

KNOWLEDGE AND PRACTICES OF RESIDENT DOCTORS AND NURSES IN BREAST FEEDING IN OBSTETRIC AND PAEDIATRICS DEPARTMENTS OF JINNAH HOSPITAL, LAHORE

SEEMA HASNAIN AND ASHRAF MAJROOH

Department of Community Medicine, Allama Iqbal Medical College, Lahore

ABSTRACT

Breastfeeding is fundamental to the health and development of children and important for the health of their mothers. The promotion and support of breastfeeding is a global priority and an important child – survival intervention and the World Health Organization advocates exclusive breastfeeding for six months. The purpose of this study was to assess the knowledge and practices among the resident doctors and nurses of Obstetric and Paediatrics departments regarding breastfeeding. It was a descriptive cross sectional study. It was carried out at the Obstetric and Paediatrics departments of Jinnah Hospital, Lahore from March – October 2009.

Patients and Methods: Using non-probability purposive sampling, resident doctors and nurses of the obstetrics and pediatrics departments fulfilling the inclusion criteria and who gave their verbal consent were included in the study. Their knowledge and practices regarding breastfeeding were assessed by a pre-tested questionnaire.

Results: In a total of 133 respondents, 78 (59%) doctors and nurses were interviewed from the Obstetric department and 55 (41%) doctors and nurses were interviewed from the Paediatrics department. Regarding training for breastfeeding promotion, 98 (74%) of the respondents did not receive any training. The knowledge of the 77 (99%) respondents of the obstetric department and 55 (100%) of paediatrics departments was less than 50%. Regarding practices related to breastfeeding promotion, 58 (74%) and 48(89%) out of 133respondents of obstetric and Paediatrics department had poor practices (< 50%).

Conclusion: There is poor knowledge and practices regarding breastfeeding among the health care workers of the tertiary level hospital as they had not received any proper in – service training while working in their respective departments.

Key words: Breastfeeding; Baby Friendly Hospital Initiative; knowledge; practices.

INTRODUCTION

Breastfeeding is fundamental to the health and development of children and important for the health of their mothers. The promotion and support of breastfeeding is a global priority and an important child – survival intervention and the World Health Organization advocates exclusive breastfeeding for six months. However, in reality many mothers are unable to practice exclusive breastfeeding as advocated. Problems related to breastfeeding can be overcome if the woman is informed antenatally about its benefits and prepared mentally for exclusive breastfeeding. All health workers who care for woman and children after the peri-natal period have a key role to play in sustaining breastfeeding. Many health care workers cannot fulfill this role effectively because they have to be trained to do so. Little time is assigned to breastfeeding counselling and support skills in the pre-service curricula of either doctors, nurses or midwives.

The Baby – friendly Hospital Initiative (BFHI)

was launched by WHO and UNICEF in 1991, following the Innocenti Declaration of 1990. The initiative is a global effort for improving the role of maternity services to enable mothers to breastfeed babies for the best start in life. It aims at improving the care of pregnant women, mothers and newborns at health facilities that provide maternity services for protecting, promoting and supporting breastfeeding. Since its launching BFHI has grown, with more than 20,000 designated facilities in 152 countries around the world over the last 15 years. The initiative has measurable and proven impact, increasing the likelihood of babies being exclusively breastfed for the first six months.¹

In a study conducted in India to assess the breastfeeding counselling among the pregnant women, it was noticed that of the registered mothers, 21% (n = 23) had received some antenatal counselling about breastfeeding while 79% (n = 85%) did not receive any such counselling. Only 4% underwent breast examination during antenatal visits. Aware-

ness related to breastfeeding among mothers in the counselled group was better than those in the not counselled group.²

Another study was conducted to identify the breastfeeding attitudes and knowledge of a sample of Australian general practice registrars. The mean attitude score (5 = maximum score) was 3.99 and mean knowledge score (5 = maximum score) was 3.40, indicating some degree of breastfeeding knowledge. However 40% of the knowledge was answered incorrectly by the majority of participants. Approximately 40% of the cohort were confident and thought they were effective in assisting breastfeeding women.³ A study was conducted in Nigeria. It was to assess the health workers' support for breastfeeding at grass root levels. Among the 386 workers, there was moderate support for breastfeeding (median score = 15.0, maximum = 20). Following multi-variate analysis, young age of worker (20 – 29 years; odds ratio (OR) = 2.9, 95% confidence interval (CI): 1.2 – 6.8), more than 5 years of post-training experience (OR = 2.3, 95% CI: 1.2 – 4.4), senior profession (OR = 2.1, 95% CI: 1.0 – 4.4), high breastfeeding knowledge scores (OR = 2.5, 95% CI: 1.4 – 4.5), and sufficient opportunities to practice tangible breastfeeding support (OR = 4.3, 95% CI: 2.4– 7.7) were found to predict tangible breastfeeding support.⁴ Similarly female physicians employees of the Mississippi State Department of Health were surveyed (N = 350) to examine their practice related decisions relative to breastfeeding; 215 (61%) responded to the survey. Discussion was commonly used for educating patients, with face – to – face demonstrations used by less than half of respondents. Seventy percent of the respondents were not taught lactation management in medical school or residency.⁵

In Pakistan, the infant mortality rate is 74/1000 live births indicating that around 400,000 babies are likely to die during their first year of life. According to estimates 11 percent deaths take place due to diarrhoea and acute respiratory infections. However, 22 percent of all neonatal deaths could be prevented if breastfeeding is initiated within one hour by all mothers. However, due to ignorance among general population and unethical marketing practices by the corporate sector, the percentage of breastfeeding is very low in Pakistan.⁶ Breastfeeding initiative also helps in achieving Millennium Development Goals 1 and 4. The Goal 1 calls for eradicating extreme poverty and hunger. Breastfeeding significantly contributes to low cost, high quality food and sustainable food security for a baby. Goal 4 calls for reducing child mortality. By reducing diarrhoea and acute respiratory infections, breastfeeding can readily reduce child mortality by about 13% and improved complementary feeding would reduce child mortality by about 6%.⁶

The Jinnah Hospital is a tertiary level hospital and attached to Allama Iqbal Medical College, Lahore, was declared as a Baby Friendly Hospital in 2002 but later on this title was no longer maintained. This study was being conducted with the purpose of assessing the knowledge and practices of the resident doctors and nurses dealing with the neonates and mothers so that by giving proper training to the doctors and nurses in breast feeding initiative and proper support and monitoring, this hospital can again be declared as a Baby Friendly Hospital and can play a positive role in decreasing the morbidity and mortality of the infants.

Objectives

This study was carried out to assess the knowledge of the resident doctors and nurses of Obstetric and Paediatrics departments regarding breast feeding, and to assess the practices regarding breastfeeding among the respondents.

MATERIAL AND METHODS

All the residents and nurses working in these two departments since more than 1 month were interviewed except those who refused to be interviewed. A structured questionnaire was developed and information was collected regarding training status, breastfeeding policy, knowledge and practices regarding breastfeeding initiation, establishment and sustaining breastfeeding. The data was collected by the 4th year students in one month after taking verbal consent from the respondents. A special SPSS version 12 was used for entering the data of the study. Univariate analysis was presented in simple frequency tables. Scoring method was used to assess the knowledge and practices regarding breast feeding. Each question was given 1 mark. Questions on knowledge were 13 for both departments but for practices there were 15 and 13 questions for obstetric and Paediatrics department respectively.

Good knowledge: if score is more than 70% (11–15).
Satisfactory knowledge: if score is 50 – 70% (10–8).
Poor knowledge: scores less than 50% (< 8).

Good Practices: if score is more than 70% ranging from (11 – 15).

Satisfactory practices: if score is between 50 – 70% (10 – 8).

Poor practices: score is less than 50% (< 8).

The operational definitions included in this study were as follows:

Exclusive breastfeeding: means giving a baby no other food or drink, including no water, in addition to breastfeeding (except medicines and vitamin or mineral drops; expressed breast milk is also permitted).

Rooming – it means that a baby stays in the same room as his mother, day and night, from imme-

diately after birth.

Resident Doctors: It included house officers, medical officers, postgraduate students and registrars.

RESULTS

In a total of 133 respondents, 78 (59%) doctors and nurses were interviewed from the obstetric department and 55 (41%) doctors and nurses were interviewed from the Paediatrics department. Among 78 (59%) respondents, 43 (55%) were doctors and 55 (41%) respondents of Paediatrics department, 42 (76.4%) were nurses. Regarding training of respondents for breast feeding promotion, 43 (78%) doctors and 20 (87%) nurses of obstetric department and 12 (92%) doctors and 23 (55%) nurses of Paediatrics department did not receive any training. Among the 35 respondents, 6 (50%) doctors of obstetric department and none of Paediatrics department had received last training in less than 1 year.

Breastfeeding Policy

When asked about the breastfeeding policy, 34 (62%) and 2 (15%) doctors of Obstetric and Paediatrics departments knew about it. To confirm their knowledge regarding breastfeeding policy, when asked about the number of steps in the policy, only 17 (31%) and 1 (8%) of doctors and 1 (4%) and 7 (17%) of the nurses of Obstetric and Paediatrics departments respectively knew the correct number of the steps (Table 1). Among the 55, only 5 (9%) doctors and 2 (9%) nurses of Obstetric department had received orientation training within one week of their appointment regarding breastfeeding (Table 2). When asked about the counselling by the health care workers of the Obstetric department, 49 (89%) doctors and 20 (87%) nurses they counselled the pregnant mothers about breastfeeding but only 19 (34%) doctors and 6 (26%) among 78 narrated all the points to be stressed while counselling (Table 2).

Breastfeeding Initiation

The correct answer about initiation of skin to skin contact of mothers and babies within 5 minutes was given by 25 (45%) of 55 doctors and 12 (52%) of the nurses in the Obstetric department (Table 1). The duration of skin to skin contact was not known by 54 (98%) doctors among 55 doctors and none of the nurses of obstetric department knew the correct answer. Same was the case with Paediatrics department where only 1 (2%) out of 42 staff nurses knew the right answer (Table 1). Among the 23 nurses, 20 (87%) of Obstetric department and 30 (71%) of Paediatrics department knew that breastfeeding should be initiated within 30 minutes after delivery (Table 1).

Among the 78 health care workers of Obstetric department, 46 (84%) doctors informed that there was a practice of giving mothers their babies to hold skin to skin contact but out of 13 doctors of Paediatrics department, only 8 (62%) confirmed the practice (Table 2).

Establishing Breastfeeding

Among the 55 doctors from Obstetric department, 42 (76%) informed that they assisted the mothers next time they fed and same was claimed by 37 (88%) out of 42 nurses of the Paediatrics department (Table 2). When the doctors and nurses of the two departments were asked about ensuring proper positioning and latching on breast when they assisted the mothers for breastfeeding, 51 (93%) out of 55 doctors and 11 (85%) out of 13 doctors of Obstetric and Paediatrics department answered in yes (Table 2). In a total of 55 doctors and 23 nurses of the Obstetric departments none of them knew the correct steps of breast feeding positioning and only 1 (1%) out of 55 doctors of the same department narrated only 2 – 3 steps of latching on but no one knew all the 4 steps (Table 1). None of the respondents did not know the correct steps of expressing breast milk (EBM) by hand (Table 1) but when asked about helping the mothers for EBM 42 (76%) of obstetric doctors out of 55 and 22 (96%) of the nurses out of 23 claimed of helping the mothers for this procedure (Table 2). Duration of interval between each feed should be on demand of the baby was known by 30 (54%) doctors and 11 (48%) nurses of the obstetric department. Among the 55, 18 (33%) doctors and 3 (13%) nurses of the obstetric department did not understand the meaning of *Rooming in* and none of the doctors and nurses of the Paediatrics department knew about the term (Table 1).

Sustaining Breastfeeding

Among the 133 respondents, 68 (51%) doctors and nurses of the Obstetric and Paediatrics department did not check support regarding breastfeeding for mothers going home (Table 2). Among the 13 doctors, 10 (77%) and out of 42 nurses 33 (79%) of the Paediatrics group were not able to refer the mothers to support groups (Table 2). Among the 55, 36 (65%) doctors and 14 (61%) of 23 nurses of the obstetric department said that there did not exist a follow up system in the hospital regarding breast feeding (Table 2). Among the 133 respondents none of them knew the schedule of follow-up for breastfeeding mothers (Table 1). Among the 55 doctors, 45 (82%) from the obstetric department said that there was no coordination of hospital with support group (Table 2).

Table 1: Knowledge of the respondents regarding Breastfeeding.

Knowledge Regarding Breast Feeding	Obstetric Department		Pediatrics Department		Total
	Doctors	Nurses	Doctors	Nurses	
1. Had knowledge regarding breast feeding policy	34 (62%)	8 (35%)	2 (15%)	19 (45%)	63 (47%)
2. Knew about steps in breastfeeding policy	17 (31%)	1 (4%)	1 (8%)	7 (17%)	26 (20%)
3. Had knowledge regarding initiation of skin to skin within 5 minutes	25 (45%)	12 (25%)	1 (8%)	12 (29%)	50 (38%)
4. Had knowledge regarding duration of skin to skin contact for at least 60 minutes	1 (2%)	0	0	1 (2%)	2 (2%)
5. Knew about initiation of breastfeeding within half an hour	47 (85%)	20 (87%)	8 (61%)	30 (71%)	105 (79%)
6. Had knowledge about signs indicating baby is ready to breastfeed	3 (5%)	2 (9%)	0	2 (5%)	7 (5%)
7. Knew steps of breast feeding positioning	0	0	0	0	0
8. Knew steps of latching on breast	0	0	0	0	0
9. Knew correct duration of sucking in each Feed	28 (51%)	10 (44%)	6 (46%)	16 (38%)	60 (45%)
10. Knew steps of expressing breast milk	0	0	0	0	0
11. Knew correct duration of interval between each feed	30 (54%)	11 (48%)	5 (38%)	23 (55%)	69 (52%)
12. Knew definition of rooming in	18 (33%)	3 (13%)	0	0	21 (16%)
13. Knowledge about follow-up schedule regarding breastfeeding	0	0	0	0	0

Table 2: Practices of the respondents regarding breast feeding.

Questions Regarding Practices Related to Breast Feeding	Obstetric Department		Pediatrics Department		Total
	Doctors	Nurses	Doctors	Nurses	
1. Had received training in breastfeeding policy	5 (9%)	2 (9%)	0	10 (24%)	17 (13%)
2. Counseled the pregnant women in ante-natal clinic	49 (89%)	20 (87%)	NA	NA	69 (88%)
3. Narrated all points necessary during counseling in antenatal clinic	19 (34%)	6 (26%)	NA	NA	25 (32%)
4. Conducted breast examination	37 (67%)	11 (48%)	NA	NA	48 (62%)
5. Practiced of giving baby for skin to skin contact within 5 minutes	46 (84%)	23 (100%)	8 (62%)	40 (95%)	82 (61.65%)
6. Assisted mothers for breastfeeding next time	42 (76%)	20 (87%)	8 (62%)	37 (88%)	107 (80%)
7. Helped mothers correctly about breast positioning and latching on	51 (93%)	21 (91%)	11 (85%)	39 (93%)	122 (92%)

Questions Regarding Practices Related to Breast Feeding	Obstetric Department		Paediatrics Department		Total
	Doctors	Nurses	Doctors	Nurses	
8. Helped mothers correctly in expression of breast milk	42 (76%)	22 (96%)	10 (77%)	37 (88%)	77 (58%)
9. Practiced rooming in	46 (84%)	19 (83%)	4 (31%)	31 (74%)	100 (75%)
10. Babies receiving food / drink other than breast milk	20 (36%)	3 (13%)	8 (62%)	8 (19%)	39 (29%)
11. Not used feeding bottles for babies	52 (95%)	22 (96%)	12 (92%)	41 (98%)	127 (95%)
12. Discouraged use of pacifiers by the breastfed babies	53 (96%)	23 (100%)	13 (100%)	38 (90%)	127 (95%)
13. Did not check on support when mothers go home	26 (47%)	10 (43%)	13 (100%)	19 (45%)	68 (51%)
14. Were not able to refer mothers to support Groups	34 (62%)	12 (52%)	10 (77%)	33 (79%)	89 (67%)
15. No coordination of hospital with support group	45 (82%)	22 (96%)	12 (92%)	37 (62%)	111 (83%)

Knowledge and Practice scoring regarding breastfeeding promotion:

Regarding the knowledge about breastfeeding promotion among the respondents, 77 (99%) out of 78 of health care workers of Obstetric department and 55 (100%) of the Paediatrics department had poor knowledge respectively (Table 3). The practices among 58 (74%) in a total of 78 health care workers of obstetric department about breast feeding is poor (<50%) where as 49 (89%) out of 55 health care workers of the Paediatrics department had poor practices (Table 4).

DISCUSSION

Breastfeeding is the first step in life which ensures that infants and young children get a healthy and nutritious start in life. At present, most health workers are in a situation where they are expected to be knowledgeable without much training in new knowledge and skills. It is therefore necessary to determine the level of awareness among healthcare workers in the health care system.

The study was conducted to assess the knowledge and practices regarding breast feeding promotion and sustainability among the resident doctors and nurses of the Obstetric and Pediatrics departments of a tertiary level hospital. In a total of 133

Table 3: Cumulative knowledge regarding breastfeeding promotion among the respondents.

Knowledge	Obstetric Department	Paediatrics Department	Total
> 70% (Good)	0	0	0
50 – 70% (Satisfactory)	1 (1%)	0	1 (1%)
< 50% (Poor)	77 (99%)	55 (100%)	132 (99%)
Total	78 (59%)	55 (41%)	133 (100%)

Table 4: Cumulative practices regarding breastfeeding promotion among the respondents.

% Practice	Obstetric Department	Paediatrics Department	Total
> 70% (Good)	2 (3%)	0	2 (2%)
50 – 70% (Satisfactory)	18 (23%)	6 (11%)	24 (18%)
< 50% (Poor)	58 (74%)	49 (89%)	107 (80%)
Total	78 (59%)	55 (41%)	133 (100%)

respondents of both departments, 132 (99%) had poor knowledge and 107 (80%) had poor practices required for promoting and sustaining breast feeding. The reason for a somewhat better practice (19%) as compared to knowledge is that there is a limitation of study because of constraint of time and resources all the practices could not be observed and most of the practices thus based on perceptions of the respondents. Some of the practices which req-

uire skills e.g., breastfeeding positioning and latching on were confirmed by asking the steps of these but all the respondents were unable to tell the correct steps. A study conducted in Israel to examine the attitudes and knowledge among the family physicians, gynaecologists and pediatricians towards breastfeeding which reported that on average, physicians correctly answered 3.5 ± 1.7 out of 7 questions (25% – 74%) determining knowledge. These results are much better as compared to the results obtained from our study. Regarding practice, less than 20% of physicians discuss breastfeeding with pregnant women.⁷

Similarly a study reported from Indiana reported gaps in providers' breastfeeding knowledge, counselling skills and professional education and training. Providers used their own breastfeeding experiences to replace evidence – based knowledge and American Academy of Paediatrics (AAP) for breastfeeding dyads.⁸

In a total of 133 respondents only 35 (26%) had received training regarding the importance of breast feeding. A study conducted in Nigeria showing the effect of training on baby friendly hospital initiative with regard to exclusive breastfeeding. A total of 298 nurses working in maternal and child health care units were interviewed, of these 113 (37.1%) had participated in the BFHI training. The overall knowledge scores of the BFHI trained nurses was significantly higher than that of the untrained (11.9 ± 1.8 versus 10.7 ± 2.4 $P < 0.01$). Higher proportions of BFHI trained nurses reported correct support practices for the initiation and establishment of exclusive breastfeeding among mothers.⁹

Another study was conducted to identify the breastfeeding attitudes and knowledge of a sample of Australian general practice (GP) registrars. The mean attitude score (5 = maximum score) was 3.99 and mean knowledge score (5 = maximum score) was 3.40, indicating some degree of breastfeeding knowledge. However 40% of the knowledge items were answered incorrectly by the majority of participants. Approximately 40% of the cohort were confident and thought they were effective in assisting breastfeeding women.³ Similarly another study reported from Iraq to assess the knowledge of the Iraqi primary health care physicians (PHCP) about breastfeeding. Knowledge was assessed regarding initiation of breast by mothers after normal vaginal delivery and frequency of breast feeding. The majority of PHCPs 46 (92%) out of 50 knew when mothers should with normal vaginal delivery should start feeding and 36 (72%) knew that babies should be breast fed on demand where as in our study, about 105 (79%) out of 133 respondents had the correct knowledge that breastfeeding to be started within

½ an hour (Table 1) and only 69 (52%) knew the right frequency.¹⁰ Thus it is concluded that primary health care physicians had better knowledge as compared to the respondents of the tertiary level hospitals. This can be explained on the basis that more stress is usually given to the training of health care workers of the rural areas as it is thought that health care workers working in tertiary hospitals have always a better knowledge in all aspects but actually this is not true.

In our study the practice of counselling regarding, breastfeeding about 69 (88%) out of 78 were counselling the pregnant women in antenatal clinics but only 25 (32%) were narrating all the important points of breastfeeding counselling as mentioned in BFHI. Breast examination was being conducted by 48 (62%) out of 78 health care providers of the Obstetric department. A study conducted in USA, 73% nurse midwives and 68% of obstetricians reported breastfeeding counselling was most likely to provide extensive breastfeeding counselling whereas breast examinations were conducted in 82 – 84% of the pregnant mothers which is approximately double the number as compared to our study.¹¹

Regarding skills of breast feeding positioning and latching on, no doctor and nurse of both departments were able to narrate the exact steps of positioning and latching on. A study reported from Nigeria only 5.2% of the health workers interviewed were able to demonstrate correct positioning of the baby for breastfeeding and similarly 5.2% of them could correctly attach the baby to the breast. Thus this study shows a very low proportion of health care workers able to demonstrate proper positioning and latching on breasts.¹² These results are somewhat better as compared to the study conducted.

Similarly regarding practice of checking on support that mothers would have after going home, only 65 (49%) out of 133 respondents did this, whereas a study conducted in Nigeria, 92 (36.8%) out of 250 were aware of the breastfeeding support groups so both studies showed a low practice of support groups.¹²

In *conclusion* the knowledge and practices of the doctors and nurses of a tertiary level hospital regarding breastfeeding promotion and sustainability is very poor.

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