

Nutrition in dementia: a challenge for nurses

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Summary. *Aim.* The manuscript shows the presence of eating disorders in dementia in the elderly population and the risk of malnutrition. It is highlighted that the management of this patient is difficult and generate stress in the caregiver. Highlight the main questions that the medical staff provides the best form of nutrition for patients with dementia. *Methods.* The literature review and reported international guidelines analyze and propose measures to be carried into the environment of the meal, diet and encourages, as permitted, patient independence. *Results.* International guidelines suggest a multidisciplinary approach and the involvement of the family to carry out an individualized care plan. Strong are the recommendations to continue with assisted feeding by mouth. *Conclusions.* The literature shows that support proportionate to the real food needs of the person with dementia to ensure well-being and quality of life. It needs more nurse training and the definition of coded interventions involved, whether nurse acquire more awareness of their role.

Key words: dementia, nutrition, eating disorders, nurses, meal environment, diet, independence/patient involvement

Background

In the last years Italy has been a significant increase in the elderly population. The increase in years of life is related to better living conditions, but has produced an increase in chronic diseases, particularly dementia.

The ongoing and planned doubling of the number of cases every 20 years, estimated by WHO (World Health Organization) (1), indicate the urgent need to identify strategies to ensure support more complex. Cognitive disorders, mental and physical characteristics of dementia reduce the ability to play, effectively and independently, the activities of daily living, including the feed itself (2), making patient management tiring and complicated by having the nursing homes are the main setting in which it is treated (1). The ability to feed themselves, prior to being acquired and last to get lost (3), is compromised in about 50% of the elderly within 8 years from the beginning of dementia (4) and

45% of those institutionalized requires assistance with meals (2). The aim of the nurse is to solve practical problems such as hostility caused by the patient's difficulties with dementia to express verbally (5).

In advanced stages of the disease must be warded off the risk of malnutrition and dehydration (5) through a careful assessment of the patient's needs are real and genuine (2) and careful choice on the best mode of nutrition for the patient (6). The most important of Geriatrics Society have expressed their opinion on nutrition oral and enteral (7). In several studies confirms the opportunity to promote and ensure the physical and psychological well-being of the patient using just good will, attention to detail and time (8). Proposed actions concern the quality and presentation of food, the consideration of the tastes and eating habits of the patient, the prescription of a diet that takes into account the needs and difficulties the elderly, care for the environment used in the meal and preserve and ensure the greater degree of independence of the person in

this practice. The meal time is the activity of the most awaited day by the elders and represents an important opportunity for social interaction (8). This calls for a careful nurse training and the caregiver in charge supply of patients with dementia. Family involvement in the care process and, if possible, the patient and team-work are important resources to define the individualized care plan and ensure the person's well-being (9).

Aim of the manuscript is to reflect the light of the literature data, the nurse's skills in identifying and promoting concretely, in daily practice, the patient's well-being with problems feeding.

Methods

A narrative review of literature. Scientific articles have been searched in the databases PubMed and CINAHL selecting the following key words in English: dementia, eating difficulties, feeding behavior, meal-times difficulties, nursing, nutrition. They were selected approximately 50 papers published in the last ten years. Recommended interventions and responsibilities of the nurse in the field of nutrition to patients with dementia in nursing homes were investigated.

The bibliographic search began in December 2014 and ended in February 2015. All identified documents are in English. The selected studies include: the description of eating disorders; evidence supporting nutrition assisted orally; the type of care to be provided to the elderly and measures to be implemented in the environment of the meal, diet and directly on patients.

Results

Identify eating disorders

The problems feeding in the patient with dementia relate to the ability to recognize the food, to bring it to his mouth and swallowing (eating behavior) and / or the patient's behavior during feeding time, which manifests as food refusal, agitation, aggression, wandering and depression (feeding behavior) (10). Dysphagia is common, given the difficulty to remember how to chew, swallow and managing the food in the mouth (11) and is a cause of stress for patients and

nursing staff (12). To these are added the typical disorders of old age problems such as alterations of the senses, arthritis and poor oral hygiene (13). Eating disorders are manifested with various severity levels at different stages of dementia (14), but are more detected in the advanced stage of the disease (2,15), affecting approximately 80% of patients (5,15). The behaviors adopted by the patient are not always easy to interpret (1,5). They can be, for the patient, the only effective mode of expression, indicating its inability to feed himself, or his desire to finish the meal. If the patient is unable to communicate could get away from the meal, leave open the mouth without spitting or swallowing food (14). The nurse, sometimes, might have difficulty understanding whether it is appropriate to continue to feed the patient against his will, or "let him die of hunger", chosen with considerable implications and essential by the ethical and ethical standards of the nursing profession. It may be useful contribution of the patient's family and other support professionals most appropriate interpretation of the behaviors adopted by the patient during the meal (16).

Malnutrition and nutrition assessment

The serious risk of dehydration and malnutrition, and thus the increase in morbidity and mortality and poor quality of life (17), associated with the presence of eating disorders, should be averted by their identification and early intervention (2,18). Dehydration is due to the patient's difficulty swallowing liquids (12,13). Malnutrition is clinically expressed by the weight loss (5) and is frequently found in elderly patients with dementia, particularly those living in care institutions (17). Weight loss is mainly determined by the rapid deterioration, but also by the stress associated with hospitalization; according to some studies is inevitable in the advanced stages of dementia (2,14,17,19), while for others it is uncertain whether it should be considered reversible or a predictor of terminal decline (15). Several studies show that the best nutritional assessment of the nurse is the observation of the patient during the meal (20), must be defined objective parameters such as the measurement (at least weekly) Weight (19) and the calculation of body mass index (weight in kilograms divided by height in meters square), which is less than the 18 value, it determines the need for intervention by a dietician (14). Other quality

parameters and combined methods to determine with greater suitability risk situations are: EdFED (Edinburgh Feeding Evaluation in Dementia Scale), defined in 2008 by the Hartford Institute for Geriatric Nursing New York University (HIGN) the best tool for the assessment of eating disorders and the corresponding level of support required for the elderly with dementia (10) and EdFEDQ (Edinburgh Feeding evaluation in dementia Questionnaire), a EdFED scale variant suitable for the detection of feeding behavior. Regular screening, performed with the scale MUST (Malnutrition Universal Screening Tool), represent the gold standard and are recommended by the National Institute and Care Excellence, especially in the Community (21).

The choice between hand or tube feeding

To use a device to feed the patient with dementia is easier to prevent malnutrition, aspiration and the occurrence of bedsores, the time savings and protection from legal problems for the support staff (14). About a third of residents in care services with cognitive deficits a PEG (Percutaneous endoscopic gastrostomy) is applied, especially in the end stage of the disease (11). There are numerous complications associated with its use, including, in particular, the accidental removal, due to the confusional state and / or patient agitation (18) that determines the increase in the use of physical and chemical restraints and the deterioration of the pressure ulcers (22). Scientific evidence suggests that the potential benefits of artificial nutrition does not exceed the adverse effects. There remains a high mortality, are not averted the suction operations, do not heal more easily pressure ulcers, or improve the nutritional status and in addition it has a higher risk of infection; increase oral secretions difficult to control, it also generates discomfort due to a possible malfunction of the device which sometimes requires the transfer to the hospital (6). The National Institute for Health and Clinical Excellence, the Royal College of Physicians (RCP), the British Society of Gastroenterology (BSG) and the Alzheimer's Society have determined that artificial feeding is not recommended in the progression of dementia and which can not only be used to prolong life in advanced stage of disease (7). According to the American Society for Parenteral and Enteral Nutrition (ASPEN), enteral feeding in advanced dementia is referred to as evidence of category E (18). Although

most of the opinions of experts and observational data do not support the use, any randomized controlled trial has not yet been conducted to compare the benefits and adverse effects of this type of feeding against manual for ethical barriers. However articles published and which are based on the use of observational data, demonstrate a lack of effectiveness of nutrition through a device (6). Enteral nutrition does not determine improvements on the general state of health or increase the comfort and the patient's quality of life (11). The insertion of a PEG and the insertion time does not affect the survival of the patient (23).

However, it may be considered essential to use a device exclusively during the period of treatment of a concomitant acute problem which causes a difficulty in feeding (1,6,11) or in very advanced stages of dementia in which swallowing is strongly compromised (18) and the patient continues to refuse food (20). According to many studies, even in the end stage of dementia, nutrition assisted by mouth is considered more effective, is the most appropriate mode of human approach and guarantees better quality of life (18), the primary objective in the terminal stages of dementia.

The most important of Geriatrics Society suggest feeding the patient through the mouth with great care and patience, not force and insist (7), until it is tolerated and really possible (11). It is very important to follow strategies and precautions to avoid the risk of aspiration (7) and improve oral feeding (13).

At present the strategy is considered appropriate to define a personalized care plan that allows the identification of the most comfortable and suitable to the specific patient feeding mode ("comfort feeding only"), considering its will, the dangers and benefits of any possible intervention and providing for the involvement of the patient's family (1,6,14).

The nurse has a key role to play in explaining to the family the risks and benefits of various alternatives and acts as an intermediary between this and the multi-professional team (9) as a guarantee of the will of the patient (7).

The level of care provided and the appropriate assistance

Assistance feeding to ensure adequate intake of food, but reduces the autonomy of the person with dementia, promoting the development of a disability

(2,3). It has been reported that greater the degree of dependence, the lower the food intake (5). The failure to satisfy need assistance with meals is therefore a risk factor of malnutrition especially of the elderly living in institutions (17). It is crucially important to identify the actual and exact level of assistance needed for the patient based on his actual level of dependence and monitoring the situation that may progress rapidly (2).

Inadequate nursing feeding is mainly determined by the short time available (13), by the desire to finish soon the meal (5), the organization of the structure, from reduced staff (1) and its inappropriate training (3). Helping a person with dementia to eat takes a long time, even up to an hour for a person seriously affected (11).

For best results, care should be in the ratio of one to one (5). It would then be recommendable that always was the same person to feed the patient (2) so as to create an intimate relationship between nurse / caregiver and patient (4) able to reduce the appearance of aggressive behavior (2). Rather than on the person's deficits, attention should primarily be addressed to the still present capacity, quality and specifications of the patient resources (8). The nurse has the responsibility to integrate the skills lost and to encourage and maintain the present (3). Assistance should be the minimum necessary and possible; allow the patient to do as much as possible for himself (8,13) and guarantee respect for his dignity (19). To improve patient independence with dementia is important that the environment in which they live is familiar and safe while taking the meal (24). Encourage the presence of a relative while taking the meal improves patient care with dementia (19).

The role of training

Several studies have highlighted the need for and the value of a training program for caregivers and nurses (1,2,4,5,8,14,17). The National Institute for Health and Care Excellence (NICE, 2006) (21), has shown as important for the families and for the health workers, who often experience stress and suffering, and are not in possession of resources and tools useful (1).

Nurses trained show a better preparation to assist the patient and the environment, greater motivation, more patience and use new techniques. Without proper training program it is likely that some situations are incorrectly defined as difficulty in feeding

and both made an inadequate interpretation of the patient's signs (5).

It is important a continuous and constant professional updating, to effectively address the diverse and articulate the patient's needs (10),

A recent literature review examined the effects of training programs, exercise and nutritional education: moderately increase the time of the meal, however, reducing the difficulties of the person to eat (4).

Suggested interventions to meet the needs feeding

Environment

Scientific evidence shows the benefits of interventions on the environment (14,11,19). Must be recreated, as much as possible, a family environment to the patient, the conditions in which he was fed in their own home to keep as much as possible its capacity to feed (20). The changes are not tolerated by the old and have a significant negative effect, regression (24).

In nursing homes, in the absence of very serious deficit, it has proved useful to put patients in the dining room (13) grouped according to their abilities and needs (11). The chairs should have armrests; wheelchairs, useful to better position patients, however, must be locked to prevent accidental falls. On the table must be present only the essential objects for the meal with contrasting color compared to the ground on which are placed to be more easily recognized by patients with agnosia (8). The use of circular tables encourages social interaction. Good lighting allows the elderly to see better and to recognize objects and people (20).

It is also recommended the placement of a large clock, with large numbers and hands, to enhance the sense of orientation of the patients (11).

A musical background enhances the experience of the meal (8). It is an inexpensive intervention, practical and safe, which decreases the agitation (25) and increases food intake (11). Reduce noise and other distractions helps the person with dementia to recognize the time of the meal, to concentrate on the actions that performs preserving its ability to feed (1,20).

Food and diet

To guarantee essential nutrients the choice of food and their preparation should be accurate. The

poor quality of food causes an appreciation reduced by the elderly and reduces appetite (13). The nurse should be always take into account the cultural and ethnic aspects (5,8), eating habits and tastes of individual patients trying as much as possible to respect them (6). The ways in which food is served has a significant impact on the type of experience lived by the patient with dementia (12).

The nurse's collaboration with the physician, the speech therapist and dietitian allows the development of a varied and balanced diet that cures in particular the consistency of the food, in order to reduce the high and menacing risk of aspiration (7). Remember and show the patient how to swallow and urge him to cough to each bite and let him introduce small amounts at a time. According to the degree of dysphagia, food must be of an increasingly homogeneous and unique texture. We should avoid chewy food, brittle or hard and be careful to the presence of possible shells, skins or seeds. The thickener makes dense liquids thus reducing the risk of aspiration and facilitating swallowing. It also allows to obtain a different consistency, according to need, from a pudding syrup, reduces the staff concerns of assistance and increases the safety and the patient compliance in taking liquids preventing dehydration (12). If properly administered oral supplements increase the caloric and protein intake and body weight by reducing the incidence of comorbidities associated with malnutrition (26). However their use is not supported by all (11), as they may decrease appetite, could not be tolerated and create gastrointestinal disorders and is also the considerable cost (21). In some cases contribute to increase the weight (18); it is uncertain whether they constitute an initial or exclusive remedy. A valid and able to actually increase the weight, it is represented by snacks between meals and the other. The sweet foods are preferred by older people and can be an important food for their high calorie content (12,14). In nursing structures is often present the healthy habit of setting up an afternoon snack with drinks and snacks, as opportunities for increased caloric intake and fluid and socialization (11). Some authors reveal that, dietary recommendations for fat, carbohydrate and dietary fibre are the same for older people as for the rest of the population and similar healthy eating guidelines apply. (27). Alzheimer's

Disease International (ADI) suggested that simultaneous supplementation with multiple micronutrients (fatty acids, phospholipids, vitamins E, C, B6 and B12, and folic acid) might be required synergistically to increase brain levels of molecules that are essential building blocks of brain synapses (28).

Patient

Involve the patient in the meal preparation produces awareness of the proximity of this event, gives a sense of independence and enhances the well-being and self-esteem (8,13). The elderly should be assigned tasks according to its real possibilities and capacities (19). There is no consensus in defining which meal represents the time of day in which the patient with dementia is more alert and therefore better able to feed itself (14); for some it's lunch (19); for others, however, breakfast (11).

If the patient shows aggressive reactions, it is better to stop and try again when the meal be more composed (11). Activities based on the Montessori method are found to be effective in this type of patients develop since the residual capacity, increase the practice of activities of daily living, stimulate the senses especially the sense of touch (with an exercise in object recognition) and hearing (background music during meals), increase the capacity for coordination of movements and reduce agitation. This method is an alternative to preserve the independence of the elderly and generates long-term effects. Applying it correctly people are even able to acquire new skills thus demonstrating that dementia does not exclude the possibility of rehabilitation treatments (3). In order to guarantee patient autonomy literature shows the "finger food" because it preserves the ability to feed itself longer than willful use of cutlery even if the caregiver support (8,12,14, 20).

Conclusions

Eating disorders are a major challenge for the nurse, all the medical staff and the patient's family (17,19).

The feeding in dementia is influenced by several factors (social, cultural, organizational and environ-

mental) that make its management complex (29). The range of specific interventions is still poorly examined and marked. Further studies are therefore needed to validate those published so far, in particular there are no randomized studies and the work carried out have no common criteria, thereby making it impossible to a meta-analysis. The reduced sample is then examined a limit of many articles analyzed (30).

Very important is the personnel training to recognize and correctly interpret difficulties and the patient's needs, especially if not clearly expressed (1,16). More and comprehensive knowledge allows nurses to be more confident in acting and have interventions that will have a better impact. There are no studies on the work of the nurse in relation to the manifestation of aggressive behavior during the meal (14, 16).

Ethical dilemmas are not indifferent involving the figure of the nurse, especially on the end of life and artificial nutrition (30). It therefore seems necessary to drafting of guidelines in clinical practice, which define better the role of caregiver (1) and national programs that allow to carry nutrition for made conscientiously mouth (11). authoritative guidelines could provide crucial scientific bases considerations in mind to allow the identification of the best form of nutrition for the patient by bridging the limited knowledge on this topic. At the local level would enable each district to identify the resources (human and otherwise) to which you can refer and professionals to identify the state of dementia, to avoid interventions, therapies and inadequate hospital admissions (7). It seems necessary that the nurse is more involved in this field and able to effectively educate the support staff and family members (31). The nurse, especially the geriatric nurses, must play a leading role and participate in the drafting of programs and protocols on nutrition (11).

The new tools (assessment scale), the different possibilities of intervention, the available resources (literature, guidelines, the multi-professional team, the patient and members of his family) and the progress of scientific and technological research does not justify more poor nutrition of the elderly with dementia. These must then acquire and maintain a nutritional state that contributes to the best possible quality of life (12, 32).

According to current knowledge and literature consulted for this study shows that, although the spe-

cific role of the nurse in the field of nutrition is still not clearly defined, this professional can not deny his role as "advocate and guarantor" of the patient, the expert guidance, support, educator, or delegate their responsibilities to others. The nurse must act correctly to ensure the welfare of the person taking care, taking particular attention to their needs, without preventing his even minimal involvement.

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