Assessment of Nurses's Performance Regarding Nutritional Support for Mechanically Ventilated Patients

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ABSTRACT

Background: Nutrition is a basic human need that changes throughout the life cycle and along the wellness- illness continuum. Most intensive care patients cannot eat orally for various reasons, as been intubated to mechanical ventilation, under sedation, or have alteration in their level of consciousness. For these patients, enteral feeding is the preferred method of nutritional support. In particular, early enteral feeding has been shown to decrease the rates of infection, length of hospital stay, and medical costs among ICU patients. ***Aim:*** to assess nurses' performance in providing nutritional support for mechanically ventilated patients in Al-Azhar university hospital, Damietta General Hospital and Rass El bar central Hospital. ***Subject and Methods:*** descriptive research design carried out in 60 nurses, working at intensive care units, 30 nurses intensive care unit at Al-Azhar university hospital, 20 nurses at Damietta General Hospital and 10 nurses at Rass El bar central hospital and given care for 60 mechanically ventilated patients in these hospitals. The tools for data collections included questionnaire sheet and observational checklist. ***results***: show most of studied nurses had satisfactory level of knowledge and most of them had unsatisfactory level of practice regarding nutritional support for mechanically ventilated patients*;* there is no statistically significant relation or correlation between studied nurse's demographic characteristics and their total score of knowledge or total score of practice.***Conclusion*:** The study concluded that all nurses need to improve their performance during providing nutrition for mechanically ventilated patients.***Recommended*:** The study recommended that improved nurses theoretical knowledge, clinical applications of providing nutrition for mechanically ventilated patients and continuous evaluation of nurse's knowledge and practice are essential to identify nurses needs and design heath teaching programs according their needs.

Keywords: Assessment, nurse's performance, nutritional support, Mechanical ventilation

INTRODUCTION

Critical illness is a life threatening and results from trauma, surgery, sepsis, shock or severe burns usually requiring intensive care. Critical illness is characterized by severe morbidity, often resulting in mortality. In this state, patients are susceptible to dysfunction of multiple organ systems including respiratory, cardiovascular, and digestive systems ***(Mizock, 2010)***.

Critically ill respiratory failure patients frequently require mechanical ventilation; Patients with acute and chronic respiratory failure may have the potential to develop nutrition- related complications. Nutritional support plays a significant role in treatment as further deterioration can have a direct effects on respiratory function, further decline, and poor outcomes ***(Mechanick & Brett., 2005).***

Most patients in the intensive care unit (ICU) are unable to fulfill their own nutritional needs. Therefore, they are at high risk to develop energy deficit. Early enteral nutrition (EN) is today considered as standard care in most intensive care units (ICUs), but when insufficient, the deficit should be supplemented parenterally ***(Kreymann et al., 2006).***

Nutritional support refers to enteral or parenteral provision of calories, protein, electrolytes, vitamins, minerals, trace elements, and fluids. The fundamentals of nutrition support for critically ill patients have been the subject of clinical practice guidelines ***(McClave et al., 2009).***

A growing body of evidence suggests that enteral feeding is associated with aspiration pneumonia, especially among critically ill patients who are on a ventilator. Critically ill patients receiving enteral feedings often have a substantial gastric volume, which may increase their risk of gastroesophageal reflux, aspiration and ventilator-associated pneumonia (VAP). ***(Artinian et al., 2006).***

Malnutrition in the critically ill especially mechanically ventilated patient has an adverse effect on all physiological processes. It increases the risks for infection and pulmonary edema. Also, nutritional deficits decrease phosphorus needed to produce adenosine triphosphate for cellular energy, reduce ventilatory drive, and impaired surfactant production. These malnourished patients are difficult to wean from the ventilator because of muscle fatigue caused by diaphragmatic and skeletal muscle weakness and/or reduced muscle endurance ***(Higgins et al., 2006).***

Furthermore, registered nurses' (RN) skills and knowledge are crucial when creating secure care for the patient. This places RNs in a unique position to secure good nutritional nursing care. Nutritional status is a vital part of assessment and care for the mechanically ventilated patient. Additionally, Nutritional care of patients is fundamental to good nursing practice. The importance of the role of the nurse in ensuring nutritional care is carried out appropriately and in accordance with the patient's wishes ***(SSF, 2007).***

AIM OF STUDY:

The aim of this study was to assess nurses' performance in providing nutritional support for mechanically ventilated patients at Al-Azhar university hospital, Damietta General Hospital and Rass El bar central Hospital**.**

Operational Definition of Performance:

Nursing performance in this study means nurses' practice regarding nutritional support for mechanically ventilated patients which based on their knowledge.

SUBJECT AND METHODS:

A descriptive study design was used to assess nurses' performance in providing nutritional support for mechanically ventilated patients**.** Stratified sample method carried out on 60 nurses worked at intensive care units, 30 nurses intensive care unit at Al-Azhar university hospital; 20 nurses at Damietta General Hospital and 10 nurses at Rass El bar centeral hospital and for 60 mechanically ventilated patients in these hospitals. ***Two tools were used for*** data collections and developed by the researcher as the followings:

Tool (I): knowledge Assessment Questionnaire Sheet: to assess the nurse's knowledge regarding nutritional support for mechanically ventilated patients.

This sheet consists of **two parts**:

Part I:

Includes information related to nurses' demographic data as nurse's name, age, and gender, qualifications, years of experience, attendance training courses regarding nutritional support for ventilated patients.

Part II:

Included (17) MCQ questions to assess Nurse's knowledge regarding nutritional support for mechanically ventilated patients, related to Indications and preparation of enteral nutrition for ventilated patients , Enteral feeding administration, Problems associated with enteral feeding for ventilated patients, Nurse's role in caring of ventilated patient after enteral feeding and Documentation.

Scoring System:

Nurse's responses were scored as following:

Right answer (1), wrong answer (0)

Total nurse's scores were calculated then converted to percentage and evaluated as follows:

- Equal to or above 75% was considered as a satisfactory level while those below 75% were considered as an unsatisfactory.

Tool (II): Nurses' enteral feeding practices for ventilated patients Observational Checklist

An observational checklist was used to assess nurse's level of performance in providing enteral feeding for ventilated patients such as nurse's role in preparation for enteral nutrition for ventilated patients, assessment of the ventilated patients receiving enteral feeding, nurse's role in preparing the ventilated patients for feeding ,nurse's practices to assess feeding tube placements, administration of feeding for ventilated patients, care of ventilated patient after enteral feeding and documentation.

Scoring System:

Nurse's response was evaluated as the follows:

The despondence was given one point for each done statement and (zero) point for not done.

Total nurse scores was calculated then converted to percentage and evaluated as following:

- Total scores of 75% and more was considered as a satisfactory level while total score below 75% was considered as an unsatisfactory.

Tool (III): Evaluation Performance Outcome

This tool was developed by the researcher to monitor patients for the presences of enteral feeding problems, which included:

a- Mechanical problems as aspiration, tube obstruction and frequent tube removal.

b- Gastrointestinal problems as diarrhea, nausea, vomiting and abdominal distention.

c- Metabolic problems as hyperglycemia, hyponatremia and hypernatremia.

Content Validity: The tool was tested for it's content validity, comprehensiveness and applicability by 5 expertises of professors and lecturers from the medical surgical department, Faculty of Nursing, Port Said University and El Mansoura University and from medicine department, Faculty of Medicine, Al-Azhar University who revised the tools and modifications were done according to their opinions.

A pilot study was conducted on 10% of nurses. It was done to test the clarity and practicality of the tools, the results of the data obtained from the pilot study helped in modification of the tools ; items were corrected or added as needed. Accordingly, modifications were done and the final form was developed .The nurses included in the pilot study were excluded in the main statistical sample.

The research data was collected from the beginning of May (2013) to the end of October (2013). The researcher visited Al-Azhar university hospital, Damietta General Hospital and Rass El bar centeral Hospital, Three days weekly during three shifts (morning, afternoon & night) to collect the data by using tool I, tool II and tool III. The questionnaire sheet was given to nurses individually in their work place; each nurse took about 30-45 minutes to complete the questionnaire sheet. The observational checklist was utilized by the researcher to assess nurse's practice. The assessment of nurse's practice was done through three times of observation. The

researcher observed each nurse three times for each skill, during morning, afternoon & night shift.

Ethical Considerations:
Nurse's consent was obtained before data collection and after explanation of the aim to conduct the study. Anonymity, confidentiality and privacy were asserted. The nurses were informed that his / her participation in the study is voluntary and he / she can withdrawal at any time.

RESULTS:

Table (1): shows the distribution of sociodemographic demographic characteristics of studied nurses, the majority of the studied nurses (86.7%) were aged between 20 to 30 years. Moreover, about half of the studied nurses (53.3%) were married, and more than two thirds of them had a nursing diploma (65%). As regards years of experience (68.3%) of the studied nurses had experience from 2 to 5 years in intensive care units while 23.3% of them had 5 to less than 10 years of experience. Regarding receiving training related to enteral feeding, 65.0% of the studied nurses didn't attend any previous training

Table (2): shows the frequency distribution of nurse's knowledge regarding nutritional support for ventilated patients; most of the studied nurses (98.3%) had satisfactory knowledge regarding care after enteral nutrition for ventilated patients while more than half of them (68.3%) had unsatisfactory level of knowledge regarding indication and preparation of enteral nutrition for ventilated patients.

Table (3): shows the total nurse's knowledge regarding nutritional support for ventilated patient, most of studied nurse's (73.3%) had satisfactory knowledge regarding nutritional support for ventilated patients.

Table (4): shows the frequency distribution of nurse's practice regarding nutritional support for ventilated patient; all of the studied nurses (100%) had satisfactory level of practice regarding administration of feeding for ventilated patients while most of them (93.3%) had unsatisfactory level of practice regarding assessment of ventilated patient receiving tube feeding.

Table (5): shows the total nurse's practice regarding nutritional support for ventilated patient, most of studied nurse's (75%) had unsatisfactory practice regarding nutritional support for ventilated patients.

Table (6): shows the Comparison of the total scores of nurse's knowledge regarding nutritional support for ventilated patients in relation to their socio-demographic characteristics. There were no statistically significant relation between nurses' knowledge regarding nutritional support for ventilated patients and their socio-demographic characteristics.

Table (7): shows comparison between total nurse's practice scores regarding nutritional support for ventilated patients and their socio-demographic characteristics. There were no statistically significant relation between total nurses' practice scores regarding nutritional support for ventilated patients and their socio-demographic characteristics.

Table (8): shows the problems regarding nutritional support for ventilated patients**.** The most common mechanical problems were aspiration (30%) while the most common gastrointestinal problems were vomiting (30%). Finally, hypokalemia represented the most common metabolic problems (38.3%).

Table (1): Distribution of SocioDemographic characteristics of studied nurses (n=60).

	No. N=60	**%**
Age: (years)		
20- <30	52	86.7
30- <40	6	10.0
≥ 40	2	3.3
Mean ±SD; Range [26.18±5.27; 21- 48].		
Marital State:		
Single	24	40.0
Married	32	53.3
Widow	4	6.7
Educational Level:		
Bachelor	12	20.0
Technical institute of nursing	9	15.0
Nursing diploma	39	65.0
Years of Experience:		
From 2< 5 years	41	68.3
From 5<10 years	14	23.3
10 years and more	5	8.3
Receiving training course regarding enteral nutrition:		
Yes	21	35.0
No	39	65.0

Table (2): Frequency distribution of nurse's knowledge regarding nutritional support for ventilated patients (n=60).

Nurse's knowledge regarding nutritional support for ventilated patients.	**Studied nurses (n=60)**			
	Satisfactory		**Unsatisfactory**	
	No.	**%**	**No.**	**%**
Knowledge regarding indications of enteral nutrition and preparation before enteral nutrition for ventilated patients.	19	31.7	41	68.3
Knowledge regarding administration of enteral nutrition for ventilated patient.	40	66.7	20	33.3
Knowledge regarding problems associated with enteral nutrition for ventilated patients and how to prevent them.	42	70	18	30
Knowledge regarding care after enteral nutrition for ventilated patients.	59	98.3	1	1.7
Knowledge regarding documentation.	30	50	30	50

Table (3): Total nurse's knowledge scores regarding nutritional support for ventilated patient(n=60).

Total knowledge	**No.**	**%**
Satisfactory	44	73.3
Unsatisfactory	16	26.7

Table (4): Frequency distribution of nurse's practice regarding nutritional support for ventilated patient (n=60).

Nurse's practice regarding nutritional support for ventilated patient.	**Studied nurses (n=60)**			
	Satisfactory		**Unsatisfactory**	
	No.	**%**	**No.**	**%**
Preparation for enteral feeding	33	55	27	45
Assessment of ventilated patient receiving tube feeding	4	6.7	56	93.3
Preparation of patient receiving enteral feeding and his/her environment	27	45	33	55
Assessment of tube feeding placement	3	5	55	95
Administration of feeding for ventilated patients	60	100	0	0
Care of ventilated patients after enteral feeding	37	61.7	23	38.3
Documentation	59	98.3	1	1.7

Table (5): Total nurse's practice scores regarding nutritional support for ventilated patient (n=60).

Total practice	**No. N=60**	%
Satisfactory	15	25
Unsatisfactory	45	75

Table (6): Comparison of total scores of nurse's knowledge regarding nutritional support for ventilated patients in relation to their sociodemographic characteristics (n=60).

demographic characteristics	**Total score of nurse's knowledge regarding nutritional support for ventilated patients**					
	Satisfactory		**Unsatisfactory**		**X^2**	**P-value**
	No.	**%**	**No.**	**%**		
Age (years)						
20- <30	38	73.1	14	26.9	0.86	0.64
30- <40	4	66.7	2	33.3		
≥ 40	2	100.0	0	0.0		
Marital state						
Single	18	75.0	6	25.0	1.83	0.40
Married	22	68.8	10	31.3		
Widow	4	100.0	0	0.0		
Educational level						
Bachelor	9	75.0	3	25.0	1.72	0.42
Technical institute of nursing	5	55.6	4	44.4		
Secondary diploma of nursing	30	76.9	9	23.1		
Experience						
From 2-5 years	29	70.7	12	29.3	1.69	0.42
From 5-10 years	12	85.7	2	14.3		
More than 10 years	3	60.0	2	40.0		
Receiving training course						
Yes	16	76.2	5	23.8	0.13	0.71
No	28	71.8	11	28.2		

Table (7): Comparison between total nurse's practice scores regarding nutritional support for ventilated patients and their sociodemographic characteristics (n=60).

demographic characteristics		**Total score of nurse's practice regarding nutritional support for ventilated patients**							
		Satisfactory		**Unsatisfactory**		**Total**		**Test**	**P value**
		N	**%**	**N**	**%**	**N**	**%**		
Age	**20- <30**	11	73.3%	41	91.1%	52	86.7%	5.20	0.06(NS)
	30- <40	2	13.3%	4	8.9%	6	10.0%		
	≥ 40	2	13.3%	0	.0%	2	3.3%		
Social Status	**Single**	7	46.7%	17	37.8%	24	40.0%	0.38	0.82(NS)
	Married	7	46.7%	25	55.6%	32	53.3%		
	Widow	1	6.7%	3	6.7%	4	6.7%		
Educations	**Bachelor**	3	20.0%	9	20.0%	12	20.0%	1.40	0.56(NS)
	Technical institute	1	6.7%	8	17.8%	9	15.0%		
	Nursing diploma	11	73.3%	28	62.2%	39	65.0%		
Experience	**From 2- < 5 years**	7	46.7%	34	75.6%	41	68.3%	4.35	0.11(NS)
	From 5 -< 10years	6	40.0%	8	17.8%	14	23.3%		
	10 years or more	2	13.3%	3	6.7%	5	8.3%		
Courses	**Yes**	7	46.7%	14	31.1%	21	35.0%	1.19	0.27(NS)
	No	8	53.3%	31	68.9%	39	65.0%		

Table (8): Distribution of problems regarding nutritional support for ventilated patients (n=60).

	No.	**%**
A – Mechanical problems		
1- Aspiration	18	30.0
2-Tube obstruction	13	21.7
3-Tube dislodgement	3	5.0
4-Frequent tube removal	8	13.3
5- Exit of the tube	6	10.0
6- Nasal ulcer	15	25.0
B- Gastrointestinal problems		
1-Diarrhea	9	15.0
2-Vomiting	18	30.0
3- Constipation	16	26.7
4- Abdominal distension	13	21.7
5-Constipation plus abdominal distension	2	3.3
6-Vomiting and diarrhea	2	3.3
C- Metabolic problems		
1- Hyperglycemia	7	11.7
2- Hypernatremia	1	1.7
3- Hyponatremia	7	11.7
4- Hypokalemia	23	38.3
5- Hyponatremia and hypokalemia	19	31.7
6- hyperglycemia, hyonatremia and hypokalemia	1	1.7
7- Hypernatremia and hyperkalemia	2	3.3

NB: Some cases reported more than one problem

DISCUSSION:

Critically ill patients, especially mechanically ventilated patients are at high risk for malnutrition-related complications. The resulting detrimental effects of malnutrition include increased morbidity and mortality, decreased functional quality of life, prolonged duration of mechanical ventilation, and increased length of hospital stay, which contribute to highest health care costs ***(Barker et al., 2011).***

Regarding sociodemographic characteristics of studied nurses, the present study revealed that the majority of studied nurses were aged between 20 to 30 years and most of them had nursing diploma. As regards to years of experience of the studied nurses more than half of them had experience from 2 to 5 years in intensive care units while about one third of them had 5 to 10 years of this experience, these results are in the same line with ***Sobeh, (2010)*** who found that the majority of the studied nurses working in all governmental intensive care units at port-said hospitals had

more than 4 years of experience, their age was between 20 to 30 years and most of them had nursing diploma.

Regarding training program, the present study results revealed that more than half of the studied nurses did not have any training program. This might be had a negative impact on the care given for mechanically ventilated patients.

Regarding assessment of nurses' knowledge, the present study revealed that most of the studied nurses had satisfactory level of total knowledge scores regarding nutritional support for ventilated patients. This result might be due to that most of the studied nurses had either nursing diploma or bachelor degree and were working from two to five years in intensive care units, and they studied sufficient content about nutritional support for ventilated patient in critical care course and this information was still unforgotten.

This findings disagree with ***Kım & Choue, (2009)*** who found that nurses have inadequate knowledge about nutrition recommended which means that there is a need for increasing nutritional nursing knowledge in nursing-school programs and continuing in-service educational programs**.**

Moreover, the findings of the present study are in accordance with ***Bourgault et al. (2007)*** who found a gap in nurses' knowledge related to enteral feeding and strategies that can be used by staff nurses, which influences enteral nutrition practice. In addition, ***Persenius et al. (2006)*** found that registered nurses recorded lower scores on taking responsibility, having sufficient knowledge about enteral nutrition. Moreover, the result disagrees with ***Schaller & James (2005)*** who reported that nurses had a poor knowledge of nutrition support for ventilated patients.

In relation to nursing practice regarding nutritional support for mechanically ventilated patients the present study showed that most of studied nurses had unsatisfactory total level of practice. This could be due to heavy workload, inadequate staffing, lack of facilities required for nutritional support for ventilated patients and inadequate number of nurses' supervision. This finding was explained by ***JCAHO (2008)*** who stated that there were performance gaps and high variance in procedures related to management of enteral tube feeding indicating lack of standardization and use of evidence for performance of efficient and effective patient procedures.

Also the results of the current study are supported by ***Kenny & Goodman, (2010)*** who reported that, although nutritional guidelines are already established, there is a gap between the recommended practice and the actual practice undertaken by nurses. Moreover, ***Woien & Bjork, (2006)*** reported that lack of nursing responsibility for nutritional therapy led to insufficient nutritional outcomes.

This finding was also explained by ***Aari et al. (2008)*** Who reported that gaps in nursing practice are increased due to inadequacy of adherence to evidence-based

guidelines. ***Atwal & Caldwell, (2006)*** reported that EN therapy is currently suboptimal, causing serious complications in addition to a failure of administration. Lack of team work, which resulted from insufficient evidence-based resources, induces discrepancies in practice.

Regarding nurse's knowledge and practice according to their socio-demographic characteristics; the present study revealed that there was no statistically significant relation between nurses' knowledge and practice regarding nutritional support for ventilated patients and their socio-demographic characteristics. This finding might be due to unavailability of sufficient materials and supplies needed in providing nutritional support for mechanically ventilated patients. This result was in agreement with ***El-Dosoky, (2008)*** who reported that no statistically significance relation was found between nurse's knowledge and practice and their age, experience and working areas. Also this result was in agreement with ***Mohamed &Wafa, (2011)*** who reported that there were no statistically significant differences between total practice scores and age of participants.

Also this finding is in agreement with ***Penland, (2010)*** who found that no significant relations between the nurses' knowledge about nutrition and their age in his study which aimed to assess the relationship between nurse nutritional knowledge and their practices in preventing unintentional weight loss.

This finding contradicted to ***Özçelik et al. (2007***) who reported that nurses with higher educational level achieved high scores in the knowledge regarding nutritional support for ventilated patients than others. This result also disagreed with ***Shahin, (2012), Mohamed & Wafa, (2011) and Penland, (2010).*** Who found that there was a statistically significant relation between nurse's knowledge, practice and educational level of participants.

This finding is contradicted by ***Shahin, (2012), El-Dosoky, (2008)*** *and* ***Radzyminski, (2007)*** who stated that the nurse's scientific knowledge not only affect overall quality performance but also their experience. Also the results are contradicted with ***Mohamed &Wafa, (2011)*** who found a positive statistical correlation between nurse's practice and their years of experience.

This finding was supported by ***Madigam et al., (2007)*** who stressed on that training programs were required to target the specific needs of nursing staff working at different care settings. In the same line ***Jarrett et al., (2007)*** emphasized that educational programs should provide nurses with the necessary attitude and behavioral skills basic to efficient practice of the work.

In this respect***, Thompson et al., (2007)*** stressed on that the importance of implementing in-service educational programme which it considered as a corner stone of total quality nursing care. Moreover, the continuous improvement was impossible without it. On the same line ***Happel, (2005)*** stated that quality should begin with education and ended with education.

Moreover ***Stacy, (2007)*** suggested that hospital should provide training to nursing staff to reduce risk resulting from untrained and unqualified staff. This finding was supported by ***Garfield and McCarthy, (2008)*** who reported that the lack of previous preparation by training course was an indicator for unsatisfactory level of knowledge and practice. In addition, ***Arranz et al., (2007)*** emphasized on that as the medical technologies changed, nurse's practice needed to updates their knowledge and skills to ensure delivering of quality health care for patients and minimized possible health hazards in the work place.

Regarding the most common mechanical problems related to nutritional support for mechanically ventilated patients, aspiration was founded as the most common and this finding goes in the same line with ***Artinian et al. (2006)*** who reported that enteral feeding is associated with aspiration pneumonia, especially among critically ill patients who are on a ventilator. ***Johnson (2009)*** also added that in critically ill patients receiving EN, high GRVs may result in aspiration of gastric contents and increased risk of ventilator-associated pneumonia (VAP).

This result are also supported by ***McClave et al., (2009)*** who reported that aspiration is the most serious complication of enteral tube feeding and the leading cause of pneumonia in ICUs, contributing to increased morbidity and mortality in critically ill patients.

Finally, the results of the present study showed that the most common gastrointestinal problems related to nutritional support for mechanically ventilated patients, were vomiting and diarrhea. This result was supported by ***Btaiche et al. (2010)*** who reported that feeding intolerance is associated with diarrhea, abdominal bloating or distension. This could be develop from poor digestive function particularly, it may be associated with formulae osmolarity, fat content, infusion rate, malabsorption, lactose intolerance, low serum albumin, and bacterial contamination. ***Btaiche et al. (2010)*** added that gastrointestinal complications should be taken into account when diarrhoea (the most common gastrointestinal complications), constipation, gastric distension and bloating and delayed emptying of gastric residues are reported. Furthermore, ***Woien & Bjork, (2006)*** reported that intolerance of enteral nutrition, including nausea, vomiting, and high GRVs are commonly cited as a reason for interrupting enteral nutrition.

CONCLUSION:

Based on study findings, it can be concluded that:

Most of studied nurses had a satisfactory level of knowledge and unsatisfactory level of practice regarding nutritional support for mechanically ventilated patients. There is no statistically significant relation between studied nurse's socio-demographic characteristics and total scores of their knowledge or practice.

RECOMMENDATIONS:

From the above conclusion, the following recommendations are suggested:

- Developing a system of periodical nurse's evaluation to determine strategies of upgrading their knowledge and enhancing their practice.
- Developing specific procedure booklet (standard of care) about the care of ventilated patients' specified in nutritional support.
- Encouraging nurses to attend national and international congresses, seminars, symposia and workshops about nutritional support for mechanically ventilated patients.
- Reapplication of the study on a large sample from different hospitals, as well as from different geographical areas in Egypt to construct our national statistics about nutritional support for ventilated patients in Egypt.
- Further study on the impact of enteral feeding for ventilated patients training program on nurse's knowledge and practice and patient's outcomes.

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تقييم أداء الممرضات تجاه الدعم الغذائي لمرضى جهاز التنفس الصناعي

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الخلاصة

تعتبر التغذية من الحاجات الفسيولوجية الأساسية اللازمة لصحة الفرد ولان معظم مرضي الحالات الحرجة لا يستطيعون تغذية انفسهم التغذية السليمة للعديد من الأسباب منها التنفس الصناعي او تأثير المخدر علي المريض أو اضطراب في درجة الوعي لذا تعتبر التغذية المعوية هي الطريقة المثلي لتغذية هؤلاء المرضي خاصة ان تلك الطريقة تقلل من نسبة تعرضهم للعدوى وأيضا تقلل من فترة إقامتهم بالمستشفي وبالتالي تقليل التكلفة . وتهدف الدراسة إلي تقييم أداء الممرضات بشأن الدعم الغذائي لمرضي جهاز التنفس الصناعي ولتطبيق هذة الدراسة تم استخدام الدراسة الوصفية على عينة عشوائية من الممرضات وعددهم **60** ممرضة تعملن فى وحدات العناية المركزة في المستشفيات في مدينة دمياط، وتشمل مستشفى جامعة الأزهر، مستشفى دمياط العام ومستشفى رأس البر المركزي . وقد تم جمع البيانات باستخدام ثلاث استمارات الاستمارة الأولي لتقييم المعلومات لدي الممرضات بشأن التغذية المعوية لمرضي جهاز التنفس الصناعي، الاستمارة الثانية: استمارة ملاحظة لتقييم ممارسات التمريض قبل واثناء وبعد التغذية المعوية لمرضي التنفس الصناعي و الاستمارة الثالثة المشاكل المصاحبة للتغذية المعوية لمرضي جهاز التنفس الصناعي: وقد أظهرت نتائج الدراسة أن معظم ممرضات الدراسة (**73.3٪**) لديهم معلومات كافية عن الدعم الغذائي لمرضي جهاز التنفس الصناعي بينما الممارسة التمريضية لدي معظمهم (75%) غير مرضية. وفيما يتعلق بالمشاكل الأكثر شيوعا لمرضي الجهاز التنفس الصناعي والناجمه عن التغذية المعويه كان الارتجاع الأكثر شيوعا ويمثل (**30٪**) في حين أن معظم المشاكل الشائعة المتعلقة بالجهاز الهضمي هي القيء (**30٪**) واخيرا تمثلت المشاكل الأيضية فى نقص بوتاسيوم الدم الأكثر شيوعا **(38.3٪).** وبعد تقييم الممرضات في المعلومات والممارسة التمريضيه المتعلقة بالدعم الغذائي لمرضي جهاز التنفس الصناعي، تبين أن ممرضات الدراسة علي مستوى مرض من المعرفة بينما الممارسة التمريضيه غير مرضية. وليس هناك علاقة ذات دلالة إحصائية بين المعرفة والخصائص الاجتماعية والديموغرافية للممرضات . وتوصي الدراسة بتطوير نظام لتقييم الممرضات لتحديد استراتيجيات رفع مستوى معلوماتهن وتعزيز ممارساتهن التمريضية. وتشجيع الممرضات على حضور المؤتمرات المحلية والدولية والحلقات الدراسية والندوات ورشة عمل حول الدعم الغذائي لمرضي جهاز التنفس الصناعي. كذلك عمل دراسة مستقبلية عن تأثير برامج تدريبى للممرضات بشأن التغذيه المعويه لمرضي جهاز التنفس الصناعي فمستوى ادائهن ونتائج المرضى .

الكلمات الاسترشادية : تقييم ، اداء الممرضات ، دعم غذائى ، التنفس الصناعى