

An Exploratory Study to Assess the Knowledge Regarding Enteral Feeding among Staff Nurses in Christian Medical College & Hospital, Ludhiana, Punjab

Harjit¹, Kamlesh Gill¹

¹Associate Professor, College of Nursing, CMC & Hospital, Ludhiana

ABSTRACT

Nasogastric tube feeding is the most frequently used method of enteral feeding particularly if feeding is to be used for short period. The nurse's knowledge in tube feeding and subsequent care of nasogastric tube are important in clinical area to ensure patient safety. Present study was conducted to assess the knowledge regarding enteral feeding among staff nurses in Christian Medical College & Hospital, Ludhiana, Punjab. Objectives of the study were to assess the knowledge regarding enteral feeding among Staff Nurses, to ascertain the relationship of knowledge regarding enteral feeding among staff nurses with selected variables such as age, gender, marital status, professional qualification, work experience, working area, in- service education and to prepare the pamphlet to enhance the knowledge regarding enteral feeding among staff nurses. Quantitative research approach and non-experimental exploratory design were used in the study. Subjects were chosen by purposive sampling technique and the sample size was 100 staff nurses. Data was collected by structured multiple choice questionnaire and analyzed by using descriptive and inferential statistics. Bar diagram was used to depict the findings. Results of the study shows majority (80%) of staff nurses had good knowledge, 12% staff nurses had excellent knowledge and only 8% staff nurses had average knowledge regarding enteral feeding. Among demographic characteristics working area and marital status had significant impact on the knowledge of staff nurses regarding enteral feeding.

Keywords: Nurses, Knowledge, Enteral feed.

Introduction

Enteral feeding refers to the delivery of nutritionally complete feed, containing protein, carbohydrate, fat, water, minerals and vitamins directly into the stomach, duodenum or jejunum.¹ Gastroenteric tube feeding plays major role in the management of patient with poor voluntary intake, chronic neurological or mechanical dysphagia or gut dysphagia and in patient who are chronically ill². Enteral nutrition is often used for children as well as for adults³. Children may require enteral feeding for a wide range of underlying conditions such as malnutrition, metabolic disorder and neuromuscular disorder⁴.

Short term access is usually achieved by using nasogastric tube at an initial continuous feeding rate 30 ml per hours. Percutaneous endoscopic gastrostomy or jejunostomy placement should be considered if feeding is planned for longer than one month. The use of NG tube is associated with some complication such as pulmonary aspiration, nausea, vomiting, diarrhoea, pain, nasopharyngeal injury, tube occlusion, dehydration and electrolyte imbalance⁵.

The nurses role in delivering the tube feeding usually include insertion of feeding tube if the temporary tube is used, maintenance of the tube, administration of nutrition, prevention and detection of complications associated with this form of therapy and support in the assessment of patient's reaction to tube feeding and subsequent care of nasogastric tube are important in clinical area to ensure the patient safety⁵.

Enteral feed help to maximize nutrition for patient's in a variety of health care setting. It is estimated that

Corresponding Author:

Mrs. Harjit

Associate Professor

College of Nursing CMC & Hospital, Ludhiana

Email: shehnazjohnson@gmail.com

3,45,000 people in America receive nutrition by tube feeding. 60% of patient who receive nutrient through tube will develop aspiration pneumonia.. Nurses are ones who observe and notice when the patient is not tolerating tube feeding.

Review of Literature

A descriptive study was conducted on 53 nurses working in intensive care units of Malwai Hospital regarding nurse's competency in enteral feeding. Participants reported that nutritional assessment 56.9%, insertion of nasogastric tube 88.2%, tube feeding 82.4% was within the scope of their assessment. Study shows adequate knowledge in insertion of nasogastric tube 100%, checking proper placement 92.2%, assessment of nutritional status 43%, 60.8% participants position their patient in a semi fowler during tube feeding. On documentation of nutritional care 23.5% always documented⁷.

A descriptive study was conducted in Nellore on 15 staff nurses and 15 nursing students on knowledge regarding gastrostomy feeding. The results depicted that among staff nurses 73.3% have adequate knowledge, 20% have moderate knowledge and 6.7% have inadequate knowledge. Among students 86.6% have adequate knowledge, 6.7% have moderate and inadequate knowledge⁸.

An exploratory study was conducted at Ismailia General Hospital on 45 staff nurses regarding knowledge and performance of nasogastric feeding. The study conclude that nurses knowledge score about care given before, during, after feeding administration were 73.3%, 71.1% and 69.9%. Total knowledge score of nasogastric feeding administration was 71.7%, the practice score about care given before, during and after NG tube feeding administration were 44.4%, 15.6% and 42.2%. Total practice score was 37.8%. The most common factor affect their practices are increase work load 84.4%, shortage of nursing staff 80%, No reward for good work 84.4%, no upgrades for efficient nurses 82.2%. There are no opportunities for attending training courses 33.3%⁹.

Research Problem

“An Exploratory Study to Assess the Knowledge Regarding Enteral Feeding among Staff Nurses in Christian Medical College & Hospital, Ludhiana, Punjab.”

Objectives:

1. To assess the level of knowledge regarding enteral feeding among Staff Nurses.
2. To ascertain the relationship of knowledge regarding enteral feeding among Staff Nurses with selected variables such as age, gender, marital status, professional qualification, work experience, working area and in-service education
3. To prepare the pamphlet to enhance the knowledge regarding enteral feeding among staff nurses

Assumption: Staff Nurses do have some knowledge regarding enteral feeding

Material and Method

Research Approach & Research Design: For the present study Quantitative research approach and Non experimental exploratory research design were used to accomplish the stated objectives.

Independent Variables: The independent variables of the present study were age, gender, marital status, professional qualification, work experience, working area and in-service education.

Dependent Variables: The dependent variable was knowledge regarding enteral feeding among Staff Nurses.

Selection of the Field for Study: The study was conducted on the staff nurses in Christian Medical College & Hospital, Ludhiana, Punjab.

Population: The target population of this study comprised of staff nurses working in Christian Medical College & Hospital.

Sample and Sample Technique: Purposive sampling technique was used to select the sample of 100 staff nurses working in Christian Medical College & Hospital, Ludhiana, Punjab.

Development of the Data Collection Tool: A structured questionnaire was developed to assess the knowledge regarding enteral feeding among Staff nurse.

Description of Tool: The tool consisted of following 2 parts

Part-1: Socio Demographic Characteristics: This part consist of 7 items for obtaining information of staff nurses i.e. age, gender, marital status, professional qualification, work experience, working area and in-service education.

Part-2: Knowledge Questionnaire Related to Enteral Feeding: This part consisted of 44 multiple choice questions. Each question had four options. Each correct answer carried 1 mark and wrong answer carried zero mark. The maximum score was 44 and minimum score was 0.

Criterion Measure: The criterion measure used in this study was based on knowledge score that refers to total obtain score on the item in the knowledge questionnaire on enteral feeding.

Levels of knowledge	Score	Percentage (%)
Excellent	>35	>80
Good	29-35	66 - 80
Average	22-28	50 - 64
Below average	<22	<50

Reliability of Tool: The reliability of the tool was established by split half method and was calculated using Karl Pearson’s coefficient of correlation and Spearman’s Brown Prophecy formula. The reliability of the questionnaire was $r^2=0.7$.

Data Collection Procedure: The sample was 100 staff nurses working in Christian Medical College & Hospital, Ludhiana, Punjab. The data collection for the study was carried out after formal permission from the Nursing Superintendent through proper channel, Christian Medical College & Hospital, Ludhiana, Punjab. The staff nurses were approached and explained about the purpose of gathering information. The researcher took verbal consent from the staff nurse and purposive sampling technique was used to select the sample.

Ethical Consideration: Prior to data collection, formal written permission was taken from the Nursing Superintendent through proper channel, Christian Medical College & Hospital, Ludhiana, Punjab before conducting the study and the staff nurses were assured for their anonymity & confidentiality.

SECTION I

Socio Demographic Characteristics of Sample

Table 1: Frequency and Percentage Distribution of Sample Characteristics

N=100

Characteristics	f	%
Age		
21-24	09	09.00
25-28	41	41.00
29-32	25	25.00
>32	25	25.00
Gender		
Male	24	24.00
Female	76	76.00
Marital Status		
Married	50	50.00
Unmarried	50	50.00
Professional Qualification		
GNM	61	61.00
B.Sc. Nursing	27	27.00
Post Basic B.Sc (N)	12	12.00
Work Experience (in years)		
< 1	08	08.00
1-3	23	23.00
4-6	34	34.00
> 6	35	35.00
Working Area		
Medical	35	35.00
Surgical	24	24.00
Critical	32	32.00
Emergency	09	09.00
In- Service Education		
Yes	85	85.00
No	15	15.00

Table no. 1 depicts that the distribution of staff nurses according to sample characteristics according to age maximum (41%) of staff nurses were in age group 25-28 years followed by 29-32 years and >32 years (25%) each and least were in 21-24 (9%). According to gender 76% were females and 24% were males. According to marital status 50% of the staff nurses were married

and 50% were unmarried. According to Professional Qualification maximum staff nurses were GNM (61%) followed by B.Sc.Nursing (27%) and least (12%) were Post Basic B.Sc (N). According to work experience, maximum (35%) staff nurses were having >6 Years experience followed by 4-6 Years (34%), 1-3 years (23%) and least (8%) were having < 1 year experience. According to Working Area, maximum (35%) were working in medical unit followed by critical unit (32%), followed by surgical (24%) and least 09% were working in emergency unit. According to In- service education maximum (85%) of staff nurses had attended in service education followed by 15% had not attended in service education on enteral feeding.

Hence it can be concluded that maximum staff nurses were in the age group of 25-28 Years and were females. 50% were married, 61% were GNM, 35% were having > 6 Years' experience, 35 % were working in medical unit and 85 % had attended in- service education on enteral feeding.

Section II

Objective 1: To assess the level of knowledge among staff nurses regarding enteral feeding

Table 2: Frequency & percentage distribution of staff nurses regarding enteral feeding according to level of knowledge

N = 80

Level of Knowledge	Staff Nurses		
	Score	f	%
Excellent	>35	12	12.00
Good	29-35	80	80.00
Average	22-28	8	8.00
Below Average	<22	0	0%

Maximum score = 44

Minimum score = 0

Table 2 depicts Frequency & percentage distribution of staff nurses regarding enteral feeding according to levels of knowledge. Majority (80%) of the staff nurses had good knowledge regarding enteral feeding, followed by (12%) excellent knowledge and least (08%) had average knowledge regarding enteral feeding.

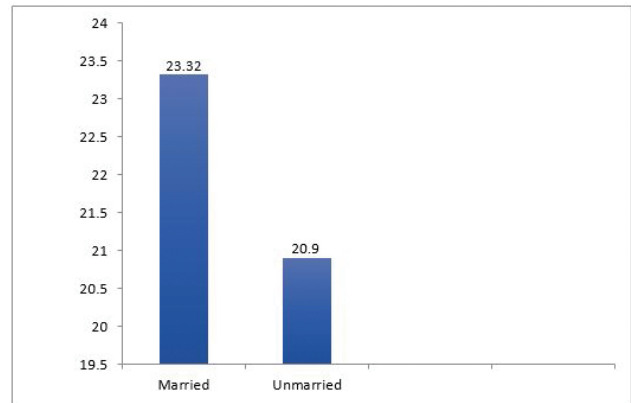


Fig. 1: Mean Knowledge Score of Staff Nurses Regarding Enteral feeding According to Marital Status

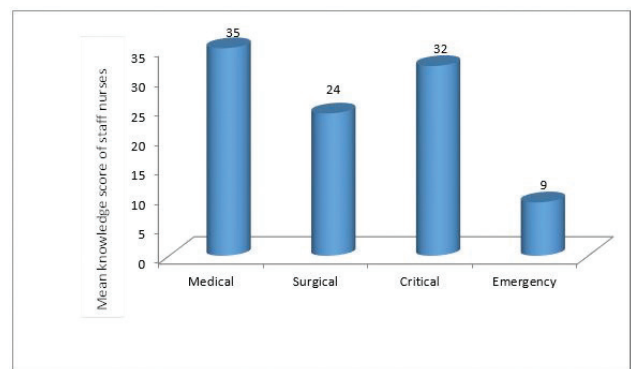


Fig. 1: Mean Knowledge Score of Staff Nurses Regarding Enteral feeding According to Working Area

Major Findings According to Sample Characteristics

Majority of the staff nurses were from age group were 25-28 years (41%) and least were 21-24years (9%),

- Majority of the staff nurses were female (76%) and least (24%) were male.
- 50% of the staff nurses were married and (50%) were unmarried.
- Majority of the staff nurses did G.N.M (61%) and (12%) least were Post Basic B.Sc.(N) .
- Majority of the staff nurses (35%) had more than 6 years of experience and least (8%) had less than 1 year of experience.
- Majority of the staff nurses (35%) were working in medical area and least (9%) were working in emergency unit.
- Majority of the staff nurses (85%) had attended in-service education and least (15%) had not attended. In service education on enteral feeding.

Findings Related to Knowledge Regarding Enteral Feeding among Staff Nurses with Selected Variables

- Mean knowledge score was highest (24.20) among staff nurses who were in the age group of >32 years & least (20) in the age group of 21 - 24 years. Age had no impact on knowledge of staff nurses regarding enteral feeding.
- Mean knowledge score was highest (23.42) among males and least (21.70) in were females. Gender had no impact on knowledge of staff nurses regarding enteral feeding.
- Mean knowledge score was highest (23.32) among staff nurses who were married and least (20.90) in staff nurses who were unmarried. Marital status had impact on knowledge of staff nurses regarding enteral feeding.
- Mean knowledge score was highest (23.25) among staff nurses who had done Post Basic B.Sc.(N) & least (21.66) among staff nurses who were G.N.M. Professional Qualification had no impact on knowledge of staff nurses regarding enteral feeding.
- Mean knowledge score was highest (23.49) among staff nurses with more than 6 years of work experience and least (20.38) among staff nurses with less than 1 years of work experience. Work experience had no impact on knowledge of staff nurses regarding enteral feeding.
- Mean knowledge score was highest (24.19) among staff nurses who were working in critical areas & least (17.89) among staff nurses who were working in emergency. Working area had significant impact on knowledge of staff nurses regarding enteral feeding.
- Mean knowledge score was highest (22.40) among staff nurses who had attended in-service education & least (20.47) among staff nurses who had not attended. In service education had no impact on knowledge of staff nurses regarding enteral feeding.

Conclusion

Maximum(41%) staff nurses were in the age group of 25-28 Years and(76%) were females. 50% were married, 61% were GNM, 35% were having > 6 Years experience, 35 % were working in medical unit and 85 % had attended in- service education on enteral feeding. Majority of staff nurses had good knowledge(80%), (12%%) had excellent knowledge and only (8%) had

average knowledge. Marital status and working area had significant impact on knowledge regarding enteral feeding among staff nurses.

Conflict of Interest: Nil

Source of Funding: Self

Ethical Clearance: verbal permission from the participants and written consent from the Authorities were sought before the data collection.

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