

Perspectives of nutrition leaders on environmental issues

Marcelo Eliseu Sipioni¹, Maria Angélica Carvalho Andrade²

1. Universidade Vila Velha, Vila Velha/ES, Brasil. 2. Universidade Federal do Espírito Santo, Vitória/ES, Brasil.

Abstract

This article aims to describe and analyze the perceptions of leaders in the field of nutrition in Brazil regarding the challenges and prospects of meaningful engagement with environmental issues. A qualitative approach was used, with data collected via semi-structured interviews and analyzed using thematic analysis. According to the results, although environmental issues are not explicitly identified as a top priority for nutrition, the leaders interviewed expressed deep concern with the topic and suggested a reorientation of food systems, major drivers of climate change. They also emphasized the urgent need to incorporate environmental issues into nutrition-related discussions in Brazil, particularly in training and educational settings.

Keywords: Climate change. Food system. Nutritional sciences.

Resumo

Percepções de lideranças da nutrição sobre a questão ambiental

Este artigo tem por objetivo descrever e analisar as percepções de lideranças do campo da nutrição no Brasil acerca dos desafios e perspectivas do envolvimento qualificado da nutrição na temática ambiental. Foi utilizada abordagem qualitativa, com coleta de dados por meio de entrevista semiestruturada e análise temática. De acordo com os resultados, apesar de a questão ambiental não se apresentar objetivamente como desafio prioritário para a nutrição, as lideranças entrevistadas demonstram grande preocupação com a temática e sugerem reorientação dos sistemas alimentares, grandes impulsionadores das mudanças climáticas, além de expressar urgente necessidade de pautar a questão ambiental nos debates da nutrição no Brasil, especialmente em espaços de formação.

Palavras-chave: Mudança climática. Sistema alimentar. Ciências da Nutrição.

Resumen

Percepciones de los responsables de la nutrición sobre el tema ambiental

Este artículo tiene como objetivo describir y analizar las percepciones de los responsables en el campo de la nutrición en Brasil sobre los desafíos y perspectivas de la participación calificada de la nutrición en la cuestión ambiental. Se utilizó un enfoque cualitativo, con recolección de datos mediante entrevistas semiestructuradas y análisis temático. Los resultados revelan que, aunque el tema ambiental no se presenta objetivamente como un desafío prioritario para la nutrición, los responsables entrevistados reportaron una gran preocupación por el tema y surgieron una reorientación de los sistemas alimentarios, principales impulsores del cambio climático, y también expresaron una necesidad urgente de orientar el tema ambiental en los debates sobre la nutrición en Brasil, especialmente en los espacios de formación.

Palabras clave: Cambio climático. Sistema alimentario. Ciencias de la nutrición.

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Nutrition as a field of knowledge and practice arose in Brazil in the early twentieth century, especially during the period known as *Estado Novo* (1937–1945). In 1939, the first dietitian course was created at the Institute of Hygiene, which now hosts the nutrition program of the University of São Paulo School of Public Health¹, initiating an expansion process that peaked in the 1990s and entered the 2000s, a period that saw an immense growth in the number of undergraduate nutrition programs, which led to an exponential increase in nutritionists in Brazil. According to data from the Federal Council of Nutrition², in February 2024 there were almost 195,000 registered professionals in the national territory.

The scientific field of nutrition has always been permeated by epistemological disputes common to the health area and has oriented the rise of the various scopes of activity for nutritionists in the country. In the beginning, a biological or clinical-physiological branch originated the fields of practice of clinical nutrition and basic and experimental nutrition. In turn, the social perspective fostered the rise of collective food and nutrition in public health¹.

In 2002, just over sixty years after the introduction of the profession in Brazil, Vasconcelos¹ already discussed the emergence of movements that sought to promote discussions on new paradigms for understanding the relation between human beings and nature, especially the ecological movement. According to the author, within these movements, *it is expected that the immediate and mediate perspectives of this professional practice*¹—in reference to nutrition—can be established.

Twenty years later, the author's expectation could not find echoes as incisive as those that are affirmed in the present. Currently, the human offensive against nature results in increasingly fierce environmental consequences, which justify the Anthropocene theory, according to which we live in an era where human action constitutes the main geological force on the planet and raises doubts about the permanence of life on Earth^{3,4}. This context requires new positions of humanity to mitigate pessimistic prospects for the relatively near future^{5,6}. Nutrition should reflect on its impact in this broad discussion to support other fields of knowledge and practice in the current climate emergency.

The more objective relation between nutrition and the environmental issue can be observed in its implication for the dynamics of food systems⁷, responsible for a considerable portion of climate change and biodiversity loss. The predatory logic of the hegemonic conception of food system contributes to the so-called global syndemic, characterized by the synergy between malnutrition, obesity and climate change pandemics⁸, which shows that the main food insecurity cases at the global level are closely related to climate injustice and, therefore, should be duly addressed by the field of nutrition.

In the Anthropocene context, the impact of food systems is due to the irresponsible adoption of predatory techniques, especially in food production, which subject nature to purely economic interests⁹, from a utilitarian and anthropocentric ethical perspective¹⁰. Several counter-anthropocentric ethical guidelines, in the different fields of knowledge and practice, have sought to orient initiatives that recognize humans as a constituent part of nature, exempt it from utilitarian valuation and attribute value to it in itself^{6,10,11}.

Such guidelines—in the context of the necessary criticism of the hegemonic food system—notably include the ethical proposal designed by Jonas¹¹: the principle of responsibility. According to the philosopher, modern technique currently constitutes the main human action lacking ethical restraints: an extremely cautious assessment is necessary in the present so possible negative effects of its use in the future do not jeopardize the authenticity of life in the name of any apparent benefit in the present¹¹.

Despite being an attentive field willing to have a quality participation in the debates on new and necessary food system configurations^{12–14}, there is no ignoring the secular predominance of biomedical reductionism in the field of nutrition, called nutritionism by Scrinis¹⁵. Nutritionism has been indicated as an ideology and paradigm that reduces food and nutrition to their nutritional characteristics and has several negative consequences for society as a whole and for the professional practice in this field¹⁵. Among such consequences, notably the alienation of nutritionists from the various dimensions of food systems, thus valuing only the dimension of consumption and ignoring the

inevitable connections between their practice, which aims to promote healthy and adequate eating from an expanded perspective, and the other dimensions, especially those related to food production, which is more evidently responsible for environmental destruction.

Considering the inevitable implication of nutrition and the consequent critical posture that it requires as to its responsibility in the contemporary environmental context, this work aims to describe and analyze the perceptions of national nutrition leaders on the challenges and prospects of meaningful engagement of this field of knowledge and practice with the environmental issue.

Method

This is a descriptive research, with a qualitative approach, which sought to describe and analyze the perceptions of the main national leaders in the field of nutrition on the challenges and prospects of the relation between nutrition and environmental issues. The choice to define leaders as research subjects was based on the understanding that, being in charge of institutions and bodies related to nutrition, they represent central actors in the design and definition of the field's agendas. The leaders were identified in the electronic addresses and social networks of the institutions with which they were associated at the time of the research and then were contacted by *email*. When there was no response through this means, other electronic means were used, such as messaging applications or personal social networks, whenever available.

The institutions with which the research subjects are associated will not be named, since they would be easily identified and related to the respective institution. In addition, it should be noted that the objective of this work was not analyzing the opinions and positions of the institutions, but the perceptions and opinions of the people who today occupy their coordination or presidency positions. The leaders were instructed, at the time of data collection, to express their personal ideas, without indicating the position of the institution in which they worked at the time.

Data were obtained through semi-structured interviews conducted between March and June 2022 by video call in Microsoft Teams version 1.5.00. All conversations were recorded in

audio and video with the proper authorization of the leaders, who were asked to take a position on three aspects: a) technical and ethical challenges of nutrition today; b) analysis of the inclusion of the environmental issue in nutrition debates; and c) proposals for meaningful engagement of nutrition with the environmental debate.

For inclusion in the research, the leaders should be nutritionists and play a leader role in a national institution in the professional, social or technical-scientific field of nutrition. The results of the interviews were submitted to thematic analysis¹⁶. We chose this methodology for its flexibility and, at the same time, a rigorous methodological process of building ideas. The analytical task proposed by such analysis model is to trace themes, that is, elements that capture important ideas in a given theoretical field of research—in this case, the relations between nutrition and the environmental issue.

Braun and Clarke¹⁶ suggest six phases for data processing through thematic analysis, a perspective common to other qualitative data analysis techniques. These phases are: a) familiarization with data; b) generation of initial codes; c) search for themes; d) revisiting themes; e) definition and naming of themes; f) production of report.

In order not to expose the interviewed leaders, the results were presented in the form of pseudonyms that refer to important indigenous denominations in the country.

This work complies with all ethical guidelines in research with human beings and was approved by the research ethics committee.

Results

Nine leaders answered the interview, all coordinators and presidents of institutions representing the professional and student category, as well as institutions from the academic field and public food and nutrition policy areas.

Chart 1 presents the themes defined by the analysis of the dataset obtained in the interviews, according to the following elements of analysis: current challenges in the field of nutrition; environmental issue in nutrition debates; and meaningful engagement of nutrition with the environmental issue.

Chart 1. Elements of analysis and themes defined based on the dataset collected with nutrition leaders in Brazil

Element of analysis	Defined themes
Current challenges in the field of nutrition	Technical challenges: <ul style="list-style-type: none"> • Overcoming nutritionism • Adequate training • Expanded understanding of food systems • Overcoming food insecurity Ethical challenges <ul style="list-style-type: none"> • Overcoming nutritionism • Use of social networks • Conflicts of interest between professionals and the food industry
Environmental issue in nutrition debates	<ul style="list-style-type: none"> • Lack of debate
Meaningful engagement of nutrition with the environmental issue	<ul style="list-style-type: none"> • Politicization of nutrition training • Expansion of knowledge on the subject

Current challenges in the field of nutrition

The leaders were asked to indicate the main technical and ethical challenges of nutrition today. They are two different aspects, but which obviously complement each other. The intention, according to the objectives of this work, was to examine whether the priority challenges mentioned by the respondents referred at some level to the rise of the environmental issue, without any intention of demeriting themes that do not relate to this theme.

A first theme was described as both a technical and ethical challenge: overcoming nutritionism. The theme was conceived based on several sub-themes that refer to the need to consider subjective, social and political aspects of food and nutrition, beyond merely biological aspects, in an expanded proposition of nutrition. The following excerpts exemplify such statements:

“We have a very big challenge to demystify this issue that nutrition is just slimming down, or else, we’d only work with the issue of weight (...), that there’s no other areas, that there’s no other knowledge. (...) Nutrition has several factors: political, social, economic. (...) This all interferes with nutrition” (Ticuna).

“To work on the resignification of food, of eating, recovering the profound existential value that food has in people’s lives and becoming aware of the political dimension that the act of eating has” (Pataxó).

In addition to overcoming nutritionism, other technical and ethical challenges were raised and analyzed. Among the technical challenges, all themes—according to our view—are related, with or without some theoretical effort, to the environmental issue, starting with the training. We examined the leaders’ concern with the adequate training of nutritionists from various perspectives, including political, technical and technological aspects of the training process; in addition, the distance learning modality of nutrition programs was mentioned as an issue that compounds the others. The following are some reports that informed the definition of this theme:

“We need to see what our object of work is (...). Professional training has to train nutritionists, not clinical, production, public health, or sports nutrition professionals. Because, in the training of the professional (...) work fields are mixed with training fields” (Caingangue).

“Nutrition has a very technical, very technical-scientific training, but it does not have a technological training. It does not have a training to make it accessible to the population, (...) it does not know how to develop a patent, (...) something that is applied to the population, something that is practical” (Terena).

“This issue of distance learning programs, this is a problem. I think this is also a challenge (...) that we are seeing, that we have fought so hard, but that is there. It was for nothing. (...) And then, in my view,

this whole problem of participation in politics, of politicization of these professionals, this gets even worse” (Guajajara).

Another element understood as a technical challenge for nutrition is the need to redirect the food system and fully understand it, in all its dimensions, despite the predominant perspective that the dimension of consumption is the specific field of work of the nutritionist. The following statement exemplifies that:

“[A] major challenge is redirecting food systems towards sustainability, not only environmental, but also economic, cultural, social. (...) because the hegemonic modus operandi is very overwhelming and destructive, completely uncommitted to life and the health of the planet and people” (Pataxó).

The fourth technical challenge noted in the interview dataset is the overcoming of food insecurity in Brazil, especially by the reactivation of public policies. The respondents emphasized the political context at the time (first half of 2022) and the evident dismantling of food policies, especially those structuring the National Food and Nutrition Security Policy (PNSAN). Obviously, since nutritionists have no control over decisions at the governmental level, that is not a specific challenge of nutrition; however, these professionals are expected to support other sectors so food insecurity is a priority in public policies, which lacks understanding and political engagement to pressure the government.

The following statements attempt to contextualize this theme:

“This paradox of us having an obesity epidemic (...) and at the same time, in recent years, we once again having areas with high prevalence of hunger and food insecurity. (...) I think it was a great loss, not only for health in general, but for the public policies that had been built over the years. So, it is a professional challenge, a technical challenge, a political challenge to live with these two paradigms” (Macuxi).

“We have to overcome all forms of malnutrition. This (...) is associated with a series of public policies that impact food consumption. (...) The major challenge is the integration of public policies beyond the health sector, to ensure the production of healthy food, supply and an affordable price” (Xavante).

“How are we going to talk about nutrition without talking about hunger, without talking about how much public policies have moved away from this constitutional principle that we, nutritionists, know very well that exists, that society has a right to, that is no favor? The State has to provide that” (Guajajara).

As for the ethical challenges, in addition to overcoming nutritionism, two themes were evident in the analysis of the data obtained from the interviews: use of social media and conflict of interests between professionals and the food industry. The first, in our opinion, is not directly related with the environmental issue, except in specific situations that do not fall within the scope of this work. The second seems to raise a debate that aligns with the environmental issue.

According to the interviewed leaders, the use of social networks by nutritionists is an ethical problem in the daily routine, especially as to posting comparative images (before and after) of patients’ bodies, or of themselves, in order to generalize results that in practice would be different and, thus, compromising the intrinsic individualization of nutritional care. In addition, the use of social networks by nutritionists, according to the leaders, has persuaded persons to choose professionals not for their technical quality, but for the image they suggest having in their social network profiles. These impressions are exemplified by the following excerpt:

“You post images and videos of the person as they were before and as they are after, and attribute them to you, to your ability, to your technique, to your tool, to your method (...), without taking into account the individual factor, the family factor, the relationship with other professionals, the activities of the person” (Ianomami).

The conflict of interest between professionals and the food industry, also described as an ethical challenge, emerges in the questioning of the commercial association with brands to obtain financial benefits, which is a serious contradiction for a professional who ethically undertakes to defend health above any interest. The following statement refers to this theme:

“Nutritionists, as opinion makers, how do they position themselves, how do they act, move,

seeking to prevent situations of conflict of interest, public versus private relationship, thinking about public interests and private interests of corporations that can finance these nutritionists?" (Pataxó).

Environmental issue in nutrition debates

The interviewed leaders were asked to assess and reflect on the inclusion of the environmental debate in nutrition. All the sub-themes traced in the collected data indicated an exclusive theme, which suggests the absence of the environmental issue in the debates of the field. Some sub-themes enable inferring that there are institutions that problematize the environmental issue even if it is not part of its institutional scope and that, in general, there is no broad debate in nutrition forums, events or training about its role in the context of climate change, as we can observe in the excerpts:

"In Brazil, very little is said about that. (...) It is very interesting that not even nutritionists have this point of view, so much so that, for example, (...) I am organizing Conbran [Brazilian Nutrition Congress], and they have no space. There are still several traditional themes to discuss. So, when you talk about discussing the global syndemic, people don't want to" (Terena).

"This discussion is almost null. [In our institution] we have tried to open these spaces for discussion, but it is still very small. For example, in undergraduate education, at no time did any teacher tell me to worry about global warming, or something like that. If they did, it was something very superficial (...), but they do not say how it interferes, they do not say how we can help (...), it is not in-depth" (Ticuna).

Meaningful engagement of nutrition with the environmental issue

The last element analyzed has a less diagnostic and more propositional characteristic. The leaders interviewed were asked, considering the environmental emergency and its inevitable effects on the field of nutrition, how it should be included in this debate and what actions should be organized.

Two themes were found in the data analysis. The first theme is the politicization in nutrition

training, not only in undergraduate education, but in continuing education, including courses and scientific events, according to the following statements:

"We need to empower nutritionists so they can work on environmental issues within their work (...). As an institution, I see this path, the path of training, for empowerment, (...) engaging with public policies. I think we are still very little politicized (...). By being more politicized, we will have greater achievements (...) and I think that training is the way" (Guarani).

"We have a function, which is to engage in fronts that contribute to constitute this pressure from civil society so this subject is included in public policies, for example, so it is considered, so we recognize that, for example, several corporate practices (...), more than threatening, compromise sustainability" (Pataxó).

The second theme, complementary to the first, is a seemingly generic idea, but whose foundations are important to reflect on the inclusion of nutrition in the environmental debate. This is the expansion of knowledge about the environmental debate, a subject traced on the basis of several sub-themes. The proposals suggest that nutrition should take ownership of the theme in what concerns it, including the perspective of integral analysis of the food system, as exemplified in the following statements:

"[Go] obtain knowledge. Not speaking for the sake of speaking, but seeking and bringing research into the area of nutrition is the main thing. (...) trying to really understand the relation between environmental issues and food as a whole, (...) understanding how this influence occurs. And after we understand how this influence situates the environmental issue as an object of study for nutrition, we can improve initiatives" (Ticuna).

"(...) We have a much easier time working on the consumption aspect (...). We have to coordinate with sectors that produce food (...). When we provide guidelines knowing which foods produce negative effects on the environment, on gas production, we recommend reducing these foods, we will be contributing to this process" (Xavante).

Discussion

The current environmental context does not allow us to postpone the collective fight against the effects of climate change on the Earth. It is a central ethical demand, shared by all humanity in its various fields of knowledge, practice and militancy. It is not only a matter of ensuring a so-called environmental citizenship as a third-generation human right, but also, as argued by Gudynas¹⁰, of promoting ecological metacitizenships, situating environmental issues in more comprehensive dimensions, since authentic citizenship would only be possible in a given ecological context. In other words, the notion of citizenship that does not guarantee the said citizen a dignified and proper landscape, territory and housing must not be considered authentic, and, in order to achieve authentic citizenship, with its multiple dimensions, it is fundamental to give nature an unequivocal right to existence, regardless of its usefulness to man.

Similarly, there is no contemplation of a nutrition authentically concerned with healthy food that does not consider it healthy for everyone, human and non-human, and that does not apply a conservationist notion in its work, that is, that does not have the integrity of nature as a central element of its professional orientation.

The data presented in this research allow observing that the environmental issue is not yet an ethical element that orients the professional work and knowledge building in nutrition. Considering that the leaders were asked to present the current challenges in nutrition from a personal point of view, it was observed that the environmental issue does not emerge in objective terms; however, we traced several themes that, when submitted to interpretive analysis, were associated to a greater or lesser degree with the environmental issue.

In addition, themes traced in all elements of analysis invite nutritionists to an expanded understanding of nutrition, either by subverting the predominance of the so-called nutritionism¹⁵ or by leading to an understanding of the field that goes beyond mere prescription and the dimension of consumption. The identified themes suggest that all dimensions of the food system be assumed as a field of work and, ultimately,

a means of accessing an ethical posture in which the environmental concern orients the practice, as in the principle of responsibility of Jonas¹¹.

In other words, the leaders demonstrated coherence between the challenges described and the arguments that claim their overcoming. More than that, their ideas show the importance they assign to the environmental issue, both explicitly and implicitly in the arguments and in the discomfort with the inertia of nutrition in debating this theme.

The lack of adequate knowledge about the environmental issue and the Anthropocene is not a specific problem of nutrition⁵ and seems to constitute an economic strategy of sectors interested in profiting from the predatory exploitation of nature¹⁷. However, overcoming the reductionist view in the field of nutrition, as claimed by the interviewed leaders in their criticism of nutritionism¹⁵, would certainly contribute toward building an environment conducive to the necessary knowledge.

It is not a matter of denying the biological dimension of food, but of recognizing as equally intrinsic the other components of food, including the environmental component. The perspective of nutritionism foments a limited view of the role of nutrition in relation to the food system, alienating it, to a greater or lesser extent, from the other aspects involved in the act of eating. The fact is that the complexity with which food systems must be interpreted⁷ demands that nutrition reorient its participation in the dimensions that compose them, beyond the scope of food, in general, or consumption, specifically.

This reorientation becomes even more necessary when reflecting on the idea that food must promote life not only for the individual who eats, but also for an expanded subject, which includes nature and the lives that constitute it, including, but not only, human life, in a bioethical perspective of care beyond anthropocentrism and individualism^{6,10,11,18}. This interpretation is coherent when it is assumed that the hegemonic food production model is responsible, to a large extent, for the predatory advance of the human being over Nature and that the duty of promoting healthy eating requires from nutritionists the understanding that their technical actions and guidelines can directly advocate or oppose this model.

Therefore, it is considered appropriate the policy of Dietitians of Canada¹² of instructing Canadian professionals in the construction of sustainable food systems. The document provides general and specific guidelines on stances and practices of dietitians/nutritionists, based on the idea that nutrition needs expanded knowledge of food systems in order to broaden the understanding of the environmental issue.

The importance of overcoming food insecurity, described in this study as a priority technical challenge, should not be interpreted as secondary to nutrition, nor is it dissociated from the central issue of this work. In addition, during the period in which the interviews were conducted, the country underwent the dismantling of food and nutrition policies, especially those related to the PNSAN, with consequences compounded by the COVID-19 pandemic¹⁹.

The various cases of food insecurity—both associated with nutritional excesses and deficiencies—are closely related to the currently predominant mode of food production. Overcoming any case of food insecurity requires reformulating the logic of the hegemonic food system, which deprives a large portion of the population of access to food, since it reinforces socioeconomic inequalities with impacts on metropolitan and non-metropolitan areas, while being responsible for the production of foods that, although potentially affordable, have poor quality, such as ultra-processed foods, whose consumption is related to the increased risk of early deaths²⁰.

It is important to emphasize that climate change increases situations of food insecurity while reversing improvements in communities that once had advances in this aspect, especially in more vulnerable territories²¹; therefore, they contribute synergistically with the obesity and malnutrition pandemics that constitute the global syndemic⁸. The ethical stance demanded in the field of nutrition—according to which nature must be granted the inherent right to existence—is a means of addressing phenomena related to climate injustices.

Thus, it is noted that the fight against the different cases of food insecurity must go beyond the focus on disease, typical of traditional epidemiological models²², and consider the struggle for environmental justice, in line with the

idea of nutrition committed to promoting healthy and adequate food from an expanded perspective.

Accordingly, as claimed by the leaders interviewed in this work, it is urgent to review the nutrition training process to make nutritionists more prepared for and favorably inclined toward this expanded perspective, especially with regard to the environmental issue. Different causes led the respondents to suggest changes in nutrition training, such as the need to contribute toward raising the political awareness of nutritionists.

There is no denying the importance of being a politically aware subject, who understands their responsibilities and is aware of the effects of their actions and omissions in the face of the issues of life in society. In line with Demo's words, the political human being is someone who has *historical awareness, does not accept being object and behaves as an actor, not a spectator*²³ of the world around them. In the current conjuncture, of the Anthropocene, Demo's definition contextually aligns with the political position proposed by Latour⁵, who suggests the existence of a new political actor, the Terrestrial, who would overcome the left-right dichotomy and direct humanity to a field where the reorientation of life in society would be possible.

In fact, the already widely debated and consensual premise of the political dimension of food^{9,24}, overshadowed by the predominance of nutritionism, demands of nutrition professionals a training that includes them satisfactorily in the debate and has the environmental issue as a central element associated with professional practice in any areas of activity.

It is noted that the politicization of the nutritionist as advocate here presupposes a professional oriented by an ethical conception that overcomes anthropocentrism, individualism and temporality rooted only in the present, which are characteristic of traditional ethics^{11,18}. That is, it is advocated, as in the perspective of Hans Jonas¹¹, a nutritionist whose ethical stance is guided by the responsibility of the current generation to uncompromisingly defend an authentic life in the future and makes of any technological intentions an extreme ethical assessment of their potential harmful effects on the future life.

To some extent, the task of conceiving a more expanded education, even aligned with environmental demands, already finds adherents in nutrition^{13,25}. According to Fanzo and collaborators²⁵, referring to the need to no longer ignore the consequences of the Anthropocene, nutrition needs to be understood based on a new workforce requirement so it can meet the complex future demands.

In Brazil, the ideas to achieve sustainable food systems include important recommendations for a training process responsive to environmental demand, such as including the issue of food systems in the curriculum, as a specific and transversal component, practical activities in sustainable communities and restaurants, laboratory pedagogical activities for the cultivation of vegetable gardens, the guarantee of multiprofessional training, the exchange of experiences, and increased scientific events and production on the subject¹³.

Despite advances in the characteristics of the profile of nutrition graduates in Brazil, the National Curricular Guidelines for the undergraduate nutrition program²⁶ have only specific elements on the training of nutritionists and lack important contributions to the educational process. The very food and nutrition security issue, which, among the contents of nutrition programs, tends to be the one that mostly implies a debate on environmental issues, is also often neglected in the curricula²⁷. Currently, the guidelines are being re-discussed by the category, with the proposition of a graduate profile more aligned with the macro-structural demands of nutrition, which has as guiding principle valuing sustainable food systems and subjects the promotion of health and healthy food to the notion of sustainability²⁸.

One of the certainly desired consequences of the review of the nutrition training guidelines—which contributes to the critical awareness of their work and was also described as an ethical challenge by the interviewed leaders—is the improvement in the management of relations between professionals and the food industry. The food industry must be recognized as a powerful integral part of this predatory food system. It boosts nutritionism as it informs to a large extent what is researched and disseminated in the field of food and nutrition, in addition to using its economic

power to influence decision-making within the scope of public policies, reducing the possibilities of healthy choices by the population^{15,29}.

The claim for regulation of the potentially conflicting relations between the food industry and nutritionists is already a subject of debate in nutrition and seems to have found answers in institutions representing the category. The Federal Council of Nutrition (CFN) published in 2018 the Nutritionist Code of Ethics and Conduct, in which it regulates the relation of nutritionists with the industry³⁰. In addition, the Brazilian Association of Nutrition (ASBRAN), organizer of the main scientific event in the field in Brazil, has established, since 2015, partnership criteria to be observed in the organization or support of events³¹, which discourage partnerships with large food corporations, reducing their power to influence professionals and researchers in the area.

Final considerations

The results of this work allow inferring that the interviewed leaders advocate that nutrition should assume its responsibility in the environmental issue in the context of the Anthropocene, as they understand that the environmental theme should orient initiatives in the field of nutrition. The challenges and criticisms described on the basis of the themes traced in their statements—even if not objectively addressing the environmental issue—show the need for nutrition and nutritionists to expand the understanding of the relations between food and related macro-structural issues of society, including the environmental issue, in an attempt to foster an expanded nutrition in opposition to the reductionist nutritional paradigm.

In addition to describing the lack of debate on the environmental issue in the field of nutrition, the leaders proposed—also from the perspective of expanded nutrition—a nutrition training reform oriented toward achieving knowledge and practice that encompass all dimensions of food systems.

Finally, it is worth noting that, because they are—at least in theory—subjects with deep participation in the most relevant debates of nutrition and interprofessional and interdisciplinary forums and spaces where

macro-structural demands are discussed, the leaders interviewed constitute a privileged segment; therefore, it is necessary to be careful in projecting their perceptions to the universe of nutritionists in Brazil. However, there is urgent


need for raising the awareness of the professional category and all those interested in the field of nutrition as to assuming our responsibility in the environmental issue, in the name of an authentic life in the future.

References

1. Vasconcelos FAG. O nutricionista no Brasil: uma análise histórica. *Rev Nutr* [Internet]. 2002 [acesso 30 maio 2025];15(2):137. DOI: 10.1590/S1415-52732002000200001
2. Conselho Federal de Nutrição. Perfil da Nutrição no Brasil [Internet]. 2024 [acesso 30 maio 2025]. Disponível: <http://pesquisa.cfn.org.br/>
3. Veiga JE. The first Anthropocene utopia. *Amb Soc* [Internet]. 2017 [acesso 30 maio 2025];20(2):233-52. DOI: 10.1590/1809-4422ASOCEX002V2022017
4. Lewis SL, Maslin MA. Defining the Anthropocene. *Nature* [Internet]. 2015 [acesso 30 maio 2025];519:171-80. DOI: 10.1038/nature14258
5. Latour B. Onde aterrar? Como se orientar politicamente no Antropoceno. Rio de Janeiro: Bazar do Tempo; 2020.
6. Krenak A. Ideias para adiar o fim do mundo. 2ª ed. São Paulo: Companhia das Letras; 2020.
7. High Level Panel of Experts on Food Security and Nutrition. Nutrition and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security [Internet]. Rome: FAO; 2017 [acesso 30 maio 2024]. Disponível: <https://bit.ly/4fjOnPK>
8. Swinburn BA, Kraak VI, Allender S, Atkins V, Baker PI, Bogard JR *et al.* The Global Syndemic of obesity, undernutrition, and climate changes: The Lancet Commission Report. *Lancet* [Internet]. 2019 [acesso 30 maio 2024];393:781-846. DOI: 10.1016/S0140-6736(18)32822-8
9. Machado PP, Oliveira NRF, Mendes AN. O indigesto sistema do alimento mercadoria. *Saúde Soc* [Internet]. 2016 [acesso 30 maio 2025];25(2):505-15. DOI: 10.1590/S0104-12902016151741
10. Gudynas E. Direitos da Natureza: ética biocêntrica e políticas ambientais. São Paulo: Elefante; 2019.
11. Jonas H. O princípio responsabilidade: ensaio de uma ética para a civilização tecnológica. Rio de Janeiro: Contraponto; 2006.
12. Carlsson L, Seed B, Yeudall F. The role of dietitians in sustainable food systems and sustainable diets [Internet]. Toronto: Dietitians of Canada; 2020 [acesso 30 maio 2025]. Disponível: <https://bit.ly/4ok53ul>
13. Jacob MCM, Araújo FR. Desenvolvimento de competências para Nutrição no contexto de Sistemas Alimentares Sustentáveis. *Cienc Saúde Colet* [Internet]. 2020 [acesso 30 maio 2024];25(11):4369-78. DOI: 10.1590/1413-812320202511.31652018
14. Ridgway E, Baker P, Woods J, Lawrence M. Historical developments and paradigm shifts in public health nutrition science, guidance and policy actions: a narrative review. *Nutrients* [Internet]. 2019 [acesso 30 maio 2025];11(3):531. DOI: 10.3390/nu11030531
15. Scrinis G. Nutricionismo: a ciência e a política do aconselhamento nutricional. São Paulo: Elefante; 2021.
16. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* [Internet]. 2006 [acesso 30 maio 2025];3(2):77-101. DOI: 10.1191/1478088706qp063oa
17. Harris PG. COP27: From preventing dangerous climate change to salvaging loss and damage. *PLOS Clim* [Internet]. 2023 [acesso 30 maio 2024];2(1):e0000150. DOI: 10.1371/journal.pclm.0000150
18. Ruiz CB, Maciel JC. A ética do cuidado do outro e a bioética ambiental. *Rev. bioét. (impr.)* [Internet]. 2020 [acesso 30 maio 2025];28(3):440-8. DOI: 10.1590/1983-80422020283405
19. Sipioni ME, Riquieri MRL, Barbosa JPM, Biscotto DB, Benedito SR, Sarti TD, Andrade MAC. Máscaras cobrem o rosto, a fome desmascara o resto: covid-19 e o enfrentamento da fome no Brasil. In: Andrade MAC, Lima RCD, Barbosa JPM, Sarti TD, Garcia ACP, Lima EFA, organizadores. *Gestão e práticas em Saúde Coletiva* [Internet]. Porto Alegre: Rede Unida; 2021 [acesso 30 maio 2025]. p. 56-72. Disponível: <https://bit.ly/4moRtEp>

20. Nilson EAF, Ferrari G, Louzada MLC, Levy RB, Monteiro CA, Rezende LFM. Premature deaths attributable to the consumption of ultraprocessed foods in Brazil. *Amer J Prev Med* [Internet]. 2023 [acesso 30 maio 2025];64(1):129-36. DOI: 10.1016/j.amepre.2022.08.013
21. Dasgupta S, Robinson EJZ. Attributing changes in food insecurity to a changing climate. *Sci Rep* [Internet]. 2022 [acesso 30 maio 2025];12(1):4709. DOI: 10.1038/s41598-022-08696-x
22. Prado SD, Bosi MLM, Carvalho MCVS, Gugelmin SA, Mattos RA, Camargo Jr KR *et al.* Alimentação e nutrição como campo científico autônomo no Brasil: conceitos, domínios e projetos políticos. *Rev Nutr* [Internet]. 2011 [acesso 30 maio 2025];24(6):927-37. DOI: 10.1590/S1415-52732011000600013
23. Demo P. Pobreza política. 3ª ed. São Paulo: Cortez; 1991. p. 15.
24. Portilho F, Castañeda M, Castro IRR. A alimentação no contexto contemporâneo: consumo, ação política e sustentabilidade. *Ciênc Saúde Colet* [Internet]. 2011 [acesso 30 maio 2025];16(1):99-106. DOI: 10.1590/S1413-81232011000100014
25. Fanzo JC, Graziose MM, Kraemer K, Gillespie S, Johnston JL, Pee S *et al.* Educating and training a workforce for nutrition in a post-2015 World. *Adv Nutr* [Internet]. 2015 [acesso 30 maio 2025];6:639-47. DOI: 10.3945/an.115.010041
26. Conselho Nacional de Educação. Câmara de Educação Superior. Resolução nº 5, de 7 de novembro de 2001. Institui Diretrizes Curriculares Nacionais do Curso de Graduação em Nutrição. *Diário Oficial da União* [Internet]. Brasília, p. 39, 9 nov 2001 [acesso 30 maio 2025]. Disponível: <https://bit.ly/459sm1m>
27. Lisboa CMP, Fonseca AB. Abordagem da segurança alimentar e nutricional nos currículos das universidades federais brasileiras: principais enfoques. *Saúde Soc* [Internet]. 2020 [acesso 30 maio 2025];29(3):e190570. DOI: 10.1590/S0104-12902020190570
28. Conselho Nacional de Saúde. Resolução nº 704, de 20 de outubro de 2022. Aprova as contribuições do Conselho Nacional de Saúde à proposta de Diretrizes Curriculares Nacionais do Curso de Graduação em Nutrição. *Diário Oficial da União* [Internet]. Brasília, 2022 [acesso 1 fev 2024]. Disponível: <https://bit.ly/3HcM30f>
29. Nestle M. Uma verdade indigesta: como a indústria alimentícia manipula a ciência do que comemos. São Paulo: Elefante; 2019.
30. Conselho Federal de Nutricionistas. Resolução nº 599, de 25 de fevereiro de 2018. Aprova o Código de Ética e de Conduta do Nutricionista e dá outras providências. *Diário Oficial da União* [Internet]. Brasília, p. 182, 4 abr 2018 [acesso 30 maio 2025]. Seção 1. Disponível: <https://bit.ly/3U8glnY>
31. Associação Brasileira de Nutrição. Portaria nº 1, de 1º de agosto de 2015. Institui critérios para o estabelecimento de parcerias, apoios e patrocínios realizados com a Asbran [Internet]. São Paulo: Asbran; 2015. Disponível: <https://bit.ly/46BE8UD>

Marcelo Eliseu Sipioni – PhD – mesipioni@yahoo.com.br

 0000-0003-1536-6374

Maria Angélica Carvalho Andrade – PhD – geliandrade@gmail.com

 0000-0002-3690-6416

Correspondence

Marcelo Eliseu Sipioni – Rua João Nunes Coelho, 115, bloco A2, apartamento 201, Mata da Praia. CEP 29065-490. Vitória/ES, Brasil.

Participation of the authors

Marcelo Eliseu Sipioni participated in the conception of the work, data collection, analysis and interpretation, writing and approval of the final version of the article. Maria Angélica Carvalho Andrade participated in the conception of the work, critical review and approval of the final version of the article.

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