

# Awareness of Breastfeeding Among Nursing Students of Al-Tibri Medical College & Hospital

Awareness of Breastfeeding Among Nursing Students

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## ABSTRACT

**Objective:** To provide the awareness of breastfeeding among nursing students.

**Study Design:** Descriptive case study.

**Place and Duration of Study:** This study was conducted at the Al-Tibri Medical College & Hospital, Al-Tibri School of nursing, Karachi between the duration of November 2020 to April 2021.

**Materials and Methods:** A total of 42 responses were received including 30 male and 12 female nursing students. A survey of 28 close- and open ended questions was developed after extensive literature review.

**Results:** Among 42 responses, majority of students were male 71% and 29% were female with mean age of  $20.18 \pm 0.13$ . The maximum numbers of our nursing students have basic knowledge of breastfeeding and were familiar about its benefits but less aware about the transmission of communicable diseases (such as HBV, HCV, HIV, and TB) through breast milk. Moreover there is need to emphasize the nursing curriculum to advance their knowledge against breastfeeding.

**Conclusion:** These studies revealed that majority of the female nursing students were more aware about the breastfeeding and its benefits than male nursing students. There is no statistical association observed between the gender and awareness regarding breastfeeding.

**Key Words:** Breast feeding, awareness, bacterial infections, viral infections.

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## INTRODUCTION

Malnutrition of child, low literacy and high infant mortality are most common public health problems found in Pakistan. The leading cause for child morbidity and mortality is malnutrition. The reason is the lack of exclusive breastfeeding. World Health Organization declares breastfeeding is the best source of nutrition for infants and children and it is enthusiastically working to increase the rate of exclusive breastfeeding from the baseline of 37 per cent to at least 50% by year 2025 among the world.<sup>1</sup> Unfortunately more than 800,000 global deaths of children and cumulative loss of 302 billion USD is attributed to not breastfeeding according to the recommended guidelines<sup>2</sup>.

Breastfeeding provide protection from innumerable illness like diarrhea and pneumonia which remains to

be the leading cause of death of infants globally, in addition, breastfeeding increases IQ level of growing child, promote better neurodevelopment and growth of children and most importantly upholds the bonding of mother and children. Moreover, it also reduces the risk of breast cancer, ovarian cancer and diabetes in women<sup>3,4</sup>. For this instance, breastfeeding can prevent annually 823,000 child and 20,000 breast cancer deaths<sup>5</sup>.

Every mother has her own decision, how to feed her child but this decision is greatly influenced by the economic, community and other factors such as counselling from healthcare facilities, workplace and available marketed infant foods. For this purpose, WHO also offers training program for healthcare professionals to care breastfeeding mothers and overcome their problems regarding growth of children and make sure that the every children have the opportunity to thrive<sup>6,3</sup>.

With investment in enhancing the children's strength and health, breastfeeding also supports the economy of a country by investing in manpower development that absolutely benefits the economy of country. It is one of the best investments in global health which counter that every \$1 invested in breastfeeding generates \$35 in economic returns<sup>2,7</sup>.

According to Keith E. Hansen (the World Bank Country Director for Kenya):

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“If breastfeeding did not already exist, someone who invented it today would deserve a dual Nobel Prize in medicine and economics”<sup>8</sup>.

The aim of the study is to educate them about the benefits of breastfeeding and to investigate about how much they actually know about the phenomenon.

Breastfeeding promotion remains an intervention of enormous public health potential to decrease global mortality and promote better growth and neurodevelopment in children.

## MATERIALS AND METHODS

The cross sectional study was conducted after ethical approval from concerned authority. The study was conducted at ATMC&H and Al-Tibri school of nursing between the duration of November 2020 to April 2021. A total of 42 participants (30 male and 12 female students) were included in this study.

Only Nursing undergraduate students were included in the study. Other students from medical and health sciences were excluded, data was presented in the form of frequency and percentage to evaluate the gender based awareness. Chi-square test was applied to assess the association between the variables at  $p \leq 0.05$ .

**Data Collection:** A self-designed questionnaire was distributed among the students of Nursing and before the data collection the questionnaire was explained to the participants. The questionnaire includes 28 questions comprises of three parts. The first part has 15 questions regarding their basic knowledge of breastfeeding. The second part had 5 question targeted their beliefs about benefits of breastfeeding. The third part consisted of 8 questions regarding their knowledge of breastfeeding in chronic condition/illness. The data analysis was carried out by using SPSS Software (version v24)

## RESULTS

In this study, the total numbers of respondents were 42 nursing students out which majority of students were male 71% and 29% were female (Fig. 1) with mean age of  $20.18 \pm 0.13$  (Table1).

Table 2 showed the responses against their basic understanding about breastfeeding which accounts for about 90 percent correlations between the answers of male and female nursing students. Exceptions were found for the question no. 8 “Nothing should be given to exclusively breastfed babies” and “expressed Breast milk can be given to preterm babies with improper sucking”, however, the chi-square test value indicates that there is no statistically significant (i.e.  $p < 0.005$ ) difference between gender based responses against the questions asked.

Table 3 summarized the responses about benefits of breastfeeding, which impact on mother and children both. The responses showed that only 38% – 42%

percent nursing staff were aware from reducing risk of breast and ovarian cancer in breastfeeding mother with no statistically significant difference (i.e.  $p < 0.005$ ). Furthermore, about 90% students were agreed to the benefits of breast milk, but the correlation among the variables was found to be insignificant and weak.

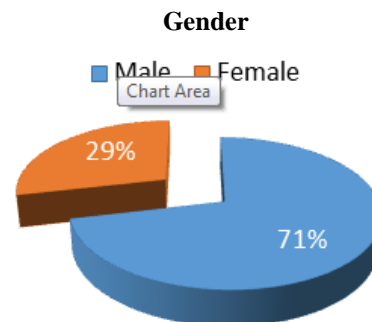
**Table 4** emphasized upon the participant’s knowledge of breastfeeding when mother or child is suffering from bacterial or viral infections like Hepatitis (HBV & HCV), HIV, TB, diarrhoea, mouth ulcers and respiratory illness etc.

In this study, we found that there is a lack of awareness among nursing students about breastfeeding. Certain misconceptions were found regarding transmission of viral infection like Hepatitis B (HBV), Hepatitis C (HCV), and other infectious disease like Tuberculosis (TB) through breastfeeding. It was observed that only 28% and 35% participants were aware that there is no association between the transmission of these viral infections (HBV, HCV respectively). Similarly, only 23% participants already knew that bacterial infections (like TB) would not spread nor it has anything to do with breastfeeding. Almost 83% students were aware about the transmission of HIV through breast milk however, the chi-square test value indicated insignificant correlation (i.e.  $P > 0.05$ ), except that the response generated in the question no. 7 i.e. “Breast feeding should be continued if baby develops respiratory infection” showed that the relationship between the tested variables is weak positive ( $P = 0.0175$ ).

This study revealed that 52% & 42% of participants believed that breastfeeding should be discontinued if child develop respiratory illness and oral ulcers respectively. Although, to some extent breastfeeding helps in reducing respiratory illness<sup>9</sup>.

**Table No.1: Frequency of Age and Gender**

Age and Gender Distribution		
Male	Female	Mean Age
30	12	$20.18 \pm 0.13$



**Figure No.1: Ratio of Male & Female**

**Table No.2: Participants basic knowledge regarding breastfeeding**

		Male		Female		% YES	% NO	P-Value	$\chi^2$
		Yes	No	Yes	No				
Q1	Breast feeding should be started within half an hour after delivery	27	3	11	1	90.48	9.52	1.000	0.028
Q2	Breast feeding helps mother in reducing gestational weight gain	23	7	9	3	76.19	23.81	1.000	0.013
Q3	Breast feeding helps in birth spacing	23	7	9	3	76.19	23.81	1.000	0.013
Q4	Breast feeding should be continued exclusively for a period of 6 months	21	9	11	1	76.19	23.81	0.233	2.218
Q5	Colostrum should not be discarded	25	5	9	3	80.95	19.05	0.668	0.386
Q6	Colostrum is beneficial for babies	27	3	10	2	88.10	11.90	0.613	0.363
Q7	Breast feeding should be continued for 2 years	27	3	10	2	88.10	11.90	0.613	0.363
Q8	Nothing should be given to exclusively breastfed babies	17	13	8	4	59.52	40.48	0.731	0.356
Q9	Weaning should be started at 6 months of age	22	8	10	2	76.19	23.81	0.696	0.472
Q10	Breast milk is always sterile	27	3	8	4	83.33	16.67	0.088	3.36
Q11	Breast milk is easier to digest	26	4	9	3	83.33	16.67	0.387	0.84
Q12	Bottle feeding should be discouraged	21	9	10	2	73.81	26.19	0.464	0.788
Q13	Bottle feeding has many adverse effects	26	4	11	1	88.10	11.90	1.000	0.204
Q14	Twin babies should be breastfed	27	3	11	1	90.48	9.52	1.000	0.028
Q15	expressed Breast milk can be given to preterm babies with improper sucking	9	21	9	3	42.86	57.14	0.14	7.088

**Table No.3: Knowledge of Participants on benefits of breastfeeding**

		Male		Female		% YES	% NO	P-Value	$\chi^2$
		Yes	No	Yes	No				
Q1	Breast feeding protects mother from ovarian cancer	13	17	3	9	38.10	61.90	0.316	1.222
Q2	Breast feeding protects mother from breast cancer	15	15	3	9	42.86	57.14	0.180	2.188
Q3	Breastfeed infants are more intelligent	27	3	10	2	88.10	11.90	0.613	0.363
Q4	Breast feeding protect babies from infection	28	2	10	2	90.48	9.52	0.565	0.995
Q5	Breast feed is ideal nutrition for babies	28	2	8	4	85.71	14.29	0.046	4.978

**Table No.4: Awareness of breastfeeding during chronic condition or illness**

		Male		Female		% YES	% NO	P-Value	$\chi^2$
		Yes	No	Yes	No				
Q1	Breast feed should be started immediately after caesarean section	9	21	4	8	30.95	69.05	1.000	0.045
Q2	Breast feeding should be continued with maternal Hepatitis C infection	12	18	3	9	35.71	64.29	0.495	0.84
Q3	Breast feeding should be continued	8	22	4	8	28.57	71.43	0.715	0.187

	with maternal Hepatitis B infection								
Q4	Breast feeding should be continued with maternal HIV infection	5	25	2	10	16.67	83.33	1.000	0.000
Q5	Breast feeding should be continued with active maternal Tuberculosis	7	23	3	9	23.81	76.19	1.000	0.13
Q6	Breast feeding should be continued if baby develops diarrhea	24	6	10	2	80.95	19.05	1.000	0.062
Q7	Breast feeding should be continued if baby develops respiratory infection	12	18	10	2	52.38	47.62	0.017	6.453
Q8	Breast feeding should be continued if baby develop oral ulcers	10	20	8	4	42.86	57.14	0.84	3.889

## DISCUSSION

Efforts have been made to promote breastfeeding throughout the world. Despite these efforts, lack of awareness regarding breastfeeding has been documented. According to Statistics by WHO, about 44% children of Pakistan are under weight and height, having poor physical and intellectual performance. This percentage can be reduced by exclusive breastfeeding for a period of 6 months, later on complimentary breastfeeding for about 2 years. The global health care organization like PAIMAN, USAID, and UNICEF have initiated in services trainings and breastfeeding awareness program in a few districts of Pakistan<sup>9-10</sup>.

The majority of our participants valued breastfeeding as an important feed for infants and familiar about the basic knowledge of breastfeeding however, they are against in favour of feeding expressed breast milk to preterm babies with improper sucking. This has been summarized in Table 2.

Majority of nursing students were less familiar with major benefits of breastfeeding (Table 3.) comprising reduce risk of breast and ovarian cancer which accounts for being the most invasive malignancy in women, and having a prevalence of 36.8% when accounting for all female malignancies, ultimately leading to a high mortality rate<sup>11</sup>. Centers for Disease and Control, declares that there is no data documented regarding transmission of HBV and HCV through breast milk, therefore, HBV and HCV positive mother can continue breastfeeding, and hence HBV and HCV infection is not contraindication to breastfeeding<sup>12,16</sup>.

Breast-feeding is strongly not recommended to mothers infected with human immunodeficiency virus (HIV), and type 1 human T-cell leukemia virus because this pathogen can transmit postnatally from breast milk to infants<sup>13</sup>. On the Other hand, Tuberculosis (infection caused by Mycobacterium tuberculosis) is considered safe for feeding mothers as comparison to other infectious diseases. Therefore, breastfeeding consider compatible for mother infected with TB<sup>14</sup>. Unlike, most of the nursing students were not aware of breastfeeding during chronic condition or illness like HBV, HCV & TB with exception of HIV but majority were up to date

about the breastfeeding during respiratory illness, diarrheal condition and upon development of oral ulcers in children.

According to a systematic review by (yang et.al), there is need to emphasize the nursing curriculum and specialized program that can advance the limited knowledge of nursing students regarding breastfeeding and to enhance their confidence in guiding breastfeeding mothers<sup>15-16</sup>.

## CONCLUSION

This is a very important finding that the majority of the female respondents were well aware about the breastfeeding and its benefits in comparison to male respondents. Moreover, there is a need for changes in existing nursing syllabus in institutions to promote awareness that support successful breastfeeding among students of nursing.

### Author's Contribution:

Concept & Design of Study:	Nighat Seema
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Final Approval of version:	Nighat Seema

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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