Dietary guidelines for Brazilian population: an analysis from the cultural and social dimensions of food

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Abstract This article analyzes the social and cultural dimensions of food addressed in the dietary guidelines of the second edition of the Dietary Guideline for the Brazilian Population (DGBP) in contrast to its first edition. This is a qualitative study. We employ the Pecheutian discourse analysis. The study universe is the first and second edition of DGBP. Data analysis used three steps: identification of similar and different texts of these materials; elucidation of the social and cultural dimensions of food in these materials; and systematic analysis with contrasting emerging discourses in both DGBPs. We emphasize that in the second edition the theoretical references—epidemiological, clinical, sociological, anthropological studies, and popular knowledge—and the use of the NOVA food classification favored the development of more holistic dietary guidelines that address food and eating patterns, culinary practices, the act of eating and the commensality. It is concluded that the second editions of DGPB allows health professionals and the population an understanding of food as something concrete in the life of individuals and collectivity, extrapolating its physiological and biological dimension.

Key words Food-based dietary guidelines, Healthy eating, Cooking, Commensality, Traditional food

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Introduction

Food-Based Dietary Guidelines (FBDG) are defined as instruments that express the principles of food and nutrition through practical messages in order to educate the population, and guide public food and nutrition, health, and agricultural policies¹. In Brazil, the experience with FBDG is embodied in two editions of the Dietary Guidelines for Brazilian Populations (DGBP) published in the years of 2006² and 2014³. The DGBP aims to provide guidelines for people carrying out eating practices appropriate to biological, socio-cultural and sustainable environment use, with a view to the prevention of Chronic Noncommunicable Diseases (NCDs) and the reduction of associated comorbidities⁴.

In a comparative analysis of the 2006 and 2014 DGBPs, Oliveira and Amparo-Santos⁵ highlight that the adoption of the NOVA food classification enables the development of dietary guidelines that consider the limitations of nutritional discourse and incorporate sociocultural and socio environmental discourses. It also evokes pleasure in eating, diversity of eating habits and encourages culinary practices in order to promote healthy and adequate eating (PHAE). Monteiro et al.6 show that dietary guidelines of the second edition of DGBP identify the biological, behavioral, cultural, socioeconomic, and environmental dimensions of eating in the context of food patterns which are based on fresh or minimally processed foods. In turn, Davies et al.7 considered that the second edition of the DGBP innovates by giving more value to the context of food consumption, to socio-cultural values of the act of eating and to the different forms of knowledge and the autonomy of individuals.

Among the aforementioned articles, two used qualitative scientific methods^{5,7} and one carried out a comparative analysis of the first 2006 and 2014⁷ DGBPs. Despite spotlighting the importance of the social and cultural dimensions of the second edition of DGBP⁵⁻⁷, no article deepened the discussion on this topic. Thus, this article addresses the literature gap in qualitative and comparative studies of the social and cultural dimensions of food expressed in the DGBPs' dietary guidelines. The objective is to analyze the social and cultural dimensions of eating addressed in the dietary guidelines of the second edition of the DGBPby contrasting it with its first edition.

Methods

A qualitative study was conducted using the Pecheutian discourse analysis in order to understand the similarities and disparities related to the discourses of the social and cultural dimensions of food in the DGBPs. The research universe is the first and second edition of the DGBP (hereinafter "DGBP 2006" and "DGBP 2014"). The corpus was established through the following: floating reading examining the index, images and texts written in the two DGBPs; in-depth reading characterized by the search for themes or subjects in the indexes, images, and written texts with the identification of the discursive sequences that express the social and cultural dimensions of food; selection of discursive sequences by two researchers with experience in qualitative research; and organization of the discursive sequences in a matrix for analysis with explanation of the document title, chapter, page, discursive sequence, and convergences and divergences between the discourse8.

The analysis of the data followed the steps proposed by Pêcheux⁹: identification of similar texts that contained a discursive equivalence to the DGBP of 2014 and 2006; elucidation of the discursive sequences that expressed the social and cultural discourses of food; systematic analysis of the discursive sequences that express equivalence or disparities in the speeches between 2006 and 2014DGBPs. Finally, a matrix related to the context of the production of materials, the principles of the DGBP, the classification of the foods used, and the dietary guidelines contained in the materials was obtained.

Results and discussion

Theoretical framework

In the DGBP of 2006, the epidemiological and clinical studies that sought to relate foods, food groups, and nutrients to the reduction or increase of the risk of occurrence of NCDs were the main theoretical framework. Fardet & Rock¹⁰ suggests that the theoretical framework of this nature can generate dietary guidelines, which are more focused on nutrients and other components of food in detriment of traditional foods, and meals that are endowed with historical, so-

cial, and cultural meanings that influence eating behaviors.

In its theoretial frameworks, the DGBP of 2014 incorporated sociological, anthropological and popular knowledge into epidemiological, and clinical studies. The incorporation of theoretical framework from the humanities represents an attempt to encompass the multidimensional nature of food, the complexity of the individuals' lives and their interaction in society¹¹. Such expansion can be seen in the photographs of the 2014 DGBP which present food in a more realistic way by showing the act of eating, social groups, family relationships, commensality, and local or regional foods (for example, tapioca, couscous, polenta, beans, feijoada).

Food classification systems

In 2006 DGBP, the food classification system was similar to the American food pyramid but adapted to the Brazilian reality. In it, foods were organized into food groups according to their nutritional or biological characteristics12. The food groups were cereals, roots, and tubers; fruits and vegetables; milk and its derivatives; meat and eggs; beans and other protein-rich foods; oil and fat; and sugars and sweets. In addition, this material uses the concept of food portions that corresponds to the average amount of food that should be consumed in terms of energy and nutrients by a healthy individual¹³. Both concepts supported the dietary guidelines that encourage healthy eating consisted of three types of basic foods:

1) Foods with a high concentration of carbohydrates, such as grains, breads, pasta, tubers, and roots; 2) Fruits and vegetables; and 3) Vegetable foods rich in protein (particularly whole grains, legumes and seeds and nuts)².

It is noticed that the approach to healthy eating in the DGBP of 2006 is focused on nutrients and biochemical components of food, disconnected from the complexity of daily life, food environments, and the broader health model⁵. Differently, the 2014 DGBP adopted the NOVA food classification based on the nature, extent and purpose of food processing before the acquisition, preparation, and consumption of food⁶. In this classification, foods are grouped into unprocessed or minimally processed foods; processed culinary ingredients; processed foods; and ultra-processed foods⁶. The material does not use the concept of food portion or any other way of quantifying food. The dietary pattern

then comes from the consumption of a variety of unprocessed or minimally processed foods, contextualized in traditional meals and the Brazilian culinary preparations.

Unprocessed or minimally processed foods are valued in response to the increased impact of consumption of ultra-processed foods on Brazilian morbidity and mortality profiles. Between the period of 2000 to 2013, sales of ultra-processed foods increased by 30.6%14. In 2008-2009, the Consumer Expenditure Survey (POF) recorded a decrease in the consumption of traditional Brazilian foods reflected in rice, beans, and cassava. On the other hand, it expressed an increase in the consumption of ultra-processed foods such as cookies, sausages, soft drinks, ready meals, and industrialized mixtures¹⁵. According to Louzada et al.16 21.5% of the average daily energy consumption of Brazilians comes from ultra-processed foods. On the other hand, growing scientific evidence links the increase in consumption of ultra-processed foods to the increase in obesity and NCDs in Brazil^{17,18}. In contrast, studies show that a traditional diet based on unprocessed or minimally processed foods has significant health benefits and it is also protective against NCDs^{19,20}.

The principles of the dietary guidelines

In the DGBP 2006, the principles consolidated nutritional guidelines which were aimed at disease prevention through by the quantitative consumption of food groups.

Integrated approach; scientific reference and food culture; positive referential; explanation of quantities; variations in quantities; food as a reference; environmental sustainability; originality: a Brazilian guide; multifocal approach².

In the DGBP 2014, the central idea was to encourage the consumption of unprocessed and minimally processed foods, culinary preparations, and meals that were based on these foods. For this, the material uses the following principles:

Diet is more than the intake of nutrients; dietary recommendations need to be tuned to their times; healthy diets derive from socially and environmentally sustainable food systems; different sources of knowledge generate sound dietary advice; dietary guidelines broaden autonomy in food choices³.

It is noticed that both DGBPs consider that food does not only convey nutrients. However, the DGBP 2014 adds that food carries compounds possessing biological activity and potential for health²¹ besides symbolic and emotional values developed in the socio-cultural environment²². The DGBP 2014 uses the NOVA classification and the golden rule "always prefer natural or minimally processed foods and freshly made dishes and meals to ultra-processed foods"; allowing the reconfiguration of the value attributed to cooking, eating practices, traditional eating patterns, and the act of eating and commensality. It also presented strategies for PHAE.

The traditional food patterns of Brazilians

The DGBP2006 presented recommendations aimed at promoting the recovery of regional eating habits inherent to the consumption of locally produced and culturally referenced foods as a strategy for promoting and consolidating regional eating patterns.

The focus assumed in this dietary guideline is a clear incentive to consume food in the most natural and locally produced forms and to the appreciation of regional foods and family production and food culture. In addition, it encourages changes in eating habits to reduce the risk of occurrence diseases; it values the production and processing of food with the use of environmentally sustainable resources and technologies².

In the DGBP 2014, only in it, traditional eating patterns are related to the identity and the feeling of social and cultural belonging, the feeling of autonomy, the pleasure provided by food and consequently, and the welfare state of the individuals. Eating patterns and ways of eating mark the engagement of individuals in certain social groups determined by ethnic, socioeconomic and other conditions, and also expresses people's identities²². It is also considered that traditional eating patterns have positive health effects given the interaction between the components of food, culinary preparations or meals.

Diet refers to intake of nutrients and to the foods that contain and provide nutrients. Dietal so refers to how foods are combined and prepared in the form of meals, how these meals are eaten and to cultural and social dimensions of food choices, food preparation and modes of eating, all of which affect health and wellbeing³.

The principle which says "dietary recommendations need to be tuned to their times" provided the development of the dietary guidelines that consider the contemporary particularities of eating. The devaluation of the consumption and preparation of homemade and traditional meals; the flexibilization of mealtimes; and the individ-

ualization of eating rituals²³ mark contemporary eating habits. In this scenario, the normative and social control systems that traditionally governed food practices and representations are weak-ened²⁴. The health sector considers the return to traditional eating practices²⁵ as a strategy for regenerating local food systems and increasing the social sustainability of eating practices²⁶.

Cooking skills and practice

The DGBP 2006 valued national culinary practices, emphasizing culinary techniques as determining elements of the nutritional quality of food and the importance of homemade preparations for effective healthy eating practices.

Developing actions to enhance national cuisine that promote the consumption of healthy food and preparations $[...]^2$.

In the DGBP 2006, national culinary practice was seen as a collection of recipes with diverse ingredients that comprised dishes that could be healthy and health promoting or the contrary. The material was concerned about the excessive consumption of fats, sugars, and salt on typical culinary preparations.

High salt foods and salty foods, like many typical preparations in Brazilian cuisine increase the risk of high blood pressure, strokes and stomach cancer².

Consequently, the DGBP 2006 recommended moderation in relation to some traditional culinary preparations, denoting that the preparation techniques and the ingredients used could interfere with the nutritional quality of the culinary preparations, making them disease causing and unsuitable for healthy eating, being feijoada²⁷ a noteworthy example of it.

Feijoada and other dishes made with beans and fatty meats, sausages, bacon, and other types of meat are high in saturated fat and salt, which is not healthy; the consume this type of preparation should be only occasional².

Diversely, in the DGBP 2014, culinary practice is a strategy for reducing the consumption of ultra-processed foods, and national cuisine is considered a socio-cultural process related topeople's identity and sense of social and cultural belonging, autonomy, collectivities and individual's pleasure and welfare²⁷.

In contrast to ultra-processed foods, fresh or minimally processed foods usually need to be selected, pre-prepared, seasoned, cooked, combined with other foods and presented in the form of dishes so that they can be consumed. The skills involved with selection, pre-preparation, seasoning, cooking, combining, and presenting food are the culinary skills. These skills, which are developed in each society and perfected and transmitted over generations, depend on the taste, aroma, texture, and appearance that fresh or minimally processed foods will acquire and how much they will be appreciated by peoples³.

Studies suggest that culinary skills and the pleasure for cooking have an impact on the decrease of the consumption of ultra-processed foods, on the increasing consumption of fruits and vegetables, and on the reduction of the risk of overweight and obesity^{28,29}. However, cooking goes through a "transition" process characterized by changes in the standards and skills needed to obtain, prepare and consume food³⁰. Data from POF 2008-2009 highlights that Brazilians spend 31% of the family budget on food outside the home. This represents an increase when compared to the period of 2002-2003, whose expenses were equivalent to 24% of the budget¹⁵. A study of 1,502 adults found that 25% of respondents cooked daily or most days of the week, devoting an average of 5.2 hours per week to this activity³¹. These studies suggest a low adherence to culinary practice and the expansion of food outside the home.

In this scenario, DGBP 2014considers culinary practice as an element to be promoted and preserved, not limited to its impact on the nutritional quality of food or on the population's morbidity profile. It also considers its anthropological dimension, which includes an ideological, symbolic, norm and belief system that guides its practice and which are expressed in history, tradition, technologies, procedures, ingredients and actors, as well as in territorial, gender and class identities among others that conform to domestic culinary practices^{27,32}. As a result, the DGBP 2014 encourages people to acquire, develop, and share culinary skills with others in their social groups.

If you have cooking skills, develop them and share them, especially with boys and girls. If you do not have these skills — men as well as women —acquire them. Learn from and talk with people who know how to cook. Ask family, friends, and colleagues for recipes, read books, check the internet, and eventually take courses. Start cooking!3.

In addition, the DGBP 2014 evokes the pleasure found in the act of preparing, combining, and cooking food as well as sharing culinary skills with others. Recognizing that culinary practices are positive and reinforce people's autonomy when preparing their own food brings a greater

understanding and reflection of the sensory, cognitive, and symbolic dimensions of food.

However, among other factors, the division of domestic culinary work is an important limitation for the development of home cooking²⁹. In both DGBPs, the entry of women into the labor market and the difficulties of changing traditional gender roles are discriminated and taken as one of the elements that weakens the process of generational transmission of culinary skills and the devaluation of domestic cooking.

[...] when a woman takes on a professional life outside the home, she continues to accumulate responsibility for the family's food. The attribution of activities to women in the paid work environment and in the domestic space presents itself as a new paradigm of modern society, which has not created mechanisms of social support for the deconcentration of this attribution as an exclusively feminine practice².

Young people are increasingly not able or willing to prepare meals. The acts of preparing, combining, cooking food and making meals as a cultural and social practice are being discouraged. The multiplication of daily tasks and the incorporation of women into formal employment are two other reasons. Another one is the constantly increasing availability and incessant advertising of ultra-processed foods [...]³.

To deal on this situation, the DGBP 2006 suggests the creation of social support mechanisms for the deconcentration of this attribution as exclusively female. The DGBP 2014 recommends the sharing of culinary skills without distinction of gender as well as the development of culinary practice by all members of the family to not concentrated responsibility on a single individual. However, national studies have spotlighted the centrality of Brazilian women – especially mothers – in the responsibility for purchasing, preparing, and offering food to the family 31,33,34 whereas men's duties lie in festive cooking and in the responsibility for offering resources to purchase food 35.

The DGBP 2014 promotes the discussion on domestic work sharing by suggesting actions on an individual and family level in order to deconcentrate the culinary practice of women. However, these recommendations must be articulated with sociopolitical and socioeconomic strategies that favor the reduction of the burden on the responsibilities of women in relation to domestic work. FAO recommends actions related to the improvement of public transport, water and energy services, childcare services, institutional care

for the sick and elderly and parental leave for both women and men³⁶.

In addition to the sharing of domestic culinary work, the DGBP 2014 presents time as an obstacle to culinary practice. In this document, only in it, the growing demands of the professional and social world are presented as a limitation on the time allotted for culinary practice. The document proposes that the:

[...] critical review of the use of each individual's time should not be understood as an indication that the lack of time is not a problem or a problem whose solution requires only actions at the individual level. As in the case of other obstacles what this guide proposes to its readers is a combination of actions on a personal and family level and actions on the level of citizenship. The performance at the collective level, in this case, would be exemplified by the defense of effective public policies to reduce the time that people spend in their commuting such as investment in public transport and the more rational use of transport routes³.

Studies suggest that people live with a chronic feeling of lack of time, devoting less time to eating and domestic culinary practices, and more time to productivity at work³⁷. As a result, individuals tend to consider the effort of preparing food in the domestic space a waste of time38, so they replace traditional meals with ready-to-eat foods³⁹. Added to this scenario, the urbanization process promoted the externalization of culinary practices, reducing the importance of homemade food preparation and professionalizing food production⁴⁰. Thus, people can consider cooking more valued when they are making time available to another person or when it is intended for family or people from other social groups than when food preparation is intended for himself and the weekend or festive dates are considered as the main moments for its development⁴⁰.

Being aware that the culinary practice during working days comprises an obstacle to be overcome, the DGBP 2014 highlights the adherence to the National Workers' Food Program (PAT) and the National Program of School Feeding (PNAE). They work as protectors of healthy eating practices since both programs aim at encouraging the consumption of locally referenced culinary preparations thus reducing the consumption of ultra-processed foods. According to Azeredo et al.⁴¹, the consumption of food from meals offered by PNAE is associated with a lower chance of regular consumption of soft drinks, fried snacks, bagged snacks, and sweets. Therefore, the DGBP 2014 guidelines encour-

age the social control, improvements, execution and supervision of these programs. The need to encourage the consumption of meals offered on different institutionalized food and nutrition programs is emphasized, since these programs may comprise concrete strategies to reduce the consumption of ultra-processed foods⁴¹.

The modes of eating and commensality

The DGBP 2006 sought to revalue group meals as a response to the isolation of family groups and the growing number of meals taken by the individual in a solitary way even when cohabiting in the same home.

In modern societies people increasingly isolate themselves from other family members even when they are under the same roof. The number of meals taken by the individual alone outside the home and even at home is increasing. This is not the purpose of this guide. On the contrary, we value the act of eating in the family environment since it allows the integration of people through the sharing of the moment of eating making it important for the strengthening of affective relationships and family integration².

In the DGBP 2014, chapter 04 devotes recommendations on the modes of eating and commensality by expressing three basic guidelines: eating regularly and carefully; eating in appropriate environments; and eating in company. In short, all guidelines aim to reestablish the normative and social control systems responsible to govern food practices and representations²⁴, as these are considered to be protective against the consumption of ultra-processed foods⁴².

Through these three recommendations the DGBP 2014 acknowledge values on traditional Brazilian meals performed on traditional schedule, places and socio-culturally determined companies and when they are carried out through homemade culinary preparations. These recommendations are justified by the gradual decrease in the performance of traditional meals held at regular times in the individual's daily life. They also justifies the express substitution of the consumption of traditional meals by ultra-processed foods that can be eaten without cutlery while performing other activities (study or work) or in any space (work table, car, among others)^{16,43}. In this scenario, contemporary eating practices go through a crisis in their normative and social control systems25. That is, the set of guidelines of behaviors considered more or less appropriate for food or modes of eating within a particular

context and which are determined in the face of cultural standards (technological resources, social organization, activities, schedules, profession, family relationships, responsibility, among others)⁴⁴.

Rescuing commensality values the modes of eating as a social activity, contrasting the individualizing models propelled by the ultra-processed food industry⁴⁵. In this belief, the DGBP 2014 alludes that sharing meals in domestic environments can be a precious moment:

The sharing of meals at home is a precious and important time for family members and others who may share their lives together, to cultivate and strengthen their ties, to like one another more, to catch up, to exchange views on shared issues, to celebrate successes, to sympathize with difficulties, and to plan for the future. For children and adolescents, they are vital opportunities to acquire good habits and to learn to value the importance of sharing by means of regular meals in appropriate environments. For adults of all ages, shared meals consolidate co-existence, sympathy, and mutual support³.

Certainly, family environment can have a great influence on people's eating habits, especially in children and adolescents, since it provides individuals with food and culinary preparations for consumption, behavioral models, support for eating practices, and development of skills adequate to health⁴⁶. Studies suggest that the frequency of meals together is associated with higher consumption of healthy foods and lower consumption of ultra-processed foods^{47,48}, in addition, it positively affects the emotions, attitudes and behaviors of the individuals, influencing life satisfaction, psychological comfort and positive family unity⁴⁹.

However, commensality does not always comprise a beneficial moment. It can present moments of conflict in daily life which can generate anxiety about the symbolic use of food in living together^{50,51}. From a sociological perspective, commensality is one of the most striking expressions of human sociability and as such does not exclude social contradictions and power relations entangled in a process related to the social structure in which one lives⁴⁵. Commensality also comprises an inter-relational communication system in which the disposition of diners, the distribution and sharing of food and the "table manners" express the social status, lifestyle, affection, and social dynamics of the family⁵². Consequently, family meals can be moments of tension where family conflicts overflow, reveal-

ing the relationships of oppression that reinforce the hierarchy and power structures in domestic environments^{50,51}. Another dimension of family meals refers to the fact that eating together does not always express socialization. In some families, meals are eaten in a common space. However, it is performed in an individualized ritual that expresses the consumption of food in silence⁵². In summary, the contexts presented express that commensality alone may not have a direct relationship with the protective character of healthy eating practices or health protection and that it is necessary to think about the educational practices in health, food and nutrition in their own singularities. Consequently, the DGBP 2014 suggests that its recommendations be adapted to the specific conditions of each person as long as it respects its golden rule.

Conclusion

In this comparative analysis, we identify that both DGBPs conceive that food derives from eating practices that have social and cultural meanings. The materials consider that foods add unique cultural, behavioral, and affective meanings and that they cannot be neglected when creating strategies to promote adequate and healthy food consumption. However, the DGBP2006 presents a medical-nutritional discourse on the social and cultural dimensions of food, limiting the approach to traditional food patterns, national culinary, and commensality as strategies to improve the nutritional quality of foods and meals consumed by Brazilian families.

In turn, the DGBP 2014 conceives that healthy eating habits should be based on fresh or minimally processed foods and that the culinary preparations should be based on these foods as well. In addition, the DGBP 2014 uses sociological, anthropological, and popular knowledge to build more holistic dietary guidelines. They address ways of eating related to the following topics: eating regularly and with care; eating in appropriate environments; eating in company; eating food produced in an environmentally and socially sustainable manner; planning the use of time for food preparation; being critical of information, guidance and messages about food in commercial advertisements; practicing domestic cooking and sharing cooking skills or activities among all family members.

Finally, this article presents limitations regarding the deepening of an epistemological

discussion on the ways of incorporating the socio-cultural dimensions in the DGBP of 2014 and 2006 as well as the theoretical foundations of the social and human sciences in the guidelines of these materials. Further research is suggested on these discussions in the light of the social and human sciences and the founding concepts of the DGBP 2014 (dietary pattern, dietary practices, dietary tradition, culinary practices, commensality, and others). These concepts are intrinsic to the development of programs and actions to promote adequate and healthy food habits within the guidelines of Brazilian food and nutrition policy.

Collaborations

This manuscript resulted from MSS Oliveira's master's thesis. L Amparo-Santos provided academic guidance for the thesis and contributed substantially to improve the discussion and the data analyzed.

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