

Nutrition and environmental issue: The nutrition field's leaders in Brazil take the floor

Nutrição e questão ambiental: com a palavra, as lideranças do campo da nutrição no Brasil

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ABSTRACT The Anthropocene suggests that human action represents the most important geological force acting on the planet, causing climate change and, ultimately, endangering all future life. The hegemonic food system represents an important component of this human action, given the irresponsible use of predatory techniques against Nature. Since nutrition is part of the food system, it is necessary to discuss its position and actions to mitigate its effects. This work aimed to evaluate the perceptions of nutrition leaders in Brazil on the environmental issue and its relationship with the field of nutrition. This is a descriptive study with a qualitative approach. Data were collected through semi-structured interviews and analyzed using the thematic analysis technique. The results showed that the leaders are aware of the environmental issue emergence and that nutrition has a great relationship and responsibility with this theme, although different levels and counterpoints to this perception have been found, such as the lack of knowledge on the subject. It is suggested that nutrition, permeated by the ideology of nutritionism, should be guided by an ethical-political posture suited to the emergence of the environmental issue, as proposed by Hans Jonas' Principle of Responsibility.

KEYWORDS Climate change. Food system. Nutritional sciences.

RESUMO O Antropoceno sugere que a ação humana representa a mais importante força geológica agindo sobre o planeta, provocando mudanças climáticas e, em última análise, colocando em risco toda a vida futura. O sistema alimentar hegemônico representa um importante componente dessa ação humana, dado o uso irresponsável de técnicas predatórias frente à Natureza. Estando a nutrição inserida no sistema alimentar, faz-se necessário discutir seu posicionamento e ações para mitigar seus efeitos. Esse trabalho objetivou avaliar as percepções das lideranças da nutrição no Brasil sobre a questão ambiental e sua relação com o campo da nutrição. Trata-se de um estudo descritivo com abordagem qualitativa. Os dados foram coletados por entrevistas semiestruturadas e analisados com uso da técnica de análise temática. Os resultados demonstraram que as lideranças têm consciência sobre a emergência da questão ambiental e que a nutrição possui grande relação e responsabilidade com a temática, apesar de diferentes níveis e contrapontos a essa percepção terem sido encontrados, como a falta de conhecimento sobre o tema. Sugere-se que a nutrição, atravessada pela ideologia do nutricionismo, deva ser direcionada por uma postura ético-política adequada à emergência da questão ambiental, como propõe o Princípio Responsabilidade de Hans Jonas.

PALAVRAS-CHAVE Mudança climática. Sistema alimentar. Ciências da nutrição.

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Introduction

The topic about the environment has raised interest and concerns from the most diverse areas of knowledge, civil society activism, and public policies. With the premise that we are in a time when human action is the main geological force on the planet, the Anthropocene has gained adherents worldwide, despite still being a theory not confirmed by international entities in the field^{1,2}.

The Anthropocene suggests that climate change and the loss of biodiversity that have occurred since the Industrial Revolution are putting all forms of life at risk of disappearing, and in the last 50 years, the intensity of these events has increased as a consequence of technological development in different areas of economic exploitation¹. From the hegemonic food system perspective, agricultural production is among these areas.

Since the so-called Green Revolution^{3,4}, the hegemonic food system uses predatory techniques that subjugate Nature, in a notion of utilitarian and anthropocentric development. In addition, despite its contradictory discourse that it is responsible for feeding the planet, it promotes social inequalities⁵ and, consequently, hunger, since it is a market model, agribusiness, which sees in food the mere market utility, typical of capitalism^{6,7}.

It is noteworthy that the definition of food systems considers not only the stages of the food production chain but also includes the sociocultural, political, and environmental relations involved in the dimensions of food production and consumption⁸, in the various models of food environments proposed⁹.

The technology used by the hegemonic food system not only harms life promotion nowadays but also implies little reflection on the possibility of a dignified life for future generations. Thus, it is up to us to reflect on a necessary ethical brake on the irresponsible technique used by this model of food production, for which we consider the reflections made by Hans Jonas¹⁰ and his Principle of Responsibility to be fundamental.

For this philosopher, modern ethical models contribute little to this new face of human action called technology¹⁰, since they suggest principles and imperatives only to contemporary human beings. Other forms of life are not included in the modern ethical domain, nor are the lives, human and non-human, of future generations threatened by technological advancement devoid of ethical reflection.

Jonas¹¹ considers that modern technique has assumed a posture that creates problems for itself to solve with new technological advances, generating a vicious cycle that disregards future risks in the face of immediate benefits. Far from a technophobic stance, Jonas argues that the issue is to attribute to this new form of power, modern technique, an ethic, not to prevent it, but to help it fulfill its mission¹².

The Principle of Responsibility seems appropriate to guide individual and collective actions that can curb the consequences of the Anthropocene, aligning with other ethical conceptions that prioritize Nature with its value and dignity^{13,14} and establish new positions in the relationship between Nature and human beings, the latter, internal, not superior to it¹⁵⁻¹⁷. In this sense, Jonas argues that the entire biosphere "claims its share of respect that is due to everything that is an end in itself, that is, to all living beings"¹¹⁽⁵⁵⁾.

Thus, it is prudent that the various dimensions of the food system be guided by Jonas' ethics¹⁸, both concerning the use of food production techniques, which was already an element of concern for Jonas¹⁰ when he elaborated his Principle of Responsibility in 1979, and in the technological processes involved in the dimension of consumption, especially about industrial strategies for production and marketing of foods that are harmful to human health^{19,20} and the environment, since they originate from the predatory methods of production^{4,6,19,21,22}.

Thus, contrary to what a first analysis of Jonas' ethical orientation would suggest, the Principle of Responsibility does not only apply to the dimension of production. In this dimension, human actions are, in fact, more evident and potentially harmful to life. However, since the food system is a complex unit with a synergistic relationship between the dimensions that compose it, it is expected that the adoption of the Responsibility Principle as a guide for ethical-political positions will occur equally in both dimensions, whether among technical, business and political leaders in the production sector, or technicians and managers in the consumption field, including nutrition and the nutritionist in this niche.

Despite having certain attributions in the sphere of production, the professional performance of the nutritionist is more directly aligned with the dimension of consumption, in which they assume specific attributions^{23,24}. Thus, nutritionists tend to perceive their implication in the food system as limited to contributing to a healthier food environment. However, the environmental issue seems to suggest that nutrition professionals should take an integral view of the food system, as already explained in guidelines and guiding principles to promote adequate and healthy nutrition in the country^{25,26}.

The intrinsic relationship between nutrition and environmental issues is also evidenced when one understands the dynamics of the Global Syndemic, characterized by the synergistic relationship between three pandemics – obesity, malnutrition, and climate change – and their consequences for food issues in the world, which is worse in poorer countries^{5,27,28}. When understanding the explanatory logic of the Global Syndemic, one realizes how much choices related to the food system impact climate change, whether they are political choices about what and how to produce, or whether they are related to the field of food consumption.

The involvement of the nutrition field in the environmental issue is therefore inevitable. In addition to thinking about food as a political^{29,30} and an ethical act³¹, the environmental

issue should be understood as an ethical-political element that guides one's professional performance in the field of nutrition, to which the ethics of Jonas¹⁰ can make an enormous contribution.

Several debates have already been held to understand this relationship, including the theme of sustainable diets^{32,33} and the insertion of nutrition science in the arrangement of food systems³⁴⁻³⁶. In addition, there are proposals for nutrition training to consider environmental issues in the face of the Anthropocene^{37,38}.

It is noteworthy, however, that even if constituted under epistemological bases of the biological and social fields³⁹, nutrition is hegemonically dominated by a biomedical posture that historically leads its technical and scientific development and guides its practices⁴⁰⁻⁴². According to Scrinis43, this movement is called nutritionism, an ideology that reduces the complexity of food to its nutritional content and, from this limited analysis, establishes the level of health related to food. Nutritionism refers to the lack of concern with the "quality of production and processing of food and its ingredients"43(25), evidencing an antithetical clash with the Principle of Responsibility¹⁰, which suggests a highly precautionary analysis in the face of the possibility, even if remote, of a threat to future life.

It seems urgent that nutrition be guided less by nutritionism and more by ethical models that foster a professional performance aligned with the debate on climate change and respect for nature, recognized with dignity and intrinsic values, not utilitarian ones^{11,13-15}.

To this end, nutrition needs to be recognized as co-responsible for the environmental issue in the most diverse fields of knowledge, practice, and public policies, especially to oppose the hegemonic food system in the Anthropocene context. In this sense, this study sought to identify the perceptions of national nutrition leaders in Brazil about the relationship between the field of nutrition and the environmental issue.

Methodology

This is a descriptive research, with a qualitative approach, which sought to analyze the impressions and interpretations of the main national leaders in the field of nutrition on the environmental issue. These actors were approached because it is understood that, given the spaces in which they are inserted, they represent a privileged niche in the area to guide debates about nutrition in the country. For environmental reasons, we refer especially to climate change and the loss of biodiversity associated with the predatory exploitation of nature by humans.

At the time of this research, the leaders interviewed were from Brazil's most diverse fields of action and representation of nutrition. They were identified in online addresses and social media of the entities to which they are linked. They were then contacted by email, and if there was no reply, by other electronic means. The only inclusion criterion defined was that the leader should be a nutritionist.

The contacted entities will not be revealed to safeguard the identity of the leaders. In addition, it is important to emphasize that the entities were not requested to give their opinion in this research. We only wanted to know the thoughts and interpretation of the leaders about the issues raised.

Data was collected through semi-structured interviews via video calls between March and June 2022. The questions we focused on asking respondents about: a) their general ideas and perceptions about the topic, b) the relationship between the environmental issue and the field

of nutrition, and c) the level of priority that nutrition should give to the environmental issue. All conversations were recorded on audio and video, with the permission of the leaders.

The results of the interviews were submitted to thematic analysis⁴⁴. We chose this methodology given its flexibility, combined with a careful methodological process of building ideas⁴⁴, seeking to identify the "nuclei of meaning that make up a communication"⁴⁵⁽³¹⁶⁾. It is about identifying topics, that is, elements that capture important ideas in a given theoretical field of research⁴⁴.

The most important indigenous denominations in the country were used as pseudonyms, Guarani, Ticuna, Caingangue, Macuxi, Terena, Pataxó, Yanomami, Guajajara and Xavante, were used as pseudonym to identify the leaders.

This work meets all the guidelines of Resolution No. 466/2012 of the National Health Council⁴⁶, and was approved by the Human Research Ethics Committee under opinion No. 5.261.355 (CAAE: 55231822.1.0000.5060).

Results

Nine leaders in the field of nutrition participated in the research. They were engaged in the most diverse spectrum of activities, including entities in the professional and student categories and entities in the academic, scientific, and public policy fields.

Table 1 summarizes the topics defined from the data obtained from the interviews, as shown below.

Table 1. Elements of analysis and topics defined from the data set collected from the leaders of the nutrition area in Brazil

Element of Analysis	Defined topics
General impressions on the environmental issue	 Need for urgent action to contain climate change. Anthropocentric view on the environmental issue. Environmental issue submitted to economic and political interests. Lack of knowledge on the topic.
Relationship between nutrition and environmental issues	 Nutrition unrelated to the debate on environmental issues. Limited relationship between nutrition and environmental issues. Strong relationship between nutrition and environmental issues.
Priority of the environmental issue for nutrition	High priority of the environmental issue for nutrition.Medium priority of the environmental issue for nutrition.

Source: Prepared by the authors.

General impressions on the environmental issue

When asked to comment on their impressions of the environmental issue, the leaders interviewed showed a high level of understanding and general commitment, since all were concerned and suggested generic or specific actions to contain the advance of climate change.

Such concern is shown in several excerpts of the interviews, so that this topic appeared intensely in this element of analysis, under several arguments, as represented by the excerpts below:

[...] we need to adopt measures [...]. But I think that these measures should be taken in a shorter time and in a greater proportion. Because we are seeing a series of impacts, whether in the waters, in the forests, in the oxygen that we breathe. (Xavante).

[...] climate change is frightening, and with each passing year it is becoming more intense. And it's much hotter, it's much colder, it's much drier. And for sure, that's the consequence of men's action. (Guajajara).

It was also possible to highlight anthropocentric elements in the ideas identified, in which analyses on the environment are justified from the perspective of benefits for human beings, according to a utilitarian view, as shown below:

[...] if we don't worry and look at it carefully, eventually it will end, and, if we run out of resources, life will also end, right? Because we won't survive with anything. [...] if we don't have the resources to make good food, we won't have good food and will also end up interfering with human health. (Ticuna).

Sensitivity to the emergence of climate change, albeit with an anthropocentric bias, leads to a pessimistic perception of the negative interference of political and economic interests in the environmental issue and the limited general knowledge on the subject. At various times, leaders build their themes in this sense, as shown by the excerpts below:

I think we are very small in the face of all this. I feel that, unless we have leaders who care about this [...], who have this as a priority, it will be very difficult to solve our internal problems. [...] In Brazil, there has not yet been anything or anyone with a real interest in the subject. (Terena).

[...] because it is something that we do not know how to discuss, that we do not know where it comes from, we do not really know what the main causes are, and it is pretty much based on guessing. (Ticuna).

Relationship between nutrition and environmental issues

In this element of analysis, leaders were encouraged to comment on the relationship between nutrition and environmental issues. The topics identified revealed an expanded notion of nutrition with a relevant role in the environmental issue, even with some limited suggestions about such a relationship, or, as we will see, the finding that nutrition is unrelated to the debate.

In fact, at several moments, leaders indicated that nutrition does not discuss the topic as it should, and that the theme should be approached in training and guidance for professional performance. In addition, some leaders are insecure about commenting on the topic, while others suggest that there are areas of nutrition more involved with the theme, as shown in the excerpts below:

[...] it is not an issue that is dictated by nutrition. It is not the profile of nutritionists to seek this. [...] That's why I say that in this area (collective feeding) there are more things going on. In other areas, I think the nutritionist should look for this, and I don't see it. (Guarani).

[...] today, I don't have such tacit knowledge of these issues. [...] I think that, in training, we still lack this [...] because of the learning model that we have today. (Caingangue).

[...] we are much more concerned about the food from the outside to the inside of our mouth, and the impact it has on our bodies. I think we think less about the environment, the impact from the outside, what it generates, right? [...] if we do not take a step and understand that we really need to take care of everything that is out here, we are really heading towards the extinction of our race. (Macuxi).

Even with this diagnosis, which is that nutrition needs to understand more and broaden the discussion about its relationship with

environmental issues, the following topics suggest two different types of views about this relationship. The first of them reveals a limited idea about the role of the nutritionist in the environmental issue, in addition to a specific analysis of some elements of the hegemonic food system, such as the use of agrochemicals, in isolation. They are relevant thematic issues in fact; however, if analyzed in an isolated and decontextualized way, they cannot add comprehensively to the complexity of the climate emergency. Let us see the representative excerpts of such topics below:

[...] the issue of agrochemicals. It's a very serious thing. There are several products authorized indiscriminately, even though several studies show that these agrochemicals are harmful to health. (Guajajara).

[...] they [the factories] must be part of some ISOs so that they can be trusted and able to export, for example. So, several brands have an environmental commitment. This environmental commitment governs the entire factory and includes the cafeteria. Regarding the cafeteria, they [nutritionists] are concerned about disposable cups, waste, oil. (Guarani).

On the other hand, most of the leaders' speeches pointed to a broader understanding of the relationship between nutrition and environmental issues, since it is a field extremely involved in the configuration and problems generated by the food system, as illustrated by the following excerpts:

[...] nutritionists work, within their object of action, they work with food [...], from the perspective of the individual's health and collective health. [...] I need to understand how and where this food is produced. [...] If it is produced with slave labor, if it is produced with sewage, if it is produced with poison, if it is produced sustainably, if we are worrying about whether the new and future generations will be able to enjoy this diversity that we still have today. (Yanomami).

[...] Nutritionists do not produce food, but food systems are part of the context in which food practices take place, and I think they have a lot to do with the professional practice of nutritionists, whether it is the food practice of a person [...] in the outpatient clinic, or the practice of people who are eating in a restaurant, [...] or those who are in a school and who are being guided by some educational action. (Pataxó).

Priority of the environmental issue for nutrition

When asked about the level of priority that the environmental issue should receive from the field of nutrition, the leaders suggested both high and medium priority.

High priority was the most evident topic in the speeches of the leaders. However, when commenting on their position, there were arguments that suggested some limit to this, as they considered that there were more important topics than the environmental issue for the field of nutrition. Among those who advocate high priority without establishing limitations, there was an understanding that the environmental dimension is inherent in nutrition. In addition, the defense that training should intensify this debate to expand the conception of nutrition on the subject was pointed out as an alternative in some declarations. The following excerpts seek to illustrate these ideas:

You see, I think it's high priority [...]. But there are other things I see that still have a slightly higher priority than this process, right? [...] I see that there are other things in nutrition that are very specific and that need to be improved, and need some work. (Guarani).

[...] it should be high, as long as it is contextualized. It should make sense in the discussion for all professionals. [...] Because I think one of the issues of training is to make sense of the context as a whole. [...] I talk to the diet therapy teacher. He teaches about cancer and cancer diet. [...] But

he doesn't discuss what has caused cancer. [...]. (Caingangue).

My conception is that food has several dimensions. So, there is the dimension of human rights, the sociocultural dimension, the economic dimension and the environmental dimension. [...] if nutrition does not face this element, it is out of history, it is living at another moment in history. (Pataxó).

It should also be noted that, both among those who advocate high priority and among those who suggest that there are other more important agendas, the idea that the performance of nutrition is based on food and nutritional security and that this concept has, in an intrinsic way, the notion of sustainability and the environmental issue as guides was evoked according to the following excerpt:

[...] this environmental issue walks hand in hand with sovereignty and food and nutritional security. [...] There is no food and nutritional sovereignty and security without encouraging family farming, and family farming cannot be encouraged without working with the agroecological transition. (Yanomami).

A second topic present in this element of analysis argues that the environmental issue does not yet constitute a high priority in the field of nutrition, but rather an average one, moving upwards, without being thoroughly discussed. One of the leaders exemplifies this idea by assuming that "there are other things that we should also be concerned about. So, I will be between medium and high priority" (Ticuna).

In short, it is clear that the leaders interviewed advocate that nutrition should focus on the environmental issue, even with different understandings about the level of priority.

Discussion

The results found in this study reinforce the understanding that the field of nutrition is deeply linked to the environmental issue from the structuring logic of food systems³⁵ and that their national leaders, even with different levels of understanding and prioritization, converge to foster nutrition to add forces to stop environmental destruction in the Anthropocene context.

The perception that climate change represents an urgent global challenge is in line with the debate held worldwide^{47,48}. When seeking to identify the motivations for the high concern with such an emergency, despite not being contained in all the speeches, there is still a strong anthropocentric implication among some leaders.

The anthropocentric view in this context seeks to reverse the environmental impacts for human benefit, in a utilitarian notion towards Nature. To advance in the understanding of our responsibility towards the environmental issue, according to Jonas' premises defended in this work, it is necessary and urgent to delegate to Nature its right and values, and it must be protected, regardless of the utilitarian benefits^{11,13-16}.

For Jonas, assuming anthropocentric reductionism, in which the human being is separated and differentiated from Nature, means nothing more than dehumanizing the human being itself, because "insofar as it generated us, we owe fidelity to the totality of its creation" 10(229). By submitting Nature to the utilitarian appreciation of the human being, economic interests stand out in favor of sustainable development, a concept that had its meaning compromised by the market logic that was attributed to it in recent decades 1,13,15,18.

This element of analysis dialogues with the perception of nutrition leaders that economic and political interests overlap with global interests demanded by the challenges of the climate emergency. Although it is possible to identify some progress in international debates around climate change, there are politically and economically influential actors who suggest maintaining current levels of fossil fuel burning, interfering strongly in global negotiations⁴⁹.

The intention here is not to fall into the trap of the dichotomy between left and right regarding the environmental debate. Even if Marxist theory is efficient in explaining the bases of the alienation of capitalist society from the environmentally and socially harmful model of production^{6,7}, the arrangement of a post-capitalist society assumed by Marxist utopia does not necessarily signal a reduced demand for the exploitation of Nature^{10,50,51}.

Jonas even understands Marxism as more "adequate to the undertaking of an ethics of responsibility" 52(140), if it detaches itself from its utopian character. But it seems prudent in the current global context to choose a new political orientation in the face of the Anthropocene that is not guided by old dilemmas, but seeks to "explore the possibility of channeling certain political emotions in the direction of new objects" 51(11).

Still in this regard, from an institutional-governmental perspective, one cannot ignore the importance of proposals for food and nutrition policies to reverse the current climate emergency⁵³. However, individual or even corporate actions, such as those defended for the field of nutrition in this work, have enormous relevance to affirm the Principle of Responsibility. According to Jonas¹¹⁽⁸⁵⁾,

[...] the big visible decisions, for better or worse, will be made (or not) at the political level. But we can all prepare invisibly the ground for them to begin with ourselves.

In addition, to position the environmental issue in the political context at a global level, there is a need to expand knowledge about the causes and consequences of such problems. In this work, nutrition leaders showed concern about the lack of general knowledge about the topic, especially among the actors that make up the field of nutrition.

There is a lot of interest in spreading misinformation or hiding true information about climate change⁵¹. Thus, debate on the environmental issue should be fostered in the

population context, emphasizing the important role of environmental education, if it is re-signified in addition to simplistic analyses on the subject⁵⁴.

Given its emergency in nutrition, there is no reason why the topic should not be more intensely debated. Nutrition is strongly implicated in current global demands, such as the Global Syndemic²⁷ and Agenda 2030⁵⁵, in addition to several mentions that consider the environmental issue in the guiding documents of the profession^{24,56}.

In this analysis spectrum, leaders also suggested that nutrition tends to neglect its own relationship with environmental issues. Like so many in health, it is a field in which the relevance of biomedical discourse predominates^{40,41}. In nutrition, the ideology of nutritionism⁴³ tends to alienate professionals and the population from a more complex understanding of the food system. This finding also affects the field of nutrition research, since several questions remain unanswered regarding the performance of nutrition to reverse the predatory logic of food systems⁵⁷.

Reversing the logic of agricultural production from the perspective of an ethics for the future was already in Jonas' field of analysis when he elaborated his Principle of Responsibility. The philosopher already questioned the cumulative impacts on Nature derived from the use of agrarian technologies¹⁰. The techniques employed in agricultural production by the food system must therefore be critically opposed and discouraged by nutrition in their field of practice, as they constitute a potential threat to life, as suggested by the analyses of Jonas^{10,11}.

It is important to emphasize that, for the philosopher, while pre-modern technique was characterized by a constancy in technical practice, tending to a balance between need and appropriate means to remedy it, modern technique, to which those used by the hegemonic food system are aligned, breaks with such balance and presents itself as a fruitful object of reflection for not assuming any

level of stability, but always seeking to advance "other steps in all possible directions"¹¹⁽³⁰⁾. The Green Revolution is presented by the philosopher as an example of this conception, since it announces itself as a technological revolution that creates several problems in the field of agriculture, but which are, in theory, remedied by the very technological construct that generated them. The author's logic, still in 1979, seems contemporaneously situated, as shown below:

Monoculture not only reduces a diverse habitat, endowed with a dynamic balance of species, to the presence of a single culture, but it is a domesticated product, artificially homogenized from wild varieties, so that such a culture can only be maintained under artificial conditions of agriculture¹⁰⁽³³⁵⁾.

It seems evident that Jonas' ethics is not consistent with a weak notion of sustainability¹³, in which the role of nutrition would be limited to specific harm reduction actions⁵⁸ but must be projected both in the field of practice³⁶ and training^{37,38}, in favor of the integral understanding and proposition of expanded actions in the face of the food system complexity.

The environmental issue requires urgent action, with high priority. After all, forecasts of the Anthropocene suggest that, in addition to future generations being threatened by current environmental problems, the current generation is already feeling the effects of climate change at the global level, with potential worsening in poor and agriculture-dependent countries⁴⁹. Among the leaders interviewed, the perception that nutrition has priorities other than environmental issues seems to reflect the already discussed misinformation⁵¹ and, at some level, a naive optimism of a considerable portion of humanity the projections of climate change and its consequences.

It is noteworthy, however, that the ethical demand proposed in this work does not envisage replacing the tasks historically given to the field of nutrition, conceived by the principles that guide the performance of the nutritionist in countries such as Brazil⁵⁵ and that, in a way, are already aligned with the cosmological vision expanded before the role of nutrition in society. The intention is that Nutrition recognizes ways to promote adequate and healthy nutrition, therefore, sustainable, beyond its conventional niche of action.

Final considerations

Nutrition, involved with the logic of food systems, needs to recognize, in the Anthropocene context, its responsibility to circumvent the predatory logic with which the hegemonic food system operates.

The findings of this study allow us to state that, at least among leaders in the field of Brazilian nutrition, this responsibility has been assimilated at some level, given the understanding they have demonstrated about the relationship between nutrition and the environmental issue. However, several issues still need to be faced, such as the incipient level of knowledge of nutrition actors about the environmental issue.

It is important to emphasize that this work was constituted from the perceptions of representatives engaged in the field of nutrition, which suggests more advanced levels of understanding of the reality and state of the art of nutrition in the country, and it is not possible to extrapolate such perceptions to all professionals in the area.

As a contribution, we seek to emphasize the importance of Hans Jonas' Principle of Responsibility as an ethical assumption for the field of nutrition, since it uncompromisingly defends life, today and tomorrow, guaranteeing Nature its value by questioning the use of irresponsible technologies that threaten the maintenance of an authentic life on Earth.

Collaborators

Sipioni ME (0000-0003-1536-6374)* contributed to the conception of the work, data collection, analysis and interpretation, writing of the manuscript, and final approval of the version to be published. Andrade MAC (0000-0002-3690-6416)* contributed to the critical review of the manuscript and final approval of the version to be published. ■

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