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Home Enteral Nutrition Therapy: interface between human right to adequate food and food security and nutrition

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Abstract

Home enteral nutrition therapy (HENT) is a form of providing health care and nutrition in the home. It aims to preserve the family ties in association with multidisciplinary care, especially nutrition. HENT is important because it often converges to the principles of food security and nutrition (FSN); because individuals cannot take in food by mouth, they are sometimes affected by the worsening of FSN in their family/household. As feeding has social power and cultural significance, the needs of patients and their families cannot be ignored in situations where the use of HENT is required. Their needs must be fully met, considering the principles encompassed by FSN: quantity, quality, diversity, access to food, on a permanent basis, based on the Human Right to Adequate Food (HRAF) within HENT.

Keywords: Enteral Nutrition Therapy. Food Security and Nutrition. Human Rights. Nutrition. Home Health Care

Introduction

Food Security (SAN) is a prerequisite for the effective exercise of citizenship, and the Human Right to Adequate Food (HRAN) is one of its fundamental principles. This principle must be acknowledged whenever its implementation is threatened, e.g. when individuals depend on special care, especially nutrition care, to maintain their quality of life and their physical, psychological and social well-being.

There are many obstacles to enteral feeding in the home; for example, limited economic resources that prevent people from buying foods or food formulas; this can lead to an inadequate diet or pose the risk of primary or secondary malnutrition. Members of the family and/or caregivers face challenges while adapting to a new daily routine which was modified by the introduction of HENT. As a result, there can be food insecurity of individuals who now depend on this therapy, and their nutritional status may become worse.

Therefore, this study aims to discuss the relationship between HENT, FSN and the Human Right to Adequate Food (HRAF) by reviewing research papers, book chapters and government documents about the theme.

Human right to food and food security and nutrition

The dignity of citizens is closely associated with adequate food, which is a fundamental human right enshrined in Brazil's Federal Constitution. The government should adopt policies and initiatives that can promote and ensure FSN among the population.[1,2]

Thus, in addition to human rights and the right to health, which are established in the Constitution, the right to food must be seen as essential to life and society. There is international recognition of the right to food in the Universal Declaration of Human Rightsand the International Covenant on Economic, Social and Cultural Rights; therefore, it is also necessary to include such right in public policies.[3,4] The State has the responsibility to formulate and implement legislative measures that enable effective implementation of FS and HRAF of the population.[5]

The Organic Law on Food Security and Nutrition (OLSFN), enacted in 2006, established the National System of Food and Security and Nutrition (NSFSN), in order to ensure the right to adequate food. This law has established principles, definitions,

guidelines and the composition of NSFSN, whose aim is to formulate and implement policies and FSN plans to foster the integration of efforts between government and civil society, as well as monitor and evaluate FSN in Brazil. Therefore, it is the duty of the government to respect, protect, foster, disseminate, monitor, inspect and evaluate the realization of the right to adequate food and ensure the mechanisms for its enforceability.[2,6]

Food intake occurs within the dynamic interface between food (nature) and body (human nature). It only takes place entirely when feeding results in healthy bodies and healthy citizens. Given these characteristics, approaching the subject requires the incorporation of the framework of human rights, enabling a holistic look into the basic principles of universality, equity, indivisibility, interrelation in achievement, respect for diversity and non-discrimination, also covered in the principles of Brazil's Unified Health System (SUS).[7,8]

In recent decades, the Brazilian population has undergone great social changes that have modified their standard of health and nutrition. These changes have reduced poverty and social exclusion, as well as hunger and food shortage; they have also ensured the average availability of calories for consumption, although there are still some 16 million Brazilians living in extreme poverty. The reduction of hunger and malnutrition was followed by an increase in obesity, pointing to a new panorama of problems associated with food and nutrition.[9]

Therefore, FSN prevents diseases associated with food and nutrition, as everyone has the right to regular and permanent access to quality food in sufficient amounts, without compromising access to other essential needs, based on healthy eating habits that are socially sustainable and respect cultural, environmental, and economic diversity.[7-9] Understanding the impact that FSN can cause to the population, whether by promoting health or preventing diseases, is essential for planning and implementing public policy strategies.[2,10]

Home health care and home enteral nutrition therapy

Home health care is a generic term that comprises activities of health promotion, prevention and treatment of diseases and rehabilitation conducted in the home. Home health care arises between hospitals and the health care network, integrating two specific modes: home nursing and home care.[11] Thus, the objectives of home health care are to provide health care to patients at home and raise awareness of both the patient and the family in order to achieve the health goals and the independence of formal health care services.

In the sixteenth century, almshouses were opened, and soon there were recommendations for the practice of home care. Their focus was charity and solidarity; most of the time, they were run by community women associated with a church, or sisters of charity. This feature has been preserved for a long time; later, this service was developed in several countries, focused on disease prevention and health promotion, thus gradually adding new knowledge.[12,13]

In 1830, home care activities began to be developed in Brazil, with physicians providing care in the home. In the 1920s, home visits started to be made by visiting nurses. Later, scientist Carlos Chagas implemented the American model of visiting nurses; they were hired by hospitals and should have experience in home care to provide health care to authorities in their homes. Home care also occurred in low-income populations.[14,15]

In the following decades, the Emergency Medical Home Care Service (EMHCS) was established. It was founded in 1949 and was linked to the Ministry of Labor. It was the first Brazilian home care experience organized as a service. After that, home health care was disseminated and offered by public and private services in an attempt to integrate and complement hospital care by management, organization and composition of multidisciplinary staff.[11]

Some services and localities organized themselves independently of nation-wide management and guidelines for the practice of home health care. Thus, there are several municipalities seeking alternatives ways to implement and develop this service in an attempt to optimize the financial resources of health.[11,14]

The logistics organized for home care in these municipalities may have contributed to the reduction of existing overhead in primary care at hospitals, resulting in the increased coverage in health care. By working in people's homes, health professionals become more acquainted with the health problems faced by individuals and their families. Through diagnostics, they suggest actions to promote health and disease prevention, strengthening the autonomy of each patient. The deployment of these services leads to a reduction of hospitalizations and costs, and improves the quality of life of sick patients. Under this view, health care is more humanized.[15]

Thus, the hospital-centered model is no longer the only curative tool, and ongoing reformulations of health policies in Brazil are making more room for home care within the national health model.

Coincident with the rise of home care, a broad and multidisciplinary health care model - home nutrition therapy (HNT) - emerged and continues to be disseminated to date.[16] As a type of home health care, HNT came to prominence in the 1980s and there is an ever-growing trend, ever since, to extend hospital care to the home environment.[17,18]

HENT, which corresponds to enteral feeding (EF) to supplement or replace the oral intake of nutrients, is a component of home health care.[19]

In the past fifty years, EF has had great progress; it is more and more refined, and includes different methods. This type of feeding enables adequate nutritional support, providing specific nutrients in satisfactory amounts to most patients.[20]

Nutrition therapy (TN) is the set of nutritional therapeutic procedures used to maintain or restore the health of individuals at risk of malnutrition or malnourished with the use of specific methods and techniques. This therapy can be administered by different access routes (oral, enteral and parenteral) using food or food formulas. It may be needed for a long period of time; thus, home care is the preferred option when a person's health status does not require hospitalization. This type of feeding helps to maintain or improve the nutritional status of sick patients.[21-23]

The long history of enteral nutritional therapy (ENT) has been documented since 3500-1500 BC, when the ancient Egyptians, according to Herodotus, used animal bladders to provide nutrients and medication by enemas into the rectum. More than a millennium later, in 400 AD, Greek physicists, including Hippocrates, administered foods through the rectum: wine, whey, milk, wheat and barley, for example.[24] The various phases that cover the emergence appearance of EN are: rectal feeding; feeding via the digestive tract (pharynx, stomach, esophagus); oro-duodenal and oro-jejunal feeding; development of EN techniques; chemical analysis of food formulas; and EN for diseases and disorders with specific nutrient formulations. [20,24-27]

Since the 1950s, ENT caused great progress in feeding approaches to the sick who cannot feed themselves by physiological means. EN has become special and increasingly refined, and it currently plays an important role in maintaining the quality of life and supporting the human right to adequate food. It also stabilizes or improves nutritional status. For EN to be safe and effective, it depends on the development of enteral access devices, nutrient mixtures and enteral formulas.[20]

In addition, the establishment of ENT is determined by nutritional monitoring of the patient in the home, which goes beyond mere tube feeding. Such monitoring should provide the implementation of the health care process, prioritize the care of patients who require more attention, lead to more efficient care and more precise nutritional diagnosis. It should also include regular and frequent monitoring of nutrient intake and the respective nutritional values, dietary advice to the patient as well as encouragement and psychological support, making the patient a participant in every step of the dietary treatment.[28-31]

NT has been the focus of national and international studies on the optimal and safe supply of nutrients required by patients. The increased number of ENT patients for long periods of time has been encouraging further research on HENT. One common objective of these studies is to adapt the use of formulas to the clinical, social, economic and cultural situation of patients, despite the controversy about the category of enteral formulas used.[32-34]

Food security and nutrition: the challenge faced by home enteral nutrition therapy

Over time, food was a drive for great social transformations. The availability, variety and quality or food items, or even the absence of these elements, determined movements that resulted in cultural exchanges.[35]

It should be noted that "food", in this context, is any substance that is ingested fresh, semi-processed or processed, aimed at human consumption, as well as any substance that nourishes the body. Nutrients are the intrinsic element in food nature, and they are meant for biological processes.[36-38]

Understanding the food-nutrition binomial can result in food insecurity and nutritional disorders observed in the nutritional status, such as malnutrition, overweight and obesity.

In tube feeding, there is a concern to ensure the biological processes, especially in the acute phase of the disease during hospitalization, i.e. to nourish the patient. In these circumstances, the supply of nutrients takes place by means of commercial enteral formulas. However, when patients receive HENT, their situation is more stable and tube feeding is often maintained indefinitely.

The intervention of ENT for the recovery of health and improvement of disease often differs from the general health needs of the population. Increased attention to patients' quality of life, along with health promotion and affirmation of citizenship, should be the common goal to be achieved.[9,10,13,39] In this sense, feeding in ENT must meet the nutrient requirements of the body, but it must also foster uniqueness, culture and social identity. It is not just a biological act, but also a social act, inherent in every human being, whether or not healthy. Therefore, EN is the "food" symbolized in its most haughty manner, which allows honor, abuse, judgment.[36,40] Understanding feeding and HENT as social phenomena allows to take them as an important part of human rights.

However, for nutrition care to be effective, professionals responsible for it must take into account the reality of the patient's home environment, the organization of family members around meals,

the importance of food in the family, hygiene and storage of food/formulas.[31] The treatment in the home, when properly conducted, leads to improved quality of life, better prognosis of the disease, health promotion and cost-effectiveness.[41-43]

A family is well-structured when it can offer well-being to the sick person from various points of view, especially the affective one. The relationship between the members of family is demonstrably responsible for accelerating the improvement of a patient's health, as it provides the foundation that other environments do not have; whenever possible, it should be maintained. Keeping the sick patient in the home prevents segregation of the family, contributing to improved health, and redeems the family's position as an important unit of health care.[44]

In the field of nutritional care, the characteristics of feeding and family's food culture are important to propose dietary guidelines, and, thus, ensure that nutritional needs are met.[45] EN, in most cases, is not desired, but imposed by illness. It is often stressful for the sick patients and their families.[46]

The importance of NT has gradually gained recognition both for restoring and maintaining people's nutritional status. When properly indicated, it improves clinical outcomes by reducing the length of hospital stay and health care costs. It is known that well-nourished patients respond better to different types of treatment.

However, as seen above, food intake does not only satisfy their physiological needs, but also their psychosocial needs with meanings and implications in their life.[47] Therefore, it can be inferred how affected someone (and their family) is when they are unable to feed orally and must be fed by artificial means, such as tube feeding. The use of EN eliminates the pleasure of taste and smell provided by regular foods, because food always has the same color, appearance and consistency, causing the nutritional process to take other dimensions. For these patients, the time of feeding no longer matches the time of integration and exchange of affection, as it starts to represent tension, anxiety and discrimination, intensified by feelings of abandonment, helplessness and insecurity.[48,49] This deprivation of family life at the table is overlooked by many families with a person under HENT. The sick patient under HENT can often experience food and nutrition insecurity in his home, given the important role that food plays in the family environment.

The use of commercial formulas developed by the pharmaceutical industry has grown significantly, as a result of both technological development and the economic profitability of the business. The increased supply of enteral formulas on the market contributes to specialized NT used in hospitals and also in the home. The cost/day of these formulas varies depending on the specificity of nutritional composition and hydrolysis processes.

The use of commercial formulas for homebound sick patients is subsidized in some municipalities and states in Brazil. However, there still are no regulated criteria for determining the need to use these commercial formulas to ensure the human right to adequate food. Low-income families concerned about following the prescription received at hospital discharge attempt to purchase the product, regardless of its cost. In such circumstances, everyone in the household is disadvantaged, especially when their economic hardship prevents them from purchasing foods. Food insecurity and nutrition is more prevalent in that circumstance.

Criteria for HENT must be established; for chronic cases where digestion and absorption of nutrients is not impaired, the sick patients should receive a prescription that suits their socioeconomic and cultural reality, so that they can have food intake through tube feeding. For sick patients still in the acute phase or restoring their nutritional status for subsequent medical or surgical treatment, the use of specific commercial formulas is recommended for their recovery. What is still not known is whether or not the use of commercial formulas for patients under HENT results in FSN, because control of temperature, hygiene, sanitation and microorganisms is required for stability of nutrients.

Despite the large number of commercial food formulas on the market, they still do not comply with the food diversity law; therefore, using such formulas in the long term may pose a risk of food and nutrition insecurity. The scientific literature states that foods have higher levels of bioactive compounds than commercial food formulas. In addition, food has a strong influence on the social context.[50-52]

Nutritional status is another factor to be noted and considered as regards FSN. Most patients under HENT are classified as malnourished in the nutritional assessment; however, this result may be due to low energy density or muscle atrophy.[51-53]

Clarification of the various factors that lead to food insecurity will contribute to the establishment of public policies aimed at comprehensive health care of patients under HENT. Such policies are supposed to prioritize human dignity, which is why FSN strategies should be integrated into the human rights approach.

Thus, health care to sick patients under HENT must be provided with equity, supported on the human right to adequate food and the legislation governing FSN. Broader goals should also be achieved; for example, the implementation of socioeconomic and cultural public policies that support the purchase of food for such therapy.

Final remarks

HENT has advanced as a result of technological development, and health care is more humanized; however, HENT still needs to be integrated with other aspects, such as FSN. Its principles should be considered in the home health care model, as regards both patients under HENT and their families. Therefore, greater integration, cooperation and development of unilateral collective actions are required from managers and users.

Because it is still a growing field, research on FSN and HENT should be developed seeking quality, quantity and diversity of food offer, while respecting the socioeconomic and cultural meanings of the patients and their families so that HRAF can be effectively achieved.

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