

# BREAST FEEDING

## PERCEPTION OF FEMALE MEDICAL STUDENTS OF KARACHI

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**ABSTRACT... Introduction:** Breast feeding provides complete and balanced nutrition to the baby. The survey done in 1995 by health ministry, Pakistan reported that although 94 % of the children were ever breastfed, only less than 16 % of the children were exclusively breastfed. **Objective:** To assess the knowledge, attitude and practices regarding breastfeeding among undergraduate students of medical colleges of Karachi. **Materials and Methods: Data Source:** Female medical students from Clinical and preclinical years. **Study Design:** Cross sectional study. **Setting:** Liaquat National Medical College (LNMC) and Sir Syed College of Medical Sciences (SSCMS), Karachi. **Period of study:** 3 months. **Material and Methods:** Total 222 female students filled a multiple choice semi-structured questionnaire. **Results:** Out of total 222 female students 32.9% were in pre-clinical group while 67.1% were in clinical group. It was observed that educational level of the student was strongly associated with the knowledge regarding initiation of breastfeeding and age till which exclusive breastfeeding should be continued ( $p=0.000$ ). Clinical group had more knowledge regarding colostrums as compare to the pre-clinical group ( $p=0.000$ ). **Conclusions:** A significant difference was found between preclinical and clinical students regarding the knowledge of breastfeeding. In this study most students were from clinical level of undergraduate medical education which made them more aware regarding the significance of breastfeeding.

**Key words:** Breastfeeding, Female Medical Students, Exclusive Breastfeeding, Karachi, Pakistan, Knowledge Attitude and Practices, WHO, UNICEF, Ministry of Health, IMR, Lactation.

### INTRODUCTION

Breast feeding is an important component in the lives of both mother and child. It provides complete and balanced nutrition to the baby along with providing the baby with essential health and care required. It is the birth right of every new born. In 1990 a declaration was also passed by WHO for Protection, Promotion and Support of Breastfeeding<sup>1</sup>. It documented the benefits of breastfeeding to both mother and the child. It declared that breastfeeding should be promoted and supported not only through social mobilization but also through legislative polices.

In Pakistan breastfeeding initiation rate is reported to be 95 %<sup>2</sup>. The survey done in 1995 through ministry of health in Pakistan reported that although 94 % of the children were ever breastfed<sup>2,3</sup>, only less than 16 % of the below 4 months old children were exclusively breastfed<sup>3,4</sup>. During

the same tenure, 51% of the 0-3 months old children in Bangladesh and 33 % in India were exclusively breastfed. As per UNICEF reports, during 1995-2000 in Pakistan less than 20% of the babies were exclusively breastfed till 6 months of age<sup>5,6</sup>, while in India more than 40% of the babies had been exclusively breastfed<sup>5,6</sup>. The figures improved in 2006-2007 and reached to 37 %<sup>7</sup>. The outcome of this short of target breastfeeding is reflected in our infant mortality rates where Pakistan is ranked at 43 with the IMR of 132 per 1000 live births, whereas in other developing countries it was 103 per 1000 live births during 1990. WHO reports that Breastfeeding drastically reduces deaths from acute respiratory infection and diarrhea, the two major child killers, as well as from other infectious diseases<sup>8, 9</sup>. Suboptimum breastfeeding still accounts for an estimated 1.4 million deaths in children under five annually, as according to the Lancet 2008 Nutrition

Series<sup>10</sup>.

It has been observed that breastfeeding is very frequently started at the hospitals or at homes in case of home-deliveries as soon as the baby is born but is very seldom continued for complete six months. A study done by Kuan LW indicated that along with the mother the doctors, nurses and the lactational consultant contributed a vital role in continuation of breastfeeding<sup>11</sup>.

Initiation of breastfeeding is quite high in Pakistan but the figures showing exclusive breastfeeding are low, which shows that mothers do not know the significance and advantages of exclusive breastfeeding. The healthcare providers do tell the mothers to breastfeed their babies but do not inform them completely about the recommended breastfeeding practices. Studies had shown that appropriate and timely breastfeeding reduced infant mortality by 13%<sup>12</sup>. Still the doctors do not emphasize and support this practice during antenatal period or soon after the child birth or during the routine visits at their clinic or at any other places such as primary health care setups. It was also seen in various studies that mothers do not know what exclusive breastfeeding actually means<sup>13</sup> and therefore they do administer other things specially water along with breast feeding<sup>14</sup>. UNICEF defines exclusive breastfeeding as infant receives only breast milk (including breast milk that has been expressed or from a wet nurse) and nothing else, except for ORS, medicines, vitamins and minerals<sup>15</sup>.

In Pakistan, the importance of breastfeeding has always been emphasized through lady health workers or through nurses. Doctors do not address the issue as seriously as it should be. The medical graduates should be trained to emphasize the issue during the antenatal period or whenever treating a child. The gap was recognized in this study which was done to assess the knowledge, attitude and practices regarding breastfeeding among undergraduate students of medical colleges of Karachi

## MATERIALS AND METHODS

A cross sectional study was conducted at two medical colleges of Karachi, Liaquat National Medical College

(LNMC) and Sir Syed College of Medical Sciences (SSCMS).

A total of 222 medical students were interviewed. All female undergraduate preclinical (1<sup>st</sup> and 2<sup>nd</sup> years) and clinical students (3<sup>rd</sup>, 4<sup>th</sup> and final years) were included in the study. All male undergraduate students were excluded from the study. The convenience sampling was used to recruit the participants. The participants were questioned regarding the knowledge, attitude, and practice and misconnect regarding breastfeeding.

A multiple choice questionnaire comprised of total 20 questions was designed in English. The questionnaire was semi-structured having both closed and open ended questions. The questionnaire was first pilot tested in Liaquat National Medical College and after few amendments it was implemented. The selected faculty members from both medical colleges were trained to collect data from the participants.

The data was entered, verified and analyzed using SPSS version 13.0. Frequencies of individual variables and cross tabulations between outcome variable and independent variable were also calculated.

Chi-square test would be applied to test the difference between the groups. For all the purposes p-value of less than 0.05 would be taken as significant.

## RESULTS

A total of 222 female medical students were interviewed at two medical colleges of Karachi namely Liaquat National Medical College and Sir Syed College of Medical Sciences. One hundred and thirty (58.6%) students were from LNMC and 92 (41.4%) were selected from SSCMS. Most of the students (60%) were between 20 to 22 years of age. The students were divided into two groups, namely preclinical and clinical. 73 (32.9%) were in preclinical group while 149 (67.1%) were in the clinical group.

It was observed that the educational level of the students and their perception regarding the age till which the child should be exclusively breastfed were strongly related (p

**Table-I. Frequency of Knowledge of students regarding breastfeeding in the two medical colleges.**

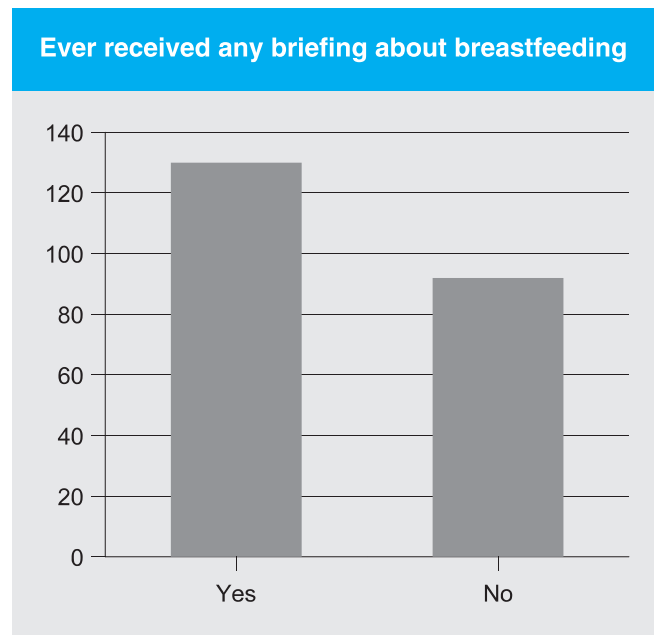
Variables		LNMC(%)	SSCMS (%)	Total
Total no. of students		130 (58.5)	92 (41.4)	222
Level of education	Preclinical	69 (94.5)	4 (5.47)	73
	Clinical	61 (40.93)	88 (59)	149
Any child <1 year in immediate family	Yes	76 (50.6)	74 (49.33)	150
	No	54 (75)	18 (25)	72
Ever received briefing about breastfeeding	Yes	60 (46.15)	70 (53.84)	130
	No	70 (76)	22 (23.91)	92

**Table-II. Frequency of Type of Feeding given to the under 1 year age Child**

Any child <1 year in immediate family	Yes		No	
	150 (67.56%)		72 (32.43%)	
If yes, then type of feeding given to the baby	Breast feeding	Bottle feeding	Mix feeding	-
	95 (63.33)	12 (8%)	43 (28.66%)	-

= 0.000). We also investigated the knowledge of students for the age at which breastfeeding should be initiated. It was found that the clinical and preclinical students had difference of knowledge that 122 (81.8%) student from clinical group considered that breastfeeding should be initiated immediately after birth while 40 (54.7%) students from the preclinical group perceived that initiation of breastfeeding should be delayed till 2-3 hours after birth. It was found that educational level was strongly related to the perception regarding initiation of breastfeeding after birth. (p = 0.000). It was also found that receiving briefing about breastfeeding and type of food given as a first feed also have a strong relationship (p = 0.02).

Those who received briefing had the knowledge that mother’s milk should be the first food for the child. Those who were in the clinical group knew well about the “Colostrum” as compare those who were in preclinical group (p = 0.000). Those who knew about “Colostrum” were of strong opinion that newborns should be given “Colostrum” (p = 0.000). Level of education was also influencing the Knowledge related to the occurrence of breast cancer in women who breastfeed (p = .002).



Briefing about Breastfeeding was also influencing the Knowledge related to the occurrence of breast cancer in women who breastfeed (p =.03). 112 (50%) of the students perceived that mothers start bottle feeding the children for their own convenience. 131 (59%) students had the correct knowledge that is not hindrance to

**Table-III. Relationship of Educational level of student with the knowledge regarding age till which a child should be exclusively breastfed.**

		Age limit of exclusive breastfeeding			Total	p-value
		4 months	6 months	12 months		
Educational level of student	Pre clinical	5	25	43	73	0.000
	Clinical	10	97	42	149	
Total		15	122	85	222	

**Table-IV. Relationship of Educational level of student with the knowledge regarding time of initiation of breastfeeding.**

		Initiation of breastfeeding		Total	p-value
		Immediately after birth	After 2-3 days		
Educational level of student	Pre clinical	33	40	73	0.000
	Clinical	122	27	149	
Total		155	67	222	

**Table-V. Relationship of ever receiving of briefing regarding breastfeeding with the knowledge regarding first feed of newborn baby.**

		Ever received any briefing about breastfeeding?		Total	p-value
		Yes	No		
First feed of a newborn	Honey	11	07	18	0.027
	Ghutti	01	07	08	
	Mother's Milk	118	78	196	
Total		130	92	222	

**Table-VI. Relationship of educational level of students with the knowledge regarding the word "Colostrum"**

		Ever heard about the word colostrum?		Total	p-value
		Yes	No		
Educational level of student	Pre clinical	41	32	73	0.000
	Clinical	146	03	149	
Total		187	35	222	

**Table-VII. Relationship of educational level of students with the knowledge regarding Breastfeeding and the risks of suffering from Breast Cancer**

		BF and risk of breast cancer			Total	p-value
		Yes	No	Don't know		
Educational level of student	Pre clinical	05	58	10	73	0.002
	Clinical	03	141	05	149	
Total		08	199	15	222	

socialization. 149 students (67%) had the perception that breastfeeding does not make it difficult to follow the daily routine. In 99% of the student's opinion breast milk can protect the children from common infections. Students did not have adequate information to decide whether medical curriculum has sufficient information regarding breastfeeding. Only 97 (44%) students had the correct knowledge in case of twins, breastfeeding should be continued as it is enough for both the babies.

## DISCUSSION

Evaluation of the students of two medical colleges was major objective of this study. The level of knowledge was appreciable clinical years to the preclinical years of MBBS.

Breastfeeding is the birth right of every child. Mother's breast milk can be considered as one of the best diet a child can obtain and also the economic burden is negligible per se. Therefore, proper nutrition of the nursing mother has to be considered during the nursing period. Due to the composition of breast milk it acts as a protective agent and prevents from multiple preventable infections like otitis, media, pneumonia, and from insulin – dependant diabetes as well.

Evidence indicates that breastfeeding has significant role in natural contraception. If given proper training a nursing mother can achieve maximum results of this less expensive way of contraception. Although this method is fairly transitory but has dual effect by feeding the child and performing family planning which may last for six months.

A study conducted in medical university in Malaysia showed that (96.3%) of student possessed the proper

**Table-VIII. Frequency of various reasons for starting bottle feed according to students' opinion**

Reasons for not breastfeeding	Frequency	%age
Convenience	112	50.5
Better growth	32	14.4
More nutritious	56	25.2
Other	22	9.9

knowledge regarding colostrum<sup>16</sup> as compared to our study in which 86.7% student had the proper knowledge of Colostrum. In this study there were significant differences between the knowledge of breastfeeding and Colostrum in year of MBBS i.e. pre-clinical and clinical where as most of the students aware regarding the breastfeeding and Colostrum in another study conducted at different medical college of Karachi<sup>17</sup>. Our medical colleges should arrange special teaching sessions and extra curricular activities in order to enhance the knowledge regarding the breastfeeding so that they can educate and disseminate to correct focal person.

## CONCLUSIONS

In the current medical education system, clinical curriculum usually starts from third year of medical education. In our study it is very much apparent that there is a significant difference between pre – clinical and clinical students regarding the knowledge of breastfeeding. Most students were from clinical level of undergraduate medical education which made them more aware regarding the significance of breastfeeding.

## RECOMMENDATIONS

This gap should be bridged by including some very

important topics such as breastfeeding from the very start of medical curriculum so that these students can disseminate their knowledge from the very beginning. Pakistan is a place where population is already suffering from malnutrition and due to lack of knowledge this problem has already taken its toll. This can be one of the milestone steps in reducing the infant mortality in which Pakistan already lay behind in meeting the Millennium Development Goals.

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## PREVIOUS RELATED STUDIES

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## CORRECTION

Correction Prof-1639.wpd

The amendment of the Professional Vol:18, No.01 (Prof-1639) on page 124 is as under;

## INCORRECT

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