REFLECTION ON THE NEED FOR PERMANENT EDUCATION IN NUTRITIONAL THERAPY

REFLEXÃO SOBRE A NECESSIDADE DE EDUCAÇÃO PERMANENTE EM TERAPIA NUTRICIONAL REFLEXIÓN SOBRE LA NECESIDAD DE EDUCACIÓN PERMANENTE EN TERAPIA NUTRICIONAL

Viviane Carrasco¹, Daniel Vinícius Alves Silva², Patrícia Oliveira Silva³

ABSTRACT

Objective: to reflect on enteral nutritional therapy and the importance of Nursing care to the patient. **Method:** this is a qualitative, reflexive study, based on a review of the literature on enteral nutritional therapy, between 1998 and 2018, in addition to the authors' perceptions about the subject. The data was systematized using the Content Analysis technique. The results were presented in two categories: "Indication of enteral therapy and the technique of introduction of the enteral catheter" and "Monitoring of diet and control of the occurrences by the Nursing team". **Results:** it was verified that enteral nutritional therapy is the form of support prioritized in severe patients, with acceptable digestive function, but unable to be fed orally. It was verified that the nurse and the team play an important role in the prevention of complications related to this modality of diet, with the capacity to recognize potential complications and intervene, contributing to the maintenance of life. **Conclusion:** this care should be made aware of and valued as a patient's Nursing care. It is considered that the study can enrich the practice of nurses who deal with nutritional therapy. Descriptors: Enteral nutrition; Nutritional therapy; Gastrointestinal Tract; Feeding Methods; Nursing; Nursing care.

RESUMO

Objetivo: refletir sobre a terapia nutricional enteral e a importância da assistência de Enfermagem ao paciente. **Método:** trata-se de um estudo qualitativo, do tipo reflexivo, baseado em revisão de literatura sobre a terapia nutricional enteral, entre os anos de 1998 a 2018, além da percepção dos autores a respeito do assunto. Realizou-se a sistematização dos dados pela técnica de Análise de Conteúdo. Apresentaram-se os resultados em duas categorias: "Indicação de terapia enteral e a técnica de introdução da sonda enteral" e "Monitoramento da dieta e controle das intercorrências pela equipe de Enfermagem". **Resultados:** averiguou-se que a terapia nutricional enteral é a forma de suporte priorizada em pacientes graves, com função digestiva aceitável, porém, incapazes de se alimentar por via oral. Constatou-se que o enfermeiro e a equipe desempenham importante papel na prevenção das complicações relacionadas a essa modalidade de dieta, com capacidade de reconhecer complicações potenciais e intervir, contribuindo para a manutenção da vida. **Conclusão:** deve-se conscientizar e valorizar esse cuidado enquanto assistência de Enfermagem ao paciente. Considera-se que o estudo possa enriquecer a prática dos enfermeiros que lidam com a terapia nutricional. **Descritores:** Nutrição Enteral; Terapia nutricional; Trato Gastrointestinal; Métodos de Alimentação; Enfermagem; Cuidados de Enfermagem.

RESUMEN

Objetivo: reflexionar sobre la terapia nutricional enteral y la importancia de la asistencia de enfermería al paciente. **Método:** se trata de un estudio cualitativo, del tipo reflexivo, basado en la revisión de literatura sobre terapia nutricional enteral, entre los años 1998 a 2018, además de la percepción de los autores al respecto. Se realizó la sistematización de los datos por la técnica de Análisis de Contenido. Se presentaron los resultados en dos categorías: "Indicación de terapia enteral y la técnica de introducción de la sonda enteral" y "Monitoreo de la dieta y control de las competencias por el equipo de enfermería". **Resultados:** se comprobó que la terapia nutricional enteral es la forma de soporte priorizada en pacientes graves, con función digestiva aceptable, pero incapaces de alimentarse por vía oral. Se constató que el enfermero y el equipo desempeñan un importante papel en la prevención de las complicaciones relacionadas con esta modalidad de dieta, con capacidad de reconocer complicaciones potenciales e intervenir, contribuyendo para el mantenimiento de la vida. **Conclusión:** se debe concientizar y valorar ese cuidado como asistencia de enfermería al paciente. Se considera que el estudio puede enriquecer la práctica de los enfermeros que tratan con la terapia nutricional. **Descriptores:** Nutrición Enteral; Terapia Nutricional; Tracto Gastrointestinal; Métodos de Alimentación; Enfermería; Atención de Enfermería.

¹Master (PhD student), State University of Campinas/UNICAMP. Campinas (SP) Brazil. Email: vivianecarrasco@yahoo.com.br ORCID iD: <https://orcid.org/0000-0002-8092-1816>; ^{2,3}Nursing Students, State University of Montes Claros/Unimontes. Montes Claros (MG), Brazil. E-mail: daniel.v.a.s@hotmail.com ORCID iD: <https://orcid.org/0000-0001-9280-9146>; E-mail: patymoc2010@gmail.com ORCID iD: <https://orcid.org/0000-0002-1426-4029>

INTRODUCTION

It is evidenced that enteral nutritional therapy (ENT) is a therapeutic alternative widely used for the maintenance or recovery of the nutritional condition of patients who have the intact digestive system, however, with oral intake partially or totally impaired.¹

It is observed that hospitalized patients receiving ENT have several benefits, such as an improvement in the immune response, a decrease in clinical complications, as well as reductions in costs and length of hospital stay.²

It is noteworthy that ENT has challenges for its indication and administration to be satisfactory and effective.¹ The lack of recognition about the importance of nutrition as therapy can be attributed to weaknesses in the recycling of knowledge of health professionals in intensive and specialized care in this area.³ It is also worth noting the vulnerability in the training of nurses regarding the contents of Nutrition Science in the life cycle, collaborating to the difficulties in the development of the actions due to lack of scientific knowledge related to nutrition,⁴⁻⁵ of continuous recycling and improvement of the training process on this subject. For this reason, it is essential for nurses to be constantly updated in care in ENT.

OBJECTIVE

- Reflecting on enteral nutritional therapy and the importance of Nursing care to the patient.

METHOD

It is a qualitative study, of the reflexive type, based on a review of national and international literature on ENT, in addition to the authors' perception of the subject matter. The discussion of studies was sought in the field of Nursing that contemplated the theme focused on Nursing care in ENT and the contributions in clinical practice performed in an integrated way with the multiprofessional team.

They were defined for the selection of the studies, namely: enteral nutrition, Nursing and care. The data was then searched in the Virtual Health Library (VHL), as well as the reverse search. The period of publication analyzed, from 1998 to 2018 was considered, since this time span covers laws and technical regulations around the ENT, totaling 15 works (articles, legislation and protocols) studied. The data was systematized using the Content Analysis technique.

From the data found, the results were presented in two categories, namely: "Indication of enteral therapy and the technique of introduction of the enteral catheter" and "Monitoring of diet and control of the occurrences by the Nursing team". It is noteworthy that this study is part of a chapter of the Doctorate project entitled "The effect of an educational intervention for the teaching of nurses on Enteral Nutritional Therapy" and presented in the Qualification Examination of the Postgraduate Program in Nursing (QEPGPN) of the University State of Campinas (UNICAMP)).

RESULTS

♦ **Indication of enteral therapy and enteral catheter insertion technique**

The objective of this category is to address the indication of ENT in hospitalized patients, and the importance of introducing the enteral catheter.

Nutrition therapy has gained tremendous importance in recent years, becoming a critical part of critical patient care. It is due to the scientific evidence that nutritional status interferes directly with its clinical evolution, such as reduction of morbidity and mortality, reduction of catabolic response, increase of immunity, maintenance of functional integrity of the gastrointestinal tract, and contribute to a shorter hospital stay with consequent reduction in the cost of treatment.⁶⁻⁷

Nutritional support is considered for patients with identified nutritional risk who can not spontaneously ingest their nutritional, caloric or specific needs.^{3,7} ENT is indicated in the first 24 to 48 hours, especially, in patients diagnosed with malnutrition and/or intense catabolism due to the pathology, and when there is no adequate intake forecast in three to five days.⁷

It is argued that enteral nutrition is the preferred access route. The parenteral route should be used when attempts to use the gastrointestinal tract have been exhausted without achieving the desired goal or being contraindicated. It is considered the association of the parenteral support if after seven to ten days with ENTs, 100% of the needs are not obtained.³

It is determined in Resolution RCD Num. 63/2000 that it is the responsibility of Nursing to establish enteral access via the oral/nasogastric route.⁸ It is identified as an invasive procedure that can present serious complications, such as inadvertent insertion. According to COFEN Resolution Num. 0453/14,

Carrasco V, Silva DVA, Silva PO.

nurses must assume access to the gastrointestinal tract (introducer and transpyloric guidewire) ensuring adequate positioning with subsequent evaluation.⁹

It should be emphasized that the procedure for introducing, maintaining and administering enteral nutrition is not risk-free, on the contrary, positioning the distal tip of the probe in an inappropriate anatomical site can cause serious incidents, such as infusion of diet or medications in the respiratory tract. It is necessary to adopt barrier measures, such as prescribing data, identifying the patient and the composition of the therapy, the access route to the gastrointestinal tract and performing abdominal radiography to confirm the positioning of the probe. these actions to prevent complications.^{3,9}

♦ Monitoring of diet and control of the occurrences by the Nursing team

In this category, the importance of diet monitoring is highlighted, bringing the results of studies and protocols, and aiming at the control of intercurrents and patient safety.

The enteral diet should be evaluated through quality indicators; such as enteral catheter (EC) obstruction rates, inadvertent outflow of EC and infused diet volume.¹⁰ These indicators are proposed by the International Life Sciences Institute (ILSI) - Brazil¹¹ and by the Commitment to Hospital Quality Program (HQP).¹²⁻³

It is emphasized that, in addition to these indicators, in monitoring, EC positioning should be verified by means of appropriate techniques, such as gastric stasis, knowledge of contraindications to enteral feeding, recognition of signs of complications and knowledge of enteral feeding formula.¹⁴⁻⁵

It is noteworthy that the execution of these actions are directed towards the safety of the patient, however, studies demonstrate failures in these actions or disagreements / lack of consensus in the execution by the Nursing team, leads to several complications, such as mechanical, metabolic and digestive , and are mainly related to the lack of knowledge.¹⁵⁻⁷

It is understood that the mechanical complications would be related to the insertion of the EC, its displacement and obstruction,¹⁵ diet pauses for body hygiene, performance and procedures.¹⁸ There are the metabolic complications that would be hyperglycemia, electrolyte changes, changes in cholesterol and triglycerides. Digestive complications such as colic, diarrhea, nausea, vomiting, gastroesophageal reflux, delayed

Reflection on the need for permanent education...

gastric emptying, bronchoaspiration, paralytic ileus, among others, are considered.¹⁹

DISCUSSION

It is evidenced that food is the essential condition for the maintenance of human life, however, the index of malnutrition of patients at hospital admission is alarming, prevalence ranging from 20 to 62%.^{1,6} The multicenter studies conducted in Brazil and Latin America, evidencing a high prevalence of hospital malnutrition.^{11,20}

It should be emphasized that hospitalized patients do not feed sufficiently to meet their caloric-protein needs due to a variety of factors, such as the underlying disease, pain, nausea, vomiting, anxiety, ingestion, dysphagia, depression, functional disability, surgeries, radiotherapy and chemotherapy, and the hospital environment.²¹

It is pointed out that malnutrition has a more intense negative impact when it refers to the patient with critical illness, being associated with an increased risk of infection, prolonged mechanical ventilation time, longer hospital stay and higher mortality.^{2,22}

Malnutrition is considered to be a multifactorial disease, and is associated with the patient's age, sex, type and time of disease and current nutrient intake.⁷ Some patients with malnutrition are identified at the time of hospital admission, while others develop during hospitalization.^{8,11}

It is understood that ENT is a set of therapeutic procedures for the maintenance or recovery of the patient's nutritional status, specially formulated and elaborated with the controlled intake of nutrients.²³ Patients who are malnourished or at risk, proportionate to their nutritional deficiencies, are hospitalized, outpatient or domiciled, aiming at the synthesis or maintenance of tissues, organs or systems.^{8,23}

It should be noted that in Brazil, the ENT is regulated by specific legislation, which establishes minimum requirements for prescription, formulation and administration of nutrition and specifies the attributions for health institutions and for each member of the multidisciplinary team.^{8,9}

In accordance with Brazilian legislation, for the evaluation, execution and supervision of all stages of the ENT, it is necessary to have a Multidisciplinary Nutritional Therapy Team to monitor all the steps in the hospital units related to ENT.^{8,9,21}

It is considered that the ordinances of the Ministry of Health guide the performance of Nursing in Enteral Nutrition,^{8,23} directing it to

Carrasco V, Silva DVA, Silva PO.

the Good Practices of Administration of Enteral and Parenteral Nutritional Therapy by the Nursing team under the supervision of the nurse. It is also worth mentioning, in the COFEN Resolution num. 0453/2014, that approves the procedures norms to be used by the Nursing team⁹, as well as, the competence to systematize care in specialized oral nutrition.²⁴

A number of Nursing specialists in this area are inexpressive in this area,²² and it is important that in the short term, specific protocols are developed and observed, in addition to recognizing their importance for therapeutic success and prevention of diseases.

Despite the existence of legislation, consensus and guidelines, studies still confirm problems related to ENT, such as late initiation of therapy, problems in prescription and administration; metabolic, gastrointestinal and digestive complications; discrepancies, among others.¹⁵⁻¹⁷ It is considered necessary that the professionals start acting on the basis of protocols and scientific evidence, so that these interferences can be diminished or even exhausted.

It should be emphasized, therefore, that nurses must carry out their activities and enforce current norms and laws regarding nutrition care^{4,8,23,25}, aiming at the safety of the patient and the professionals involved in the Nursing procedures in ENT. The Nursing professional is approached to develop actions of organization, planning, execution and evaluation of the Nursing services, guaranteeing operational training and permanent education, in order to ensure the training and updating of the Nursing team that works in ENT.^{8,24,25} Thus, malnutrition rates and inadequate nutritional therapy are reduced, which are still seen as a problem within the hospital environment.^{4,25}

The lack of studies that address the nurses' performance in the subjects about knowledge of the indication of enteral nutritional therapy, introduction of the feeding probe, monitoring of the diet and control of interferences in ENT.

CONCLUSION

This care should be made aware of and appreciated as a patient-friendly Nursing care. It is considered that the study can enrich the practice of nurses dealing with nutritional therapy, with a theoretical reflection, seeking to encourage permanent education in ENT and curing deficits in

Reflection on the need for permanent education...

training, so that future measures can be adopted with the aim of improving care of Nursing in relation to the nutrition of severe hospitalized patients, allowing greater awareness.

REFERENCES

1. Nascimento NG, Borges EL, Donoso MTV. Assistência de enfermagem a pacientes gastrostomizados baseada em evidências. Rev enferm Cent-Oeste Min [Internet]. 2015 Sept /Dec [cited 2018 Feb 06];5(3):1885-97. Available from: <http://www.seer.ufsj.edu.br/index.php/recom/article/view/743/940>
2. Rodrigues MP, Moraes JR, Piovacari SMF, Escrivão MAM, Nóbrega FJ de. Atuação da equipe de nutrição em pacientes de longa permanência de internação no Hospital Israelita Albert Einstein. Rev bras nutr clín [Internet]. 2014 [cited 2018 Feb 06];29(2):129-33. Available from: <http://www.braspen.com.br/home/wp-content/uploads/2016/12/07-Atuacao-da-equipe-de-nutricao-em-pacientes.pdf>
3. Philippsen EB. Uso de Terapia Nutricional Enteral Via Sonda em Pacientes Hospitalizados. Revista Especialize On-line IPOG [internet]. 2015 [cited 2018 Feb 06];1(10):1-16. Available from: <https://www.ipog.edu.br/revista-especialize-online-busca?autor=Philippsen&palavrasChave=>
4. Guimarães AB, Tapety FI, Martins MCC, Lago EC, Ramos CV. Formação do enfermeiro na atenção nutricional de usuários na estratégia saúde da família. Rev enferm UFPI [Internet]. 2015 [cited 2018 Feb 06];4(3):59-64. Available from: <http://www.ojs.ufpi.br/index.php/reufpi/article/view/4213/pdf>
5. Bottoni A, Hassan DZ, Nacarato A, Garnes SA, Bottoni A. Porque se preocupar com a desnutrição hospitalar?: Revisão de literatura. J Health Sci Inst [Internet]. 2014 [cited 2018 Feb 06];32(3):314-7. Available from: https://www.unip.br/presencial/comunicacao/publicacoes/ics/edicoes/2014/03_jul-set/V32_n3_2014_p314a317.pdf
6. Diestel CF, Rodrigues MG, Pinto FM, Rocha RM, Sá PS. Terapia nutricional no paciente crítico. Revista HUPE [internet]. 2013 [cited 2018 Feb 06];12(3):78-84. Available from: http://revista.hupe.uerj.br/detalhe_artigo.asp?id=422#citar
7. Stefanello MD, Poll FA. Estado nutricional e dieta enteral prescrita e recebida por pacientes de uma Unidade de Terapia Intensiva. ABCS health sci [internet]. 2014 [cited 2018 Feb 06];39(2):71-6. Available

from:

<https://www.portalnepas.org.br/abcs/hs/article/view/625/640>

8. Ministério da Saúde (Brasil). Agência Nacional de Vigilância Sanitária. Resolução da Diretoria Colegiada - RDC nº. 63, de 06 de julho de 2000. Regulamento técnico para a terapia de nutrição enteral. Diário Oficial da União [Internet]. 2000 [cited 2018 Feb 06]. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/anvisa/2000/rdc0063_06_07_2000.html

9. Conselho Federal de Enfermagem (Brasil). Resolução nº. 0453, de 16 de janeiro de 2014. Dispõe sobre a Norma Técnica que dispõe sobre a Atuação da Equipe de Enfermagem em Terapia Nutricional. Brasília (DF) [Internet]. 2014 [cited 2018 Feb 06]. Available from: http://www.cofen.gov.br/resolucao-cofen-no-04532014_23430.html

10. Cervo AS, Magnago TSBS, Carollo JB, Chagas BP, Oliveira AS de, Urbanetto JS. Adverse events related to the use of enteral nutritional therapy. Rev gaúcha enferm [Internet]. 2014 June [cited 2018 Feb 06];35(2):53-9. Available from: <http://www.scielo.br/pdf/rgenf/v35n2/1983-1447-rgenf-35-02-00053.pdf>

11. Holanda RE, Moreira RP. Revisão de literatura: situação nutricional do paciente em uma unidade de terapia intensiva. Rev Expres Católica [Internet]. 2014 Jan/June [cited 2018 Feb 06];3(1):73-86. Available from:

<http://publicacoesacademicas.unicatolicaquixada.edu.br/index.php/rec/article/view/1412>

12. Duarte IG, Nagai MH, Mota NVVP, Bittar OJNV, Nishikuni YY. 3º Caderno de Indicadores CQH- 2009. São Paulo: APM/CREMESP [Internet]. 2009 [cited 2018 Feb 06]. Available from:

http://www.cqh.org.br/portal/pag/doc.php?p_ndoc=127

13. Tronchin DMR, Reis EAA, Gerolin FSF, Nunes IA, Ferrero LHV, Melleiro MM, et al. Manual de indicadores de enfermagem NAGEH/Compromisso com a Qualidade Hospitalar (CQH). 2nd ed. São Paulo: APM/CREMESP [Internet]. 2012 [cited 2018 Feb 06]. Available from: http://www.cqh.org.br/portal/pag/doc.php?p_ndoc=125

14. Ferreira RS, Pereira LR, Teles MAB, Oliveira KCF, Barbosa-Medeiros MR. Perception of caregivers about the assistance to patients under household enteral nutrition. Rev enferm UFPE on line [Internet]. 2017 Jan [cited 2018 Feb 06];11(Suppl. 1):303-8. Available from:

<https://periodicos.ufpe.br/revistas/revistaenf/ermagem/article/view/11909/14392>

15. Medeiros RKS, Ferreira Júnior MA, Pinto DPSR, Santos VEP, Vitor AL. Assistência de enfermagem a pacientes em uso de sonda gastrointestinal: revisão integrativa das principais falhas. Rev cuba enferm [Internet]. 2014 [cited 2018 Feb 06];30(4):1-15. Available from:

<http://www.revenfermeria.sld.cu/index.php/enf/article/view/288/107>

16. Chan EY, Ng IHL, Tan SLH, Jabin K, Lee LN, Ang CC. Nasogastric feeding practices: A survey using clinical scenarios. Int j nurs stud [Internet]. 2012 [cited 2018 Feb 06];49(3):310-9. Available from: <http://www.sciencedirect.com/science/article/pii/S0020748911003695>

17. Grupta B, Agrawal P, Soni KD, Yadav V, Dhakal R, Khurana S, et al. Enteral nutrition practices in the intensive care unit: Understanding of nursing practices and perspectives. J anaesthesiol clin pharmacol [Internet]. 2012 Jan/Mar [cited 2018 Feb 06];28(1):41-4. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3275970/>

18. Martins RCFC, Vital WC, Amaral JF do, Volp ACP. Perfil nutricional de pacientes internados em unidade de terapia intensiva. Nutr clín diet hosp [Internet]. 2017 [cited 2018 Feb 06];37(4):40-47. Available from: <http://revista.nutricion.org/PDF/MARTINS.pdf>

19. Murray C, Grant MJ, Howarth ML, Leigh J. The use of simulation as a teaching and learning approach to support practice learning. Nurse educ pract [Internet]. 2008 [cited 2018 Feb 06];8(1):5-8 Available from: <https://www.ncbi.nlm.nih.gov/pubmed/17951111>

20. Passos SSS, Carvalho ESS, Sadigursky D, Nobre VPCC, Pereira A, Goes JA. Atendimento às necessidades da pessoa dependente para alimentação no ambiente hospitalar. Rev baiana enferm [Internet]. 2014 Jan/Apr [cited 2018 Feb 06];28(1):79-85. Available from: <https://portalseer.ufba.br/index.php/enfermagem/article/view/8938/8710>

21. Nunes RS. Avaliação nutricional do paciente crítico na Unidade de Terapia Intensiva: estudo de revisão. Revista Amazônia Science & Health [Internet]. 2016 Apr/June [cited 2018 Feb 06];4(2):36-40. Available from: <http://ojs.unirg.edu.br/index.php/2/article/view/1191/436>

22. Barker LA, Gout BS, Crowe TC. Hospital malnutrition: prevalence, identification and impact on patients and the healthcare system. Int j environ res public health [Internet]. 2011

Carrasco V, Silva DVA, Silva PO.

Reflection on the need for permanent education...

[cited 2018 Feb 06];8(2):514-27. Available from:

<http://www.mdpi.com/1660-4601/8/2/514/htm>

23. Ministério da Saúde (Brasil). Secretaria de Vigilância Sanitária. Portaria n. 272, de 8 de abril de 1998. Regulamento Técnico para fixar os requisitos mínimos exigidos para a Terapia de Nutrição Parenteral. Brasília (DF) [Internet]. 1998 [cited 2018 Feb 06]. Available from:

http://bvsms.saude.gov.br/bvs/saudelegis/sv/s1/1998/prt0272_08_04_1998.html

24. Rocha AJSC, Oliveira ATV, Cabral NAL, Gomes RS, Guimarães TA, Rodrigues WB, et al. Causas de interrupção de nutrição enteral em unidades de terapia intensiva. Rev Pesq Saúde [Internet]. 2017 Jan/Apr [cited 2018 Feb 06];18(1):49-53. Available from:

<http://www.periodicoseletronicos.ufma.br/index.php/revistahuufma/article/view/7880/4875>

25. Ministério da Saúde (Brasil). Secretaria de Atenção à Saúde. Portaria nº. 120, de 14 de abril de 2009. Normas de Classificação e Credenciamento/ Habilitação dos Serviços de Assistência de Alta Complexidade em Terapia Nutricional Enteral e Enteral/ Parenteral. Diário Oficial da União [Internet]. 2009 [cited 2018 Feb 06]. Available from:

http://bvsms.saude.gov.br/bvs/saudelegis/sa/s/2009/prt0120_14_04_2009.html

Submission: 2018/07/18

Accepted: 2018/11/01

Publishing: 2018/12/01

Corresponding Address

Viviane Carrasco
Avenida Dr. Ruy Braga, S/N
Bairro Vila Mauriceia
CEP: 39401-089 – Montes Claros (MG), Brazil