Knowledge and Practice Regarding Breastfeeding among Physician Mothers in Tertiary Care Centre

Mathema S, Adhikari P, Bhattarai P

ABSTRACT

Introduction: During medical school and residency training, physicians are taught that breastfeeding is the preferred feeding for all infants. Evidence is accumulating that while physician mothers have a high rate of breastfeeding initiation, they face significant obstacles to sustained breastfeeding. **Aims:** This study aimed to assess personal breastfeeding intentions and behavior of a diverse group of physician mothers from various medical specialties. **Methods:** This study was a questionnaire-based descriptive cross-sectional study conducted among physician mothers in a tertiary care center located in Kathmandu, Nepal between October 2024 to April 2025. The questionnaire contained 35 items about maternal demographics, breastfeeding practices, environmental factors, and breastfeeding advocacy. Descriptive statistics, frequency tables, and percentages were calculated using SPSS. **Results:** Ninty-two physician mothers participated in the study. Majority of them had fairly adequate knowledge towards various correct breastfeeding practices, however only 12% were able to successfully breastfeed exclusively whereas most of the mothers chose to give a combination of formula and breastfeeding. Only 73 (79.3%) doctors reported that they felt they actively promote breastfeeding among their women patients. **Conclusion:** Even mothers who are medical professionals experience, and often cannot overcome, difficulties with breastfeeding. Women in medicine need enhanced breastfeeding support and services/resources. Advocacy is needed, in our work environments, for better breastfeeding support not only for our physician colleagues, but also for all lactating employees within our institutions.

***Keywords*:** Breastfeeding, Knowledge, Physician Mothers

Authors:

1. Dr. Smriti Mathema
2. Dr. Pritha Adhikari
3. Dr. Puja Bhattarai

Department of Pediatrics, Kathmandu Medical College and Teaching Hospital, Sinamangal, Kathmandu

Address for Correspondence:

Dr. Smriti Mathema
Associate Professor
Department of Pediatrics
Kathmandu Medical College and Teaching Hospital
Sinamangal, Kathmandu
Email: smritimathema@kmc.edu.np

INTRODUCTION

Breastfeeding is the universally recommended modality of infant feeding.[1] Current recommendations are exclusive breastfeeding (EBF) for the first 6 months of life, followed by continued breastfeeding throughout at least for the first two years.[1,2] Exclusive breastfeeding (EBF) is defined as infant receiving only breast milk and no other liquids or solids except vitamins, minerals, or medications.[1] Breastfeeding is also considered to be the most effective health measure to reduce child mortality. It is known that one's physician's breastfeeding advice effectively increases mothers' breastfeeding initiation and continuation.[3] Despite excellent breastfeeding initiation rates, female physicians seem to also be at risk of premature breastfeeding cessation before achieving their own individual breastfeeding duration (BFD) goal.[4] Female physicians have some particular challenges in balancing work and family issues, partly owing to workload, call duty and remuneration issues. The most common reasons to wean children often are return to work, diminishing milk supply, and lack of time to express milk. It has been reported that residents and physicians with personal experiences of breastfeeding were more confident providing support and advice to breastfeeding patients.[5] However, the strongest predictor of physicians' clinical breastfeeding advocacy is their personal breastfeeding behavior.[6] It is known that physician mothers' breastfeeding behavior impacts their anticipatory guidance to their patients, which in turn influences patients' breastfeeding initiation and continuation. Therefore, studying physician mothers' breastfeeding behavior is important, as it impacts not only the well-being of themselves and their families, but eventually the well-being of their patients and patients' families, impacting their anticipatory guidance to patients and, therefore, influences patients' breastfeeding behavior. Hence this study aims to assess per-

sonal breastfeeding intentions and behavior of a diverse group of physician mothers from various medical specialties in a tertiary care center.

METHODS

This study was a questionnaire-based descriptive cross-sectional study conducted among physician mothers in a tertiary care center located in Kathmandu, Nepal. Criteria for participation consisted of being a female doctor having at least one biological child. Eligible participants were included whether they were in training (resident or fellow) or had completed training (faculty at the study center). Participants were included regardless of their infant-feeding methods (formula, breast milk, or combination). All physician mothers who gave consent were eligible for the study and those who did not respond were excluded from the study. The duration of the study was six months from October 2024 to April 2025 after ethical approval. The initial questionnaire was developed and piloted among a dozen physicians after review of instruments used in previous similar breastfeeding studies. The questionnaire was then converted to an online format that contained 35 items about maternal demographics, breastfeeding practices, environmental factors, and breastfeeding advocacy. The questionnaire was then sent as a self-designed Google Form to the doctors enrolled in the study electronically (via E-mail, WhatsApp, Viber, and Messenger). Ethical clearance was taken from the Institutional Review Committee of Kathmandu Medical College (Ref. 16102024/11). Convenience sampling technique was employed to select participants. The total sample size calculated after adding a non-response rate of 10 %, sample size was 78. All doctors who filled out the survey gave digital consent to take part in the survey. The questionnaire included a combination of both open and closed-ended questions and consisted of two parts. The first part included the maternal demographics like age and the second part consisted of breastfeeding advocacy and the breastfeeding practices followed by these doctor mothers. This included whether they were familiar with the right time of breastfeeding initiation, understanding of exclusive breastfeeding, weaning practices, reasons and challenges for discontinuation of breastfeeding. The data were entered and analyzed with IBM SPSS Statistics for Windows, version 20 (IBM Corp., Armonk, N.Y., USA). Descriptive statistics, frequency tables, and percentages were used.

RESULTS

A total of 92 physician mothers participated in the study. The mean participant age at the time of the study was 34.3 years and Table I summarizes maternal demographic characteristics. Majority of participants reported living in a joint family (63.1%). Participants came from a variety of specialties and most had completed their medical training. The participants had one to three children, ranging from 52 days to 28 years of age (mean of 6.4 years), at the time of the study.

Variable	n	Percentage (%)
1. Participant's age		
20-29	12	13.0
30-39	49	53.3
40-49	27	29.4
50+	4	4.3
2. Type of Family		
Nuclear	34	36.9
Joint	58	63.1
3. Medical Speciality		
Anesthesiology	5	5.4
Basic Sciences	29	31.5
Dermatology	3	3.3
Emergency Medicine	4	4.3
ENT	3	3.3
General Surgery	1	1.1
Internal Medicine	2	2.2
Microbiology	4	4.3
Ophthalmology	3	3.3
Obstetrics-Gynecology	7	7.6
Pathology	2	2.2
Paediatrics	4	4.3
Psychiatry	3	3.3
Radiology	3	3.3
Residents	19	20.6
4. Number of Children		
1	55	59.8
2	36	39.1
3	1	1.1

Table I: Characteristics of Study Participants (n=92)

Most of the children (n = 74; 80.4%) were born after the participants had completed their medical training (Table II). The majority of them (71.7%) had extended their maternity leave however reported to have to take unpaid leave. Of the 92 responses, only 12% were able to successfully breastfeed exclusively whereas most of the mothers chose to give a combination of formula and breastfeeding (73.9%). The study also found that there is poor flexibility of schedule for breastfeeding doctors on return to work with 1/3rd participants having to go back to night duties.

Only 73 (79.3%) doctors reported that they felt they actively promote breastfeeding among their women patients (Table III). Of the 92 respondents to the question, 53 (57.6%) reported that they actively promote breastfeeding among female house staff (colleagues, staff, residents) and only 13% reported strongly encouraging new mothers to breastfeed.

Practice Component	Frequency	Percentage (%)
1. Maternal career stage at the time of childbirth		
During training	18	19.6
After job enrollment	74	80.4
2. Did you extend your maternity leave?		
Yes	66	71.7
No	26	28.3
3. Infant feeding method		
Exclusive breastfeeding till 6 months	11	12.0
Mixed feeding	68	73.9
No breastfeeding at all	13	14.1
4. Schedule of work after maternal leave		
Full-Time	87	94.6
Half-time	4	4.3
Did not return	1	1.1
5. Did you have flexibility of schedule upon return to work?		
Yes	29	31.5
No	32	34.8
Somewhat	31	33.7
6. Were you put on night duties?		
Yes	38	41.3
No	54	58.7
7. How would you scale your mental health during breastfeeding period?		
Severely depressed	3	3.3
Depressed	62	67.4
Not depressed	27	29.3
8. How would you rate your energy level during breastfeeding period?		
Often Tired	75	81.5
Sometimes Tired	17	18.5
Rarely Tired	0	0
9. How would you rate your stress level during breastfeeding period?		
Very Stressed	67	72.8
Sometimes Stressed	23	25.0
Rarely Stressed	2	2.2
10. Did you pump milk in the workplace?		
Yes	34	37.0
No	58	63.0
11. Did you have sufficient time to express milk during work hours?		
Did not express	58	63.0
Never	11	12.0
Occasionally	9	9.8
Sometimes	12	13.0
Often	2	2.2
Always	0	0
12. Did you have access to an appropriate place to express milk at work?		
Did not express	58	63.0
Never	4	4.3
Occasionally	10	10.9
Sometimes	7	7.6
Often	9	9.9
Always	4	4.3
13. Were your colleagues supportive of your breastfeeding efforts?		
Always opposed my efforts	8	8.7
Usually opposed my efforts	39	42.4
Neither supportive nor oppositional	5	5.4
Usually supportive	17	18.5
Always supportive	16	17.4
Colleagues were not aware	7	7.6
14. Was discontinuing of breastfeeding due to demands at work?		
Yes	73	79.3
No	19	20.7
15. Were you satisfied with the duration that you were able to breast-feed?		
Yes	25	27.2
No	67	72.8

Table II: Characteristics of Pregnancies and Infant Feeding (n=92

Advocacy Components	n	Percentage (%)
1. Awareness of country's maternal leave policy		
Yes	37	40.2
No	55	59.8
2. Awareness of breastfeeding law for working women		
Yes	14	15.2
No	78	84.8
3. Frequency of talking to a new breastfeeding mother		
Usually	26	28.3
Sometimes	19	20.7
Rarely	11	11.9
Never	36	39.1
4. How strongly do you encourage a new mother to breastfeed?		
Strongly encourage	12	13.0
Encourage	65	70.7
Neither encourage nor dis-courage	15	16.3
Discourage	0	0
5. Do you feel you actively promote breastfeeding in your women patients?		
Yes	19	20.7
No	73	79.3
6. Do you actively encourage breastfeeding in your female colleagues, staff, juniors?		
Yes	53	57.6
No	39	42.4

Table III : Breastfeeding Advocacy (n=92)

Table IV shows a fairly adequate knowledge among physician mothers towards various correct breastfeeding practiceswith p-value 0.001. Most of the respondents had the right knowledge on the importance of starting breastfeeding early and of rooming in the mother and baby together (88%). It was interesting to note than half of the participants were of the opinion that bottle feeding was not harmful, and majority also believed it was okay to use pacifiers (58.7%). However, 80.4% were aware of the consequences of pre-lacteal feeds and 100% participants knew that the first breast milk, colostrum, contains antibodies and is beneficial for the baby. Approximately half of the respondents 48 (52.2%) had knowledge about the correct technique of burping and knew the right age of starting semi-solids (n = 51, 55.4%).

Advocacy Components	n	Percentage (%)
1. Believes breastfeeding should be started as early as possible	87	94.6
2.Believes colostrum is beneficial	92	100
3.Believes babies should not be given pre-lacteal feeds	74	80.4
4. Believes in rooming in	81	88.0
5. Believes in demand feeding	64	69.6
6. Knows the correct frequency of feeding	49	53.3
7. Believes feeding bottles are harmful	52	56.5
8. Does not believe in the use of pacifier	38	41.3
9. Knows the correct technique of burping	48	52.2
10. Knows the right age of starting semi-solids	51	55.4

Table IV: Beliefs of Physician Mother's Breastfeeding Practices (n=92)

DISCUSSION

The benefits of breastfeeding for both women and infants are well established.[7] Despite recommendations from the World Health Organization, initiating and sustaining lactation remains a challenge for many women.[8] Several studies that have examined the breast-feeding practices of physicians have found that the quality and quantity of counseling and support that they provide is related to their own self-perceptions regarding their effectiveness in breastfeeding.[9] It is reported that primary care physicians, specifically those specializing in internal medicine, paediatrics, obstetrics-gynecology, with personal or spousal experience were more self-confident in providing breast-feeding promotion and support.[10] However, physicians who are mothers face substantial challenges that may undermine efforts to sustain lactation after they return to work. It also has been demonstrated that the career satisfaction of physicians who are mothers was negatively affected by the short duration of maternity leave, associated financial losses, and inflexible work schedules.

In this study, all of the physician mothers were reasonably aware of the benefits of breastfeeding however the level of knowledge regarding national breastfeeding policy and workplace policy was poor. 72.8% respondents reported to be unsatisfied with the duration that they were able to breastfeed and 79.3% of them stated work-related demands as the reason for discontinuation of breastfeeding.

Consistent with other physician studies[11,12,13] we found high breastfeeding initiation rates in this study. However, our data also demonstrate that while 96% of infants were breastfed at birth and intent to breastfeed for at least 12 months, only 12% of infants were exclusively breastfed till 6 months of age. This discrepancy and the work-related factors associated with exclusive breastfeeding suggest that work-related factors not only influence physician mothers' breastfeeding behavior but also might have a larger impact than their education and intentions on their breastfeeding advocacy on their patients and colleagues, family members and juniors.

Similar to other studies[14,15] reporting that discontinuation of breastfeeding was due to work-related demands was associated with shorter duration of both exclusive and any breastfeeding. Maternal level of energy while breastfeeding, maternal satisfaction on achieving breastfeeding goals, availability of time to express milk at work, access to appropriate place at the workplace to express milk at work, and perceived level of support for breastfeeding efforts from colleagues are factors related to discontinuity of breastfeeding amongst physician mothers. Their own breast-feeding success might enhance the potential of female physicians as advocates and sources of credible information regarding breast-feeding.

LIMITATIONS

Results of the study reflects only a small population of physician mothers and some of the participants' nature of work does not put them directly in contact with breastfeeding patients for advocacy.

CONCLUSION

Modifiable, work-related factors such as providing longer paid maternal leave, accommodating schedules to allow for pumping, and establishing a dedicated private space may improve the ability of physicians who are mothers to continue lactation after they return to work. With a breastfeeding conducive environment physician mothers' it further positively impacts their anticipatory guidance to their patients, which in turn influences patients' breastfeeding initiation and continuation.

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