

Research Article

Critical Care Nurses Perception on Early Initiation of Enteral Feeds to Critically ill and Mechanically Ventilated Patients at a Private Hospital, ICU.

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Abstract

Background: Enteral feed is described as the delivering of food, in the form of liquid directly into the stomach or Gastro intestinal tract. Consequently, if nutritional support is not properly taken care of it can lead to a high morbidity. Therefore, interventions to prevent malnutrition due to underfeeding in the ICU must target the underlying causes. **Methodology:** This study explored the critical care nurses' perception on early initiation of enteral feeding in the intensive care unit. A Qualitative exploratory descriptive research design was employed. Six participants were purposefully sampled. Data was collected through in-depth interviews with the help of semi-structured interview guide. Data was analyzed thematically. **Results:** Four themes emerged from data analysis process and they were. Majority of the participants indicated that doctors are the ones that are responsible for initiating enteral feed to patients with the assistance of the dieticians. Secondly, the majority of participant lack knowledge and understanding with regard to the target time and nutritional support wherein the enteral feeds should be commenced or initiated in critically sick and mechanically ventilated patients in the ICU. **Conclusion:** Enteral feed is paramount in the in critically care unit because it contributes to the recovery of patients.

Keywords: Intensive Care Unit, Enteral Feeds, Naso Gastric Tube, Mechanically Ventilated, Nutritional Support Team.

Key points:

- Nurses has a vital role to play in the care and recovery of patients by not only focusing on medical therapy but equally important to consider provision of feeds to the critically-ill patients.
- Nutrition treatment is an aspect of the care process of critically ill patients in ICU.
- Enteral feed is paramount in the in critically care unit because it contributes to the recovery of patients and reduce the need for mechanical ventilation as well as long hospitalization periods

According to, [4] critical care nutrition is not a core entry-level skill for health professionals in South Africa and there is no regulatory requirement for post-basic qualification or certification. Varied levels of practitioner expertise between healthcare professionals qualified in different disciplines emphasize the need for good multidisciplinary cooperation in order to achieve nutrition support goals, and positively affect clinical outcomes. In the context of these perceived skill disparities among various healthcare professionals, less than half of the ICUs surveyed reported the operation of a formal nutrition support team within the unit [4].

1. Introduction

Enteral nutrition (EN) support plays a key role in reducing malnutrition and muscle waste in hospitalized patients, and its provision is primarily a nurse's role. Therefore, nurses need to possess adequate knowledge, skills and a positive attitude regarding enteral nutrition [1-5]. Furthermore, nutrition support is an essential and important component of health, healing, and vitality itself and therefore nurses are in the unique and vital position of monitoring their patients' dietary needs, consumption, weight, and response to prescribed diets to make accurate assessments of their nutritional needs and status [2].

1.1. Objectives

The objectives of the study were to understand the critical care nurse's perception on early initiation of enteral feeds to critically ill and mechanically ventilated patients at Mediclinic Private Hospital, ICU, Windhoek, Khomas region.

2. Methods

A qualitative, descriptive and phenomenological approach was employed in this study to explore critical care nurse's perception on early initiation of enteral feeds to critically ill and mechanically ventilated patients at Private Hospital,

ICU, Windhoek, Khomas region. The population comprised of 17 Registered nurses, purposive sampling was used in the study and the sample was determined by data saturation at 6 respondents.

2.1. Data collection

An interview guide was used for the collection of the data process. Permission was sought from the University of Namibia with regard to ethical clearance and thereafter the academic research supervisor sought permission from the Executive Director of the Ministry of Health and Social Service in order to allow the collection of data. Furthermore, permission was sought from the Management of hospital to allow data collection from the nurses after they have signed a written informed consent to partake in the study. The interview lasted for about 5 to 10 minutes and information collected is confidential and ethical principles discussed in ethical principles were adhered to. The data collection date commenced on the 14th August and was completed on the 22nd September 2023.

2.2. Ethical Considerations

The study conformed to the Helsinki declaration, permission to conduct the study was obtained from the University Research Ethics Committee, the Director of Ministry of Health and Social Services, an approval letter from the Management of Private Hospital and informed consent from the participants.

2.3. Demographic Data

Six (6) participated in the study and (identified as (P1 to P6)). The participants are registered nurses who comprised of five females and one male, the ages of participants range between 29 years to 64 years and the years of experience in the ICU varies from 4 years, less than ten years and one participant with 4 years in ICU. Employed full time at private hospital intensive care unit. Furthermore, the participants were categorized under the categories of Demographic data (age and gender) of Qualifications, and years of experience in the intensive care unit.

2.4. Presentation of Findings

During the analysis's- four themes and sub-themes emerged and were identified and classified under four major themes and sub-themes, which are summarized below with relevant quotes from the participants. The following four main themes emerged from analysis: knowledge about enteral feeds, enteral feeds practice.

2.5. Presentation of the Study Results

Knowledge about Enteral Feed: Participants in the study were asked about the meaning of enteral feeding. The participants mentioned what enteral feeds are and the types of enteral feeds.

"Enteral feeds are feeds that commenced through a naso-gastric that passes through the nose and straight into the stomach and giving feeds that are already prepared like in milk type of way. Types of feeds are peptamin, nutrison, diaben

and are given based on the condition of the patient" (P3).

2.6. Enteral Feed Practices in ICU

Participants were asked about enteral feed practices; these practices are discussed under the following sub-theme: Delayed commencement of enteral feeds.

The majority of nurses responded that the initiation of the enteral feeds is the responsibility of nurses and doctors with the assistance of dieticians when necessary. Most of the respondent did not know the time frame within which to commence enteral feeds to critically sick and mechanically ventilated patients in the ICU.

2.7. Delayed Commencement of Enteral Feeds.

The majority of nurse's respondent that enteral feeds should be commenced as soon as possible without specifying the exact time frame. Moreover, two respondents mentioned that enteral feeds should be commenced as early as 6 hours and 12 hours post admission in the ICU, respectively. Despite the availability of feeding protocols and policies in the ICU regarding enteral feeding to patients, the nurses seem to lack knowledge as to when to commence the enteral feeds to patients.

"I think as early as possible, unless if like the patient came from theatre and there are no reasons to withhold it, for instance post operatively, but if there is nothing the patient should be started on feeds. We are looking at critical things" (P3).

2.8. Initiation of Enteral Feeds in ICU

On aspect of the person/persons responsible for the initiation of enteral feeds in the ICU, the nurse's majority of respondent replied that the doctor is the focal person responsible to initiate the enteral feeds to patients in the ICU. Furthermore, the respondents also mentioned that nurses are responsible for advocating for enteral feeds, furthermore some respondents stated that it is the responsibility of nurses to remind the doctor to commence the enteral feeds in ICU. Finally, the respondent presented their statements as follows.

"That responsibility usually lies on the doctor because we are in the private hospital so the doctor should prescribe the feeds for us to commence the feed, the nurses are the ones who put it up, if the nurse notice that the patient is not fed, when the doctor is doing rounds the nurses advocate for the patient and ask the doctor if feeds can be started or so" (P2).

2.9. Availability of Nutritional Support Team (NST)

The majority of respondent did not understand what a nutritional support is and what it is comprised of, and such team does not exist in the ICU. The respondent stated as follows.

"The team is not set, it is usually when the doctor is not sure which feeds to be given they employ the service of nutritionists. The dietician to come and check the patient and at what rate should be given. We don't have a NST but we have a multi-disciplinary team such as doctors, nurses and dieticians." (P2).

3. Discussion

The aim of this study was to explore and describe the critical care nurses' perception on early initiation of enteral feeds to critically ill and mechanically ventilated patients at private hospital, ICU, Windhoek, Khomas Region. The study revealed that the major factors contributing to poor feeding practices in ICU is merely due to delayed commencement of enteral feeds, lack of knowledge as to who is supposed to initiate enteral feeds to patients in ICU, and Furthermore the lack of knowledge about a nutritional support team and its availability in the ICU. The above- mentioned factors may operate in synergy to contribute to poor feeding practices, prolong hospitalization and poor recovery from illnesses or injuries.

A total of six registered nurses were interviewed. All the participants were employed by private hospital and holds formal university qualifications in nursing science two registered nurses holds post graduate qualifications in critical care nursing. All nurses have been working in the ICU for more than four years. When asked to give their knowledge and understanding as to when is enteral feeds supposed to be commenced in the ICU, the majority of nurses do not have a clear understanding with regard to the time frame within which enteral feed is supposed to be commenced in critically sick and mechanically ventilated patients in ICU. Therefore, this could contribute to delayed feeds and poor feeding practices in the ICU [6]. Furthermore this study also revealed that nurses do not have knowledge and understanding with regard to the professionals who are responsible to initiate enteral feedings in the ICU, Most nurses mentioned that the doctor of the patient is responsible for the initiation of enteral feeds, some respondents also indicated that registered nurses are also responsible for the initiation of feeds in ICU, by assessing the need of nutritional support and this is done by their roles as advocates for the patients. Lastly some nurses also pointed out that the dieticians are responsible for the nutritional part of the patient in the ICU.

According to [3], Nurses are often the first clinicians to assess nutritional status of a patient because they are in most cases the first people to be in contact with patients before a medical officer. Nurses are frequently responsible for initiating, monitoring, and advancing EN as well as managing complications that may arise during administration of enteral feeds. During EN administration, nurses can minimize interruptions, allowing patients to receive maximum nutrition. Finally, one important aspect that the nurses were interviewed was the availability of a nutritional support team (NST) in the ICU.

Most if not all nurses did not have a clue as what a nutritional support team was and they verbalized that there is no such a team in existence in the ICU, apart from the traditional professionals that is involved in the nutritional affairs of the patients namely, the registered nurses, dieticians and Doctors. As a matter of fact, there are no clear guidelines as who is

really responsible for the support of nutritional support in the ICU. According to [1], an inter-professional approach is the best way to manage patients who require enteral feeding using the current protocol and guidelines available in the ICUs. A study done by [4] on nutrition support practices in South African ICUs indicates that nutrition decision-making practice were made jointly by dietitians and doctors (57%), followed by doctors alone (34%).

4. Conclusion

The findings indicated that enteral feed is paramount in the critically care unit as it contributes to the recovery of patients and reduces the need for mechanical ventilation as well as long hospitalization periods. The results further indicated that the majority of participant lack knowledge and understanding with regard to the target time and nutritional support wherein the enteral feeds should be commenced or initiated in critically sick and mechanically ventilated patients in the ICU.

4.1. Relevance for Clinical Practice

The use of EN should begin within the first 24 to 48 hours of admission for patients who receive ventilator support and have stable hemodynamic states with an adequate total caloric intake of 20 to 25 calories per kilogram of body weight for most adults in the ICU.

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