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Original Research Article

Knowledge and awareness of breastfeeding, weaning practices and newborn care in pregnant women in urban areas

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ABSTRACT

Background: Breastfeeding, proper weaning practices, and newborn care play a crucial role in the health of a child. The objective of the study is to determine the availability of information regarding breastfeeding, newborn care and immunization and to find out about the attitude of women towards newborn care practices.
Methods: A cross-sectional observational study was conducted in a tertiary health care centre in an urban area in Navi Mumbai, on primigravidae in their third trimester of pregnancy. The data was collected by a questionnaire, results were analysed by EpiInfo7.
Results: 93% women knew the benefits of breastfeeding, 92% knew of exclusive breastfeeding. 90% would initiate breastfeeding immediately after delivery, 83% would not give prelacteal feeds. 75% would practise skin-to-skin contact and 95% would practise rooming-in technique. 44% would delay bathing the newborn. 95% women received TT immunisation. All agreed to vaccinate their child. 19% believed traditional practices like applying kajal to eyes, prelacteal feeds etc. to be hazardous.
Conclusions: The knowledge pregnant women have about breastfeeding and newborn care is inadequate. There is a need for intervention measures such as behavior-change-communication and better health services, to equip mothers so they may provide optimal care to their babies.

Keywords: Breastfeeding, Weaning, Immunisation, Newborn-care, Knowledge

INTRODUCTION

Breastfeeding plays a crucial role in newborn care, with its benefits including prevention of childhood infections and other illnesses as well as promoting physical and mental growth. As per the WHO recommendations, this study aims to find out about the knowledge and awareness of pregnant women on breastfeeding, its proper initiation and duration, exclusive breastfeeding and breastfeeding on-demand, as well as skin-to-skin technique.[1] It will also focus on their opinions regarding prelacteal feeds and introduction of complementary feeds.

This study also covers their knowledge about child immunisation as well as the tetanus toxoid immunisation that they receive as part of antenatal care. With regard to newborn care, the study will look at their knowledge about delayed bathing and umbilical cord care.

Lastly, the study highlights the attitude of the women towards traditional practices such as applying kajal to the eyes, putting oil in the ears, etc.

METHODS

A cross-sectional, observational KAP (Knowledge, Attitude, and Practices) study was conducted in the Antenatal care OPD of a tertiary care hospital in Navi Mumbai for a period of 4 months- April 2108 to July 2018. All primigravidae in their third trimester of pregnancy and willing to participate were included in the study. Written consent was obtained and a pre-structured questionnaire was administered. Multigravidae, women in their first or second trimester of pregnancy and those who did not give consent were excluded from the study. The sampling method used was random, convenient sampling and a sample size of 100 was reached. Data analysis was done by EpiInfo 7. Results are given in percentages.

RESULTS

In our study, the majority of women were between the ages of 22 and 26 years old (42%) and 19 and 22 years old (32%). 43% were graduates, 27% had passed 12th std, while the rest had either received no formal education (2%) or some form of basic education (28%). 72% were homemakers while the rest were working women (Table 1). A majority of them looked to the elders in their family for information and advice on breastfeeding and newborn care (57%) while a few consulted their doctors (18%) or did their own research (18%) (Table 2).

Table 1: Frequency distribution of data by age group, literacy and occupation.

	Frequency	Percentage (%)
Age group (in years)		
19-22	32	32
23-26	42	42
27-30	22	22
31-34	2	2
35-38	2	2
Total	100	100
Education		
Illiterate	2	2
Can just read and write	0	0
Basic education	28	28
12th pass	27	27
Graduate	43	43
Total	100	100
Occupation		
Housewife	72	72
Working	28	28
Total	100	100

93% of the women interviewed had sufficient knowledge about the benefits of breastfeeding, while 2% stated that it had no benefits. 85% women would feed their child colostrum while 3% said they would discard it. While 73% were aware of the nutritive and protective value of colostrum, 4% believed it to be harmful (Table 3).

Table 2: Frequency distribution of data: source of information regarding breastfeeding and new born care.

	Frequency	Percentage (%)
Family traditions passed down from generation to generation	57	57
Prevalent practices in the community	7	7
From the doctor	18	18
Own research	18	18
Total	100	100

Table 3: Frequency distribution of data: knowledge of benefits of breastfeeding, willingness to give colostrum and knowledge of benefits of colostrum.

	Frequency	Percentage (%)
Benefits of breastfeeding		
No benefits	2	2
Helps in building child immunity and is nutritious	93	93
Don't know	5	5
Total	100	100
Willingness to feed colostrum		
Yes	85	85
No	3	3
I don't know	12	12
Total	100	100
Benefit of colostrum		
No effect	0	0
Protective to the baby	73	73
Harmful effect	4	4
I don't know	23	23
Total	100	100

90% of women said they would initiate breastfeeding immediately after delivery, with 83% stating they will refrain from giving any prelacteal feeds such as ghutti, honey, plain water or sugar water, etc (Table 4).

95% of women agreed that breastfeeding should be on-demand.92% of women knew about exclusive breastfeeding (Table 5) and 95% of them were willing to continue breastfeeding even after the introduction of complementary foods. The preferred weaning foods of choice were home-made foods such as soft cooked rice/ Khichdi (70%), dal rice (69%), cow's milk (30%). 61% women opted for commercial preparations such as ceralac and gluco biscuits.

Table 4: Frequency distribution of data: knowledge of when to initiate breastfeeding and opinion on prelacteal feeds.

	Frequency	Percentage (%)
When to initiate feeding		
Immediately	90	90
A few hours	8	8
A few days	2	2
Total	100	100
Prelacteal feeds to be given		
Ghutti	2	2
Honey	12	12
Artificial milk	1	1
Plain water	1	1
Sugar water	0	0
None of the above	83	83
Any other, specify	1	1
Total	100	100

Table 5: Frequency distribution of data: breastfeeding be on demand, knowledge of exclusive breastfeeding.

	Frequency	Percentage (%)
Should breastfeeding be on demand?		
Yes	95	95
No	4	4
I don't know	1	1
Total	100	100
For how long will you breastfeed exclusively?		
For less than 6 months	5	5
6 months to 1 year	92	92
For more than a year	3	3
Total	100	100

75% of women were open to practising skin-to-skin technique while a majority of them (71%) was unaware of its role in preventing hypothermia and promoting breastfeeding. A majority (95%) of them were open to the rooming-in technique saying that mother and child should not be separated. Only 44% would delay bathing the child beyond 24 hours while the rest would either not delay (27%) or did not know (29%) (Table 6). Only 32% of women would leave the umbilical cord alone after clamping, 6% would apply any antibiotic powder prescribed by the doctor while 32% would apply talc powder; 29% said they did not know (Table 7).

Although a majority of 95% of women had received the Tetanus Toxoid injection, only 58% of them knew that it prevents infection, 40% replied they did not know while some believed it to have either no effect at all or have a negative effect on the child (Table 8).

All women agreed that vaccinating the child is important (Table 8). Only 77% of them were aware of the national immunisation schedule and 61% did not know any of the vaccines given at birth (Table 9).

Table 6: Frequency distribution of data: knowledge on newborn care (preventing hypothermia).

	Frequency	Percentage (%)
Is skin-to-skin contact important?		
Yes	75	75
No	7	7
I don't know	18	18
Total	100	100
What is the benefit?		
Prevents hypothermia	11	11
Promotes breastfeeding	18	18
I don't know	71	71
Total	100	100
Should the baby be bathed within the first 24 hours after delivery?		
Yes	27	27
No	44	44
I don't know	29	29
Total	100	100

Table 7: Frequency distribution of data: knowledge of umbilical cord care (after clamping).

	Frequency	Percentage (%)
Apply powder on stump	32	32
Apply cow dung	0	0
Apply ointment	6	6
Leave alone	32	32
I don't know	29	29
Total	100	100

Table 8: Frequency distribution of data: knowledge of antenatal tetanus toxoid vaccination.

	Frequency	Percentage (%)
Women receiving tetanus toxoid injection		
Yes	95	95
No	5	5
Total	100	100
Knowledge of its effect		
No effect	1	1
Harmful effect	1	1
Prevents infection	58	58
I don't know	40	40
Total	100	100

Only 19% of the women had a negative opinion about traditional child-rearing practices such as giving ghutti or honey to the child, putting kajal in the eyes or oil in the

ears, while a majority (67%) still believed them to be beneficial (Table 10).

Table 9: Frequency distribution of data: vaccinating the child.

	Frequency	Percentage (%)
Is vaccinating the child important		
Yes	100	100
No	0	0
Total	100	100
Awareness of the national immunisation schedule		
Yes	77	77
No	23	23
Total	100	100
Knowledge of vaccines given at birth		
BCG	21	21
OPV	14	14
Hebatitis B	0	0
All of the above	4	4
None/ I don't know	61	61
Any other	0	0
Total	100	100

Table 10: Frequency distribution of data: opinion on the traditional practices in newborn care.*

	Frequency	Percentage (%)
Beneficial	67	67
Harmful	19	19
Neither	6	6
I don't know	7	7
Total	100	100

*Practices such as giving the newborn honey, putting kajal in the newborns eyes, putting oil on the head or in the ear, oil massage, etc.

DISCUSSION

The study found that women in urban areas overall have a basic knowledge about breastfeeding and its importance in a child's health. A majority of the women were able to answer the simple questions on breastfeeding and newborn care. They mainly relied on elders for information and their opinions were influenced by the familial traditions passed from generation to generation. In this study, it was found that higher literacy was associated with better knowledge regarding breastfeeding and newborn care. However, it was not found to be statistically significant. Informing all pregnant women about the benefits of breastfeeding is on the list of top 10 tips for successful breastfeeding given by WHO.[1]

Breastfeeding should be initiated within 30 minutes of delivery.[1] A majority (90%) of women stated they would initiate breastfeeding immediately showing that there is adequate information available to them about the benefits of early initiation. Contrary to this, a study by Madhu et al found only 44% of mothers initiated breastfeeding within 30 minutes.[2] Other studies such as those done by Chaturvedi et al, and Tiwari et al also show that fewer women breastfed their children within 30 minutes of delivery.[3,4] While other studies have found most mothers discard colostrum which is highly advantageous both nutrition wise and in terms of providing protection to the baby against infections, this study has found 85% of women would give their baby colostrum.[2,5,6] Giving Prelacteal feeds which is a common practice was not preferred by a majority (83%).[2,3] A study conducted by Patel et al found that prelacteal feeds were given in 35.4% cases of infant deaths which could suggest it could be an influential factor in infant morbidity and mortality.[5]

In this study, 92% of the women stated they would exclusively breastfeed their child for a period of 6 months to a year. This finding is similar to the one conducted by Begum et al.[8] On the contrary, some studies have shown fewer percentages of mothers breastfeeding their children exclusively until 6 months of age.[2-4] The beneficial effect of exclusive breastfeeding in the prevention of infectious diseases is well documented.[4] Therefore, the facts need to be better emphasized while counselling women coming for both antenatal and postnatal check-ups. A majority of 95% of women felt breastfeeding should be on-demand which is in agreement with the WHO guidelines.[1]

This study found 91% of women would introduce complementary foods between 6 months and 1 year of age. Introduction of supplementary food from 6 months of age is critical for a child's growth and nutritional status.[4] In the study conducted by Tiwari et al however, late introduction of supplementary feeding was observed in a majority of children.[9] Illiteracy and lack of awareness on the part of mothers were thought to be the reasons for late introduction. Homemade foods were preferable as compared to commercial preparations as complementary feeds. Ragi, which was disregarded by nearly all women in this study, is a rich source of calcium and would make an excellent supplement to the diet. Madhu et al, in their study, found ragi sari to be the second most common weaning food given to infants after cow's milk.[2] The lack of awareness about complementary feeds can be attributed to the dearth of information available regarding the matter.

The practice of rooming-in, that is, to allow mothers and infants to remain together - 24 hours a day [1] is recommended by WHO. This study found 95% of women believed that mother and baby should not be separated. This study found 44% of women would delay bathing the child. A study conducted by Gupta et al found a smaller percentage (18.1%) willing to do so. Kangaroo mother care (KMC), which implies placing the newborn baby in intimate skin-to-skin contact with the mother's chest and abdomen coupled with frequent and preferably exclusive breastfeeding, has emerged as a non-conventional low-cost method for newborn care that provides warmth, touch, and security to the newborn and is believed to confer significant survival benefit.[7] Knowledge about

skin-to-skin contact in pregnant women can ensure better chances of combatting hypothermia by heat transfer, especially in low birth weight babies. Alpanamayi Bera et al in their study found that low birth weight babies receiving KMC showed a modest, but a statistically significant rise in temperature, respiration rate, heart rate, and oxygen saturation through kangaroo care, without the need for any special equipment.[7] Umbilical cord care is another issue that can be addressed during antenatal and postnatal counselling as a study by Patel et al has shown that in 25% cases of infant deaths, undesirable substances (ash, cow dung, sindoor or vermilion) were applied on the umbilical cord. In this study, while none of the women agreed cow dung should be applied to the umbilical cord, 32% said they would apply powder and 29% were unknowing of what to do.[5]

95% of the women interviewed in this study had received their tetanus toxoid immunisation out of which only 58% could tell the vaccine could prevent infection in the mother as well as tetanus neonatarum. A study by Jarina Begum et al also found a similar result with 100% of the women receiving their TT immunization which they attributed to the increasing awareness toward immunization.[8] While all women in this study agreed that vaccinating the newborn is important, 23% of them were unfamiliar with the national immunization schedule a more than half of them (61%) could not name any of the vaccines (BCG, OPV, hepatitis B) that are to be given at birth. This could be due to lack of information or illiteracy. The women must be educated further so that they ensure their children are fully immunised for their age in the future. A high percentage of newborns were found to be immunised in other studies.[7,8]

This study highlights that fact that vital information about newborn care is not being made available to pregnant women which could leave them under-equipped to manage the health of their newborn. There is a need for better health care services for them. A similar conclusion was reached in studies by Begum et al, Parashar et al and Zulfia khan et al.[8-10]

Parashar et al in their study found that community-based behavior change communication (BCC) had a favourable effect on pregnant women and improved their knowledge, understanding of neonatal care finding women were more receptive during pregnancy.[7] Their study showed significant improvement in women post intervention with regard to knowledge of danger signals, physiological variants, management of breastfeeding-related problems, and awareness of skin-to-skin technique for the management of hypothermic baby. They used tools such as counseling, posters, pamphlets, demonstration to spread awareness. And the behavior change communication package was made available at Anganwadis and included messages with pictures under following headings: safe and clean delivery by trained personnel or safe and clean home delivery, use of disposable delivery kit, cord care, eye care, home-based thermal care and prevention of hypothermia in neonates, i.e., skin to skin contact method (kangaroo mother care), breastfeeding, prevention and management of breastfeeding-related problems, home-based treatments to prevent cracked nipples, measures to prevent infections in Low Birth Weight babies, danger signals, and physiological variants of neonate. Such behavior change communication packages could be made available at hospitals as well and could be expanded to cover a wider range of topics such as immunisation a weaning practices.

Lastly, there is found to be a myth that traditional practices such as applying kajal to the newborns' eyes or putting oil in the ears are beneficial to the child with more than half of women believing so and only 19% agreeing it has harmful effects. These myths must be dispelled.

The study had its share of limitations. It covered a relatively small area and it excluded women who did not visit the ANC OPD of the tertiary care centre. Women receiving care elsewhere might have different views and opinions. The sample size is also a limiting factor.

CONCLUSION

Although there is a good level of knowledge regarding breastfeeding and newborn care among expectant mothers in urban areas, there is a scope for improvement. Previous studies have also shown good knowledge among mothers but it did not translate into practice. This study shows the need for not only better antenatal counseling to strengthen the concepts of neonatal care, but also various interventional methods such as behavior-change-communication and role play exercises to further ensure that the knowledge gained can be converted to actual practice.

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