (18/30) of respondents started taking calls before their babies were six months old. About 25.9% (7/27) of mothers could breast feed during call hours.

## DISCUSSION

Although majority of the respondents had adequate knowledge about the initiation, duration of breast feeding and the frequency of breast feeding we observe knowledge gaps in some of the domains of breastfeeding. For

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example as many as 15.7% of respondents felt other drinks/food should be introduced before the age of six months. Also as many as 40% of respondents did not know that breast feeding should be carried out for 24 months or longer. Similar knowledge gaps have previously been identified in studies evaluating the knowledge, attitude and practices of health care workers.<sup>1,14</sup>

Not only are there knowledge gaps, there is a lack of conversion of knowledge into action. Of the 18 respondents who were in a position to commence breastfeeding immediately after delivery, initiation of breast feeding was delayed in about 23.2% of them. This was lower than the 34% documented among women who were delivered vaginally in a Nigerian teaching hospital.<sup>15</sup>

Exclusive breastfeeding rate for the study population was 11.1% which is less than that of the general population which is 17%.<sup>16</sup> This means that exposure to knowledge has not significantly affected the practice of these doctors. It may be instructive to find out the factors that determine the practice of these doctors.

Up to a quarter of respondents did not have breast feeding discussed with them during the antenatal period. It has been shown that prenatal breast feeding education can influence the amount of time women breast feed.<sup>17</sup>

Three stages have been described in the modification of breast feeding trends in both developing and developed countries.<sup>18</sup> Sup-population groups adopt artificial feeding methods, with the elite group being the first to pass through this stage, followed by the urban poor and finally the population in rural areas. Reversal of the trend in favour of breastfeeding also starts with elite followed by the rest of society. Female medical doctors as elites in society as well as being members of the medical profession are strategic as role models. Failing to adopt exclusive breast feeding and continuing the practice of formula feeding including the use of feeding bottles may have a negative impact on optimal infant feeding practices in the society at large. Members of society may erroneously interpret their actions to imply that breast feeding is an inferior infant feeding option compared to formula feeding. This would be detrimental towards the global efforts to promote and support breastfeeding.

The World Health Organization

recommends that complementary foods for infants should be derived from locally available foods while also noting that industrially processed complementary foods may be an option for some mothers who have the means to buy them and the knowledge and facilities to prepare and feed them safely.<sup>4</sup> Most respondents fed their infants with commercial cereals. Obviously as doctors they would have the means to procure, knowledge and facilities to prepare these cereals and feed them safely. However, just like mothers choosing the use of infant formula (regarding it as being fashionable because the elite are using it) the use of commercial cereals may also be preferred over local cereals. This may contribute to malnutrition on the long run as these commercial cereals are more expensive and the attempt to make each tin last longer may result in mothers offering dilute cereals.

The use of feeding bottles is known to be associated with a higher incidence of diarrhoeal diseases.<sup>19</sup> Preference for this mode of feeding by the respondents in addition to the higher likelihood of contamination of infant formula may thus predispose their babies to diarrhoeal diseases. While they are more likely to own multiple bottles and teats as well as sterilisers, it is pertinent to note that they may not always be the ones to feed their babies or clean the bottles and the teats since they may be away at work or on call. Feeding bottles are more difficult to clean than cups and they are more likely to be contaminated with diarrhoea causing bacteria than cups.<sup>20</sup>

Work has been cited as a barrier to optimal feeding of infants.<sup>7-9</sup> A significant proportion of respondents resumed work before their babies were six months old. Most of these mothers were unable to breast feed during work hours. This may explain why most of the mothers introduced other foods before the baby was six months old. The mean age at commencement of other foods or drinks among the respondents was  $2.4 \pm 1.4$  months which is about one month earlier than the mean age of the babies ( $3.2 \pm 2.4$  months) at the time their mothers resumed work. This suggests that mothers commenced other foods or drinks in anticipation of returning to work. This finding is similar to that of Guendelman et al<sup>21</sup> who noted that women who returned to work were most likely to wean between the month before and two months after the return to work.



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Support for the breast feeding mother, is needed to enable her breast feed successfully. Although most respondents reported support from both colleagues and bosses a significant proportion also reported that colleagues and bosses were unsupportive. Support for the breast feeding mother could also be in the form of rearranging her work schedule to allow them breast feed successfully. This was only done in a quarter of respondents. Guendelman et al,<sup>21</sup> had also noted in their study that job flexibility which enables mothers to express milk when needed contributes to longer breast feeding duration.

The infant feeding practices of the studied medical doctors has far reaching implications in different spheres. First they have implications for the optimal feeding of their own infants. They also have implications for infant feeding practices in society and finally they have implications for their ability to promote and support breast feeding among their patients in particular and society in general.

Choosing feeding options that are not optimal may expose their infants to repeated episodes of diarrhoea and this may have a negative impact on the nutritional status and growth of their babies. Having to choose a feeding option that is suboptimal ( because of work) may result in a mother feeling a sense of failure in her role as a mother while also feeling a sense of conflict between her career and her role as a mother.

The choices made by medical women who often are looked upon by society as being medically knowledgeable may influence the choices made by non medical members of society. They may consider the choices of medical women as being the best especially with regards to infant formula, commercial cereals and bottle feeding.

The inability of female medical doctors to successfully practice exclusive and optimal breastfeeding may impair their ability and effectiveness in promoting and supporting breastfeeding among their patients in particular and society in general. Several studies have shown that medical personnel with personal experience of breast feeding have better attitudes towards breast feeding and are more likely to recommend policies supportive of breast feeding.<sup>3,12</sup>

In conclusion we note that despite the fact that most of the medical women studied had

adequate information about optimal infant feeding this did not translate into optimal feeding practice on their children. This knowledge –practice disconnect may have wider implications as discussed. Thus efforts should be geared towards equipping and empowering medical women to enable them feed their own infants optimally.

#### LIMITATION OF STUDY

Since the numbers studied are small a larger study may be needed to further elucidate the factors that determine the practices of female medical personnel with regards to infant feeding.

**Conflict of interest:** None

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