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Nutritional Care in Primary Health Care: evaluability study for implantation analysis

Atenção Nutricional na Atenção Primária à Saúde: estudo de avaliabilidade para análise de implantação

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ABSTRACT

Objective
The objective of this article is to present the results of conducting an evaluability study for nutritional attention in Primary Health Care with a focus on the analysis of implantation.

Methods
The stages of the evaluability study were developed based on documentary analysis, literature review and consensus techniques with experts as methodological strategies for the construction of the evaluation model. From the literature review and documentary analysis the object modeling was carried out through the Theoretical Model and Logical Model. It was structured the Matrix of Analysis and Judgment composed of the dimensions, subdimensions, indicators and the respective measures. The evaluative model was submitted to consensus among experts using the Delphi Method. Each item of the matrix was considered validated when it reached 95% agreement.

Results
Nutritional attention in Primary Health Care is understood as part of the care process and has municipal management as responsible for providing organizational conditions for its implementation. The Analysis and Judgment Matrix for the analysis of nutritional care in Primary Health Care is subdivided into 2 dimensions Management and Assistance, with 3 subdimensions each, with 17 indicators and 33 measures.

Conclusion
Nutritional care in Primary Health Care was considered evaluable, based on the principles of comprehensive health care. The evaluation model proposed for future studies was considered adequate for analyzing the implementation of the intervention.

Keywords: Evaluation program. Health evaluation. Nutrition policy. Primary health care.

RESUMO

Objetivo

Apresentar os resultados da condução de um estudo de avaliabilidade para a atenção nutricional na Avaliação Primária à Saúde com enfoque na análise de implantação.

Métodos

Desenvolveu-se o estudo de avaliabilidade com base na análise documental, revisão de literatura e técnicas de consenso com especialistas como estratégias metodológicas para a construção do modelo avaliativo. A partir da revisão de literatura e análise documental realizou-se a modelagem do objeto por meio do Modelo Teórico e Modelo Lógico. Foi estruturada a Matriz de Análise e Julgamento composta das dimensões, subdimensões, indicadores e as respectivas medidas. O modelo avaliativo foi submetido a consenso entre especialistas utilizando-se o Método Delphi. Cada item que compõe a matriz foi considerado validado quando atingiu 95% de concordância.

Resultados

A atenção nutricional na Avaliação Primária à Saúde é entendida como parte do processo assistencial e possui a gestão municipal como responsável em prover condições organizacionais para a sua implantação. A Matriz de Análise e Julgamento para análise de implantação da atenção nutricional na Atenção Primária à Saúde subdivide-se em 2 dimensões Gestão e Assistência, com 3 subdimensões cada, contemplando 17 indicadores e 33 medidas.

Conclusão

A atenção nutricional na Avaliação Primária à Saúde foi considerada avaliável, pautando-se pelos princípios da integralidade da atenção à saúde. O modelo avaliativo proposto para estudos futuros foi considerado adequado para análise de implantação da intervenção.

Palavras-chave: *Avaliação de programas. Avaliação em saúde. Política nutricional. Atenção primária à saúde.*

INTRODUCTION

Over the last five decades, Brazil has experienced significant transformations in its demographic, epidemiological, and nutritional profiles, reflected in population aging, a reduction in acute health problems, and a notable rise in Noncommunicable Diseases (NCDs). Concurrently, a decline was observed in indicators of child malnutrition and stunted growth, concomitant with an increase in the prevalence of overweight and obesity across all age groups [1,2]. Despite these advances, high prevalences of nutritional deficiencies and major changes in the population's dietary patterns persist, highlighting the need to reposition the public policy agenda for Food and Nutrition (F&N), especially within the scope of *Atenção Primária à Saúde* (APS, Primary Health Care) [3].

In the comprehensive healthcare arrangements of APS, attention is directed toward all life cycles, with an emphasis on health promotion and prevention of diseases [4]. This approach presumes essential attributes like care coordination, comprehensiveness, longitudinality, and the function of being the first contact with the health system, serving as the main entry point and organizer of the care network [5].

Brazil structures its food and nutrition actions in APS through the *Política Nacional de Alimentação e Nutrição* (National Food and Nutrition Policy), articulating different programs, guidelines, and strategies [3]. Although these initiatives are formally aligned with the comprehensive APS concept, in practice, characteristics of a selective model prevail, with a strong normative direction, prioritization of specific groups – such as pregnant women, children, and beneficiaries of income transfer programs – and the maintenance of a programmatic logic focused on addressing specific nutritional deficiencies [6]. This configuration may constrain the implementation of nutrition practices grounded in comprehensive care principles.

Evaluative studies on nutritional care in APS have explored distinct analytical approaches, highlighting both progress and limitations in the structuring of this practice [7-11]. However, the debate remains open on which actions should constitute nutritional care consistent with the principles of comprehensive APS, as an integral part of the healthcare teams' work process and under the responsibility of municipal management for its provision and qualification. Given this scenario, this article presents an evaluability study in order to deepen the understanding of the object of analysis or intervention, verify the feasibility of using evaluation, and propose an evaluative model applicable to nutritional care in APS.

METHODS

This is an Evaluability Assessment (EA) study conducted based on document analysis, literature review, and consensus techniques with specialists as methodological strategies for developing the evaluative model [12,13]. The study focused on implementation analysis, which allows for understanding what actually occurs in practice regarding the problem the program seeks to address – that is, it examines the degree of adherence between what was planned and what is being executed [14].

The EA is a methodology described in the document Framework for Program Evaluation in Public Health [15] and revisited by Thurston and Ramaliu [16]. It consists of a set of procedures that aims to bring together the stakeholders involved in a program, promoting the usefulness of the evaluated results. The EA includes a comprehensive program description, essential questions for future investigations, an evaluation plan, and agreements among stakeholders about aspects of the program [16].

The application of EA facilitates the sharing of coordination processes, serving as a valuable tool for developing planning proposals in program management. Conducting an EA provides critical advice that seeks to ensure coherence between the program's operational logic and the actions of the groups involved in the evaluative process [17]. Even so, the works of Thurston and Ramaliu [16], Thurston and Potvin [18], Leviton et al. [19], and Trevisan [20] point out that the formulation of an evaluative proposal at the end of an evaluability study is an essential and strategic step [16,18-20].

Leviton et al. [19] states that evaluability contributes to aligning expectations among the actors involved, describing the program's logic, and verifying the causal plausibility between activities and outcomes, enabling the evaluator to propose strategies that are useful, feasible, and contextually appropriate. From a methodological standpoint, it is an iterative process, based on interactions with stakeholders, that favors the production of knowledge applicable to public management. Thurston and Potvin [18] reinforce this perspective by arguing that evaluability must run parallel to programmatic planning, being an integral part of the intervention development cycle. For these authors, the product of an evaluability study should include, in addition to the program's logic model, an evaluation plan agreed upon with key stakeholders, ensuring the utility of the evaluation and its adherence to the institutional and social contexts where it will be applied.

The steps for an evaluability study consist of identifying the object of evaluation with a review of all available documents, involving different actors in the evaluative process, describing the program to obtain a preliminary understanding of its execution, defining the evaluation design by developing a theoretical model, collecting reliable data and evidence, justifying the conclusions, and sharing the lessons learned [16].

The document analysis included technical materials crafted by national and international bodies such as the World Health Organization, the Pan-American Health Organization, health systems from other countries, and documents from the Brazilian Ministry of Health, in order to broaden the understanding of the object, investigate the aspects that comprise nutritional care, and the scope of Food and Nutrition actions for APS. The document analysis was performed according to the qualitative approach of thematic analysis proposed by Minayo [21], involving three stages: pre-analysis, with the organization and selection of documents; exploration of the material, by identifying meaning nuclei linked to the object of study; and treatment of the results, with thematic categorization and interpretation guided by the theoretical framework of health evaluation. This process enabled the extraction of structuring elements for the logical modeling of the intervention and supported the evaluative proposal.

The literature review was prepared with the results of a search for articles, theses, and dissertations found in the EBSCO, Pubmed, SciELO, Web of Science databases, as well as the Thesis Bank of the *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* (Capes, Coordination for the Improvement of Higher Education Personnel) and the *Biblioteca Digital Brasileira de Teses e Dissertações* (BDTD, Brazilian Digital Library of Theses and Dissertations), extending to the consultation of books, norms, guidelines, publications, and materials from relevant official national and international bodies regarding the theme. The keywords used to build the key search expressions were "Nutrition Programs", "Nutrition Policy", "Primary Health care", "evaluation", "logic model", "evaluability" (Chart 1).

After identifying the material for review, titles were read and duplicated or non-relevant articles were excluded. Subsequently, the abstracts of the works were read and when the abstract left doubts about the content, the material was read in full. To assist with the literature review, article duplication, and organization of references, the EndNote X7® software was used.

Chart 1 – Search strategies used in the selected databases. Brazil, 2018.

Database	Key-Expression[1]	Number
EBSCO	[nutrition program OR nutrition public health OR nutritional surveillance] AND primary health care AND evaluation	454
PubMed	((("Nutrition Programs" [Title/Abstract] OR "Nutrition Policy" [Title/Abstract])) AND "Primary Health care" [Title/Abstract]) AND ("evaluation" [Title/Abstract] OR "logic model"[Title/Abstract] OR "evaluability" [Title/Abstract])	110
SciELO.org	nutrition program AND primary health care	144
Web of Science	("nutrition program") OR ("public health nutrition") OR ("nutritional surveillance") OR ("nutrition policy") AND ("primary health care")	1354
Capes Thesis Bank	*Programas e Políticas de Alimentação e Nutrição* AND *Atenção Básica* AND *avaliação*[*]	37
BDTD	*Atenção básica* AND *alimentação e nutrição* AND *avaliação*[**]	17

Note: [1]Period limitation (2006–2018); academic journals, scientific periodicals, full text, advanced search, Boolean/phrase. [*]In English: Food and Nutrition Programs and Policies AND Primary Health Care AND Evaluation. [**]In English: Primary Health Care AND Food and Nutrition AND Evaluation. BDTD: *Biblioteca Brasileira de Teses e Dissertações* (Brazilian Digital Library of Theses and Dissertations), SciELO: Scientific Electronic Library Online.

The review process yielded 124 articles directly related to the research theme, and 14 articles were added by reading the reference lists, in addition to 11 theses and dissertations for full reading. Among the technical materials, 27 publications from Brazil were analyzed, plus 31 documents from international bodies and public health systems from different countries.

Based on the literature review and document analysis, the Theoretical Model (TM) and the Logic Model (LM) were developed with the objective of presenting the links and the context where the evaluative object is inserted, in addition to the expected objectives, activities, products, results,

and impact in the implementation of nutritional care in APS. The modeling process consists of preparing a diagram, flowchart, or schematic figure representative of the evaluated object, seeking to understand the nature of the problem, the intervention, and the relationship of the object with the context [12,22]. The preliminary proposals for the TM and LM were widely discussed in the health evaluation courses led by the group of professors who are members of the *Núcleo de Extensão e Pesquisa em Avaliação em Saúde* (Center for Extension and Research in Health Assessment), from the Graduate Program in Public Health at the *Universidade Federal de Santa Catarina* (Federal University of Santa Catarina).

Based on the modeling process, an Analysis and Judgment Matrix was developed, composed of dimensions, subdimensions, indicators, and measures, expanding the description of the object and defining the necessary components to determine the degree of implementation. All items in the matrix were justified by rationales based on the literature, which indicate the relationship of the components with the evaluative object [23].

The evaluative model, composed of the theoretical matrix, logical matrix, and judgment matrix, was submitted to a consensus validation process, based on the Delphi technique. This method consists of submitting a proposal to a group of specialists, through iterative rounds of structured consultation, with the objective of deepening the analysis of the object in question and achieving a convergence of opinions on the evaluative elements considered [24].

The selection of specialists considered their professional and academic experience in the field, including representatives from the federal, state, and municipal levels linked to the management of food and nutrition actions in the *Sistema Único de Saúde* (SUS, Unified Health System). A total of 21 specialists were invited. The full version of the model was made available on the Survey Monkey® platform, and the specialists had 30 days to evaluate each of the components, indicating total agreement, partial agreement, or disagreement, in addition to justifying their responses and suggesting changes or improvements.

The contributions received were systematized based on the thematic analysis technique, according to Bardin's framework [25], which guides the categorization of discursive content from pre-defined thematic axes, allowing for the identification of points of dissent and suggestions for reformulation. The propositions resulting from the analysis were incorporated into a revised version of the model, later submitted to a second round of validation, with a 15-day response period.

The validation of the items was considered achieved when 95% or more of the specialists consulted expressed agreement. The consultation process using the Delphi Method ran from July 2017 to April 2018. In the first round, 14 of the 21 invited specialists participated (66.7%). For the second round, seven of the initial participants remained active, and two other specialists with a consolidated track record in public policy evaluation were incorporated, totaling nine participants in this final validation stage.

The research was approved by the Human Research Ethics Committee for Research with Human Beings at the *Universidade Federal de Santa Catarina* (UFSC, Federal University of Santa Catarina), under opinion number 2.047.153/2017.

RESULTS

Nutritional care in APS can encompass different models of care organization, in distinct contexts of system implementation and service delivery. In healthcare systems with the adoption of comprehensive or integral APS characteristics, the focus of nutritional care should be on integral care

across all life cycles, and the interdisciplinary and intersectoral articulation of promotion and prevention actions based on the continuous monitoring of nutritional status and food consumption [3,4].

As part of a APS model guided by integrality, nutritional care must organize management and assistance actions, aiming to articulate food and nutritional surveillance, the prevention of chronic conditions related to food consumption, and the promotion of adequate food as part of the health teams' work process [3]. Nutritional care is understood here as an assistance axis, which should occur transversally to the health care process, corroborating the *APS's role* of territorial appropriation and the resolution of health needs [4,5].

Documents published in Brazil point to the organization of nutritional care based on the principles and guidelines of the SUS, based on the tenets of comprehensive APS and that influence the object of study [26-28]. Therefore, the present evaluative model understands nutritional care as part of the care process, with municipal management being responsible for providing the conditions for its implementation in APS.

It is highlighted that the municipal managers must ensure structural and organizational conditions for the development of nutritional care in APS in an intersectoral, multi-professional, and interdisciplinary manner [28-30]. Assistance should guarantee the implementation of F&N actions based on the principles of comprehensive care, as well as the organization and coordination of health care. The two dimensions, Management and Assistance, are interrelated and interdependent, representing a feedback loop of information, planning, organization, and standardization of care [31,32].

In this context, the evaluative object is permeated by municipal and local contextual factors, characterized as socioeconomic, epidemiological, demographic, and political-organizational aspects, which modify the health needs and the work process in APS [3] and consequently, influence the implementation of nutritional care in APS.

Understanding that comprehensive APS is guided by the understanding of the social determination of the health-disease process, social contexts have a direct relationship with health indicators [33]. In general, poorer socioeconomic, epidemiological, and political-organizational indicators are associated with greater challenges for government capacity and the governability of municipal management, resulting in increased care demands and difficulties in organizing APS, often characterized by the management of intensified acute and chronic conditions [34,35].

Thus, the existence of contexts that may be either favorable or unfavorable to the implementation of nutritional care within APS was considered. Nevertheless, it is expected that nutritional care implemented according to the principles of comprehensive APS will contribute to improvements in F&N indicators and to the reduction of diet-related NCDs, as indicated by studies synthesizing the evidence on F&N interventions in APS [36,37]. A summary of these elements is presented in Figure 1.

It is the manager's responsibility to provide the structural and organizational conditions for the implementation of actions that integrate nutritional care in an intersectoral, multiprofessional, and interdisciplinary manner [38], through the proper allocation of financial resources from federal transfers, the municipality's own funds, and other funding sources [3,27,28]. Within this framework, the organization of nutritional care in APS encompasses the Management dimension, which has as its components of responsibility *Infrastructure, Human Resources*, and the aspects of *Organization and Standardization*, and it is concluded that the conditions for providing nutritional care in assistance are met through the following activities:

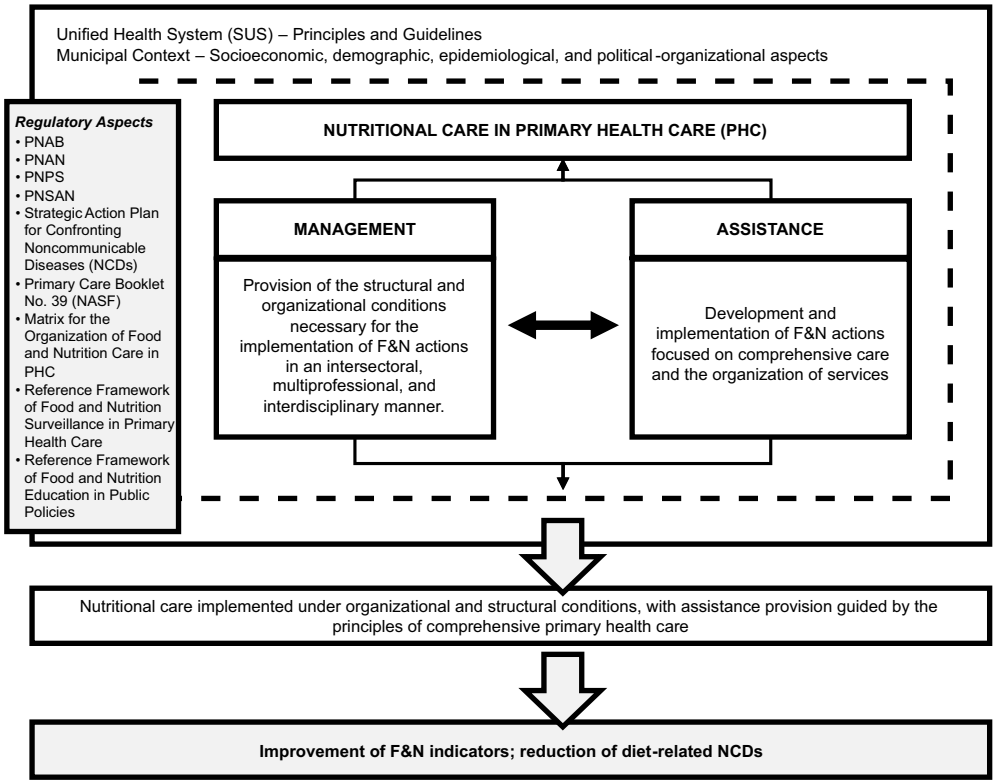

Figure 1 – Theoretical Model of Nutritional Care in Primary Health Care. Brazil, 2018.
Note: APS: *Atenção Primária à Saúde* (Primary Health Care); NASF: *Núcleo de Apoio à Saúde da Família* (Expanded Family Health Center); PNAB: *Política Nacional de Atenção Básica* (National Primary Care Policy); PNAN: *Política Nacional de Alimentação e Nutrição* (National Food and Nutrition Policy); PNPS: *Política Nacional de Promoção da Saúde* (National Health Promotion Policy); PNSAN: *Política Nacional de Segurança Alimentar e Nutricional* (National Food and Nutrition Security Policy).

- Healthcare units with adequate infrastructure and availability of equipment and supplies for F&N actions;

- Healthcare care teams in sufficient numbers and supported by other professional categories beyond the minimum required team;

- Conditions for population access to healthcare services, with defined referral flows, care protocols, and adequate information systems for food and nutrition surveillance actions.

Healthcare teams should provide health care that includes food and nutrition surveillance actions, promotion of adequate and healthy eating, and the control and monitoring of nutritional disorders, as outlined in the Assistance dimension. Consequently, care organization is expected to be based on the health needs of the territory and the development of nutritional care guided by the principle of comprehensiveness [3,8,9,29].

By ensuring adequate organizational, structural, and personnel conditions, municipal management provides healthcare teams with the means to deliver nutritional care aligned with the principles of comprehensive APS. Nutritional care implemented under these conditions is expected, in the medium and long term, to improve population F&N indicators and reduce NCDs associated with dietary habits [39-41]. These aspects are summarized in Figure 2.

Based on the definitions of the TM and LM, the evaluative matrix for implementation analysis of nutritional care in APS is subdivided into 2 dimensions, Management and Care, with 3 subdimensions each, contemplating 17 indicators and 33 measures listed in Table 1, with the respective information sources.

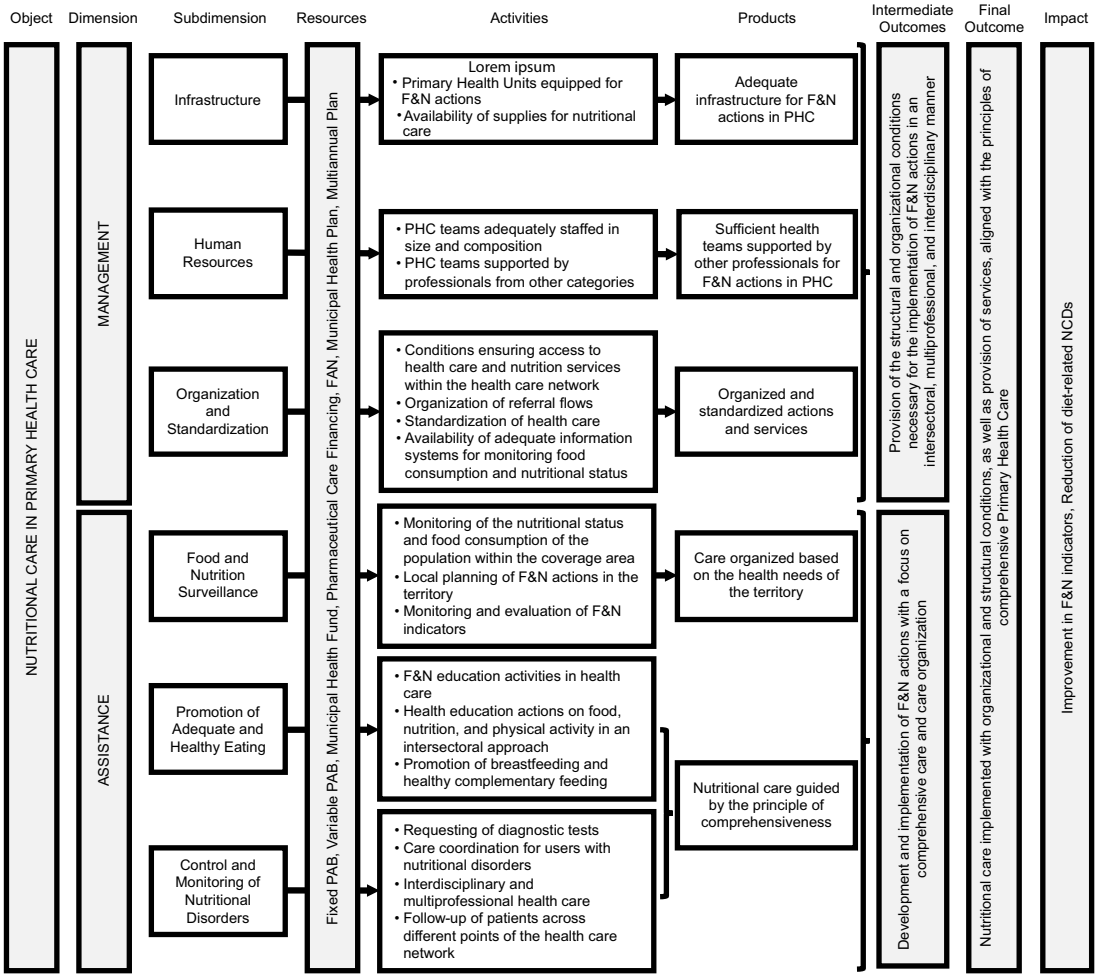

Figure 2 – Logical Model of Nutritional Care in Primary Health Care. Brazil, 2018.
Note: APS: *Atenção Primária à Saúde* (Primary Health Care); DCNT: *Doenças Crônicas Não Transmissíveis* (Noncommunicable Diseases); FAN: *Fundo das Nações de Alimentação e Nutrição* (Food and Nutrition Actions Fund); PAB: *Programa do Artesanato Brasileiro* (Primary Healthcare Floor).

In the *Management* dimension, *Infrastructure* was represented by the indicators "Adequacy of physical space in the *Unidade Básica de Saúde* (UBS, Primary Healthcare Unit) for health care", "Availability of equipment for F&N actions", and "Availability of supplies for nutritional care". These aspects reflect the management's responsibility to adapt the UBSs for the implementation of individual and collective actions, fostering a work process oriented toward comprehensiveness, and to ensure the availability of the necessary equipment and supplies for nutritional care actions in APS [30,42].

In the *Human Resources* subdimension, the indicators "Sufficiency of personnel in APS" and "Support from other professional categories for F&N actions" emphasize the guarantee of healthcare teams in sufficient numbers to serve the population, as well as the support of different professionals – including the nutritionist – with the aim of ensuring comprehensiveness and adequacy of care in meeting the health needs of the territory [43,44].

Completing the *Management* dimension, the *Organization and Standardization* subdimension reflects the municipal management's commitment to nutritional care through the organization of health care, ensuring equitable access conditions, referral flows for nutritional conditions, standardization of health care, and the consolidation of the Food and Nutrition Surveillance System

through the continuous availability of information [45]. This subdimension includes the indicators "Conditions for access to health care", "Referral flows to different points of care", "Standardization of health care", and "Availability of information for nutritional care".

In the *Assistance* dimension, it is considered that, for the implementation of nutritional care within a comprehensive APS model, it is essential that healthcare teams aim to overcome the programmatic logic by including the axes of food and nutrition surveillance, promotion of adequate and healthy eating practices, and control and monitoring of nutritional disorders as a permanent part of the healthcare work process [4,45].

Food and Nutrition Surveillance was represented by the indicators "Continuous monitoring of nutritional status and food consumption" and "Local Healthcare Planning", which should be incorporated into the healthcare teams' work process in APS. The execution of food and nutrition surveillance actions, including monitoring of food and nutrition indicators and updating of available information systems, reflects the organization of nutritional care and enables the qualification of data for local healthcare planning and overcoming fragmented care [46,47].

The *Promotion of Adequate and Healthy Eating* subdimension examines the responsibility of APS healthcare teams, considering the epidemiological profile, to continuously conduct food and nutrition education activities, foster intersectoral collaboration for the development of educational actions in food and nutrition, and establish a strategic intervention agenda for the different stages of the life cycle [28,29,48]. It comprises the indicators "Development of healthcare education activities" and "Intersectoral collaboration in the territory".

Finally, in *Control and Monitoring of Nutritional Conditions*, the indicators considered were "Access to diagnostic tests in APS", "Organization of care according to nutritional risk", "Interdisciplinary and multiprofessional care", and "Care coordination." Preventive strategies for nutritional disorders aim to reduce the prevalence of NCDs, limit the progression and complications of chronic health conditions, and minimize deficiency diseases and their impact on infant and maternal mortality. Nutritional care is an integral component of preventing these conditions and should be carried out in an interdisciplinary and comprehensive manner, ensuring access to diagnostic tests, organization of care based on nutritional risk, and coordination of care, with the goal of overcoming fragmented care [3,45].

Chart 2 – Summary of the Evaluative Matrix Regarding the Management Dimension. Brazil, 2018.

1 of 2

Dimension 1 – Management		
Subdimension	Indicators	Measures
1.1 Infrastructure	1.1.1 Adequacy of physical space in UBS for health care	Percentage of UBS with rooms designated for group activities
		Percentage of UBS with consulting rooms equipped with a computer and internet access for clinical care
	1.1.2 Availability of equipment for Food and Nutrition (F&N) actions	Percentage of UBS with equipment in working condition to support food and nutrition actions (adult anthropometric scale - 150/200kg, infant scale, measuring tape, anthropometric stadiometer)
	1.1.3 Availability of supplies for nutritional care	Percentage of UBS with available nutritional supplements (oral rehydration salts, ferrous sulfate, folic acid, vitamins A, B1, B6, and B12[1])
1.2 Human Resources	1.2.1 Adequacy of workforce in APS	Estimated population coverage of Primary Care Teams (ESF and parameterized teams)
		Percentage of municipalities with a minimum number of complete teams
	1.2.2 Support from other professional categories for F&N actions	Percentage of UBS health professionals beyond the minimum team composition (support from a nutritionist and at least one additional professional among social workers, psychologists, or physical educator)
		Percentage of teams receiving matrix support (NASF, CAPS, specialized network professionals, health surveillance services, or health academy hubs)

Chart 2 – Summary of the Evaluative Matrix Regarding the Management Dimension. Brazil, 2018.

2 of 2

Dimension 1 – Management		
Subdimension	Indicators	Measures
1.3 Organization and Standardization	1.3.1 Conditions for access to health care	Percentage of UBS providing services during lunchtime or with extended evening hours
		Percentage of teams offering appointment scheduling on any day and at any time, either in person or by telephone
		Percentage of teams conducting risk and vulnerability assessments during patient reception
	1.3.2 Referral flows to different levels of care	Percentage of teams receiving support from other network professionals for managing complex cases
		Percentage of teams referring users with obesity to specialized care
		Percentage of teams receiving feedback from evaluations carried out by specialized network professionals
	1.3.3. Standardization of health care	Percentage of teams using risk stratification protocols for Hypertension, Diabetes Mellitus, and children under 2 years of age
	1.3.4 Availability of information for Nutritional Care	Regular updating of food consumption information systems for all life cycles (SISVAN-web) over the last four-year period (2011–2014)
		Regular updating of nutritional status information systems for all life cycles (SISVAN-web) over the last four-year period (2011–2014)
		Percentage of children under 5 years of age with registered nutritional status in SISVAN-web

Note: [1] Measures for supplies available for nutritional care may be adapted according to the epidemiological context. APS: *Atenção Primária à Saúde* (Primary Health Care); CAPS: *Centros de Atenção Psicossocial* (Psychosocial Care Centers); CNES: *Cadastro Nacional de Estabelecimentos de Saúde* (National Registry of Health Facilities); ESF: *Estratégia Saúde da Família* (Family Health Strategy); NASF: *Núcleo de Apoio à Saúde da Família* (Expanded Family Health Center); SISVAN-web: *Sistema de Vigilância Alimentar e Nutricional* (Food and Nutrition Surveillance System, online module); UBS: *Unidade Básica de Saúde* (Primary Healthcare Units).

Chart 3 – Summary of the Evaluative Matrix Regarding the Assistance Dimension. Brazil, 2018.

1 of 2

Dimension 2 – Assistance		
Subdimension	Indicators	Measures
2.1 Food and Nutrition Surveillance	2.1.1 Continuous monitoring of nutritional status and food consumption	Percentage of teams carrying out food and nutrition surveillance actions
		Percentage of teams that monitor breastfeeding rates and healthy complementary feeding
		Percentage of teams that perform nutritional assessments at schools
	2.1.2 Local Health Planning	Percentage of teams that use maps with territorial design
		Percentage of teams that monitor and analyze health indicators and information
2.2 Promotion of Adequate and Healthy Eating	2.2.1 Development of food and nutrition educational activities	Percentage of teams that carry out food and nutrition educational actions on Breastfeeding and Healthy Eating
		Percentage of teams that invite users with obesity to participate in health promotion groups on healthy eating and physical activity
	2.2.2 Intersectoral coordination within the territory	Percentage of teams that carry out health promotion activities at schools
		Percentage of teams that develop actions on Food and Nutrition Security and Promotion of Adequate Eating at schools
2.3 Control and Monitoring of Nutritional Disorders	2.3.1 Requesting diagnostic exams in APS	Percentage of teams that request clinical exams in the health service network (Creatinine, Lipid Profile, Glycated Hemoglobin, Fasting Blood Glucose during prenatal care, Hemoglobin and Hematocrit measurement during prenatal care)
	2.3.2 Organization of care according to nutritional risk	Percentage of teams that organize the schedule according to risk classification for users (Pregnant women, Hypertensive patients, Diabetic patients, Obesity, Children up to 2 years old)
		Percentage of teams that schedule follow-up consultations for users diagnosed with obesity
		Percentage of teams that perform active research for children with developmental delays or underweight and keep records of their development and nutritional status
	2.3.3 Interdisciplinary and multiprofessional care	Percentage of teams that engage support from other professionals for the follow-up of users with obesity (NASF or other forms of Matrix Support)
		Percentage of teams that carry out shared actions with jointly organized schedules among all team members

Chart 3 – Summary of the Evaluative Matrix Regarding the Assistance Dimension. Brazil, 2018.

Dimension 2 – Assistance		
Subdimension	Indicators	Measures
	2.3.4 Care coordination	Percentage of teams that have records of users with hypertension, diabetes, obesity, and high-risk pregnant women referred to other points of care
		Percentage of teams that manage cases requiring referral to other points of care

Note: APS: *Atenção Primária à Saúde* (Primary Health Care); NASF: *Núcleo de Apoio à Saúde da Família* (Expanded Family Health Center).

DISCUSSION

The literature review conducted in this EA evidenced the existence of a consistent theoretical and normative framework for nutritional care anchored in the principles of comprehensive APS, both in national and international scientific production. In the Brazilian context, although nutritional care is formally incorporated into the structure of public healthcare policies, an emphasis on a programmatic, top-down logic is observed, guided by the federal standardization of minimum care actions [7-9,27,28]. Despite norms that align with the fundamentals of comprehensive APS [4,6], important obstacles to its effective implementation in the territories persist.

In this sense, the evaluative model developed in this study sought to understand nutritional care without the fragmented and verticalized logic of care, proposing the incorporation of the object as a structuring component of the work process of healthcare teams. The model's construction aimed to fill gaps identified in the evaluative literature of the area, adopting as a strategy the use of primary or secondary data (if available) to obtain the proposed indicators. Although the use of these databases may impose methodological challenges regarding the sensitivity and specificity of the measures, such limitations were reduced from the process of consensus validation with specialists, which resulted in the adequacy of the evaluative elements.

The theoretical modeling and the structuring of the evaluative matrix allowed for greater appropriation of the study object and a more rigorous articulation between the elements of the logic model and their respective measures. This process expanded the model's internal plausibility by strengthening the causal connections established between inputs, processes, and outcomes, according to the fundamentals of program theory [12,22].

During the first round of the Delphi Method, 14 of the 30 items submitted for analysis showed total agreement below 60%, including structuring components such as the theoretical matrix and the logical matrix. The critiques received focused, mainly, on the adequacy of the model to the municipal reality and the low sensitivity of some measures in relation to the indicators. One of the most expressive examples was the "Training and continuing healthcare education" subdimension, for which the initially proposed measure was deemed inadequate to capture the complexity of the indicator and was therefore excluded from the final version of the model.

In addition, the suggestion to include specific measures aimed at the nutritional monitoring of Bolsa Família Program users, especially within the scope of Food and Nutritional Surveillance, was interpreted as a proposal to reinforce the selective care logic, centered on priority groups. Although the care relevance of this segment is recognized [49], such a direction opposes the comprehensive APS conception that grounds the model proposed here. For this reason, such suggestions were not incorporated into the final version of the evaluative matrix.

The strengthening of food and nutrition actions in APS necessarily requires intersectoral articulation, involving sectors such as education, social services, agriculture, and food and nutritional security [36,45]. The proposed model dialogues with this perspective, by recognizing that the effectiveness of nutrition actions is not restricted to the healthcare sector, requiring integrated public policies that address the social determinants of food and health. In this sense, the use of the model can support managers in identifying critical points that demand intersectoral articulations, contributing to the improvement of public policies.

Among the limitations of this study, the reduced number of experts in the second round of the Delphi and the low representativeness of professionals directly linked to municipal, state, and federal management, as well as to APS, stand out. Even though this loss of participation is a recurring limitation in studies using the Delphi technique [24], efforts were made to preserve the diversity and minimum representativeness of expertise profiles, ensuring the internal consistency of the validation process. Furthermore, the methodological choice of developing an evaluability study does not allow capturing, at this stage, the local dynamics, challenges, and adaptations, which should be the subject of future investigations.

The formulation of an evaluation model oriented toward the implementation of nutritional care in APS represents a relevant contribution in light of the incipient institutionalization of evaluation processes in the field of food and nutrition. Although the monitoring of indicators in this area has been expanding, including through initiatives such as the Brazilian National Program for Improving Primary Care Access and Quality, progress in the institutionalization of evaluative practices remains limited [13]. In this context, the present study seeks to support the development of systematic monitoring and evaluation strategies, enhancing both the qualification of existing indicators and the production of new evaluative studies in public healthcare.

The proposed evaluative model has the potential to assist municipal managers in analyzing the organization and quality of food and nutrition actions in APS. Its practical application enables the identification of gaps in the structure, processes, and results of interventions, serving as a management, planning, and quality improvement tool. It should be emphasized, however, that its use requires adaptation to local specificities, as well as the engagement of healthcare professionals and management teams, in order to enable a contextualized and effective evaluation.

CONCLUSION

The evaluability study followed recommendations and practices evidenced in the literature and enabled the construction and validation of the evaluation model, resulting in the adequacy of the model with greater coherence among its components: theoretical model, logic model, and evaluation matrix. Nutritional care in APS was considered evaluable, based on the principles of comprehensive health care. The evaluation model proposed for future studies was deemed suitable for analyzing the implementation of the intervention, composed of items appropriate for assessing the degree of implementation of nutritional care in APS.

It is worth noting the potential application of the evaluation model at different levels of analysis, since the measures employed are available in nationwide databases. It is up to researchers to conduct continuous analyses of the reliability and consistency of the data to ensure their appropriate use—measures that are necessary and common to any type of study.

No studies were identified in the literature that evaluate the implementation of nutritional care in APS using the methodological approach proposed herein. This evaluation model may guide

data collection instruments for use in case studies, employing secondary data while also enabling different sources of evidence to adapt the measures to other implementation contexts. In addition to its scientific contribution, it is expected to provide support for aspects of municipal management of food and nutrition actions in APS.

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