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Research Article

**KNOWLEDGE, ATTITUDES AND PRACTICES OF
BREASTFEEDING AMONG MEDICAL STUDENTS**Dr Zainab Amin¹, Dr Iram Asghar Gill², Dr Saher Naeem³¹Washington University of Health and Science²Sahiwal Medical College Sahiwal³Mansoorah hospital, Lahore

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Abstract:

Introduction: The importance of breastfeeding for both infants and mothers are globally recognized. Exclusive breastfeeding is defined as the act of feeding the infant only breast milk, with no supplemental liquids or solids except for liquid medicine or vitamin/mineral supplements. **Aims and objectives:** The main objective of the study is to analyse the knowledge, attitudes and practices of breastfeeding among medical students. **Material and methods:** This cross-sectional study was conducted in Washington University of Health and Science during March 2019 to January 2020. The data was collected through a questionnaire. The questionnaire was adapted from previous studies and comprised four sections. These sections address socio demographic information (age, department, and year of study), breastfeeding exposure and future intentions, breastfeeding knowledge scale, and attitude scale. **Results:** One hundred and twenty-four of 150 students completed the survey, with a response rate of 91.8%. Sixty-nine percent of the students were <22 years old, with a mean age of 20.6 ± 1.38 years. Seventy-two percent of the students reported that they were breastfed in their infancy, 94% knew someone who breastfed, 94% had ever witnessed a woman breastfeeding, and 82% wanted their future child to be breastfed. Breastfeeding knowledge scores ranged from 2.99 to 14, with a mean score of 9.51 ± 2.63 . **Conclusion:** It is concluded that female university students have good knowledge and positive attitudes toward breastfeeding. However, there were misconceptions about breastfeeding that should be addressed through appropriate education and promotion programs.

Corresponding author:

Dr Zainab Amin,

Washington University of Health and Science

QR code



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INTRODUCTION:

The importance of breastfeeding for both infants and mothers are globally recognized. Exclusive breastfeeding is defined as the act of feeding the infant only breast milk, with no supplemental liquids or solids except for liquid medicine or vitamin/mineral supplements. During the first 6 months of life, breast milk alone is the ideal nourishment for infants, providing all the necessary nutrients, including vitamins and minerals [1].

The American Academy of Pediatrics (AAP) recommends exclusive breastfeeding for 6 months and continued breastfeeding for at least 12 months; thereafter, it can be continued for as long as the mother and the baby desire. The World Health Organization (WHO) recommends continued breastfeeding up to 2 years of age or beyond [2] and it has been estimated that optimal breastfeeding of children younger than 2 years, could annually save the lives of over 800,000 children under 5 years of age [3].

The global goal for optimal maternal child health and nutrition is that all women should exclusively breastfeed their infant for the initial six months of life. Breastfeeding is considered as the most economical and easily accessible complete nutrition for every new born child. Although exclusive breastfeeding is the best way to feed infants but it is not commonly practiced [4]. The World Health Organization has stated that only 16% of mothers in Pakistan exclusively breastfeed for a period of three months, as compared to other developing countries where the ratio is higher like Bangladesh (46%), India (37%), and Sri Lanka (84%). The child health indicators are alarming in our country and enable us to understand the importance of investing into nutrition of mother and children. Multiple child health programmes have been implemented to improve child health and some indicators have shown progress. The infant mortality rate has been brought down to 79/1000 live births, however, malnutrition in children under five has been static for many years [5].

Aims and objectives

The main objective of the study is to analyse the knowledge, attitudes and practices of breastfeeding among medical students.

MATERIAL AND METHODS:

This cross-sectional study was conducted in Washington University of Health and Science during March 2019 to January 2020. The data was collected through a questionnaire. The questionnaire was adapted from previous studies and comprised four sections. These sections address socio demographic information (age, department, and year

of study), breastfeeding exposure and future intentions, breastfeeding knowledge scale, and attitude scale. The knowledge and attitude scales had been used and validated in a previous study. The breastfeeding exposure scale included three questions about breastfeeding exposures and one question on future breastfeeding intention. Breastfeeding exposures were measured whether the participant had been breastfed (yes/no/unsure), whether they knew anyone who had breastfed (yes/no), and whether they had ever witnessed a woman breastfeeding (yes/no). The three breastfeeding exposure variables were summed to give a total breastfeeding exposure score, with a possible range from 0 to 3. For the question about the participant's breastfeeding status, "unsure" responses were considered the same as "no" and scored accordingly. For univariate analyses, breastfeeding exposures were collapsed into two categories: a score of 0–1 was categorized as low exposure and a score of 2–3 was categorized as high exposure.

Data analysis was performed using SPSS version 25 software (IBM Corp. Armonk, New York, USA). Statistical procedures were completed to a significant level of 5%. Descriptive statistics were used to analyze the responses to all questions and to describe participants. Comparisons of mean knowledge and attitude scores according to sociodemographic variables were performed with analysis of variance test.

RESULTS:

One hundred and twenty-four of 150 students completed the survey, with a response rate of 91.8%. Sixty-nine percent of the students were <22 years old, with a mean age of 20.6 ± 1.38 years. Seventy-two percent of the students reported that they were breastfed in their infancy, 94% knew someone who breastfed, 94% had ever witnessed a woman breastfeeding, and 82% wanted their future child to be breastfed. Breastfeeding knowledge scores ranged from 2.99 to 14, with a mean score of 9.51 ± 2.63 . Most of the participants were aware that breastfeeding is healthier for the baby than formula feeding (58.1%), that breastfeeding helps prevent infection (60.5%) and allergies (73.4%), that breast size has no relation to the ability to breastfeed (54.8%), that there are differences in breast milk and cow's milk and soya milk (75%), and that breastfeeding should be started almost immediately after birth (84.7%). More than half (69.4%) of the participants believed that breastfeeding women should avoid certain foods, and 54.9% believed that breastfeeding is painful.

Table01: Participants' knowledge about breastfeeding

Knowledge statement	Agree, n (%)	Disagree, n (%)
For a baby, formula feeding is healthier than breastfeeding	47 (37.9)	72 (58.1)
The baby sucking on the mother's breast is painful	68 (54.8)	46 (37.1)
Breastfed babies are smarter than babies who are not breastfed	83 (66.9)	33 (26.6)
There is no difference between breast milk, cow's milk, and soy milk	24 (19.4)	93 (75.0)
Breastfeeding alone provides sufficient nutrition in the first few months of life for the baby	86 (69.4)	26 (21.0)
Nicotine, caffeine, alcohol, and medicine are passed from the mother's body to breast milk	76 (61.3)	35 (28.2)
Most women make enough breast milk to adequately feed the baby	76 (61.3)	38 (30.6)
The breastfeeding woman should avoid eating certain foods	86 (69.4)	26 (21.0)
Babies who are formula fed have more illnesses than babies who are breastfed	75 (60.5)	38 (30.6)
Breastfeeding helps prevent infections in the baby	85 (68.5)	26 (21.0)
Breastfeeding helps protect babies from having allergies	91 (73.4)	22 (17.7)
A woman who has small breasts cannot breastfeed	43 (34.7)	68 (54.8)
Some babies have allergies to cow's milk	88 (71.0)	25 (20.2)
Breastfeeding should be started as soon as possible after the baby is born	105 (84.7)	10 (8.1)

*Columns where the numbers do not add up to the specific n reflects missing values for this column

Table 02: Comparison of the mean knowledge and attitude scores according to sociodemographics and exposure

Variables	Knowledge		Attitudes	
	Mean ± SD	P	Mean ± SD	P
Age				
19-21	08.80 ± 2.6	0.88	20.10 ± 0.13	0.271
22-26	10.50 ± 1.5		21.37 ± 0.11	
Department				
Preparatory	7.77 ± 2.19	0.071	20.25 ± 0.10	0.640
Scientific majors	9.60 ± 1.87		19.95 ± 0.45	
Humanity majors	9.10 ± 1.2		20.10 ± 0.11	
Year				
Year 1	7.77 ± 2.19	0.004	20.25 ± 0.10	0.001
Year 2	9.00 ± 2.81		20.40 ± 0.12	
Year 3	9.52 ± 2.94		19.80 ± 0.12	
Year 4	10.21 ± 1.74		20.25 ± 0.12	
Ever been breastfed				
Yes	9.40 ± 2.66	0.050	19.95 ± 0.11	0.091
No	8.17 ± 1.47		20.10 ± 0.11	
Knows someone who has breastfed				
Yes	9.10 ± 2.59	0.83	20.10 ± 0.12	0.61
No	9.50 ± 2.12		20.80 ± 0.05	
Ever witnessed a woman breastfeeding				
Yes	9.37 ± 2.43	0.009	19.95 ± 0.10	0.00
No	7.63 ± 2.52		21.75 ± 0.11	

SD: Standard deviation

DISCUSSION:

The overall knowledge of medical students was low, while the clinical year students had better

knowledge as compared to the preclinical students. Similar results were observed in a study done among Malaysian students, although the authors assessed

different parameters related to knowledge regarding breastfeeding [5]. The correct time to initiate breastfeeding and weaning was identified by almost two-thirds of the students from clinical years in this study. A small number of students said that colostrum should be discarded whereas research shows that it is most important for the newborn as it contains antibodies that are essential for health [6]. This is comparable to another local study revealing that 56% school teachers gave correct responses to questions related to colostrums [7].

Bottle feeding is regarded as a risk factor for common childhood illnesses like diarrhoea and upper respiratory infections, which are major causes of infant mortality. Exclusive breastfeeding demands nothing except breast milk; therefore, giving prelacteals as a custom should be discouraged. In this study, students identified ghutti and honey as commonly given prelacteals, similar to another study done on college female students showing that approximately 20% girls identified ghutti and honey as prelacteals [8]. Breastfeeding is one of the natural methods of contraception if practiced exclusively. Overall 52% students knew that breastfeeding reduces the rate of subsequent pregnancy. The study on college girls also showed that 48% knew about lactation's contraceptive role [9].

Majority of the students in this study were aware of the advantages of breastfeeding. A couple of studies have evaluated maternal knowledge regarding advantages of breastfeeding. Study from Bolivia showed that 92.6% mothers mentioned at least one advantage, whereas a study from Vietnam revealed insufficient knowledge of mothers. In order to promote breastfeeding among mothers, the health care professionals must be aware of the potential advantages [10].

CONCLUSION:

It is concluded that female university students have good knowledge and positive attitudes toward breastfeeding. However, there were misconceptions about breastfeeding that should be addressed through appropriate education and promotion programs. These gaps should be stressed during future breastfeeding promotion programs. Implementing educational programs in schools, high schools, and universities about breastfeeding, as well as implementing mass media education and

advertising programs, can improve the knowledge, attitude, and intention of breastfeeding in the future mothers.

REFERENCES:

1. Jones G, Steketee R, Black R, Bhutta Z, Morris S. The Bellagio Child Survival Study Group. How many child deaths can we prevent this year?. *Lancet* 2003; 362: 65–71.
2. Harder T, Bergmann R, Kallischnigg G, Plagemann A. Duration of breastfeeding and risk of overweight: a meta-analysis *Am J Epidemiol* 2005; 162: 397-403.
3. Li R, Darling N, Maurice E, Barker L, Grummer-Strawn LM. Breastfeeding rates in the United States by characteristics of the child, mother or family: the 2002 National Immunization Survey. *Pediatrics* 2005; 115: 31-7.
4. Ogunlesi TA, Dedeke OO, Okeniyi JA, Oyedeji GA. Infant and toddler feeding practices in the Baby Friendly Initiative (BFI) era in Ilesa, Nigeria. *The Internet Journal of Nutrition and Wellness* 2005; 1: 34-40.
5. Vidya G, Renuka M, Praveen K, Shirinivasa B. Impact of educational intervention on knowledge regarding infant feeding practices among medical students at Mysore. *Inter J Health Allied Sci* 2005;4: 230-33.
6. Rasheed S, Baig LA, Siddiqui IJ. Decline in breastfeeding, who is to be blamed? A study of knowledge, attitude and practice of breastfeeding amongst nurses. *J Pak Med Assoc* 2000;50:8-11.
7. Yang S, Salamonson Y, Burns E, Schmied V. Breastfeeding knowledge and attitudes of health professional students: a systematic review. *International Breastfeeding Journal*; 2018: 1–11.
8. Okolo SN, Ogbonna C. Knowledge, attitude and practice of health workers in Keffi Local Government Hospitals regarding Baby-friendly Hospital Initiative (BFHI) practices. *Eur J Clin Nutr* 2002; 56: 438-41.
9. Papinczak TA, Turner CT. An analysis of personal and social factors influencing initiation and duration of breastfeeding in a large Queensland maternity hospital. *Breastfeeding Review* 2000; 8: 25-33.
10. Jiang H, Li M, Yang D, Wen LM, Hunter C, Qian X, et al. Awareness, Intention, and Needs Regarding Breastfeeding: Findings from First-Time Mothers in Shanghai, China. *Breast feed Med* 2012; 7: 526-34.