

Effectiveness of Video Assist Teaching Module on fourth years nurses student practice about Nasogastric Tube Feeding - Faculty of Nursing Science, Shendi University 2018



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ABSTRACT

Background: Nurses knowledge can directly influence the success of nutritional support program with NG tube feeding .The internet based educational material can help staff nurse to improve the knowledge and practice regarding NG tube feeding, So there is higher need to increase nurse's knowledge and practice in this domain.

Aim: This study aimed to assess effectiveness of video teaching module on knowledge and practice regard NG tube feeding among nursing.

Methods: This quasi experimental study was conducted at Shendi University Faculty of nursing science. (42) Nursing students were selected randomly, then data was collected by observational check list and analyzed manually and presented in figures and tables.

Result: Implied that the educational program was having positive effect, on enhance student's practice related to nasogastric tube feeding ,nurses students showed poor performance pre test in pre procedure (35.7%) and satisfied during and post procedure(66.7%), (61.9%) respectively, but their performance was improved during post test .

Recommendation: the study recommended that the video assist teaching program should be implemented as one of teaching module specially in the pre lap session, because it enhances the students learning skills.

KEYWORDS :

Nasogastric tube – nursing – video – teaching – program

I. INTRODUCTION

Nutrition is the science of food and its relationship to health, and concerned primarily with the part played by nutrition in the body growth and development and maintains, when the person able to consumes food orally with proper nutrition, health will be maintained optimally. In these following conditions like; dysphagia, pharyngitis, esophagitis, bulbar pulsy, burns, pancreatitis, cerebral vascular accident, progressive oral and pharyngeal tumor, degenerative neurological disorder, upper gastrointestinal surgery and head neck surgery the patient are unable to swallow sufficient nutrition [1]. In these condition, it is very necessary to maintain or improve their nutritional status, nasogastric tube feeding is a common method of maintaining or improving nutritional status patient in hospital as well a home care siting, often require nutritional supplementation with enteral feeding, enteral feeding can be administered via nasogastric tube, nasoduodenal, and nasojunal.

Nasogastric tube is thin soft tube that delivers nutrients from the nasal route into the stomach via feeding tube [2]. It used to administer nutrient to patient with inability to ingest adequate nutrient slowly by mouth [3]. Nasogastric tube feeding may be accompanied by complication as gagging or vomiting, nausea, tissue trauma, irritation along the nasal, pain, diarrhea, bloating, cramping, constipation and aspiration pneumonia. It is important for nurses to improve their knowledge and performance to prevent this complication [1].

Teaching method comprises the principles and method used for instruction, commonly used teaching method may include lecture, demonstration, video assisted teaching or combination of these. Use of advanced technology such as video tapes or computers is also popular now days, these provide new learning experience for students, more over the ability to repeat some parts or the entire film is big advantage, there are some procedures which cannot be performed directly on the patient because safety as well as the privacy issues, so in that cases video teaching is more preferable, but in contrast some procedure cannot be well understood until they are performed on live patient, video was developed as one of the teaching method [4].

Nurse's Responsibilities regard NG tube feeding:-

Nurses' knowledge and skills that applied nasogastric tube have two very important factors in preventing any defects, Adequacy and convenient nursing intervention and chemistry should be observing are needed for an effective nasogastric tube as a therapy. Nursing responsibility in the intervention of NG are: evaluating patient status, recording for the fluid balance, weighting patient daily, checking of NG instruction, which including, insertion of the tube, administration of feeding, maintenance of the tube, prevention the complications associated with this type of therapy and must be alert by patient assessment for their responses to tube feeding. Nurses should be aware by appropriate size for the tube, evaluate right position for the tube, different ways for tube securing, enhance right position for neonatal during administration and after, assessing the tube patency, assessing the amount type of food so it must be a liquid, evaluating the intestinal movement, which are necessary part to reduce the complications of NG tube as malposition feeding tubes continue to surface; most are due to inadvertent placement in the respiratory tract and isolated reports of a nasally placed tube entering the brain following head injury continue to occur, as do reports of esophageal and gastric perforation in neonates and enhance maximum patient integrity that is for proper management for NGT [5].

Nursing care quality more affected at patient outcomes. So, positive progress in neonatal integrity can be carried out by proper nursing practices [6]. Nursing managements is known by the patient needs and consider adequacy of knowledge, practices and previous background [7].

II. OBJECTIVE

2.1 General objective

To study impact of implementing educational program regarding NG tube feeding among nurses via video

2.2 Specific objective.

1. To identify nurses level of practice about tube feeding.
2. To implement video assist teaching program among nurses student.
3. To evaluate the impacts of an educational program regarding nasogastric tube feeding on the nurses practice.

III. MATERIAL AND METHODOLOGY

Study Design:-

This study was quasi experimental study done to evaluate effectiveness of video teaching module on practice of nasogastric tube feeding among nursing student in fourth years in faculty of nursing science, pre and post assist from March to August 2018.

Study area:-

Study was conducted in Shendi is town in northern Sudan, situated on the east bank of River Nile State 150 KM northeast of Khartoum, Shendi is also about 45 KM southwest of the ancient city of Meroe, located in River Nile wilayah, Shendi is the center of Jaaliin tribe and important historic trading center, its principal suburb on the west bank is Almatamma, a major traditional trade route across the bayed desert connects Almatamma to marrawi and Napta, 250 KM to the north west.

Study Setting:-

Shendi university is public university that was established in 1994, located in Shendi, Sudan, it member of the federation of the universities of the Islamic World.

Faculty of nursing science is one of Shendi universities, in 1990 it was department in the faculty of medicine and health science in the university of Nile Valley, in 1994 it was a unit in Shendi university, on the 29th September 2010 it grew to full faculty, it awards bachelor honors degree in four years.

Study population:-

Include all students registered in academic year 2017 – 2018.

- a) **Inclusion:-** All students registered to eight semester in fourth year (109 students).
- b) **Exclusion:-** Student who withdrew from semester eight

Sampling method and Technique:-

The following formula was used to calculate the sample size:-

$$N = z^2 (p - q) / \alpha$$

$$N = \text{sample size}$$

$$Z = \text{study population} = 109$$

$$P = \text{magnifying error} = 0.5$$

$$Q =$$

Sample size:-

(42) students participated in this study were selected by simple random sample technique.

Data collection tool:-

The data was collected observational check list adopted from Clinical Nursing Procedure :The Art of Nursing practice ,and modified by the researchers composed of 20 steps rated y Done correctly , done un correctly , not done .

Rating scale:

Pre procedure composed of seven steps, during procedure composed of six steps and post procedure composed of seven steps.

- a) **good performance:** if the participant performs more than 75 % (6-7steps)in pre and post procedure, in during procedure (5-6steps).
- b) **Satisfied performance:** if the participant performs 51-64% (5-4steps). in pre and post procedure, in during procedure (4steps).
- c) **Poor performance:** if the participant perform 50 %or less(3-2steps) .). in pre and post procedure, in during procedure (3-0steps).

Data collection techniques:-

After obtaining an official permission from the head of faculty of Nursing science, data were collected over two week's period in 2018, participants were selected randomly from students of fourth year, each student was interviewed individually after taken their consent to contribute in the study and was given sufficiency identification about the study aim by the researchers, after that was assessed students knowledge's related to nasogastric tube feeding pre test distributed for the studied model, at this time researchers were good observed the students during their work and complete the follow check list, the educational program was proceed over three demonstrated session, each session taken 15 minute for each student, 21students in each week, at different days of the week, immediately after pre test student watched video related to the skills regarding nasogastric tube feeding, using same tool of pretest, for the post test that done to evaluate the program effectiveness.

Data analysis:-

The data collected by using master sheet then analyzed by computer software program (Spss) different statistical measure was used frequency percentage,medium, Chi –test presented in figures and tables.

Ethical consideration:-

The proposal was approved by the research committee of faculty , agreement was taken from administration of faculty ,then verbal consent was taken from the participant after explanation the aim of the study and the data will be a confidential for the purpose of the study only and have chance to stop any time they wish to stop .

IV. RESULTS

Table (1) study group level of performance pre post test regarding NG tube feeding:

N = 42

Item	Level of performance											
	Pre test						Post test					
	Good		Satisfied		poor		Good		Satisfied		poor	
	F	P	F	P	F	P	F	P	F	P	F	P
Pre procedure	8	19%	28	66.7%	6	14.3%	32	76.2%	10	23.8%	0.00	0.00 %
Intra-procedure	16	38.1%	11	26.2%	15	35.7%	38	90.5%	3	7.1%	1	2.4%
Post procedure	4	9.5%	26	61.9%	12	28.6%	31	73.8	10	23.8%	1	2.4%

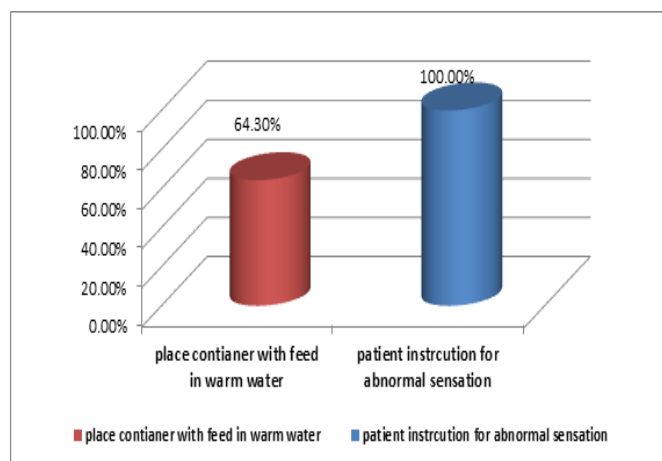


Figure (1) most common steps not done by the study group post intervention

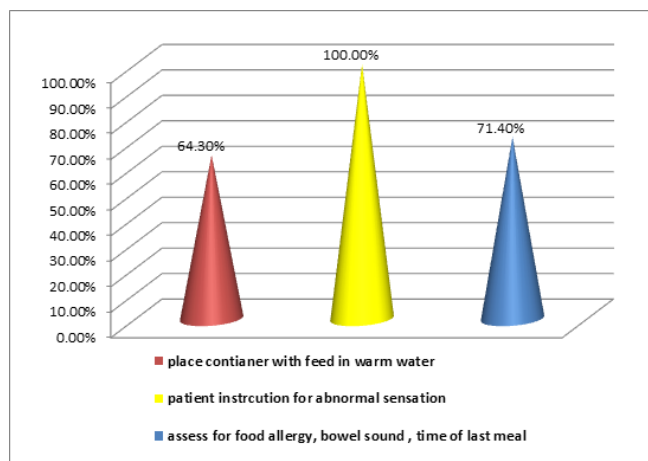


Figure (2) most common steps not done by the study group pre intervention

V. DISCUSSION

The present study reveal that, the level of knowledge of the study group was considered to be poor pretested less than quarter (19%) only have good performance while more than one third (38, 1%) have satisfied performance, these finding was improved during the post test to be include most of the study group (76,2%) where had good performance in pre procedure steps.

In addition to that, study group showed poor performance during procedure of feeding by the NG tube because more than one third of them (35.7%) were not implemented NG tube feeding in proper way, so they present patients to side effect and complication of it, these finding was improve in post test evaluation, majority of them (90.5%) done it correctly due to effect of the application of the program. These finding were agreed with study carried out in Unite State American .

Moreover, study group showed poor performance in more than quarter (28.6%) in after care of NG tube feeding and documentation in pre test, while more than two third showed good performance (73.8%) post test, but the practice from students, post program regarding nasogastric tube feeding, before, during and after feeding administration were sufficient, the improvement of nursing practice as result of implementing an educational program was well supported by Kenny ' pointed out that there was improvement in all practices of nasogastric feeding tube after implementing an educational program .

In similar study established by Metwaly in 2 pediatric units at El-Zigzag hospital Egypt that was to assess the effectiveness of educational program on knowledge and practices level for nurses, related to congenital hypothyroidism. It was detected, the nurses' knowledge and practice was promoted at post test.

Farther more, in spite of improvement in the study group performance in the post test, but there was still essential steps was missed by them, during the pretest all of them not instruct patient to notify nurse if he or she experience sensation of fullness nausea or vomiting (if patient alert) And less than two third (64.3%) not place container with feed in warm water, and more than two third (71.4%) not asses for food allergy, bowel sound ,time of last meal, while post test less than two third not place container with feed in warm water, and majority not instruct the nurse for abnormal sensation.

These step is very essential because important to warm the fluid to be feed, and proper assessment of allergies and time of last meal will prevent risk of complication, also important to instruct patient to notify nurse because may indicate intolerance of feeding and cause some complication and deteriorate condition .

VI. CONCLUSION

The study concluded that is the level of proficiency in the study sample improved after application of the training program, while some steps did not applied such as place container with feed in warm water, instruct patient to notify nurse if he /she experience sensation of fullness, nausea or vomiting (if patient alert). The educational program had good effectiveness in promoting level of practice.

VII. RECOMMENDATIONS

The study recommended that , video assist teaching program should be implemented as one of teaching module specially in the pre lap session , because it enhance the students learning skills .and periodically assessment for nurses knowledge level and practice and establish this study on different hospital in Sudan .

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