

ORIGINAL ARTICLE

TRANSLATION AND CROSS-CULTURAL ADAPTATION OF DIETARY RECOMMENDATIONS FOR REFUGEES IN BRAZIL

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Highlights:

- (1) Ensure access to food and a protective measure for refugees.
- (2) Translation and adaptation of the recommendations were carried out satisfactorily.
- (3) This translation may be used by health professionals.

ABSTRACT

In recent years, Brazil has emerged as a primary destination for migratory flows driven by political, socioeconomic, and religious factors, receiving refugees from various countries. Ensuring access to food and maintaining adequate nutritional status are central to protection measures. Existing data on the recognition process in the country do not encompass dimensions of health and food. In 2015, Portugal published a Welcoming Manual that addresses rights related to health, food, and nutritional security, serving as a reference for nutritional interventions for refugees in that country. This study translated and adapted the recommendations from this Manual, establishing a dialogue with the Dietary Guidelines for the Brazilian Population from the Ministry of Health. Understanding and recognizing dietary specificities is essential to initiating adequate reception. The translated and adapted dietary recommendations intend to be a guide for nutritional reception and can be regarded as a starting point for health professionals, emphasizing the need for broader discussions and studies to support public policies for reception.

Keywords: Refugees; Nutritional status; Food quality; Public policies.

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INTRODUCTION

In recent years, Brazil has become one of the main destinations for migratory flows due to various political, socioeconomic, and religious reasons. Brazil has received refugees from countries such as Venezuela, Haiti, Cuba, China, Bangladesh, Angola, Senegal, Syria, India, and Congo¹⁻³.

Brazil has specific legislation targeting this group and is developing a computerized system to monitor and register this migrant population. According to data from the Ministry of Justice, there were 2.3 times more recognitions of refugee status in 2020 compared to the previous year, with preliminary data indicating 49,493 refugees in the country, largely due to widespread serious issues such as human rights violations. This system includes information on the profiles of the population seeking refugee recognition, showing that the majority are males aged 18 to 68 years. However, there are no records regarding basic health conditions².

The refugee population is inevitably affected by the politics, economy, language, health, and culture of the host country. Basic health care involves ensuring access to food and maintaining adequate nutritional status, which are priorities in protective measures for populations affected by emergency situations⁴. The health and food circumstances are complex results of the public policy environment and the social determinants to which this population is exposed. The cost of such care is essential to this process, and without structured policies, there is an increased risk of food and nutritional insecurity and the exacerbation of vulnerabilities⁵.

Therefore, refugees are characterized by a lack of food and nutritional security. The Organic Law on Food and Nutritional Security (Losan)⁶ in Brazil defines the right to regular and permanent access to quality food in adequate amounts without compromising access to other essential needs. Additionally, it is based on health-promoting dietary practices that respect cultural diversity and are environmentally, culturally, economically, and socially sustainable⁷.

Several international institutions have developed and published guidelines for food and nutritional interventions in these situations, drawing on scientific evidence and field experience^{4,7-14}. Resource materials are available for refugees in Brazil; however, these materials primarily focus on recognizing refugee status and providing information about organizations, institutions, and reception for both the beneficiary population and the professionals involved in this process. Still, there is no specific guidance at the national level regarding health, food, and nutrition for this population¹⁵⁻¹⁶.

Internationally, references for refugees can be found in documents developed by the World Health Organization (WHO), the United Nations Food and Agriculture Organization (FAO), the United Nations High Commissioner for Refugees (UNHCR), the World Food Program (WFP), and the Sphere Project (Red Cross). However, it should be noted that Portugal, through the Directorate-General for Health and the National Program for the Promotion of Healthy Eating, has become a model in addressing the needs of this population. In 2015, a specific guiding manual titled 'Reception of Refugees: Food and Nutritional Needs in Emergency Situations' was published, which considers the right to health, food safety, and a framework for food and nutritional intervention for refugees in the country¹⁵.

In Brazil, the development of public policies aimed at promoting healthy eating has evolved over the last few decades, especially following the Organic Law on Food and Nutritional Security (Losan)⁶. A significant product of this initiative is the 'Dietary Guidelines for the Brazilian Population,' published in 2014 by the Ministry of Health. This official document outlines principles and recommendations for adequate and healthy eating for the population. It functions as a tool to support food and nutrition education efforts, assistance, and discussions in the field of Food and Nutrition in an intersectoral and interprofessional manner across the country¹⁶.

Understanding the epidemiological, cultural, and communication aspects of a population is essential for effectively and competently guiding healthcare, assessment, and nutrition guidance from health professionals at any level of care. This ensures proper reception in the country, as mandated by law^{16,17}.

This work aims to translate and cross-culturally adapt the ‘Manual for the Reception of Refugees: Food and Nutritional Needs in Emergency Situations’ from Portugal¹⁴, supported by and in dialogue with the ‘Dietary Guidelines for the Brazilian Population’¹⁶

METHODOLOGY

The flowchart below (Figure 1) outlines all stages of the methodology of this study. The first stage involved studying the Manual for the Reception of Refugees from Portugal¹⁴, as well as reading and recording convergence and complementarity points with the Dietary Guidelines for the Brazilian Population¹⁶.



Figure 1 – Stages of the study methodology. Source: the author

The first stage involved reading the two documents used in this study. The Manual for the Reception of Refugees from Portugal¹⁴ primarily draws on documents developed by the World Health Organization (WHO), the United Nations Food and Agriculture Organization (FAO), the United Nations High Commissioner for Refugees (UNHCR), the World Food Program (WFP), and the Sphere Project. This Manual is organized into three sections related to Nutrition: 1) The importance of assessing the nutritional status of the hosted population; 2) Strategies for food and nutritional interventions based on the expected nutritional needs of these population groups; and 3) Hygiene and food safety in the provision of this food assistance. Additionally, it mentions basic psychological care for the teams on the ground and includes a set of annexes containing supporting materials for decision-making.

The Dietary Guidelines for the Brazilian Population¹⁶ are one of the strategies to promote adequate and healthy eating, part of the National Food and Nutrition Policy, and aligned with WHO recommendations. These guidelines aim to periodically update the recommendations for adequate and healthy eating. They are divided into five chapters: 1) guiding principles for development; 2) general food choice recommendations, proposing a classification of foods based on their level of

processing; 3) guidance on combining foods into meals and food groups; 4) guidance on the act of eating and commensality; and 5) factors such as information, availability, cost, culinary skills, time, and advertising, proposing to address these challenges through combined actions at personal and family levels as well as the exercise of citizenship. As a separate and complementary product, the recommendations are summarized in a document titled ‘Ten Steps to Adequate and Healthy Eating.’

For Stage 2, the second part of the manual from Portugal¹⁴ was used, selecting the following chapters: ‘dietary recommendations,’ ‘guidelines for proper cultural adaptation of the diet,’ and ‘items and quantities of basic foods to include in a basket to meet the same nutritional recommendations.’ Based on these chapters, the translation of these topics from European Portuguese to Brazilian Portuguese was completed. The translation was achieved through careful reading of the document and related articles to enhance familiarity with the material.

Stage 3 focused on cross-culturally adapting the recommendations from the Portuguese Manual. This adaptation was carried out alongside the Dietary Guidelines for the Brazilian Population¹⁶ and the ‘Ten Steps to Adequate and Healthy Eating.’ The content outlined in chapters two, three, and five of the Guidelines was predominantly used; however, all the principles and approaches of the Guidelines were incorporated.

The description of items and quantities of basic foods to include in a basket, aimed at meeting the nutritional recommendations for this population group, forms the foundation for developing a nutritionally adequate meal plan (stage 4).

RESULTS

The dietary recommendations have been translated and adapted, as presented in Table 1. The guidelines generally encourage the daily consumption of a variety of foods, including green leafy vegetables, orange and red-colored foods, fruits—especially those rich in Vitamin C—and protein-rich foods. They favor whole grains and promote water consumption for hydration. Other beverages, such as tea, infusions, milk, and natural juices, should be free of added sugars.

Table 1 – Translation and cross-cultural adaptation: ‘Dietary Recommendations for Populations in Emergency Situations

Dietary Recommendations for Populations in Emergency Situations.
– Promote the daily consumption of foods from the different food groups in the Dietary Guidelines for the Brazilian Population (Beans; Cereals; Roots and Tubers; Vegetables; Fruits; Chestnuts and Nuts; Milk and Cheese; Meats and Eggs), aiming to vary the foods within these groups. – Promote the daily consumption of fresh products, such as fruits and vegetables: – Promote the daily consumption of brightly colored vegetables, such as leafy greens (spinach, watercress, kale), because, among other micronutrients, as they are important sources of iron and folic acid, as well as orange and red fruits and vegetables (carrots, pumpkin, tomatoes), as they are important sources of vitamin A. – Promote the daily consumption of 1 serving of fruit rich in vitamin C (oranges, tangerines, kiwi, strawberries) – Promote the daily consumption of protein-rich foods, such as meat, fish, and eggs, milk and dairy products, and legumes. Eggs, legumes, and dairy products can be important alternatives to meat and fish. In the case of dairy products and eggs, they are also important sources of vitamins (for example, vitamin D) and minerals.” – Prefer the consumption of whole grains, which provide not only vitamins that are typically deficient in this population group (B-complex vitamins) but also fibers. – Encourage the consumption of water and other beverages that contribute to adequate hydration, such as tea and infusions. Soups and beverages such as milk and natural juices without added sugars are also highlighted as important sources of hydration

¹ Adapted from: *Food and Nutritional Needs in Emergency Situations*, Directorate-General of Health, Portugal. December 2015.

The dietary recommendations proposed for refugees consider the contents of the Dietary Guidelines for the Brazilian Population¹⁶. They also align with the principles of safe eating meeting the criteria for food and nutritional security by advocating for access, quality, and quantity in a diverse and sustainable manner.

The section on ‘recommendations for proper cultural adaptation of the diet’ from the Portuguese Manual was also translated and adapted. These recommendations (Table 2) aim to guide this cultural adaptation by addressing acceptability, respecting the cultural and religious aspects of the country of origin, suggesting appropriate food substitutions, and promoting healthy eating.

Table 2 – Translation and cross-cultural adaptation:
“Recommendations for proper cultural adaptation of the diet”¹.

Dietary Recommendations for Populations in Emergency Situations.
- Assess the acceptability and suitability of the foods included in the dietary intervention plan by the population. - Integrate a cultural mediator in all decision-making and communication processes. - Understand and respect the importance of cultural, social, and religious aspects in food, ensuring that the promoted foods do not conflict with the religious or cultural traditions of the population. - Understand that proper cultural adaptation of the diet contributes to a more balanced diet. - Avoid foods that may be subject to religious restrictions, such as: • Products or by-products of Pork; • Animal blood or products containing animal blood; • In some cases, poultry or beef that have not been slaughtered according to specific rituals; • Alcoholic beverages or products containing alcohol in their formulation and preparation - Appropriately replace restricted foods with others of similar nutritional composition. - Promote the Dietary Guidelines for the Brazilian Population and the specific dietary and nutritional recommendations for refugees as the foundation for a healthy, varied, balanced, economical, and environmentally sustainable diet that aligns with the cultural identities of the majority of the hosted refugees.

¹ Adapted from: *Food and Nutritional Needs in Emergency Situations*, Directorate-General of Health, Portugal, December 2015.

To complement nutritional needs, the ‘items and quantities of basic foods to include in a basket that meet the same nutritional recommendations’ were also translated and culturally adapted. This highlights the need for 500g of foods from the cereals and tubers group, 170g of beans, 320g of milk and cheese, 28g of oils and other fats, 100g of meats and eggs, 10g of nuts, 200g of vegetables, and 300g of fruits. These nutritional requirements are based on the daily amounts needed for an adult.

Table 3 – Translation of nutritional needs: “Basic foods to include in a basket to meet the average individual quantities of energy, proteins, and lipids recommended for the first phase of assistance”¹

Item	Amount (g)
Cereal, roots and tubers	500
Beans	170
Milk and Cheese	320
Oils and other fats	28
Meat and eggs	100
Chestnuts, nuts, peanuts and almonds	10
Legumes and vegetables	200
Fruit	300

¹ Translated from *Food and Nutritional Needs in Emergency Situations*, Directorate-General of Health, Portugal, December 2015.

DISCUSSION

Refugees have increased nutritional recommendations upon reception compared to the general population, according to the Dietary Reference Intakes (DRIs)^{4C,22}. In the first phase of the intervention, it is necessary to consider meeting these recommendations as a baseline at the population level, including pregnant and lactating women, and the periods of food scarcity and micronutrient deficits caused by displacement due to the likely lack of access to fresh and varied foods that refugees may face, in order to address everyone's needs in this initial phase. The second phase involves adaptation, grouping, and specifying care according to individual needs, and the third phase is stabilization, integration into society, and monitoring¹⁴.

Malnutrition and micronutrient deficiencies are prevalent in this group^{14,23}. The literature describes iron, iodine, and vitamin A, B, C, and D deficiencies as the most prevalent in this population group¹⁴. Regarding malnutrition, a prevalence of 32.6% was identified in a refugee camp in Rwanda among individuals aged 50 and older¹⁸. In Brazil, shelters for refugees in Roraima showed a 19.7% rate of chronic malnutrition in children, with pregnant adolescents facing the highest risk of nutritional and health vulnerabilities¹⁹.

Another significant and prevalent issue in this population is anemia, which appears to be the most pressing public health problem among displaced populations¹⁴. A recent study in a Syrian refugee camp in Jordan demonstrated an anemia prevalence of 48.4% in children and 44.8% in women²⁰. Along with malnutrition and micronutrient deficiencies, overweight, obesity, and dyslipidemia are also observed globally in this population^{14,21-27}. Consequently, reducing the prevalence of these acute nutritional conditions and preventing the development of chronic diseases^{22,28} are primary objectives in the care of this population group.

To achieve these objectives, it is important to include fresh products in the diet that ensure micronutrient intake or, as an alternative, fortified foods and supplementation when necessary¹⁴. Thus, a variety of food groups in the diet can be an important strategy to ensure micronutrient diversity¹⁴, as well as the dietary recommendations proposed in this study. Therefore, using population-level interventions and individual treatment to reduce these deficiencies is essential⁸. Promoting food and nutritional security is the tool to achieve this aim, given the prevalence of food and nutritional insecurity in this group^{29,30}.

Furthermore, dietary recommendations for refugees should consider cultural and religious aspects, respect their dietary restrictions, and account for the availability of food in the host country. This aspect relates to the cost of obtaining such foods, making affordable options advantageous for adhering to health recommendations.

Food distribution programs play a very important role in supporting food and nutritional interventions for populations in this situation, ensuring the sustainability of these actions. Ideally, foods with greater cultural identification for refugees would be requested, such as beans, chickpeas, bulgur, rice, and chestnuts¹⁴. A study that proposed different food subsidies found that increased provision of fruits and vegetables while reducing grain intake improved the incidence and management of cardiovascular diseases and type 2 diabetes mellitus³¹.

One of the limitations of this study is the foods listed as examples for each nutrient due to access variability. However, the decision to maintain the translation of the dietary recommendation for foods rich in vitamin C, such as kiwi and strawberries, according to the Portuguese Manual,

^{4 C} The Dietary Reference Intakes (DRIs) review the recommended values for nutrients and energy for the population according to sex and age group¹⁷.

was retained because, although these foods are not available and accessible year-round across the entire country, the Dietary Guidelines for the Brazilian Population recommend consuming seasonal and locally sourced foods from family farming. Given that Brazil is a vast and diverse country with various biomes, fauna, and flora, the foods mentioned are only meant to guide and should be adapted according to location, season, and availability. Another limitation we can mention is the applicability of the explained dietary recommendations. Therefore, a gap remains for future studies to evaluate these dietary recommendations with both professionals and the target audience, as well as to investigate and understand the basic health conditions of refugees.

Transforming commitments into effective internal policies beyond what already exists and providing visibility to the population is a national challenge^{31,32}. This was highlighted in an interview conducted with Angolans in Brazil, where they envision promising prospects, but the reality is one of prejudice and difficulties³¹. Research in this area beyond mere observations is necessary, even though international policies represent an essential factor. Further analysis is needed to establish an effective space of protection for refugees^{32,33}.

CONCLUSION

Refugees are an increasing group, and it is essential to provide adequate guidance to support populations in emergency situations, contributing to their safe reintegration into society. Understanding the specifics of dietary recommendations is crucial for proper reception. Since the dietary guidelines in this work aim to serve as a foundation at the population level as an initial phase, it is important to note that these guidelines can be implemented by any healthcare professional, including those in medicine, psychology, social work, and others, who monitor the health situation of individuals in healthcare settings.

The dietary recommendations, sample foods, and the food basket are illustrative and should not be taken as rigid or fixed. They are a way to demonstrate possibilities that meet the recommendations for the population while respecting the individual's origin and potential restrictions. Food and nutritional interventions should be adapted to the situation of each hosted group. It is also important and necessary to use international references and standards, as only then evidence-based interventions in this area can be carried out. Further research is encouraged to ensure the proper integration of this population so that public health policies focused on the food and nutritional security of refugees are consolidated in the country.

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