

Original Research Article

Knowledge of Medical and Nursing Students about Infant and Young Child Feeding (IYCF) Practices – A Hospital Based Study at Government General Hospital, Kakinada, Andhra Pradesh

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Abstract: Under nutrition is responsible for more than one-third of under-five child deaths globally. The major reason for undernutrition in children is faulty Infant and Young Child Feeding (IYCF) practices due to lack of knowledge of the mothers and caretakers. Medical and paramedical personnel play a key role in educating the mothers as they are the first point of contact in institutional deliveries, immunization clinics and well-baby clinics. The present study aims at assessing the knowledge of medical and nursing students about IYCF practices at Government General Hospital (GGH), Kakinada. The study population includes 100 final year medical students of Rangaraya Medical College and 182 final year nursing students of nursing schools attached to GGH, Kakinada. This is a cross-sectional observational study. The study population is interviewed with a predesigned and pretested questionnaire. Data thus obtained is tabulated and analysed statistically. The present study shows that the correct knowledge of time of initiation of breastfeeding is 82% and 61.5% in medical and nursing students respectively. 99% and 73.6% of medical and nursing students are aware of giving colostrum. Knowledge of pre-lacteals and correct attachment of baby is very poor among nursing students (18.1% & 35.2%). Knowledge of duration of exclusive breastfeeding for 6 months is 87% in medical students and only 30.8% in nursing students. Both medical and nursing students have poor knowledge of breastfeeding during maternal illness and local conditions of breast. Knowledge of age of introduction, frequency and quantity of complementary feed is poor among both the groups. Both the groups have poor knowledge of continuation of breast feeding upto 2 years. This study shows that the knowledge of various aspects of IYCF practices is poor among both medical and nursing students. Hence these aspects should be well-addressed in their curriculum.

Keywords: Infant and Young Child Feeding (IYCF), Breastfeeding, Complementary Feeding, Medical Students, Nursing Students

INTRODUCTION

Under nutrition is responsible for more than one-third of under-five child deaths globally. As per NFHS-3[1], 48% of children less than 5 years of age are stunted which indicates that half of the country's children are chronically malnourished. 19.8% of children less than 5 years are wasted which indicates that one out of every 5 children in India is wasted. 43% of children less than 5 years are underweight for their age. The major reason for the poor nutritional status amongst children is inappropriate, inadequate and faulty Infant and Young Child Feeding (IYCF) practices due to lack of knowledge of the mothers and caretakers. According to Lancet Series on Child Survival, 2003[2],

the achievement of universal coverage of optimal breastfeeding could prevent 13% of deaths occurring in children less than 5 years of age globally while appropriate complementary feeding practices would result in an additional 6% reduction in under-five child deaths.

Poor child feeding practices may be due to cultural taboos and traditional beliefs which lead to selection of low quality complementary foods. Poor knowledge of caregivers about nutrition and food diversity in their environment also contributes to undernutrition. Feeding practices can be improved if

knowledgeable health workers counsel the caregivers on correct feeding practices.

Medical and paramedical personnel (e.g. nurses) play a very important role in the area of IYCF as they are the first point of contact in institutional deliveries, immunization centres and well-baby clinics. However, this aspect of child health is often not well-addressed in the basic training of doctors, nurses and other allied health personnel. In India, most of the studies regarding IYCF practices have been done among health workers. Studies regarding knowledge of IYCF practices among medical and nursing students in teaching hospitals from India are lacking. With this background, the present study is planned to assess the knowledge of medical and nursing students about IYCF practices at Government General Hospital, Kakinada.

AIMS AND OBJECTIVES

The present study assesses the knowledge of medical and nursing students about Infant and Young Child Feeding (IYCF) practices. Further, it also identifies the gaps in their knowledge so that necessary steps can be taken to improve it.

MATERIAL AND METHODS

Study population:

100 final years' medical students of Rangaraya Medical College and 182 final year nursing students of nursing schools attached to Government General Hospital, Kakinada constitute the study population.

Type of study:

Cross-sectional observational study.

Sequence of study:

All the medical and nursing students who have finished their clinical training in the department of Paediatrics are registered under the study after obtaining approval from the institutional authorities. Written informed consent is taken from the students. The ethical clearance for the study is obtained from the institutional ethical committee. Demographic details of the study population are recorded. The study population is interviewed with the help of predesigned and pretested questionnaire. The data thus obtained is tabulated and analysed statistically.

This opportunity is utilised to educate medical and nursing students on various aspects of IYCF practices.

RESULTS

82% and 61.5% of medical and nursing students respectively have correct knowledge of time of initiation of breastfeeding. 99% and 73.6% of medical and nursing students are aware of giving colostrum. Knowledge of avoidance of pre-lacteals is very poor among nursing students (18.1%) but is considerably good among medical students (79%). Knowledge of frequency of feeding is 75% in medical students and 54.1% in nursing students. Knowledge of breastfeeding to premature baby is good among medical (88%) and nursing (81.3%) students in our study. Knowledge of correct attachment of baby is poor among nursing students (35.2%) and good among medical students (85%). Knowledge of duration of exclusive breastfeeding for 6 months is 87% in medical students and only 30.8% in nursing students. Knowledge of continuation of breastfeeding upto 2 years is only 67% in medical students and 39% in nursing students.

Knowledge of continuation of breastfeeding in maternal illness like fever, tuberculosis and jaundice is poor among both medical (82%, 57% & 64%) and nursing (65.9%, 31.9% & 45.6%) students. 97% of medical students have correct knowledge of breastfeeding during illness of the baby and only 40.6% of nursing students have knowledge of continuation of breastfeeding during illness of the baby. Only one-third of medical and nursing students have correct knowledge of continuation of breastfeeding in local problems of breast. Many nursing students (10-30%) have not answered various aspects of breastfeeding like giving colostrum, avoiding pre-lacteals, correct attachment of the baby and duration of exclusive breastfeeding probably due to lack of correct knowledge.

Only 67% of medical students and 37.9% of nursing students have correct knowledge of age of introducing complementary feeding. Correct knowledge of frequency, quantity and consistency of complementary feed is 39%, 35% & 90% in medical students and 32.8%, 38.5% & 43.4% in nursing students.

Table 1: Knowledge of Breastfeeding

S.No.	Question	Correct Knowledge		Incorrect Knowledge		Not Answered	
		Medical students	Nursing students	Medical students	Nursing students	Medical students	Nursing students
1.	Time of initiation of breastfeeding	82%	61.5%	11%	27.5%	7%	11%
2.	Colostrum to be given/discarded	99%	73.6%	1%	6%	0%	20.4%
3.	Advice on pre-lacteals	79%	18.1%	13%	63.7%	8%	18.2%
4.	Frequency of feeding	75%	54.1%	19%	39%	6%	6.9%
5.	Breastfeeding to premature baby	88%	81.3%	4%	13.2%	8%	5.5%
6.	Knowledge of correct attachment of baby	85%	35.2%	13%	52.7%	2%	12.1%
7.	Duration of exclusive breastfeeding	87%	30.8%	4%	40.1%	9%	29.1%
8.	Continuation of breastfeeding upto 2 years	67%	39%	33%	56.6%	0%	4.4%

Table 2: Breastfeeding during illness

S.No.	Question	Correct Knowledge		Incorrect Knowledge		Not Answered	
		Medical students	Nursing students	Medical students	Nursing students	Medical students	Nursing Students
1.	Breastfeeding during illness of baby	97%	40.6%	1%	34.1%	2%	25.3%
2.	Breastfeeding during illness of mother like						
	(a) Tuberculosis	57%	31.9%	27%	48.9%	16%	19.2%
	(b) Jaundice	64%	45.6%	22%	44%	14%	10.4%
	(c) Minor illness like fever, cold, cough	82%	65.9%	9%	20.9%	9%	13.2%
3.	Breastfeeding in local conditions like						
	(a) Breast abscess	17%	33.5%	72%	48.9%	11%	17.6%
	(b) Sore Nipple	40%	29.1%	51%	51.1%	9%	19.8%
	(c) Inverted Nipple	36%	30.8%	50%	46.1%	14%	23.1%
	(d) Cracked Nipple	32%	34.6%	51%	48.4%	17%	17.0%

Table 3: Knowledge of Complementary feeding

S.No.	Question	Correct Knowledge		Incorrect Knowledge		Not Answered	
		Medical students	Nursing students	Medical students	Nursing students	Medical students	Nursing students
1.	Age of introducing complementary feeding	67%	37.9%	31%	57.7%	2%	4.4%
2.	Frequency of complementary feeding	39%	32.8%	44%	44.5%	17%	22.7%
3.	Quantity of complementary feeding	35%	38.5%	36%	39.7%	29%	21.8%
4.	Consistency of complementary feeding	90%	43.4%	2%	42.3%	8%	14.3%
5.	Active feeding for children during and after illness	95%	75.8%	1%	18.1%	4%	6.1%

DISCUSSION

Initiation of breastfeeding in the first hour of life is essential for the proper establishment of oxytocic reflexes and thus the success of breastfeeding. In the present study, only 82% of medical students have correct knowledge of time of initiation of breastfeeding. Almost similar result is reported in studies among medical students of Ziauddin University, Karachi (76%) [3] and among female medical students of Mansoura University, Egypt (85.5%) [4]. The present study shows that 61.5% of nursing students have correct knowledge of time of initiation of breastfeeding. Studies on nursing students of Midwestern Universities [5] and Saudi Arabia [6] have shown a correct knowledge of 98% and 73.5% respectively. 98.7% Anganwadi workers of Delhi have correct knowledge of time of initiation of breastfeeding [7] while correct knowledge of Anganwadi workers, Bagalkot on this aspect is 21% [8].

The present study shows that 99% of medical students and 73.6% of nursing students are aware of giving colostrum which is antibody rich and has high protective and nutritive value while community health workers have better knowledge of this aspect as seen in a study by Sanjay Kumar Bhasin *et al* (92.7%) [7]. In the present study, knowledge of avoidance of pre-lacteals (which can cause infections and lactation failure) is very poor especially among nursing students (18%) while 81.5% Anganwadi workers of Bagalkot have correct knowledge of pre-lacteals [8]. In the present study, 75% of medical students and only 54% of nursing students have correct knowledge of frequency of breastfeeding.

Exclusive breastfeeding should be for 6 months in order to protect the child from malnutrition, infections and to ensure overall child development. In the present study, knowledge of duration of exclusive breastfeeding is good among medical students (87%) while the studies among medical students of Karachi [3] and Egypt [4] have shown that 56% and 62.2% respectively have correct knowledge of this aspect. Knowledge among Anganwadi workers, Delhi (91.5%) [7] And ASHA workers, Dehradun district (77.4%) [9] Is better while only 30.7% of nursing students of the present study have correct knowledge. Breastfeeding should be continued for a minimum period of 2 years even after the introduction of complementary feeds. Knowledge of this aspect is very poor among both medical (67%) and nursing (39%) students in comparison to Anganwadi workers, Delhi (91.5%) [7].

Baby illness, maternal illness and local breast problems are important causes for discontinuation of breastfeeding although breastfeeding must be continued in these conditions. Knowledge of continuation of breastfeeding during baby illness is good among medical students (97%) and poor among nursing

students (40.6%) in the present study while study on ASHA workers of DOi wala Block, Dehradun district [9] has shown that 96.4% of ASHAs have correct knowledge of continuation of breastfeeding during baby illness. Maternal tuberculosis and jaundice are not contraindications to breastfeeding. In the present study, very few medical (57% & 64%) and nursing (31.9% & 45.6%) students have correct knowledge of continuation of breastfeeding in maternal tuberculosis and jaundice. Almost similar results are reported in studies on medical students of Karachi [3], Egypt [4] and nursing students of Saudi Arabia [6]. Incorrect attachment of baby results in lactation failure, sore nipple and cracked nipple. In the present study, knowledge of correct attachment of baby is good among medical students (85%) and poor among nursing students (35%). Local breast problems are also important causes of lactation failure. In the present study, only one-third of medical and nursing students have correct knowledge of continuation of breastfeeding in local problems of breast. Hence proper knowledge should be imparted to the students regarding correct position, attachment of the baby and management of local breast problems.

Knowledge regarding various aspects of breastfeeding is good among community health workers (Anganwadi workers, ASHA workers) as seen in many studies [7-9] and this may be due to regular training programmes being conducted as a part of IYCF and IMNCI workshops in the periphery.

Complementary feeding is a crucial component of IYCF and its appropriate introduction prevents growth faltering, micronutrient deficiencies and malnutrition in the child. Knowledge of introducing complementary feeding at 6 months is 67% in medical students and 37.9% in nursing students. Study on medical students by Purushottam A *et al.*; [10] has shown an initial result of 51.7% on this aspect which increased to 97.5% after a workshop. Proper quantity, consistency and frequency of complementary feed are essential to maintain the growth of the baby after 6 months of age. Only one – third of medical and nursing students have correct knowledge of these aspects. Purushottam A *et al.*; study on medical students has observed an increase in the knowledge of consistency of feeding from 27.1% to 85.6% after a workshop. This emphasises the need for workshops on IYCF practices for reinforcing the knowledge of the students.

CONCLUSION

Present study draws very important conclusion that although most of the aspects of IYCF are included in the teaching curriculum of the students, their knowledge is poor especially on certain aspects like breastfeeding during illness of mother, local breast problems and complementary feeding.

RECOMMENDATIONS

Group discussions, CME (Continuous Medical Education) programmes and workshops on IYCF (Infant and Young Child Feeding) practices help in improving the knowledge of health care personnel. Demonstration classes and training programmes on IYCF and IMNCI should be made a part of academic curriculum of medical and nursing students. Active involvement of medical and nursing students in counselling sessions at antenatal outpatient departments, postnatal wards and immunisation clinics under the supervision of the faculty also help in improving the knowledge of the students.

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REFERENCES

1. National Family Health Survey (NFHS)-3, India, 2005-06. Available from http://www.rchiips.org/nfhs/nutrition_report_for_website_18sep09.pdf
2. Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS, Bellagio Child Survival Study Group. How many child deaths can we prevent this year? *The Lancet*. 2003 Jul 5; 362(9377):65-71.
3. Anjum Q, Ashfaq T, Siddiqui H. Knowledge regarding breastfeeding practices among medical students of Ziauddin University Karachi. *JPMA*. 2007 Oct; 57(480).
4. Abdel-Hady D, Eladawi N, El-Gilany AH. Knowledge of Female Medical Students about Breastfeeding. *Universal Journal of Public Health*. 2013 Oct; 1(3):72-8.
5. Ahmed A, Bantz D, Richardson C. Breastfeeding knowledge of university nursing students. *MCN: The American Journal of Maternal/Child Nursing*. 2011 Nov 1; 36(6):361-7.
6. Hatamleh W, Sabeeb ZA. Knowledge and Attitude toward Breastfeeding among Nursing Students. *Journal of Natural Sciences Research*. 2015; 5(16): 147-152.
7. Bhasin SK, Kumar R, Singh S, Dubey KK, Kapil U. Knowledge and attitudes of Anganwadi workers about infant feeding in Delhi. *Indian pediatrics*. 1995 Mar 1; 32(3):346-50.
8. Dorle A, Manjula R, Mannapur B, Hiremath LD, Ghattargi C. Knowledge and attitude towards Infant and Young Child Feeding (IYCF) practices among Anganawadi workers in rural field practice area of Kaladgi, Bagalkot. *Medica Innovatica*. 2012; 1(1):12-4.
9. Saxena V, Kumari R. Infant and Young Child Feeding-Knowledge and Practices of ASHA workers of Doiwala Block, Dehradun District. *Indian Journal of Community Health*. 2014 Mar 31; 26(1):68-75.
10. Giri PA, Deshpande JD, Phalke DB. Impact of training workshop on knowledge about new WHO growth chart, severe acute malnutrition, and Infant and Young Child Feeding among final-year medical students. *International Journal of Nutrition, Pharmacology, Neurological Diseases*. 2013 Apr 1; 3(2):121.