A TRILINGUAL GLOSSARY OF DIET AND NUTRITION TERMS IN ENGLISH, FRENCH, AND IGBO

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Abstract

Diet and nutrition, which affect the human body's growth and survival and the risk of chronic illness, are central to human well-being. Yet, words used to describe nutrition concepts are shaped by linguistic and cultural norms, making health communication challenging across different languages. This study constructed a trilingual glossary in English, French, and Igbo on diet and nutrition concepts and aimed to improve cross-linguistic comprehension, promote mutual understanding, and encourage the use of indigenous knowledge systems within the health sector. It used a qualitative, comparative descriptive design. Data was collected from textbooks on nutrition; Codex Alimentarius; reports of WHO; and a number of bilingual specialized dictionaries; Igbo dictionaries; and other related linguistic sources, such as native speakers, among other sources. The selection criteria were the frequency of use in nutrition studies, their importance for nutrition and public health, and cultural relevance. The methods of translation were equivalence of terms; translation by description; semantic broadening, and borrowing. English and French nutrition vocabulary is well developed and well codified but this is not the case with Igbo, where the concepts are mostly referred to by descriptions such as nri anụ ahụ (protein), or loan words such as vitamini (vitamin). Significant variations were identified in the semantics of the concepts across the three languages, reflecting linguistic and cultural diversity of food classifications. A structured trilingual English, French, and Igbo glossary of more than ninety nutrition terms that covers nutrients, food groups, dietary practices, anthropometry, and clinical nutrition were developed and the equivalents and descriptions of the concepts were provided. These multilingual glossaries will advance effective nutrition education and communication and contribute to the development of the Igbo nutritional terminology. It is recommended that more studies be carried out on nutritional concepts in African languages in order to improve health literacy through the development of health terminology in African languages.

Keywords: Health, Nutrition, Glossary, English, French, Igbo.

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1. Introduction

Dietary habits and nutritional intake have significant implications for individuals' physical health and well-being, playing an important role in growth, disease susceptibility, mental function and quality of life (WHO, 2022). As such, communicating nutritional concepts, from the simple to the complex and from basic categories to technical language like the glycemic index or essential amino acids, is paramount for health education, clinical practice, policymaking, and community-based initiatives (FAO, 2020). The language used to define and communicate knowledge affects the production, exchange, and application of that knowledge (Baker, 2011). As a result, research on diet-and nutrition- related terms has been at the confluence of linguistic, public health and cultural study (Piller, 2016). Terminology research in the health sciences seeks not only to compile a list of lexical units but also to elucidate concept equivalence, identify gaps and suggest terms in multiple languages (Cabré, 1999). Where an established equivalent is absent, this results in inconsistent translations and an overuse of foreign loanwords or language that is not a term, but a descriptive phrase that may vary from speaker to speaker (Baker, 2011), making it difficult for accurate and comprehensive public health communication. This is important, particularly when considering health information, clinical guidelines, and the incorporation of indigenous knowledge systems (UNICEF, 2019), all of which may be impacted when language use differs. This is why the development and promotion of multilingual glossaries has been highlighted as an important tool to overcome the language and cultural challenges encountered when engaging with health services (FAO, 2020). To this end, a trilingual glossary of diet and nutrition terms was developed in English, French and Igbo. English and French are both major international and scientific languages (WHO, 2022). Igbo is an indigenous African language spoken by more than 25 million individuals in Nigeria (Ezenwa, 2018) and is also one of the most widely used local languages in the country. A review of nutrition terminology across English, French and Igbo will enable the study to consider both established terminology and local terms that contribute to understanding around food and health.

The study aims to: (1) identify prevalent, policy-relevant nutrition terms in English and French to build a working corpus; (2) establish their equivalents in the Igbo language through translation by using direct, descriptive, semantic extension, and borrowing methods; and (3) examine the extent of lexicalization, semantic gaps and patterns of cultural influence. The main purpose of the glossary is to strengthen communication between the Igbo speaking population and the health workers. To facilitate dialogue by eliminating linguistic and cultural barriers, it is hope that appropriate terms in indigenous languages be used. (Igboanusi et al, 2017) This research is conducted through a comparative-descriptive approach by using nutrition literature, World Health Organization guidelines, bilingual dictionaries and Igbo language dictionaries as data sources, and by selecting the most important, frequently used, and widely relevant nutrition words and expressions. In documenting the translation techniques and highlighting semantic gaps in the Igbo language as it relates to nutrition terms, the study provides both a useful tool, a glossary that can

be used as a working guide in teaching, translating and food nutrition communication, and a theoretical insight into the role and function of translation in developing indigenous languages.

2. Literature Review

2.1 Standardized Nutrition Terminology in International Contexts

Accurate language is critical for understanding and communicating the complexities of diet and nutrition. The World Health Organization (WHO, 2022) and the Food and Agriculture Organization (FAO, 2020) have established standards and classifications for nutrients and diet. The international *Codex Alimentarius* (Codex Alimentarius Commission, 2021) also includes nutrition guidelines. These guidelines are supplemented by the Academy of Nutrition and Dietetics and other professional organizations' glossaries of nutrition terms (Academy of Nutrition and Dietetics, 2019) to ensure standardized communication. Words like "nutrient," "macronutrients," "micronutrients," and "diet" are now used universally, yet the meaning and application of these words are changing in response to new knowledge (e.g., "probiotics" and "nutrigenomics") and dietary trends (Mahan & Raymond, 2017). The LanguaL™ food description thesaurus (LanguaL™ Technical Committee, 2020) is a notable example of how nutritionists and public health professionals can use structured multilingual vocabularies.

2.2 Terminology Development in Specialized Healthcare Domains

Scholarly interest in translating specialized health-related vocabulary is intensifying. For instance, Malele (2025) undertook a case study into the translation of English-isiNdebele medical terminology and concluded that there were many lexical lacunae in isiNdebele, calling for co-creation efforts between health practitioners and linguists to forge new terms. In the Swedish context, the process of translating the Nutrition Care Process Terminology (NCPT) required substantial cultural adaptation and clinical implementation of these terminologies in healthcare practice (Karolinska University Hospital, 2016). Nnaji (2024) carried out a study of English-Igbo maternal health-related terminologies to determine whether the Igbo language possessed the resources required for lexical expansion to keep up with modern scientific developments in maternal healthcare. He found that Igbo possesses the resources for this expansion, concluding that it can cope well enough in the translation of concepts related to medical and nutritional science, provided that concerted efforts are made to produce terminology in the language. There have also been efforts towards developing consensus nutrition lexicons recently. For example, the Micronutrient Data Innovation Alliance (DInA) developed a standard lexicon for micronutrient programmes and initiatives in order to define and agree on the terms that are to be employed, as well as to harmonise them across a number of stakeholders using a modified Delphi method (Micronutrient Forum, 2024). These methods may be useful in the development of glossaries for translation into multiple languages. There are also other efforts that have been made to promote the use of terminology across different languages and countries. For instance, the Health Terminology/Ontology Portal (HeTOP) enables users to search for health-related terminologies

across 55 languages and more (European Commission, 2024). Other such portals and databases such as the Unified Medical Language System (UMLS) have been developed to make standardized health-related terms easier to discover for use across different languages (UMLS, 2023). Anastasiou et al. (2023) note that the terms used in food-based dietary guidelines are often undefined and differ from country to country, further highlighting the importance of the creation of standardized but culturally adaptable nutrition-related terminologies.

2.3 Challenges of Multilingual Terminology Development

Building glossaries in specialized areas in several languages is a challenging task (Cabré, 1999). One of the biggest problems is concept equivalence, since a language might not have a lexical equivalent for a technical word (Baker, 2011), Desjardins (2021) argues that knowledge translation and interlingual translation are both essential approaches to the distribution of public health and nutritional education, but that the direct translation of health terms from one language to the next is not always possible. In African settings, the popular idea that language terminology is an insurmountable barrier to the use of African languages in the high-function domains such as science and medicine is prevalent (Tiv Language Study, 2025). Loanwords are commonly utilized to compensate for gaps but can result in reliance on foreign vocabulary (Piller, 2016). For instance, French and African languages commonly adopt English loanwords in nutrition discussions. An additional problem involves the cultural aspect of the food systems since languages categorize food according to cultural customs, and it may not correspond with the biomedical classification (Ezenwa, 2018). Finally, in health promotion, terminology must be adapted to the target audience while retaining its scientific accuracy (UNICEF, 2019).

2.4 Status of Diet and Nutrition Terminology in Igbo

Over twenty-five million people in Nigeria speak Igbo, yet that language has an extensive vocabulary in the domain of traditional foods but lacks a rich and established terminology for modern nutritional science (Ezenwa, 2018). Many expressions for foods are constructed in more of a descriptive manner, such as nri shuga (literally “foods containing sugar”) for carbohydrate foods or nri anụ ahụ (literally “foods that build the body”) for protein. Scientific concepts such as vitamins and minerals are frequently referred to using the English language terms. In addition, the variety of dialects of Igbo across the country also makes it very difficult to standardise the terminology since a variety of names exist for different types of food in each area (Onyemelukwe, 2011). However, these challenges notwithstanding, the fact that Igbo is a very culturally familiar language makes it a very useful language when it comes to conveying health information (Ezenwa, 2018). In fact, there is limited attention on Igbo lexicography development, which implies that, strangely, Igbo has been relegated to the background with respect to the compilation of dictionaries (Onyemelukwe, 2011, p. 45). While some bilingual materials and educational campaigns in Igbo have been developed, it is still English that remains the lingua franca in the fields of science and medicine (UNICEF, 2019). By creating more Igbo terms for nutrition, health education in local

communities could be improved as well as the development and maintenance of indigenous languages.

2.5 Cultural and Indigenous Knowledge in Nutrition Discourse

Indigenous languages are particularly effective at articulating local food systems, including traditional diets and culturally specific food practices (Newsday, 2025). As for the Igbo people, for example, cereals, starchy roots, and tubers constitute the main staple foods, while cowpeas is the primary legume (Igbo Traditional Food System Research, 2023). Indigenous food practices include various traditional dishes, Ofe Nsala, Abacha, (African salad), Onugbu soup, and Ugba (fermented African oil bean seeds), which have a unique set of nutritional knowledge (Pulse, 2023). Incorporating this kind of local knowledge into the language of nutrition will not only require translation, but also cultural translation and transcreation (Family Practice UBC, 2025). Bilingual resources that were developed with community input are effective for improving health communication for communities which are culturally and linguistically diverse (Cape York Partnership, 2024), while in South Africa a nutrition education toolkit has been developed with the use of local languages to illustrate the viability of multilingual nutrition materials on African soil (University of the Free State, 2023). In sum, the current glossary will contribute to the ongoing efforts to intellectualize African languages and establish them as suitable vehicles for the transfer of specialized scientific knowledge, an aim which is becoming more widely recognized by lexicographers and public health scholars alike.

3. Methodology

A qualitative and descriptive method was used for term collection and translation of diet and nutrition concepts in English, French and Igbo. Qualitative method of study is ideal for terminology research, it provides a comprehensive understanding of concepts and issues involved and is the preferred means of terminology work for its ability to explore, examine and explain linguistic and cultural aspects (Creswell & Poth, 2018). Data collection and translation process were undertaken in three (3) phases, namely; term collection, translation and analysis, following existing protocols of multilingual glossaries development (Cabré, 1999; FAO, 2020).

3.1 Term Collection

In preparing English and French terms, I took existing standard definitions used by nutrition textbooks (Mahan & Raymond, 2017), WHO (WHO, 2022), the Codex Alimentarius (Codex Alimentarius Commission, 2021), as well as bilingual nutrition dictionaries (FAO, 2020) as the basis. Terms were chosen according to their use in nutrition, their relevance for public health and their importance culturally, a common selection criterion in other health terminology projects (Micronutrient Forum, 2024). Given that Igbo is a largely oral language and varies by dialect (Ezenwa, 2018), the selection of Igbo sources needed to be more flexible. For this reason, I drew on various Igbo sources and methods, including (a) searching existing Igbo-English bilingual dictionaries (e.g. Echeruo, 1998; Igwe, 1999); (b) identifying Igbo publications on food and health

topics; and (c) semi-structured consultations with native Igbo speakers, including Igbo elders and nutrition educators, to assess the terms' cultural appropriateness and acceptability. Data triangulation is recommended in cross-linguistic research (Baker, 2011) to increase the validity of findings; this ensured the collection of accurate Igbo terms that were culturally appropriate as well.

3.2 Translation Methods

In line with Vinay and Darbelnet's (1995) typology of translation procedures, three approaches were followed: direct equivalence, descriptive translation, and borrowing. They distinguished between direct (or literal) and oblique (or indirect) types of translation strategies. Furthermore, where required, an extra translation procedure, borrowing, was also used (Baker, 2011). Direct equivalence involved the use of a word for word literal equivalent across languages. For example, the word "water" in English has a literal equivalent word "l'eau" in French language and "mmiri" in Igbo. This strategy can be applied if the conceptual and lexical structures are the same in the two languages (Vinay & Darbelnet, 1995). Descriptive translation was used if a one-word literal equivalent was not available, especially in Igbo. As an example, the word "protein" was translated to "nri anụ ahụ" ("body-building food"). It is a descriptive type of translation. This approach is widely used in the development of terms and phrases in languages with no or little scientific vocabulary (Nnaji, 2024; Malele, 2025). A third strategy considered in this study was loanwords or borrowing, which involves adopting words in foreign languages that may be more familiar to the reader, as long as they have already been loaned, especially if a one-word literal equivalent was available in a specific language (Baker, 2011). In this study, borrowing was used to render specific scientific terms into Igbo because such terms already existed within modern Igbo as loan words, adapted and pronounced in the Igbo local manner ("Igbonization"). Examples of such words are vitamin, "vitamini," calories, "kalori," sodium, "soduum." This is a common and efficient approach to fill a lexical gap. Although this is a common strategy to fill vocabulary gaps in language, it may also result in over-dependence on foreign words (Piller, 2016). In the current study, loan words were primarily used to translate scientific terms for which no accepted descriptive word exists across the Igbo language dialects.

3.3 Data Analysis

The glossary was subjected to a qualitative analysis in order to determine the lexicalization patterns and semantic gaps. The analysis was conducted for each entry considering the following aspects: a. the translation strategy; b. the degree of equivalence between the concepts in three languages; and c. cultural factors in the categorization of the foods. This comparative-descriptive analysis has been used in other studies of multilingual terminology (Desjardins, 2021; Anastasiou et al., 2023).

3.4 Challenges and Mitigation Strategies

However, a few challenges did present themselves. There were many Igbo terms that did not have direct English or French equivalents, a typical problem in terminology translation research (Cabré, 1999). Some expressions were culturally specific and some idioms were so hard to translate

literally that the best course of action in these instances was to paraphrase or describe the term more fully. Inconsistent orthographic forms of certain words in Igbo, along with dialectal differences, further complicated efforts to collect terms. (See Onyemelukwe, 2011). Some concepts that had already been borrowed from the English language could also have diminished cultural connotations (Piller, 2016). In response, all source materials were carefully crosschecked to verify meanings. Triangulation of data from several informants was also used in addition to using multiple source materials. Some of the research was done by people who knew about Igbo linguistics and nutrition to verify meanings. This type of data collection has been suggested for qualitative terminology research (Creswell & Poth, 2018). Using this method of data collection helped to increase validity and reliability of the data. Using this process has enabled us to systematically examine multilingual food terms and concepts in the context of the challenges that they posed to the research.

Table 1: Glossary of Diet and Nutrition Terms

No	English	French	Igbo	Definition/Note
1.	Absorption	Absorption	Inabata nri n'ahu (body acceptance of food) T.M.: descriptive	When the body takes in nutrients from food.
2.	Adult nutrition	Nutrition de l'adulte	Nri ndị okenye T.M.: direct equivalent	Eating balanced for energy, health and longevity.
3.	Anemia	Anémie	Ọbara pere mpe (less body blood) T.M.: descriptive	When the blood lacks enough red cells or hemoglobin.
4.	Appetite	Appétit	Aguu T.M.: direct equivalent	Body's craving for food.
5.	Appetite loss	Perte d'appétit	Mfu agụụ T.M.: direct equivalent	When one does not feel like eating maybe due to illness, stress or medicine.

6.	Balanced diet	Le Régime équilibré	Nri ahu zuru oke (adequate body food) T.M.: descriptive	Diet that includes all necessary nutrients in proper proportion.
7.	Beans	Les haricots	Agwa T.M.: direct equivalent	Edible seeds from plants in legume family. It is packed with protein, fiber and nutrients.
8.	Beef	Boeuf	Anu enyi (cow meat) T.M.: direct equivalent	Meat from cow.
9.	Blood sugar	Glycémie	Shuga obara T.M.: loanword/ igbonization	Glucose levels of the blood.
10.	Body mass index (BMI)	Indice de masse corporelle	Ntule ibu ahu T.M.: direct equivalent	Measurement of body fat based on height and weight.
11.	Body weight	Poids corporel	Ibu ahu T.M.: direct equivalent	The mass of the body
12.	Breakfast	Le Petit-déjeuner	Nri ụtụtụ (morning food) T.M.: direct equivalent	First meal of the day, eaten in the morning.
13.	Breastfeeding	Allaitement maternel	Inye nwa ara T.M.: direct equivalent	Feeding a baby breast milk.
14.	Calcium	Calcium	Kaluzum T.M.: loanword/ igbonization	Mineral important for bone and teeth health
15.	Calories	Calories	Kalori T.M.: loanword/ igbonization	Unit of energy in food.

16.	Carbohydrate	Le Glicide	Nri shuga (glucose/ energy containing food) T.M.: descriptive	Nutrient that provides energy, found in grains, fruits, vegetables and sugary foods
17.	Carbohydrate-rich	Riche en glucides	Ụba nri shuga T.M.: descriptive	Food high in carbohydrate for energy
18.	Cardiovascular disease	Maladie cardiovasculaire	Ọrịa obi na ọbara T.M.: descriptive	When heart or blood vessels get damaged.
19.	Chevon/ goat meat	Chevreau	Anu ewu (goat meat) T.M.: direct equivalent	Meat from goat.
20.	Chicken	Poulet	Anu okuko (chicken meat) T.M.: direct equivalent	Meat from bird.
21.	Cholesterol	Cholesterol	Abuba obara T.M.: descriptive	Fat-like substance in blood: high levels may harm arteries.
22.	Clinical nutrition	Nutrition Clinique	Nri ọgwụ T.M.: direct equivalent	Using diet to manage diseases like diabetes, heart disease.
23.	Coconut oil	Huile de coco	Mmanu aki bekee T.M.: direct equivalent	Edible oil extracted from coconut
24.	Complementary feeding	Alimentation complémentaire	Nri mgbakwunye nwa T.M.: direct equivalent	Introducing solid foods to babies alongside breast milk.
25.	Dairy	Produits laitiers	Nri mmiri ara (food from milk) T.M.: descriptive	Foods made from milk (e.g. cheese, yogurt)
26.	Deficiency	Carence	Enweghị ihe nri	This is as a result too low intake of nutrients.

			T.M.: descriptive	
27.	Dehydration	Dèshydration	Uko mmiri n'ahu (lack of water in the body) T.M.: descriptive	When the body mass loses too much water.
28.	Diabetes	Diabète	Ọrịa shuga T.M.: descriptive	When the body has trouble regulating blood sugar.
29.	Diet	Le Règime	Nri kwa mgbe (food taken regularly) T.M.: descriptive	What one eats or drinks regularly.
30.	Dietary guideline	Directive alimentaire	Nduzi iri nri T.M.: direct equivalent	Promotes healthy eating habits.
31.	Dietary supplement	Complément alimentaire	Mgbakwunye nri T.M.: direct equivalent	Supplements that can fill nutrition gaps.
32.	Digestion	Digestion	Igbari nri (breakage of food) T.M.: descriptive	How the body breaks down food into nutrients
33.	Dinner	Le dîner	Nri abali (night food) T.M.: direct equivalent	Evening meal
34.	Egg	L'oeuf	Akwa T.M.: direct equivalent	Egg is a round or oval body produced by female of many animals like birds.
35.	Elderly nutrition	Nutrition des personnes âgées	Nri ndị agadi T.M.: direct equivalent	Focuses on maintaining health, managing chronic conditions and preserving muscle mass.
35.	Energy	énergie	Ike T.M.: direct equivalent	The fuel that keeps the body going.

36.	Fasting	Le jeûne	Ibu onu T.M.: direct equivalent	Abstaining from food for a period of time.
37.	Fat	Le Lipide	Abuba T.M.: direct equivalent	Nutrient that provides energy, supports cell growth and organ protection.
38.	Fiber	La Fibre	Eriri nkpocha na nzacha (food that cleanup the system) T.M.: descriptive	Plant-based material that aids digestion and health/cleanup.
39.	Fiber rich	Riche en fibre	Ụba eriri nkpocha na nzacha T..M.: descriptive	Food high in fiber that aid digestion.
40.	Food culture	Culture alimentaire	Omenala nri T.M.: direct equivalent	It's about traditions, flavors and sharing meals
41.	Food labeling	Étiquetage alimentaire	Aha na nkọwa nri T.M.: descriptive	Information on packaged food.
42.	Food policy	Politique alimentaire	Iwu na amụma nri T.M.: direct equivalent	It shapes how food is produced, distributed and consumed.
43.	Food system	Système alimentaire	Usoro nri T.M.: direct equivalent	Food production, processing, distribution, consumption.
44.	Fruit	Fruit	Mkpuru osisi T.M.: direct equivalent	Edible plant product with seeds and sweet taste.
45.	Gluten	Gluten	Gulutin	Protein found in wheat, barley.

			T.M.: loanword/ igbonization	
46.	Gluten-free	Sans gluten	Enweghi gulutin T.M.: descriptive	Food without gluten for those with intolerance.
47.	Glycemic index	Index glycémique	Ogo shuga na nri T.M.: direct equivalent	Measures how fast carbohydrates spike blood sugar.
48.	Groundnut	Les arachides	Ahuekere T.M.: direct equivalent	A type of legume grown under the ground and used for snacks, sauce and oil.
49.	Groundnut oil	Huile d'arachide	Mmanu ahuekere T.M.: direct equivalent	Edible oil from groundnuts.
50.	Healthy diet	L'Alimentation saine	Nri oma T.M.: direct equivalent	Diet that provides all nutrients in balanced amounts.
51.	High blood pressure	Hypertension artérielle	Ọbara mgbali elu T.M.: descriptive	When force of blood pushing against the artery walls stays too high over time
52.	High protein	Riche en proteine	Ụba nri ahu T.M.: descriptive	Food rich in protein for tissue repair and growth
53.	Honey	Miel	Mmanu añu T.M.: direct equivalent	Sweet, sticky liquid made by bees from flower nectar.
54.	Hunger	Faim	Aguu siri ike T.M.: descriptive	Body's signal for food.
55.	Hydration	Hydratation	Inwe mmiri zuru oke T.M.: descriptive	About body water balance which is crucial for energy, skin, digestion.

56.	Infant nutrition	Nutrition infantile	Nri ụmụnta T.M.: direct equivalent	Feeding babies for growth and health.
57.	Intermittent fasting	Jeûne intermittent	Ibu onu n'oge n'oge (fasting at intervals) T.M.: descriptive	Eating pattern where one cycles between periods of eating and fasting.
58.	Iron	Fer	Ayọnụ T.M.: loanword/ igbonization	Essential mineral for bone and teeth health.
59.	Lactose	Lactose	Shuga mmiri ara (sugar in milk) T.M.: descriptive	Sugar naturally present in milk.
60.	Lactose-free	Sans lactose	Uko shuga mmiri ara T.M.: descriptive	Foods or milk products without lactose.
61.	Lean meat	Viande maigre	Anu enweghi abuba (meat without fat) T.M.: descriptive	Meat low in fat
62.	Legumes	Legumineuses	Agbụgbụ T.M.: direct equivalent	Plant-based protein source like beans, lentils, peas.
63.	Low fat	Faible en gras	Ụkọ abụba (lack of fat) T.M.: descriptive	Food containing minimal fat
64.	Low-sodium	Faible en sodium	Ụkọ soduum T.M.: loanword/ igbonization	Food with reduced salt content.
65.	Lunch	Le dėjeuner	Nri ehihie (afternoon food) T.M.: direct equivalent	Midday meal.

66.	Macronutrient	Macronutriment	Miri nri ukwu T.M.: descriptive	Nutrient the body needs in large quantity.
67.	Malnutrition	La malnutrition	Uko nri ahuike (lack of balanced diet) T.M.: descriptive	Poor nutrition due to insufficient or imbalanced intake.
68.	Meal time	Heure de repas	Oge nri T.M.: direct equivalent	Time for food, usually breakfast, lunch or dinner.
69.	Metabolism	Mėtabolisme	Mgbanwe nri n'ahu (change of food in the body) T.M.: descriptive	How the body turns food into energy.
70.	Micronutrient	Micronutriment	Mmiri nri nta T.M.: descriptive	Vitamins and minerals the body need in small quantity.
71.	Mineral	Le Minéral	Mmiri ike T.M.: Descriptive	Inorganic elements essential for health (e.g. calcium, iron)
72.	Nut	Fruit à croque	Aki T.M.: direct equivalent	Edible seed from tree, high in protein and fat.
73.	Nutritional assessment	Évaluation nutritionnelle	Ntụle nri n'ahụ T.M.: direct equivalent	Identifies individuals' nutritional needs.
74.	Nutrition	La nutrition	Nri ahuike (food for good health) T.M.: descriptive	The process of consuming the right food to function properly.
75.	Nutrition science	Science de la nutrition	Sayensị nri T.M.: loanword/ igbonization	Decodes how food impacts health.

76.	Obesity	L'Obésité	Oke abuba ahu (too much body fat) T.M.: descriptive	Excessive body fat that may impair health.
77.	Omega-3	Oméga-3	Omega 3 T.M.: loanword	Essential fatty acids important for heart and brain health.
78.	Organic food	Aliment biologique	Nri enweghi kemikal (food grown naturally) T.M.: descriptive	Food grown without synthetic pesticides or fertilizers
79.	Palm oil	Huile de palme	Mmanu nri T.M.: direct equivalent	Edible vegetable oil from palm fruit.
80.	Pork	Porc	Anu ezi (pig meat) T.M.: direct equivalent	Meat from pig.
81.	Prebiotics	Prébiotiques	Nri ezigbo nje bacteria T.M.: descriptive	Fibers that feed good bacteria in the gut.
82.	Probiotics	Probiotiques	Ezigbo nje bacteria T.M.: descriptive	Gut-friendly bacteria that support digestion and immunity
83.	Processed food	Aliment transformé	Nri nrughari T.M.: direct equivalent	Food altered from its natural state, often with additives
84.	Protein	La Protéine	Nri anụ ahụ (body building food) T.M. descriptive	Nutrient that builds and repairs body tissues.
85.	Public health nutrition	Nutrition de santé publique	Nri na ahụike obodo T.M.: direct equivalent	Focuses on promoting healthy eating habits and preventing diseases in populations.

86.	Recommended intake	Apport recommandé	Nri akwadoro T.M.: direct equivalent	It varies by age, sex and activity level.
87.	Salt	Sel	Nnu T.M.: direct equivalent	Sodium compound used for flavor and fluid balance.
88.	Saturated fat	Graisse saturée	Abụba ọkpọọ (solid fat) T.M.: descriptive	Type of solid fat at room temperature that can raise cholesterol level
89.	Serving	Portion	oke |(food part) T.M.: direct equivalent	Specific amount of food served or taken
90.	Snack	du snack	Ihe ataata (side food) T.M.: descriptive	Small food eaten between meals
91.	Sugar	Sucre	Shuga T.M.: loanword/ igbonization	A type carbohydrate providing energy: excessive intake may harm health.
92.	Sugar free	Sans sucre	Enweghi shuga (without sugar) T.M.: descriptive	Food or drink with no added sugar.
93.	Sustainable diet	Régime durable	Nri na-adigide T.M.: direct equivalent	All about eco-friendly food choices.
94.	Trans fat	Gras trans	Abụba ojoo (unhealthy fat) T.M.: descriptive	Artificial fat that increases risk of heart disease.
95.	Unsaturated fat	Graisse insaturée	Abụba mmiri (liquid fat) T,M.: descriptive	Healthier type of fat that is liquid in room temperature

96.	Vegetable	Légume	Akwukwo ndu/nri T.M.: direct equivalent	Edible leaves (e.g. ugu, spinach)
97.	Vitamin	La Vitamine	Vitamini T.M.: Loanword/ igbonization	Organic compounds needed in small amounts for proper body function.
98.	Water	De l'Eau	Mmiri T.M.: direct equivalent	Essential liquid for hydration and life.
99.	Whole grain	Céréales complètes	Nri oka dum T.M.: descriptive	Grain containing all parts of the seed (bran, germ, endosperm).
100.	Zinc	Zinc	Zinki T.M.: loanword/ igbonization	Mineral that supports immune system and wound healing.

Conclusion

This research creates a glossary of diet and nutrition terms in three languages: English, French, and Igbo. It finds that English and French have well established and standardized nutrition vocabularies because of their dominance as languages of institutional science and global health governance. However, Igbo has only an emerging nutrition vocabulary, characterized by mostly descriptive expressions which refer to the functionality of nutrients (such as body-building food for protein), and English loans used for technical scientific terms (e.g. vitamins and calories). This study reveals considerable semantic gaps arising from linguistic and cultural differences in the categorization and interpretation of food. Over ninety terms are presented in this glossary with suggested equivalents and comments in the three languages, which will be useful as a ready reference for health professionals, translators, and health workers who want to disseminate knowledge and communicate nutrition issues in Igbo. The glossary also shows clearly the various methods which can be used in generating such a lexicon: direct equivalent expression, descriptive expressions, and loan words. The work in this study is an important reference for developing multilingual scientific terminologies in the context of public health and global medicine. In terms of public health, this research has several important implications. Standardized Igbo nutrition terminology can contribute to improved interventions, nutrition education and counseling messages in Igbo. On the level of language, this work is an example of indigenous language development (intellectualisation) in which an African language is equipped to play its proper role

in modernity, particularly in domains like science, health and medicine. This work, inspired by Igboanusi et al, (2017) in their work titled: *English-Igbo Glossary of HIV, AIDS and Ebola-Related Term,* is for the integration of indigenous knowledge into modern nutrition knowledge. Oparaocha, E. T. (2025), in her "NRI NA AHUIKE MMADU N'OGE UGBUA" Nkuzi Odenigbo (Odenigbo Lecture 2025) also gave an insight in the knowledge of the Igbo in food classification systems, traditional food and dishes.

Some caveats exist. Igbo is not a homogenous dialect and there are challenges to standardization; the glossary is based on Central Igbo and some variants may use other words. Reliance on loanwords for certain scientific terms, while practical, may not fully capture culturally embedded meanings. Finally, the study did not empirically test the comprehensibility or acceptability of the proposed Igbo terms among community members, which remains a crucial next step for validation. The glossary presented here is not an exhaustive list of Igbo terms for every nutrient and food, though we focused on public health relevance and omitted emerging topics in this field of research, like nutrigenomics or the gut microbiome. Future work on health terminology in Igbo language would benefit from this step as it provides further opportunity to develop a deeper understanding of the culture of Igbo communities. Additionally, future research could expand this glossary to contain other traditional foods common in Igbo communities and describe indigenous food and nutrition taxonomies and terminologies which can be applied to community health programmes. We recommend creating visual and pedagogical aids to promote multilingual communication in future health campaigns, such as illustrated food pyramids, mobile apps, or audio files. The research on this topic also needs to take a more collaborative approach, incorporating linguists, nutrition researchers and community members, to generate and validate food and nutrition terminology for health communication efforts. The results of the current research study and the trilingual glossary presented demonstrate the value and potential of these efforts, which can be applied to strengthen nutritional education and public health research in Africa.

Recommendations for Future Research

A glossary for future work should include more traditional Igbo dishes, and a taxonomy of Igbo food and ways of consuming them can be explored. The taxonomy could serve to guide future research, especially with culturally relevant health communication messages. A visual or pictorial representation can be developed as an educational material, such as food pyramid or digital food-based app to effectively communicate with multilingual users (Family Practice UBC, 2025 and Cape York Partnership, 2024). Linguistics and nutrition sciences are to collaborate through community engagement to review and finalize these terms (University of the Free State, 2023). Finally, a structured and multilingual glossary can be considered a great approach to improve nutrition education and health communication in general, while at the same time exploring existing African languages.

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