

NURSES' KNOWLEDGE AND PRACTICES REGARDING THE NUTRITIONAL MANAGEMENT OF PATIENTS WITH NASO-GASTRIC TUBE FEEDING

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INTRODUCTION

Nutrition is one of the basic needs for human survival. Specifically, when people fall into sick, nutrition plays a vital role for their healing process. Adequate nutrition is required for patients to improve and maintain their health. Naso-gastric (NG) tube feeding is a useful method of nutritional management in patients who do not have the ability to take meals by mouth. Nutritional management refers to fulfilling the nutritional needs of patients. NG feeding is defined as the delivery of nutrition from the nasal route in to the stomach via a feeding tube (Nursing Clinical Practice Guideline, 2010). Naso-gastric tube feeding as a widely used alternative feeding method promotes patients' recovery, reduces the length of hospital stay and treatment costs, and enhances patients' immunity (Bowman et al., 2005). Nurses occupy one of the best positions to ensure adequate nutrition for patients because of their holistic caring role. Hence, nurses' adequate knowledge related to patients' nutritional management especially the naso-gastric tube feeding is essential to achieve the best practice and optimal outcomes for patients (Bourgault et al., 2007). Several studies have emphasized the importance of nurses' role in the nutritional support of patients, where it is argued that patients' nutrition forms a part of the successful nursing care (Persenious et al., 2006). But, high incidence of aspiration was reported due to incorrect positioning of patients during NG feeding (Metheny et al., 2010). Therefore, it is necessary to examine nurses' current knowledge and practices regarding NG feeding.

The purpose of this study is to examine the nurses' knowledge and practices regarding the nutritional management of patients with NG tube feeding. The specific objectives of the study are to determine the nurses' existing knowledge regarding the management of patients with NG feeding, describe the current practices of nurses in feeding patients through NG tubes, and discuss the challenges faced by nurses when practicing NG feeding procedure. The findings of the study would be helpful to provide nurses and nurse managers with an in-depth understanding of the nurses' competencies in nutritional management of patients with NG tube feeding which will help to develop appropriate guidelines.

METHODOLOGY

Quantitative, descriptive design was used for the study to assess a randomly selected sample of 150 nurses working at medical wards of the National Hospital of Sri Lanka. A self-administered questionnaire was used as the tool in collecting data. Content validity of the instrument was assured by referring to the standard literature and the subject experts. Reliability and understandability was assured by performing test-retest reliability. Ethical clearance was granted from the Ethical Committee of the National Hospital of Sri Lanka (NHSL). Written informed consent was obtained from each participant prior to the study while assuring voluntary participation. The data analysis was done using descriptive statistics.

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RESULTS AND DISCUSSION

A total of 144 questionnaires were returned out of 150 representing a 96% response rate. Of the sample, majority was females (92%). Thirty percent of the sample had less than 1 year of service experience, 30% had 1-5 years of working experience while 40 had more than five years of working experience as a nurse. When considering the highest level of nursing education received, 19% were under graduate nurses and 81% were diploma holders.

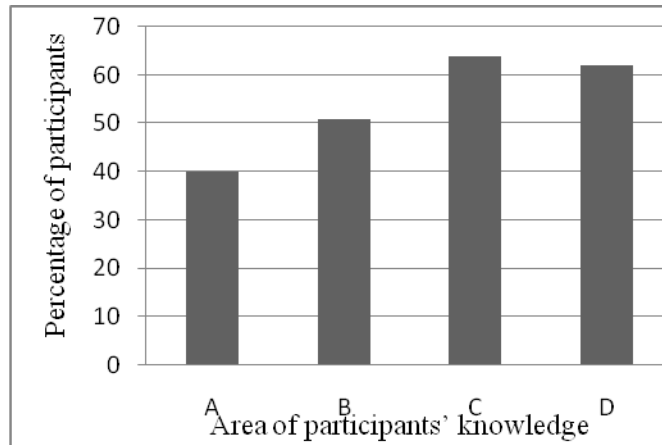


Figure 1: Nurses' existing knowledge regarding NG tube feeding

A. Knowledge on correct way of calculating the nutrition value of NG feed	C. Knowledge on preventing of complication of NG feed
B. Knowledge on proper administration method of NG feed	D. Knowledge on correct way of nutritional assessment

There was a variation in nurses' knowledge on NG tube feeding. The majority had adequate knowledge in many aspects on NG-tube feeding. According to findings, more than 60% of the participants knew how to prevent complications of NG feeding. The majority of the participants had knowledge regarding the correct way of nutritional assessment (61%), and proper administration method of feed (50%). Regarding the calculation of required value of nutrition, only 40% (Figure 1) had sufficient knowledge while many had poor knowledge, which is similar to the findings of the study by Al-kalaldehy (2011).

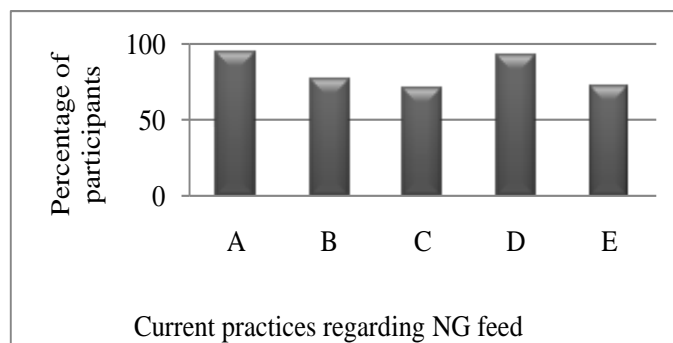


Figure 2: Current Practices among Nurses in NG Feeding

A. Confirmed tube placement before delivering of feed	D. Maintained fluid balance chart
B. Flushed tube before and after administrating feed	E. Documented complications
C. NG tube changed within regular intervals	

According to the findings, over 90% of participants engaged in the activity of confirmation of

tube placement before delivering of feed and maintaining of fluid balance charts. Nurses' current practices regarding flushing of the tube before and after administrating NG feed and documenting complications were at a satisfactory level (> 70%). Of participants 70% reflected that they have done regular tube changing practice. The finding of the study reveals that nurses are following the desired practice method in maintaining and managing NG tube feeding as indicated in figure 2. Different results were shown by a study done in Kenya (Kobe, 2006).

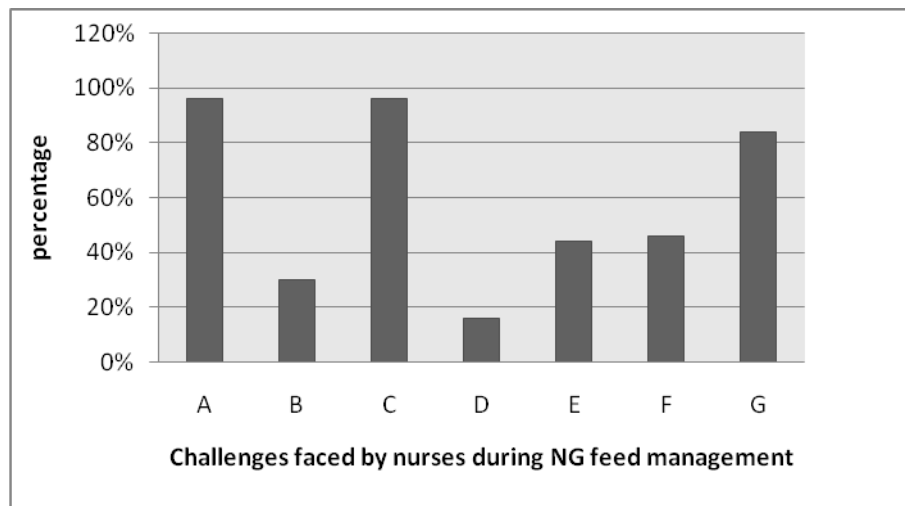


Figure 3: Challenges Faced by Nurses when Practicing NG Feeding

A. non-availability of feeding pump	E. non-availability of adequate staff
B. inadequate nutritionist support	F. lack of patients' co-operation
C. non-availability of proper guideline	G. inadequate in-service training programmes
D. non-availability of adequate feeding devices (tube/ syringes)	

The identified major challenges faced by nurses in feeding via NG tubes are: non-availability of feeding pumps (97%), non-availability of proper guidelines on NG feeding management (97%), and inadequate in-service training programs on NG feeding (82%) (Figure 3).

CONCLUSIONS/RECOMMENDATIONS

This study reveals that the nurses' knowledge vary in managing patients with NG tube feeding. Poor knowledge was reported on calculating the nutritional value of NG feed. Most nurses have followed desired practice methods of NG feeding. According to the findings, major challenges that nurses face during NG feeding are non- availability of feeding pump, lack of education programmes and guidelines for nurses in the hospital regarding NG tube feeding and its management. These findings would be helpful for the management of hospitals and nursing educators in planning ongoing education and training for nurses regarding the areas where they have poor knowledge. Further, establishing of written updated protocols/ guidelines on NG nutritional management for nurses and establishing nutritional committees for hospital would be worthwhile to ensure correct nutritional management for the patients with NG tubes. Further researches in other hospitals are also recommended for exploring knowledge and practices of the nursing staff in this regard.

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