

## **Creating awareness on breastfeeding techniques among students**

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### **ABSTRACT**

Breastfeeding is an age-old practice that has been very critical not only to the physiology, growth and overall well-being of neonates but the physiology and health of women. Out of 60 per cent of the (10.9million) deaths happens annually in global level among under five, over two-third of these deaths are associated with inappropriate feeding practices. No research has under taken on imparting knowledge on breast feeding among girls at university level. Hence this study was planned with the objectives of assessing the knowledge on breast feeding and educating the girls on scientific information on breast feeding. 500 female students were selected in the age group of 18- 25 years. Interview schedule was used to gather information from the subjects. Both pre and post assessment was done. The highlights of the research are enhanced their confidence and knowledge on breast feeding and choices on infant feeding. The majority of the students (girls) has acquired the knowledge on breast feeding practices and in future the knowledge gained by them leads to contribute to reduce the mortality among infant, lower risk of obesity and asthma, reduction in the incidence of type 1 and type 2 diabetes mellitus. The students had changed their attitude on breastfeeding techniques in positive way. This research paves a way to create healthy and wealthy children.

**Key Words :** Breastfeeding, Girls, Practices, Attitude, Infant

### **INTRODUCTION**

Breastfeeding is an age-old practice that has been very critical not only to the physiology, growth, and overall well-being of neonates but the physiology and health of women as well, it is one of the practices among human societies that transcend the boundaries of time and place. The practice has been a method of feeding to which infants have not only adapted but lived on for most of human existence on earth (Tonz, 2000).

At global level, out of 60 per cent of the 10.9 million deaths annually among children

under five, over two-thirds of these deaths are associated with inappropriate feeding practices, occur during the first year of life. Only 35 percent of infants worldwide are breastfed exclusively during the first four months of life. Complementary feeding frequently begins too early or too late, and foods are often nutritionally inadequate or unsafe. Malnourished children who survive are more frequently sick and suffer life-long consequences of impaired development. Rising incidences of overweight and obesity in children are also a matter of serious concern. Because poor feeding practices are a major threat to social and economic development, they are among the most serious obstacles to attaining and maintaining health that face this age group. Optimal infant feeding contributes significantly to the overall development of those who survive, as its promotion leads to prevention of child malnutrition. Out of 136 million babies born each year, around 90 million are not *breastfed* exclusively for the first six months (Agunbiade, 2012).

Dissemination an active and planned efforts to encourage target groups to adopt an innovation. Educating mothers on correct breastfeeding practices and child nutrition is very much necessary. Infant feeding practices have significant effects on the health of both mothers and children. Mothers are affected through the influences of breastfeeding on the period of postpartum infertility, and hence on fertility levels and the length of birth intervals. These effects vary according to the duration and intensity of breastfeeding. Proper infant feeding, starting from the time of birth, is important for the physical and mental development of the child (District Level Household Survey, 2002-2004). No research has under taken on imparting knowledge on breast feeding among girls at university level. Hence this study was planned with the objectives of assessing the knowledge on breast feeding and educating the girls on scientific information on breast feeding.

## METHODOLOGY

500 female students were selected in the age group of 18-25 years. Interview schedule was used to gather information from the subjects. Both pre and post assessment was done. Rapport was developed through frequent visits and discussions with University Professors and students to select the target people and oriented them in a creating awareness on breast feeding 500 girl students were selected from Avinashilingam Institute for Home Science and Higher Education for Women in Coimbatore. Under Graduate and Post Graduate student who are studying in Avinashilingam Institute for Home Science and Higher Education for Women in Coimbatore district. Schedule was prepared in order to assess the knowledge and attitude on breastfeeding among the respondents, on the basis of the objectives of the study, as it was considered to be the most appropriate instrument to elicit responses from the respondents. The interview schedule covers the following: socio economic characteristics of the respondents, indicators of successful breastfeeding, knowledge and attitude towards breastfeeding, and advantage of breastfeeding and breast milk. Interview Schedule was used to collect data from the girl students. The prepared interview schedule was evaluated by the experts for standardization.

The study was approved by the Institutional Human Ethics Committee, Avinashilingam Institute for Home Science and Higher Education for Women. The Approval Number is AUW/IHEC13-14/XMT-04. After pre assessment the education on breastfeeding techniques

was imparted to the student in their respective areas. The knowledge on breastfeeding techniques were disseminated through frequent meeting with respondents and distributing the training materials developed by ICDS, UNICEF, WHO and the researcher. Impact of the training programme was evaluated and analysed.

## RESULTS AND DISCUSSION

The findings are presented as under:

### Socio-economic characteristics of the students :

The data communicates that, the age of UG students of arts and science (78 %) and engineering (94 %) were in the range of 18-21 years whereas the age of PG students was in the age of 22-25 years (100 %). Nearly forty per cent of the UG students in both arts and science and engineering belongs to the backward class (BC) followed by thirty per cent of students were most backward class (MBC), while in the PG students the backward class

Characteristics		Percentage N=500		
		UG		PG
		Arts and Science(N:200)	Engineering (N:200)	Arts and Science(N:100)
Age (in years)	18-21	78	94	-
	22-25	22	6	100
Community	SC	22	6	18
	ST	16	4	-
	BC	24	58	42
Place	MBC	28	32	40
	Rural	64	30	22
	Urban	36	70	78
Religion	Hindu	80	66	88
	Muslim	8	22	8
Type of the family	Christian	12	12	4
	Nuclear	90	86	94
Size of the family	Joint	10	14	6
	Small (1-4 members)	88	74	42
Family monthly income	Large (above 4 members)	12	26	58
	1000-10000	34	2	30
Income (in Rs.)	10001-20000	50	8	44
	20001-25000	6	20	16
	Above 25,000	10	60	10
Source of family income	Agriculture	18	10	10
	Business	46	50	42
	Private sector	28	20	36
	Government	8	20	12

Source: Field survey 2013

<b>Table 2 : Knowledge on breastfeeding practices</b>						
Knowledge	Average percentage score (N= 500)					
	UG			PG		
	Arts and Science (N:200)		Engineering (N:200)		Arts and Science (N:100)	
	B	A	B	A	B	A
Colostrum is the breast milk produced in the first few days after delivery	32	80	28	80	36	84
Colostrums is the first immunization for the newborn baby	20	82	48	94	22	90
Colostrums is thick and yellowish in colour	18	80	24	66	18	78
Breastfeeding should be initiated immediately after birth	48	88	50	88	40	86
Skin-to-skin contact prevent heat loss in newborn babies	24	80	18	88	16	70
A newborn's blood sugar levels are stabilized by skin-to-skin contact	46	82	22	82	42	82
Mother's milk is the first food and rich in all nutrients	44	88	44	76	26	68
Mother's milk Protects against infection and diseases	36	80	40	94	26	92
Milk secretion will increase as soon as the mother feeds the child soon after delivery	28	84	48	80	24	72
Breast milk expression may be done every 2 hours	40	72	24	80	28	68
Underweight baby must be breastfeed every one and half hour	-	-	36	76	12	58
When the baby sucks the breast milk secretion will be increased	-	36	38	94	38	94
Breastfeeding prevents childhood obesity	-	76	50	100	-	44
Prolactin reflex increases mother's milk supply	-	42	28	78	22	90
More prolactin secreted at night time and helps to suppress ovulation	48	90	36	88	10	94
Oxytocin reflex increase milk flow	50	90	32	68	12	40
Oxytocin reflex helps in uterus contraction	-	36	48	82	12	58
Foremilk is the milk that is produced early in a feed	44	88	48	82	60	72
Baby gets all the water that he needs from foremilk	-	80	28	90	40	94
Hindmilk is the milk that is produced later in a feed	42	82	-	72	18	78
Hindmilk contains more fat, this fat provides much of the energy of a breastfeed	48	94	40	90	40	86
Exclusive breastfeeding for 6 months	40	98	48	78	28	90

B-Before, A-After Source: Field survey 2013

was higher (42 %) and lowest was the Scheduled Caste (18 %). The UG students from the rural area is lesser than the urban area. Higher per cent of the PG students were from the urban area. Eighty per cent of UG and PG students were Hindus in all departments. Above eighty per cent of the UG students in arts and science and engineering are from the nuclear family (Table 1).

The annual income of the family was higher for the category of above Rs. 25,000/- (36 %) followed by the income range between Rs 10,000-20,000/- (30 %) and lowest per cent was in the range between Rs. 20001 – Rs 25,000/- (26 %) for both categories of UG students. The family annual income for the PG students was higher for income group between Rs. 10,000-20,000/-. Major Occupation of head of the family was business (50 %) and private sector (24 %) of the UG students, whereas the source of income of head of the family of PG students was business (42 %) and lowest was the agriculture (10 %) (Table 1).

#### Pre and post intervention assessment :

##### *Educational intervention on knowledge on Breastfeeding practices :*

Before educational intervention the students knowledge level on breastfeeding range between 12 to 44 percent whereas after the education they gained knowledge on importance of colostrums breast milk, type of breast milk and its functions from 50 per cent to 75 per cent, respectively (Table 2).

The basic knowledge of breastfeeding practices among the students was significant at 1 per cent level for undergraduate engineering and arts and science students. The t value pertaining to the postgraduate arts and science student was also significant at one per cent level, which shows the intervention of the training programme on breastfeeding practices was effective (Table 3).

Table 3 : Knowledge gained on breastfeeding practices				
Students	Paired differences			t value
	Mean	Std. deviation	Std. Error Mean	
<b>Under Graduate</b>				
BE	9.003	53.787	3.803	23.672**
Arts and Science	7.821	57.932	5.79323	13.500**
<b>Post Graduate</b>				
Arts and Science	8.521	57.119	4.038	21.098**

Significant at 1per cent level

#### Dissemination on breastfeeding techniques :

The Table 4 explains that the students have gained knowledge on breastfeeding techniques from the training programme. After the training on breastfeeding techniques, above 40 per cent of the students had gained knowledge on breastfeeding techniques.

The data indicates that all the selected undergraduate and post graduate students had changed their attitude on breastfeeding techniques in positive way. This strongly shows that the training programme has created a change among girl students (Table 5).

The attitude on breastfeeding among the students was significant at 1 per cent level for undergraduate engineering and arts and science students. The t value pertaining to the

<b>Table 4 : Awareness on breastfeeding techniques</b>						
Techniques	Average percentage score (N= 500)					
	UG			PG		
	Arts and Science (N:200)		Engineering (N:200)		Arts and Science (N:100)	
	B	A	B	A	B	A
During breastfeeding the mother should sit comfortably	-	80	36	76	28	90
Mother can express their breast milk and store it in a freezer of a 2-door refrigerator to feed the baby	20	60	42	82	54	76
Expressed breast milk should be kept in a room temperature	46	44	50	94	40	70
<b>Engorgement of the breast occurs due to</b>						
Baby is not feeding properly	-	62	34	60	42	82
Infrequent feeding	16	80	22	64	26	92
Feeding of artificial milk	40	90	40	60	40	98
<b>Prevent of engorgement of breast by</b>						
Frequently emptying and breastfeeding	-	36	18	78	-	58
Massage may reduce breast engorgement	60	72	30	64	58	74
<b>Care of the sore nipple is by</b>						
Washing the breast with the plain water and keep it dry	22	90	30	86	48	90
Washing the breast with soap and water	28	66	18	78	48	94
Proper techniques of breastfeeding	34	84	20	88	20	40

B-Before, A-After Source: Field survey 2013

postgraduate arts and science student was also significant at one per cent level, it implies that the training programme have changed the attitude of students towards breastfeeding (Table 6).

#### **Advantages of breastfeeding :**

The training programme has pictured the advantages of the Breastfeeding for baby and mother is shown the Table 7. On an average, 70 per cent of the UG students both arts and science and engineering have accepted that the breast milk is good for health and perfect nutrition, 80 per cent feels that it increases baby's intelligence, 64 per cent says increases immunity, protects from adult diseases (68 %), reduce lung infection (50 %), while the engineering students feels that 88 per cent for good health and perfect nutrition, 100 per cent feels that increased immunity and protects against from diseases

The advantages for the mother was also unanimously accepted by the respondents such as Reduces post delivery bleeding and anaemia, reduces risk of ovarian cancer, Reduces risk of breast cancer, reduces risk of osteoporosis, prevents diabetic mellitus and helps in bonding of the mother and the child.

CREATING AWARENESS ON BREASTFEEDING TECHNIQUES AMONG STUDENTS

<b>Table 5 : Attitude on breastfeeding practices among the students</b>						
Attitude	Average percentage score (N= 500)					
	UG				PG	
	Arts and Science (N:200)		Engineering (N:200)		Arts and Science (N:100)	
	B	A	B	A	B	A
The mother can breastfeed successfully, regardless of size of her breast	36	72	36	88	36	88
The quantity of milk produced by the mother does not depend on the size of her breast	40	96	22	78	44	68
Breastfeeding is not affects the beauty of the mother	-	74	-	82	-	82
Breastfeeding does not make the woman lose her interest in sexual activity	50	76	44	94	40	70
Breastfeeding is not an obstacle for the sexual relationships	42	94	40	94	22	64
Breastfeeding helps in birth spacing	-	72	-	62	36	76
Lactating mothers should not come out side of the home at evening time	48	78	22	78	-	36
The mother should breastfeed when the baby suffers from diarrhoea	-	44	56	94	36	80
Exclusive Breastfeeding makes mother to be weak	36	62	42	80	48	94
Commercial formula feeds not necessary for baby's growth	22	78	58	10	22	78
Others must not see the mother and baby while breastfeeding	36	88	36	36	40	86
If mother has a breast abscess should stop breastfeeding completely	66	12	66	12	86	64
Mothers who have small breast do not produce enough milk to feed their baby	42	4	50	4	94	10
Babies who are breastfeed are less independent in adulthood	60	42	84	4	94	70
High calorie diet must be taken by all mothers at the time of lactation	40	90	36	36	34	68
Spicy foods should not be taken by all mothers at the time of lactation	48	90	48	94	28	100
Breastfeeding mother should not take tobacco and alcohol	32	80	36	88	36	72
Healthy food must be taken by the mothers for sufficient milk secretion	22	78	52	94	32	68

Before, A-After Source: Field survey 2013

**Conclusion :**

It may be concluded that breastfeeding is one of the most important determinants of child survival, birth spacing, and prevention of childhood infections. The research also concluded

Students	Paired Differences			t value
	Mean	Std. deviation	Std. error mean	
<b>Under Graduate</b>				
BE	7.321	50.756	3.589	20.399**
Arts and Science	7.554	46.407	4.640	16.278**
<b>Post Graduate</b>				
Arts and Science	7.525	44.715	3.161	23.799**

\*\* Significant at 1per cent level

Advantages *	Percentage N=500*		
	UG		PG
	Arts and Science(N:200)	Engineering (N:200)	Arts and Science(N:100)
<b>Baby</b>			
Good for health and perfect nutrition	78	64	88
Increases the baby's intelligence	100	70	100
Breastfeeding increased the immunity of the baby	62	64	80
Breast milk prevent the child from the cavalai diseases	48	36	50
Protects against onset of adult diseases (diabetes, high blood pressure)	64	72	88
Reduces the risk of lung infection among babies	50	40	64
Protected from allergy and diseases compared to formula milk	38	74	80
<b>Mother</b>			
Helps to reduce the extra fat and body weight	70	60	90
Maintains the shape of the body	38	46	50
Prevent breast engorgement	80	76	98
Reduces risk of ovarian cancer	100	100	100
Reduces risk of breast cancer	100	100	100
Frequent breastfeeding prevents diabetic mellitus	24	30	56
Breastfeeding helps the mother and baby to develop a special bonding	76	84	90

\*Multiple Responses Source: Field survey 2013

that the advantages and duration of breastfeeding needs to be provided for the community as a whole, practices such as discarding the colostrums and early/late weaning should be discouraged and community-based health education programs is needed. Enthusiastic support and involvement in the promotion and practice of breastfeeding is essential to the achievement of optimal infant and child health, growth and development.

#### **Recommendation :**

As a saying goes "students are the pillar of the nation and mothers are the maker of a

good and sound nation” it is high time to pay attention in building the right student and mother for achieving the right path to success. The students in particular should be taught more on handling the real life situation that lies ahead of them instead of only the theoretical knowledge that ends up in the classroom. Students in particular should be given knowledge on the benefits of breastfeeding, how to breastfeed a new born child and how important is breastfeeding to both mother and the child. Specialist should be called in from time to time to share their expertise on breastfeeding so that the students can have a clear and sound knowledge on breastfeeding. The administration of the concerned College or University should pay utmost attention to encourage students to gain knowledge relating to their health in a wider context.

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