



NURSING INTERVENTIONS FOR THE NEEDS TO EAT AND DRINK IN SURGICAL ELDERLY PEOPLE
INTERVEN  ES DE ENFERMAGEM PARA AS NECESSIDADES DE COMER E BEBER EM IDOSOS CIR RGICOS
INTERVENCIONES DE ENFERMER   PARA LAS NECESIDADES DE COMER Y BEBER EN ANCIANOS QUIR RGICOS

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ABSTRACT

Objective: to identify the needs to eat and drink in the surgical elderly people. **Method:** this is a study with quantitative approach, quasi-experimental, with 30 elderly subjects in the postoperative stage. We have used the assessment protocol of the basic human needs second Virginia Henderson as a data collection tool. For statistical analysis, we have used the Odds Ratio (OR). This study had its research project approved by the Ethics Research Committee, under CAAE n  0090.0.258.000-07. **Results:** we have found 54 needs in the experimental group and 55 in the control group. There was a reduction of 25 and 11, respectively, until the discharge. The OR value was 4.64 (significant), thus highlighting the intervention performed with the experimental group as a protective factor. **Conclusion:** there should be maintenance of the functional capacity in the elderly people concerning the need to eat and drink during surgical admission, which is a particularly useful paradigm in the aging context. **Descriptors:** Elderly; Perioperative Nursing; Food Supplementation.

RESUMO

Objetivo: identificar as necessidades de comer e beber em idosos cir rgicos. **M todo:** estudo de abordagem quantitativa, quase experimental, com 30 idosos em p s-operat rio. Utilizou-se como instrumento de coleta dos dados o protocolo de avalia   das necessidades humanas b sicas segundo Virginia Henderson. Para an lise estat stica, utilizou-se *Odds Ratio* (OR). Esse estudo teve o projeto de pesquisa aprovado pelo Comit  de  tica em Pesquisa, sob CAAE n . 0090.0.258.000-07. **Resultados:** as necessidades encontradas foram 54 no grupo experimental e 55 no grupo de controle. Houve redu    de 25 e 11, respectivamente, at    alta. O valor de OR foi 4,64 (significativo), evidenciando como fator de prote    a interven    realizada com o grupo experimento. **Conclus  :** deve haver manuten    da capacidade funcional nos idosos quanto   necessidade de comer e beber durante a hospitaliza    cir rgica, paradigma particularmente  til no contexto do envelhecimento. **Descritores:** Idoso; Enfermagem Perioperat ria; Suplementa    Alimenta.

RESUMEN

Objetivo: identificar las necesidades de comer y beber en los pacientes ancianos quir rgicos. **M todo:** Estudio cuantitativo, cuasi-experimental, con 30 pacientes en postoperatorio de edad avanzada. Fue utilizado como herramienta para recogida de datos un protocolo para evaluaci  n de las necesidades b sicas seg n Virginia Henderson. Para el an lisis, se utiliz  *Odds Ratio* (OR). El estudio fue aprobado por el Comit  de  tica en Investigaci   CAAE no. 0090.0.258.000-07. **Resultados:** los resultados mostraron 54 necesidades encontrados en el grupo experimental y 55 en el grupo control, hubo una reducci  n de 25 y 11, respectivamente. El valor de OR fue 4,64 (significativo), lo que sugiere un factor de intervenci  n protectora con el grupo experimental. **Conclusi  n:** debe ser el mantenimiento de la capacidad funcional de los ancianos como la necesidad de comer y beber durante la hospitalizaci  n quir rgica paradigma particularmente  til en el contexto del envejecimiento. **Descriptores:** Ancianos; Enfermer   Perioperatoria; Alimentaci  n Suplementaria.

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INTRODUCTION

The satisfaction in the need to eat and drink, according to Henderson, is to be ingesting the essential nutrients to live, grow and maintain balance, by having fundamental importance for maintaining physical and emotional health, when preventing or delaying the onset of most frequent pathologies during the aging process.^{1,2}

The hand movement towards the mouth, food chewing, swallowing and digestion are the bio-physiological components of this necessity. By regarding the good nutrients intake, coming from the animal protein, fruits and vegetables, which are foods difficult to swallow for people with impaired masticatory ability, this nutritional deficiency can lead to loss of body weight and malnutrition.³

The body needs fluids and nutrients to survive, being that is an essential condition for the promotion, maintenance and restoration of the individuals' health.²⁻⁴ So, when satisfying the need to eat and drink, according to Henderson, the human being ingests nutrients to live, grow and maintain its balance and health, regardless of age.⁴

The factors that affect the nutritional status of the elderly subject might be results from several sources, such as: socioeconomic, physiological changes, as in the digestive system, sensory perception, masticatory ability, oral mucosa and salivary flow, esophagus structure and function, stomach, intestine, liver, gallbladder and pancreas; decreased sensitivity to the thirst; and side effects of medicinal drugs.⁵

Changes in taste, smell, or emotional disorders like anxiety, fear and isolation, should also be considered as specific to the surgical elderly people.^{6,7}

Such changes might be presented alone or in combination, determining different severity degrees in the appetite loss and fluid intake.

It was also found that the food movement through the digestive tube assists in the satisfaction of eating and drinking, secretion of digestive juices, food digestion and digestive products absorption. The blood circulation through the gastrointestinal organs and the transportation of substances absorbed involve the nervous system and the hormone system, by providing a feeling of well-being.⁸

Therefore, good nutrition is a crucial condition for rehabilitation, especially in relation to the elderly in the context of a hospital admission. Thus, a proper assessment of the nutritional status in the preoperative period can warn the healthcare staff about the

patients with higher risk of postoperative complications.

Thus, we have delimited the following research question: What are the needs to eat and drink identified in the surgical elderly people? As Null Hypothesis: There are differences in the pre and post identification of the needs to eat and drink, when a gerontological care plan in surgical elderly people is applied; and as Alternative Hypothesis: there is no difference.

We chose the theory of Virginia Henderson, whose purpose focuses on maintaining or restoring the independence of the client in meeting their 14 basic needs, among these the need to eat and drink is included.

OBJECTIVES

- To identify the needs to eat and drink in the surgical elderly people;
- To assess the outcomes of nursing interventions in the groups involved in the study.

METHOD

This is a study with quantitative approach, quasi-experimental, with the design type of the non-equivalent before-after control group, involving the treatment (nursing interventions on the need to eat and drink) of subjects observed before and after its implementation.

The study locations were the surgical clinics of a University Hospital from the Rio de Janeiro State, in the period from January to April 2010, with the participation of 30 elderly clients (15 in the experimental group and 15 in the control group) randomly selected. We have adopted as inclusion criteria: dependence on the Lawton and Katz scales; having a caregiver; having more than 65 years old. And as exclusion criteria: suspension of surgery; lack of participation in any of the proposed assessments.

The groups were formed by simple randomization from a drawing, being that we selected one elderly person for the experimental group and, successively, one for the control group. We have adopted as study variables: individual characteristics of the subjects (gender, age group, marital status and schooling level) and surgical diagnosis. We have considered the nursing interventions to meet the basic human need (BHN) to eat and drink as a variable.

In order to achieve the objective of identifying the needs in the BHN of eating and drinking highlighted by Virginia Henderson, a long-term care protocol was applied to the subjects, which was validated in form and

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content by experts in the field of nursing fundamentals who were working in nursing researches.

As data collection strategy, we have adopted the following steps:

1) Nursing clinical examination to identify the major necessities involved in the need to eat and drink. This was applied to the subjects of both groups on the first day after surgery and at the end of their admission time, characterizing the non-equivalent before-after design, in a total of 60 assessments. We have used an average of 20 minutes for each client during the nursing clinical examination.

2) Implementation of nursing interventions selected for the individual's health promotion, by avoiding possible risks and providing improvement of the functions related to each difficulty. The implementation of continuous care (intervening variable) was performed only in the experimental group. Nonetheless, the members of the control group received care indicated by the work routine of the surgical units from the research location, which is the conventional treatment adopted within the institution.

The data analysis was held in a descriptive and inferential way through the statistical test Oddis Ratio (OR).

We have respected the ethical aspects, in compliance with the Resolution 196/96 of the National Health Council. This research has

favorable opinion of the Ethics Research Committee from the Faculty of Medicine/ University Hospital Antonio Pedro, being registered with the CAAE nº 0090.0.258.000-07.

RESULTS

Regarding the group characterization, there was homogeneity in the sample with regard to the gender. On the whole, there were 20 female patients and 10 male patients, which were equally distributed into the groups. The age group ranged from 65 to 86 years.

Concerning the marital status, 49% were married, 27% widowed, 17% singles and 7% divorced. It was also observed that 87% were retired and 13% were pensioners. Regarding the schooling level, the majority (51%) had incomplete elementary school, 20% had finished high school, 13% were illiterate, 7% had finished elementary school and only 3% completed the higher education.

The most prevalent admission diagnoses were cases of cancer and fractures, with 39% and 21% respectively; other diagnostic cases were associated with vascular problems, gallstone, pleural effusion, umbilical hernia and lumbar hernia.

We have identified 54 needs to eat and drink in the experimental group and 55 in the control group, these detailed in Table 1.

Table 1. Identification and evolution of the needs to eat and drink in surgical elderly people in the postoperative period, HUAP, RJ, (January-April), 2010.

Need to eat and drink	Experimental group		Control group	
	Postoperative	Discharge	Postoperative	Discharge
Insufficient fluid volume	15	5	12	10
Imbalanced nutrition	9	6	11	10
Dentition-related problems	6	6	7	7
Vomiting	5	0	2	0
Nausea	4	0	3	0
Epigastric pain	3	2	1	0
He/she is fed at the Hospital	3	0	2	2
Weight loss	2	2	5	4
Dehydration	2	0	0	0
Dysphagia	2	1	0	0
Change in appetite	1	1	2	2
Dyspepsia	1	1	3	2
Inability to feed itself	1	1	1	1
Anorexia	0	0	1	1
Intolerance to certain foods	0	0	3	3
Jaundice	0	0	2	2
Total	54	25	55	44

It is observed, through Table 1, that most needs were related to fluid intake, dietary deficits and dentition-related problems, followed by nausea and vomiting in both groups.

In the experimental group, there was an improvement in relation to the fluid intake, imbalanced nutrition, nausea, vomiting and dehydration.

In the control group, the improvement was mainly related to nausea and vomiting occurrences that were eliminated until the discharge time. Imbalanced nutrition has an approximated outcome in the groups. As for the conventional treatment, it has remained in the groups that have the support of the hospital's nutrition service.

From the comparative analysis of the identified needs, there was a reduction in 25

of them in the experimental group; regarding the control group, from 55, there was reduction in 11 of them, which are shown in

Table 2. After calculating the Oddis Ratio (OR), we have obtained the equivalent of 4.64.

Table 2. Results achieved through the interventions of care for groups. Rio de Janeiro-Brazil, January-April 2010.

Results	Experimental group	Control group
Needs solved in the post-implementation period of the interventions	39	11
Needs present in the post-implementation period of the interventions	25	44

DISCUSSION

We have adopted as relevant interventions to the need to eat and drink, starting from the needs identified in the experimental group: increased fluid intake; encouragement of autonomy for feed itself; assessment together the nutrition service about the possibility to exchange the menu; conduction of SOS prescribed for nausea and vomiting; adequacy of the prescribed medications schedule; obtaining venous access for hydration; measurement of gastric residue and elevation of the headboard to facilitate the nutrition. The interventions have involved an individualized care plan for each subject, being that they were explained both for seniors and for their caregivers, in order to assure the continuity of provided care in the hospital environment.

It should be noted that the low fluid intake in elderly people was recurrent, since they consumed small amount of liquids per day. In the experimental group, when we realized this difficulty, liquids were offered and encouraged by nurses responsible for this research and by the caregiver (in our absence). Some patients reported not missing or, even, forgot to consume liquids; others actually had physical difficulties related to the disease.

There was resistance to increase fluid intake for the elderly people under our care. Even after the stimulus and the explanations on the benefits of water for the admission, some of them showed discouragement due to the disease, while others refused to increase fluid intake for failing to acquire the habit of drinking. The sensation of thirst is decreased during the aging process and, in case of sickness, diuretics and abundant fluids loss, the dehydration process might install itself insidiously and compromising the health and life of the elderly subject.⁹ If the person stops drinking, interventions should immediately be started, since the admitted elderly people are vulnerable to the dehydration.¹⁰

Dehydration has symptoms like: headache, constipation, altered medicinal drug effects, thirst, skin elasticity loss, weight loss, cognitive functions loss, dizziness, dry mouth and nose mucous membranes, changes in

blood pressure, sunken eyes, urinary debit and difficulty in speech, being that some of them might be atypical in the elderly people, thus deserving special attention.¹⁰⁻¹

The administration of diuretics and the abundant fluid loss might install the dehydration process insidiously among the elderly patients, by affecting the health and the life of such a clientele.¹¹ Most surgeries establish a sustained hydration before, during and after surgery, by keeping the urinary volume between 30 and 60 ml per hour, coupled with the needed complementary monitoring and the correct hydration prescription, mainly in the elderly population.¹²

One alternative to the traditional intravenous route studied for over 50 years is the subcutaneous route, which is a safe route, however, underutilized in the clinical practice. It requires a simple insertion technique of a butterfly cannula with gauge 21 or 23, under aseptic conditions in subcutaneous tissue, especially in patients undernourished, dehydrated and with few conditions of venous access.¹³

Regarding the food deficit in both groups, some elderly people failed to adapt to the scheme that was offered in the hospital, they often fed little; some of them despise most meals. But, in general, older people in this study have demonstrated good satisfaction with the served food. Nevertheless, patients' individual tastes and preferences about when and what to eat were presented by the elderly people. Food is a human necessity, but it has to fit in the bureaucracy imposed by the institution. There is a standardization of customs, where the way of life and set of previous activities are rearranged and fitted in this new institutional routine.¹¹

In the preoperative period, nocturnal fasting is still a procedure instituted to prevent pulmonary complications and gastric content aspirations (when the anesthetic techniques were still rudimentary), but prolonged fasting is harmful, especially, to the elderly patient, since the organic response to the fasting is aggravated by the surgical trauma and the tissue injury that follows it.¹⁴ Likewise, from the prolonged fasting, it occurs the increase of the counter-regulator

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hormones, being that the fasting associated with the trauma might lead to increased insulin resistance, muscle proteolysis, lipolysis and systemic inflammatory response.¹⁵

In the study findings, the physical changes arising from the disease were reported as the main reason for the reduced frequency of foods and beverages intake. These experiences seemed to be related to negative feelings, such as shame and anxiety during meals. The natural dentition loss, or the use of ill-fitting dentures, associated with the reduced masticatory force affect the chewing function as they hinder the bolus preparation, which might lead to the premature fatigue throughout feeding.¹⁶

People with xerostomy have problems not only with chewing and food intake, but also with the taste, speech, tolerance to the use of dentures, susceptibility to caries, periodontal disease and oral diseases, which affect more than 70% of the elderly population.¹⁶

The explanations, together the caregiver, that old people should conduct their activities, helped with respect to those who were fed at the hospital. The elderly people with this problem in the experimental group started to feed themselves. It should be emphasized to caregivers how is negative for an elderly subject to be fed, which leads it to feel useless, and that the act of food forces the elderly to perform movements, thus benefiting not only the physical aspects, but also the psychological.

Increasing the self-esteem of the elderly people becomes important for that they feel useful. It was found that many problems that exclude the elderly from leisure activities are related to myths and stereotypes of unproductive aging. Many of these can be prevented, improved, adapted, or even solved, if this subject is viewed as capable.

The improvement of the nutritional deficit allowed us to see, in practice, how this problem is influential in maintaining the health of the elderly population, since it ends up improving the mood of the elderly people for doing other activities, such as physical exercise and recreation. Poor nutrition favors the emergence of diseases that negatively impact on their nutritional status, by establishing, in this way, a malnutrition/disease vicious cycle.¹⁷

Thus, the nutritional needs should not be underestimated. It should be observed that the need to eat and drink influences and relates in maintaining the subjects' health, by providing an improved pathological condition,

skin integrity, proper functioning of eliminating (bowel and kidney), among others.

Nursing plays a key role in assessing the nutritional status of individuals and should intervene to maintain or restore the independence of such a need, together the other fields that comprise this care, because any nutritional guidance should be monitored, in order to be assessed and adapted to the actual needs of the elderly population. So, it is important to consider the history and the biopsychosocial characteristics of these individuals.

CONCLUSION

We have observed timid nursing interventions in assisting at meal times and regarding the sufficient guidelines on how to deal with the specific and nutritional needs during the practice.

The caregivers had a crucial role for the implementation of the proposed care and achievement of satisfactory results. At the moment in which the interventions were explained and performed in the experimental group, we got to a representative adherence from the caregivers.

It is recommended the maintenance of functional capacity in the elderly people of the need to eat and drink during the surgical admission, which is a particularly useful paradigm in the aging context, important in the family, community, health system and, mainly, for the elderly person's life itself, since it gives rise to a higher risk of vulnerability and dependence.

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