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Food and Nutrition Education as a strategy to promote Food and Nutrition Security: analysis of actions publicized on social media of non-governmental institutions active in the fight against hunger

Educação Alimentar e Nutricional como estratégia de promoção da Segurança Alimentar e Nutricional: análise de ações divulgadas nas redes sociais de instituições não governamentais atuantes no combate à fome

Abstract

Introduction: Food and Nutrition Education (FNE) is a knowledge area that seeks to promote the autonomous and voluntary practice of healthy eating habits that are key to access the Human Right to Adequate Food. **Objective:** The purpose of this study was to examine and evaluate FNE practices publicized in social media of institutions active in the fight against hunger, critically reflecting how the FNE Reference Framework principles articulate with the actions publicized in these platforms, acknowledging the political importance of this analysis in promoting Food and Nutrition Security (FNS). Along with the study question "In what way educational practices associated to eating, publicized in social media, are in line with political principles in eating?", we used as critical and reflective theoretical support Paulo Freire's pedagogical elements as a base to a transformative education. **Method:** This is a qualitative and exploratory research that has Instagram as the locus of organizations and social movements with public profiles that were selected for the analysis of FNE action posts. **Result:** 24 institutions were found having publicized different educational initiatives and, from FNE principles, we have noticed that, even though there is still some complexity in implementing vegetable gardens and cooking activities - the most recurring educational practices in the study - these actions strengthen local materializations of a universal policy. **Conclusion:** Among all the educational practices possible, we understood that those which promote subjects' belonging and experiences in daily life have a transforming power; reinstating education, specially, nutritional education, as a political act as described in Freire's perspective.

Keywords: Food and Nutrition Education. Food Security. Human Right to Adequate Food. Online Social Media..

Resumo

Introdução: A Educação Alimentar e Nutricional (EAN) é um campo de conhecimento que busca promover a prática autônoma e voluntária de hábitos alimentares saudáveis fundamentais para o acesso ao Direito Humano à Alimentação Adequada. **Objetivo:** O propósito deste estudo foi examinar e avaliar práticas de EAN divulgadas nas redes sociais de instituições que atuam no combate à fome, refletindo criticamente como os princípios do Marco de Referência em EAN se articulam com as ações divulgadas nessas plataformas, reconhecendo a importância política dessa análise para a promoção da Segurança Alimentar e Nutricional (SAN). Com a questão de estudo “De que forma práticas educativas associadas ao comer, divulgadas em redes sociais, estão alinhadas à princípios do campo político da alimentação?”, tomamos por base elementos pedagógicos de Paulo Freire para uma educação transformadora, enquanto suporte teórico crítico-reflexivo. **Método:** A presente pesquisa é de cunho qualitativo, de caráter exploratório, tendo como locus o Instagram de organizações e movimentos sociais com perfis públicos, selecionadas para análise de postagens de ações de EAN. **Resultado:** Foram encontradas 24 instituições que divulgaram diferentes iniciativas educativas e, a partir dos princípios de EAN, percebemos que, ainda que haja certa complexidade na implementação de hortas e atividades culinárias, práticas educativas mais recorrentes no estudo, essas ações fortalecem a materialização local de uma política universal. **Conclusão:** Na miríade de possibilidades de práticas educativas, compreendemos que aquelas que promovem pertencimento e experimentação dos sujeitos no cotidiano da vida carregam a potência de transformação, reafirmando a educação, especialmente, a alimentar, enquanto ato político, como alicerçado na perspectiva freiriana.

Palavras-chave: Educação Alimentar e Nutricional. Segurança Alimentar. Direito Humano à Alimentação Adequada. Redes Sociais On-line.

INTRODUCTION

According to the Universal Declaration of Human Rights,¹ the right to food is fundamental. However, hunger and food insecurity are results of social disparity, consequence of a capitalist system that concentrates and exhausts its means of production, promoting unfavorable social and environmental conditions to access quality food.²

Thus, Food and Nutrition Security (FNS) in Brazil is linked to the Human Right to Adequate Food (RtAF) and Food Sovereignty which refers to being free from hunger and malnutrition when considering access to adequate, healthy, secure and sustainable food for everyone.³

In agreement with the Food and Nutrition Security Organic Law (*Lei Orgânica de Segurança Alimentar e Nutricional*–LOSAN),⁴ enacted in Brazil in 2006 to ensure RtAF, in 2020, the Food and Agriculture Organization (FAO)⁵ defined Food Security in a global perspective based on six key dimensions as set by the High Level Panel of Experts on Food Security and Nutrition. They are availability (production in quantity and quality), access (economic, social and physical), utilization (cultural and biological aspects of nutrition), stability (permanent and continuous access) agency (individual and group autonomy to make choices) and sustainability as food systems viability in the long term.⁵

Even if politically and historically the dimensions that have been built around FNS aim to relieve food insufficiency, studies show its occurrence or permanence in different contexts.^{6,7}

In view of scenarios that reveal hunger – a phenomenon that has to be named as a resistance strategy against the conforming theories and capitalist productions of those who eat,⁵ Food and Nutrition Education (FNE) is seen as one of guidelines of the Brazilian National Food and Nutrition Education Policy (*Política Nacional de Segurança Alimentar e Nutricional* – PNSAN), which aims at building an

[...] area of knowledge and continuous, permanent, transdisciplinary, intersectoral and multiprofessional practice that aims at promoting the autonomous and voluntary practice of healthy habits (p.23).^{8,a}

In this conception, popular, social and community education done through actions by social movements and Non-Governmental Organizations (NGOs) is also a tool that is not usually captured by imposing and one-sided traditional formats in the relationship student-educator, but it rises from experiences and social interaction.⁹

Thus, FNE allows that actions against hunger are not only welfare-oriented, as they have the power to raise individuals' awareness by understanding that nutrition is a right; as well as questioning poverty, hunger, consumption of low-quality foods and issues on social and economic inequalities that generate these conditions.¹⁰ It is just as Contreras & Gracias¹¹ point out the insufficient and cynical character of financial and food aids, as it is necessary to solve the causes of hunger and not only to alleviate its symptoms.

With that in mind, when considering the nine principles of the Food and Nutrition Education Reference Framework (*Marco de Referência de Educação Alimentar e Nutricional* – MREAN),^{8,9} the practices and processes inserted in institutions acting against hunger are – in the purposes of this study – the locus for a critical and reflective approach based on the FNE comprehension as a policy guideline. In this perspective, several

^a Freely translated from the original quote in Portuguese: “[...] campo de conhecimento e de prática contínua e permanente, transdisciplinar, intersectorial e multiprofissional, que visa promover a prática autônoma e voluntária de hábitos alimentares saudáveis” (p.23)⁸.

Brazilian experiences were publicized in 2023 in digital content by the Food and Nutrition Education Innovation Lab (*Laboratório de Inovação em Educação Alimentar e Nutricional – LIS-EAN*).¹²

In accordance with the topic presented herein, the technology advancement and the rise of social media have become spaces for the nutrition area and its practices. It is possible to strengthen connections between several subjects through communication tools, encouraging sharing experiences that are not necessarily limited to a region or social group; making it possible to bring global and local closer together with new ways of social participation and mobilization.¹³

Social media are a new communication and learning tool and a space for collective construction of knowledge by the interaction of its participants.¹⁴ They allow the disclosure and democratization of ideas and favor social engagement, as well as they also allow reporting the reality of certain population groups,¹⁵ such as those stricken by food insecurity. Information can reach a wider audience through the internet, leading to new ways of participation by the society. Thus, social movements find in social media a new space that can corroborate towards their political organization.¹³

The purpose of this study was built from the perspective of taking a step back from the idea of fatality to explain social phenomena such as poverty and hunger. In this sense, Freire¹⁶ establishes "dreams, utopia and social justice"^b as possibility of putting a magnifying glass over issues that were made invisible and thus allowing the subject, through education "to be in the world, (re)transforming this world and not adapting to it"^c (p.50).¹⁷ Therefore, the issue at hand is how educational practices involving food and eating in underprivileged social settings are connected to the possibility of obtaining the RtAF to all?

The purpose of this study was, therefore, to identify and analyze FNE practices publicized in the social media of institutions working against hunger in order to ponder how MREAN's principles are articulated to the publicized activities, acknowledging in this analysis a theoretical and political relevance for Food and Nutrition Security.

METHOD

Food and Nutrition Education and Paulo Freire: theoretical reference for a critical and reflective approach on the Education area

FNE was outlined by the Food and Nutrition Education Reference Framework (MREAN),⁸ repositioning it in the health and education public agenda.¹⁸ This guideline is based on the perspective of a popular education, according to Paulo Freire,¹⁹ when considering an educational, questioning, dialogic process based in subject autonomy and built by their own knowledge.²⁰ Such conception has offered theoretical scientific support to go beyond a more traditional view of the Nutrition/Health area, which has the practice of narrowing food down to biological aspects.²¹

When considering that it is in the territory that social groups set their customs and practices around eating, it is equally considered as the place to exercise freedom over their own food production, distribution and consumption strategies according to their traditions and cultures.³

Thus, from a popular, social and community education stance, FNE can have a transformative role when seeking to change social realities and structures by stimulating the critical capacity concerning food.²² Due to its cross-cutting quality, it has the potential of connecting to a revolutionary education, that being in line with

^b Freely translated from original quote in Portuguese: "*os sonhos, a utopia e a justiça social*"

^c Freely translated from original quote in Portuguese: "*ser no mundo, (re)transformando este mundo e não se adaptando a ele*" (p.50).¹⁷

to Paulo Freire's pedagogy supports a questioning education,²³ which aims at transforming a world that mostly and hegemonically provides nutrition structured by the industry and large markets.^{24,25}

In this sense, FNE is placed in an area of pedagogical meaning that encompasses scientific knowledge and community wisdom, valuing nutritional culture and respecting social aspects of nutrition.⁹

The principles guiding FNE actions have the power to widen the perception of its functionality in many scenarios and allow planning and execution through different paths.¹⁸ Such principles are sustainability, food systems, food culture valorization, valuing cooking as emancipatory practice, autonomy and selfcare promotion, acknowledgement of education as a permanent process that generates autonomy, diversity in practice scenarios, intersectoral factor, planning and evaluation of FNE actions.⁸

This is a qualitative, exploratory and interpretative study based on Education theories on critical and transformative education in order to contribute to an analytical reflection of FNE practices in promoting Food and Nutrition Security. In view of the FNE concept that is presented by the Reference Framework⁸ as transdisciplinary aiming to promote individuals' autonomous practices of healthy eating habits and that must use educational resources that propose questions; we have turned to the ideas proposed by Paulo Freire in *Pedagogy of Autonomy*,¹⁹ *Pedagogy of the Oppressed*¹⁷ and *Daring to dream: toward a pedagogy of the unfinished*.¹⁶ These are ideas that go against the idea of a "banking education", where there is a one-sided transmission of knowledge from the educator to the student; but they propose a critical education that enables building knowledge, values the students' experience and allows students to see themselves as active subject of their education process and agents of their transformation and of the transformation of their world.¹⁹

Institutions that work against hunger: the research locus

The research was carried out in the digital environment, namely, social media – free access and public Instagram (IG) profiles of social organizations and movements involved in actions against hunger and in defense of FNS. This information and data source was chosen due to its capillarity in reaching different audiences in the digital tool, as well as for its imagery and written language characteristics, combined with the idea of Instragramization of life, as a process that, according to Bentes,²⁶ aims at giving visibility to realities in rehearsed forms of oneself that are thoroughly selected according to an entrepreneurial culture and carefully produced to be publicized.

Martins¹⁴ believes that researches in the digital universe bring different registers of the contemporaneous daily life, making way for new spaces to think the Health area as multidisciplinary. Thus, we understand that when posting about food and FNE activities, the institutions studied here in do it for more than aesthetical reasons, even if this element is present as an IG attribute. They do it as registers of their world reading, concept defined by Paulo Freire that makes reference to the comprehension of individuals and popular groups of their presence in the world, the wisdom of experience that precedes the wisdom of word.¹⁹

The research was carried out in social media due to the easy access to what is publicized by institutions in order to search for the existence of FNE practices used by organizations against hunger and to promote FNS. Therefore, there is a possibility of transforming social realities. We have associated food practices publicized in social media with MREAN principles in order to establish what would be defined as FNE practices.

For the purpose of identifying possible Instagram profiles, a preselection was carried out in two digital platforms with descriptors associated to hunger and food insecurity. The website Atados,^d a volunteering platform in which the topic "fight against hunger" was selected and it generated a list of organizations involved. And the website Civil Society Organizations Map (*Mapa das Organizações da Sociedade Civil*),^e in which the following Sustainable Development Goal (SDG) was selected: "end hunger, achieve food security and improved nutrition and promote sustainable agriculture". Then, a list of institutions active in this sector was created.

After, the researchers created an Instagram profile exclusively for the purposes of this study. It had no photos, bio, followers or posts. It was created so the research activities would be carried out through it. In doing so, the possibilities of any personal profiles influencing the results were mitigated.

So, with the purpose of verifying the profile existence of the previously selected institutions in the abovementioned websites, we conducted a search on Instagram with the names of these institutions. To add new pages of NGOs who fight against hunger and in defense of FNS in Brazil, hashtags (#) were used. By using the hash sign (#) in association with keywords that resulted in the following terms: "#foodsecurity", "#fightagainsthunger", "#foodsovereignty" and "#foodandnutritioneducation". The selected profiles inclusion criterium was based in the bio description exhibited in the IG pages seen, considering mentions in this section to the following topics: food, eating, hunger, food waste and others related.

Collection proceedings and organization

Then, from April to October 2022, a survey was conducted in each profile in order to analyze the content of posts made by each organization during this period that discussed nutrition and related topics, in accordance with the bio topics. We identified the post date and wrote the content of images, whether they were photos, videos or digital art. We also copied the descriptive text of each post. The posts found were saved and characterized according to the principles presented in the Public Policies Food and Nutrition Education Reference Framework (*Marco de Referência em Educação Alimentar e Nutricional para Políticas Públicas*), so we could verify any feasibility of the publicized FNE actions. The exclusion criterium was defined as institutions that had made public in their media exclusively welfare-oriented activities such as the donation of food baskets or ready-to-eat foods.

To analyze the data, a spreadsheet was made and divided into columns with the profile's name and the organization's bio on IG, the FNE actions verified in the posts and the related FNE principles.

The research used data from public Instagram profiles, therefore it was not necessary to undergo the Ethics Committee.¹⁴ Even so, ethical criteria were considered in protecting the subjects against having their names and images exposed as no sensitive or identifiable data were collected in addition to what was already publicly exposed.

RESULTS AND ANALYSIS

Initially, 38 institutions were found on Instagram that we understood as working in nutrition and food security. However, 14 among those were characterized by welfare-oriented activities and did not have an evident practice of educational activities concerning food. Therefore, for the purposes of this study, all the posts of 24 organizations that posted on their social media FNE-oriented work in a scenario of food security and protection, within the research timeframe were read and analyzed. The list of the institutions selected for the study is in Table 1.

^d <https://www.atados.com.br/>

^e <https://mapaosc.ipea.gov.br/>

Table 1. List of institutions searched on Instagram and actions selected.

Organizations	Instagram Profile	Posted FNE Actions
I.Ação Da Cidadania;	@acaodacidadania	Cooking classes.
II.ACT Promoção Da Saúde;	@insta.act	FNE educational actions; Advocacy actions.
III.Agrofavela Refazenda;	@agrofavela_refazenda	Community garden actions.
IV.Aliança Pela Alimentação;	@aliancaalimentacao	Advocacy actions; Food activism actions.
V.CREN Centro De Recuperação Infantil;	@cren.org.br	FNE educational actions.
VI.Favela Orgânica;	@favela_organica	Cooking classes, Education on how to use all edible parts of the food; Community gardens.
VII.FIAN Brasil;	@fianbrasil	FNE educational actions; Advocacy actions.
VIII.Gastromotiva;	@gastromotiva	Cooking classes, Education on how to use all edible parts of the food; Campaigns against food waste.
IX.Gente É Para Brilhar	@gente.prabilhar	Food activism actions; Promoting community gardens; Promoting agroecology.
X.Instituto Brasil A Gosto;	@institutobrasilagosto	Publicizing Brazilian culture recipes; Valuing food culture.
XI.Instituto Brotar;	@institutobrotar	Community garden actions.
XII.Instituto Maniva;	@institutomaniva	Cooking classes; Promoting agroecology; Valuing food culture.
XIII.Instituto Mãe Terra;	@maeterra.org.br	Community garden actions.
IV.Movimento Camponês Popular Brasil;	@mcpbrasil	Promoting agroecology; Valuing food culture.
XV.Mesa Brasil Sesc São Paulo;	@sescmesabrasilsp	Campaigns against food waste and cooking classes.
XVI.MST;	@movimentosemterra	Promoting agroecology; Promoting organic agriculture; Defense of family agriculture and agrarian reform.
XVII.O Joio E O Trigo;	@ojoioeotrigo	Disclosure of information on food and food systems; Food activism.
I.Observatório Da Alimentação Escolar;	@observatorioalimentacaoescolar	Advocacy actions; Research and disclosure of data on food.
XIX.Ong Banco De Alimentos;	@ongbancodealimentos	Campaigns against food waste and cooking classes.
XX.Oxfam Brasil;	@oxfambrasil	Advocacy actions; Research and disclosure of data on food.
XXI.Projeto De Ponta A Ponta	@projetodepontaaponta	Promoting family agriculture and agroecology.
XXII.Stop Hunger Brasil;	@stophungerbrasil	Cooking classes; Educational actions; Work with community gardens.
XXIII.Umbúntu Alvorada - RS	@umbuntualvorada	Community gardens.
XXIV.Xepativismo	@xepativismo	Disclosure of information on food and food systems; Food activism.

Throughout the research, the authors have felt the need to classify the FNE action types in accordance with the most evident characteristics in the posts. This has generated the categories which are identified in the text with the seven first letters of the alphabet: (A) Community gardens and composting; (B) Cooking classes and gastronomy technical courses; (C) Agroecological markets; (D) Distribution of agroecological food; (E) Food activism;²⁷ (F) Advocacy actions;²⁸ and (G) Production of educational material and basic educational actions (Table 2).

Table 2. Types of FNE actions publicized on the institutions profile and the corresponding MREAN⁸ related principles.

Type of FNE actions	Description of FNE actions	FNE principles, according to MREAN ¹
A. Community gardens and composting.	Development of the individual's autonomy as to producing ones food, raising awareness on healthy nutrition, cooperating for a critical analysis of the food industrial production and sensitization for sustainability.	Social, environmental and economic sustainability; Food system approach as a whole; Education as a permanent process that generates autonomy.
B. Cooking classes, gastronomy technical courses.	With focus in the use of all parts of the food, in fighting against waste, in valuing regional culture, in personal development and entrepreneurship.	Valuing food culture; Valuing cooking as an emancipatory practice; Promoting selfcare and autonomy.
C. Agroecological markets	Purpose of disseminating agroecology as a sustainable way and valuing family agriculture as a socially and economically fair way of producing food, valuing national and unconventional ingredients, including defending creole seeds.	Social, environmental and economic sustainability; Food system approach as a whole; Valuing food culture and respecting diversity.
D. Agroecological food distribution	Family agriculture food distribution, allowing cooperation between the rural producers and people in need, making access to healthy food easier; Distribution of agroecologically produced food baskets. In this case the distribution was not purely welfare-oriented. There was an ideologic, educational and cooperative drive.	Social, environmental and economic sustainability; Food system approach as a whole; Valuing local food culture and respecting diversity; Education as a permanent process that generates autonomy.
E. Food activism	By publicizing and raising popular awareness on healthy nutrition, food waste, the drawbacks of industrial agriculture and the use of pesticides and fostering forest farming and family agriculture.	Food system approach as a whole; Social, environmental and economic sustainability; Intersectoral factor.
F. Advocacy actions	With the purpose of fostering public policies in defense of FNS such as, research production in nutrition area, communication activities on the impact of industrial food in health, the environment and social and economic relations and social mobilization for enforcement of FNS public policies.	Intersectoral factor; Action planning, evaluation and monitoring.
G. Production of educational material and basic educational actions	Courses, workshops and lectures on healthy nutrition, audiovisual production on food culture and preparing a book of traditional recipes.	Education as a permanent process that generates autonomy; Valuing cooking as an emancipatory practice; Intersectoral factor.

The educational actions selected on the profiles on screen were associated to at least one of the nine principles of FNE (Table 2) that are in the Reference Framework.⁸ In that regard, we aim at understanding – from a theoretical and reflexive basis in Education – how FNE actions are closer to the fight against hunger and for the consolidation of the RtAF.

The first principle refers to social, environmental and economic sustainability, where FNE actions leverage approaches in which individual and collective food can be thought in the short and long terms, without sacrificing the planet's natural resources and with an economically fair commerce.⁸ Among the actions found under this principle, the community gardens^(A) and cooking workshops^(B) stand out as their scope is using all parts of food.

In this sense, it is necessary to ponder if cooking and cultivating a vegetable garden would be powerful actions located "between doing and thinking about doing".^{19,f} The kitchen to prepare all the delicious treats, or a green area destined for growing the (future) food would be places for exercising an educational practice *that surpasses a naive knowledge and encourages a knowledge produced by the apprentice himself together with the formative educator in face of his curiosity?*¹⁹

According to Coelho & Bogus,²⁹ community gardens make a participative learning environment feasible, sparking curiosity on the origin of each food and establishing a new relationship with nutrition. For Costa,³⁰ the vegetable gardens create a space of community organization, strengthening social bonds, valuing local culture, creating jobs and promoting individual and collective empowerment, especially in the most fragile populations who are more vulnerable to food price fluctuations, thus being an important alternative for FNS.

Under this participative and integrative view of a vegetable garden, we highlight Gadotti's³¹ perception - inspired by Madalena Freire - when reflecting on the dialectic between affective and cognitive, in which he highlights that "the subject is capable of building their knowledge living in the here and now"⁸. An education driven by an educational activity that sows, waters and harvests food transcends a banking education – as defined by Freire. It actually has the power to raise awareness to political and citizenship issues.

Practical actions in community gardens allow to work with several principles for FNE actions, such as social, environmental and economic sustainability; food system approach as a whole; meals and food as reference; promoting selfcare and autonomy; education that created active participation; and the diversity of practice scenarios.²⁹ Freire¹⁶ emphasizes the importance of creating alternative ways to work in the educational practice, on which he says:

[It] is not the only path toward the social transformation necessary for conquering human rights; however, without it, I believe, there will never be social transformation.(p.50).^{16,h}

Implementing vegetable gardens has been a fundamental strategy in educating subjects, whether it's in institutional and systemic educational environments, such as schools, or in environments promoting non-degree training such as cooperatives or associations. In a work published in 2014,³² School Gardens in the Federal District (*Hortas Escolares no Distrito Federal*), the authors point out that 37.7% of the Federal District

^f Freely translated from original quote in Portuguese: "*entre o fazer e o pensar sobre o fazer*".¹⁹

⁸ Freely translated from original quote in Portuguese: "*o sujeito é capaz de construir seu conhecimento vivendo o aqui e o agora*"

^h Freely translated from original quote in Portuguese: "*Não é o único caminho à transformação social necessária à conquista dos direitos humanos, contudo acredito que, sem ela, jamais haverá transformação social.*(p.50).¹⁶

schools had vegetable gardens, and the main reason for that was to supplement school nutrition and its use as an educational space to promote healthy nutrition. Coelho & Bogus³³ describe the view of educators from Embu das Artes, in the State of São Paulo. Their impressions on how implementing vegetable gardens as educational practices results in a space of care, building bonds through active participation of educators and students in a horizontal relation where everyone could contribute with their knowledge and experiences.

According to Bourdieu,³⁴ every pedagogical action is an imposition between dominant and dominated classes, characteristic of a school system where reproducing (structures and relations), in the words of the author, ensures a *symbolic violence*.³⁴ In this sense, a vegetable garden has in itself the power to break free from a historic way of teaching in a hierarchical, imposing and one-sided relation of knowledge transmission. Freire¹⁷ talks about banking education, where the educator, as depositor, fills their students with content, as depositaries, and such students can only receive, memorize and store it.

A vegetable garden and its identity for representing a local knowledge integrated to climate conditions will hardly ever not be authored by a social group. So its existence can be a source of pedagogical actions connected to vast popular wisdom and knowledge areas that stimulate a formative process beyond *reproduction* as it takes on a transformative logic.

The food system approach in its integrality involves questioning all the food production chain, from access to land and water, to the means of production, processing, distribution and commercialization. It involves the choice and consumption of food and the destination of its waste.⁸ There have been found actions as raising awareness against food waste,^(B,E) raising awareness and activism for the agroecological cause,^(E) agroecological markets^(C) and actions of distribution of family agriculture production in vulnerable areas.^(D)

In view of *conscientization* practices it is worth pondering upon what Freire¹⁷ calls "conscientization method". Far from the intention of systematizing an educational model, the educator has a critical and reflexive approach that places an object (such as the FNE actions) as the constitution of conscience intentionality, capable of giving subjects the opportunity to "(re)discover oneself through reflective recapture of the process itself in which one can discover, manifest and configurate oneself" (p.10).^{17,i} In this way we realize that conscientization actions do not need to carry in themselves the idea of a banking education, in the contrary, "if the conscience distances itself from the world and objectifies it, it is because its transcendental intentionality makes it reflective"(p.10).^{17,j}

Actions that work with cooking^(B) in courses or in publicizing recipes^(G) deserve mentioning. They deal with different principles such as valuing local food culture and respecting opinion and perspective diversity. They also consider the legitimacy of different wisdoms and allow the diffusion of food culture in the country regions, as well as approaching meals and food as reference and cooking valorization as an emancipatory practice.

For Castro et al.,³⁵ through cooking it is possible to experience and reflect about the relations between food, culture and health as it is a social practice full of symbolism, history and identity, not restricted to the food nutritional characteristics. It allows the food topic to be concretely dealt, inserted in the student's reality, making it possible to build solutions for food related needs.³⁵ According to Garcia & Castro,³⁶ cooking is a social practice that gathers individual and collective, traditional and creative, cultural and affective flavors that allow to exchange experiences and a wider learning on food and nutrition. Menezes & Maldonado³⁷ add that

ⁱ Freely translated from original quote in Portuguese: "(re)descobrir-se através da retomada reflexiva do próprio processo em que vai ele se descobrindo, manifestando e configurando" (p.10).¹⁷

^j Freely translated from original quote in Portuguese: "se a consciência se distancia do mundo e o objetiva, é porque sua intencionalidade transcendental a faz reflexiva" (p.10).¹⁷

cooking is a strategic tool for FNE that articulates scientific and daily life knowledge, theory and practice, concepts that Freire¹⁹ also points out when he says that "the cooking practice prepares newcomers"^k (p.12), changing and widening his knowledge.

Cooking classes also include the principle of promoting selfcare and autonomy. The *Dietary Guidelines for the Brazilian Population (Guia Alimentar para População Brasileira)*³⁸ highlights the importance of developing cooking skills and how the process of losing these skills results in a higher consumption of ultra-processed foods – therefore, in a nutrition that has been associated with weight gain and other unhealthy parameters.^{24,39}

Oliveira and Castro⁴⁰ point out the importance of cooking autonomy, defined as the capacity to think, decide and act in regard to preparing meals to ensure access to an adequate and quality nutrition that is minimally processed. For such, the agent's intention is not enough. It requires the availability of different resources under different influences, from cooking knowledge, to a basic kitchen infrastructure, access to fresh foods, existence of social security, promoting of gender equity, incentive to agroecological based agriculture and ensuring the human right to adequate food.⁴⁰

Food activism^(E) so present in social media and used by several non-governmental organizations has the purpose of pressuring governments in favor of FNS policies, but also educating the population, acting according to the principle of education as a permanent process that creates autonomy and active and informed participation of subjects. Food activism can be understood by people's discourses and actions or groups with the purpose of criticizing the current dominant food system in order to make it more democratic, sustainable, healthy and ethic. The following are topics which are normally present: defense of food security and fight against hunger, publicizing agroecology as a sustainable way to produce food,^(D) the search for creation of markets for family agriculture production, organic foods publicizing and the fight against pesticides in industrial agriculture.²⁷

On the page named "Xepa Ativismo",^l there are several posts that publicize defending the human right to adequate food and the fight against hunger. As an example, on July 23rd, 2022, a picture of an airplane spreading pesticide and the title "*Brasil Sem Veneno*" ("Poison Free Brazil") presents in its caption a text requesting readers to join the fight for an agricultural production without pesticides, as transcribed below:

For those of you in São Paulo, starting at 11:00 a.m., at Armazém do Campo (@armazemdocampo.sp), there will be the launch of the series Poison Free Brazil, "a feat worth millions" by the folks at @ojoioeotrigoe@deolhonosruralistas, that will show the impacts on health of pesticides, the stories of persecution to researchers on the topic and a never-seen-before mapping of legal initiatives and social movements in the fight against poison. Don't miss it!! (Source: @xepativismo, July 23, 2022).^m

^k Freely translated from original quote in Portuguese: "*a prática de cozinhar vai preparando o novato*" (p.12)

^l <https://www.instagram.com/xepatativismo/?hl=pt>

^m Freely translated from original quote in Portuguese: *Para quem estiver em São Paulo, a partir das 11h vai rolar no Armazém do Campo @armazemdocampo.sp, o lançamento da série de reportagens Brasil Sem Veneno, "um feat de milhões" da galera do @ojoioeotrigoe e @deolhonosruralistas, que vai mostrar os impactos à saúde causados pelos agrotóxicos, as histórias de perseguições a pesquisadores do tema e o mapeamento inédito de iniciativas legislativas e de movimentos sociais na luta contra o veneno.*

It is thus constituted a movement in defense of rights in regard to secure nutrition and in defense of a fairer world where food is an element that connects several possibilities of a better future.⁴¹ Maybe it is in this sense that Freire talks about

utopia as a fundamental necessity of the human being [for] every tomorrow, that is thought about and which is fought for, necessarily implies the dream and the utopia (p.77)^{16,n}

The intersectoral factor and the diversity in the practice scenarios as principles are present in all FNE practices and encompass all complexity that involves food and its economic, social and environmental issues. The intersectoral factor involves co-responsabilization of different sectors of the government and society by ensuring adequate and healthy nutrition.⁸ The several institution founds developed FNE actions within scopes turned to health, agriculture, and food security areas, in addition to education. The actions found also included several social segments, children, women, agricultural workers, consumers and educators, characterizing the diversification of activities in different practice scenarios.

Lastly, for the principle of planning, evaluating and monitoring that must precede, follow and evaluate the FNE actions in any educational practice proposal, there are contributions produced by organizations that act as inspectors of the public power and big food industries. They propose change in the current food system through advocacy actions,^(f) influencing the constitution of policies for food security and fighting against hunger and reporting infractions or injustices committed by large corporations of the food industry. The Observatório da Alimentação Escolar institution^o posted on their Instagram page in June 9, 2022:

Observatório da Alimentação Escolar presents proposal for electors and candidates to elections in federal and state spheres that can help ensuring the right of all students to adequate food.

The document is result of a joint action of civil society and social movements and points out the importance of the National School Nutrition Program (*Programa Nacional de Alimentação Escolar – #Pnae*), main policy for ensuring the human right to adequate food and nutrition (*#Dhaa*), specially for children and adolescents. (Source: @ÓÂÊ – Observatório da Alimentação Escolar, June 9, 2022).^p

Food political bias was also expressed in several posts, for example the posts with the following titles: "Eating is a write" ("*Comer é um direito*"), "School food is a right" ("*Alimentação escolar é um direito*") e "Social organizations together for the fundamental right of the people to eat" ("*Organizações sociais unificadas pelo direito fundamental do povo se alimentar*"). These were posted by different institutions on their social media with the purpose of publicizing a political cause. Along the same lines and according to Paulo Freire's

ⁿ Freely translated from original quote in Portuguese: "*utopia como uma necessidade fundamental do ser humano [pois] todo amanhã, sobre que se pensa e para cuja realização se luta, implica necessariamente o sonho e a utopia*" (p.77)¹⁶

^o <https://www.instagram.com/observatorioalimentacaoescolar/?hl=pt>

^p Freely translated from original quote in Portuguese: "*Observatório da Alimentação Escolar apresenta propostas para eleitoras/es e candidatas/os às eleições nos âmbitos federal e estadual, que podem ajudar a garantir o direito de toda e todo estudante a se alimentar adequadamente.*

O documento é fruto de uma ação conjunta entre organizações da sociedade civil e movimentos sociais e aponta a importância do Programa Nacional de Alimentação Escolar (#Pnae), principal política para a garantia do direito humano à alimentação e à nutrição adequadas (#Dhaa), especialmente de crianças e adolescentes. (Fonte: @ÓÂÊ – Observatório da Alimentação Escolar, 9 jun. 2022)."

principles, education also has a political character once the act of educating has a *directiveness* that, as per the author, demands the educator to hold an impossibly neutral position.⁴²

Thus, these institutions seek to connect themselves to users on their media. In addition to informing them, the publicized discourses are an invitation of some kind so that together they can fight for a fairer world. In the words of Paulo Freire, in *Pedagogy of the Oppressed*:¹⁷

"To the oppressed, and to those who suffer with them and fight at their side." (p.15).^{17,q}

CONCLUSION

Food and Nutrition Education as a vast and multidisciplinary knowledge section gathers several areas of knowledge. However, this complexity can be a challenge in implementing effective educational practices. According to Paulo Freire's line of thought, FNE can be materialized in Popular Education by making it a critical, questioning and transformative education, considering the legitimacy of the different natures' wisdoms and building the idea of change to a fairer world, understanding that "it is not the discourse that validates practice; it is practice that gives life to discourse."^{43,r}

In the scope of this research, organizations' social media showed actions that are in line with the principles proposed by FNE for Public Policies' Reference Framework, tending towards a more active participation of subjects in seeking the Human Right to Adequate Food.

Supported by that, in a way, we attributed it to what Freire calls "pedagogy of desire", a political desire that seeks to denaturalize an event as poverty or hunger through a social and historical comprehension, distancing itself from fatalism as explanation of social phenomena. In this context, FNE remains a powerful political guideline in producing a tomorrow nourished by the utopia that there would be no more *hungry people*;^{s,t} standing out within an agenda that promotes FNS seeking to ensure access to adequate and quality nutrition, aiming at reducing social inequalities, especially among the most socially vulnerable groups.

The contribution of this study is directly related to the fundamental role of social media in promoting Food and Nutrition Security. Analyzing the use of these platforms to disseminate Food and Nutrition Education practices, the study shows how they can act as accessible and efficient tools in spreading information and in social mobilization. The research reinforces the idea that FNE, in addition to being an educational area, constitutes a transformation instrument capable of engaging several actors in building a more equitable, informed and participative society. The democratization of knowledge on food and nutrition through social media widens the reach of those practices, allowing a diverse audience to access essential information on FNS. This fosters individuals nutritional empowering and autonomy, in addition to contributing to effectively ensuring the Human Right to Adequate Food, strengthening the fight against hunger and nutritional and food insecurity.

^q Freely translated from original quote in Portuguese: "*Aos esfarrapados do mundo e aos que nele se descobrem e, assim, descobrindo-se, com eles sofrem, mas, sobretudo com eles lutam* (p. 15).^{17"}

^r Freely translated from original quote in Portuguese: "*não é o discurso que válida a prática, é a prática que dá vida ao discurso*".⁴³

^s Quote from an excerpt of Ney Matogrosso's song "*Tem Gente Com Fome*" ("There are people who are hungry"), of 1979.

^t Freely translated from original quote in Portuguese: "*gente com fome*".

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