Eating regularly and carefully, in appropriate environments and in company: An analysis between social representations and official stances on these recommendations of the Dietary Guidelines for the Brazilian Population

Comer con regularidad y atención, en ambientes adecuados y en compañía: Un análisis sobre estas recomendaciones de la Guía Alimentaria para la Población Brasileña desde representaciones sociales y posturas oficiales

ABSTRACT

The second edition of the Dietary Guidelines for the Brazilian Population (DGBP) advises “eating regularly and carefully”, “eating in appropriate environments,” and “eating in company”. Individuals may interpret these guidelines differently. We analyzed social representations of these recommendations to ascertain how such representations relate to the official DGBP advice. This cross-sectional, exploratory study was conducted with a selected sample of teachers, administrative technicians, and students (N=24) from the Federal University of Grande Dourados, Brazil. We carried out an exploratory content analysis of the responses to semi-structured interviews on the topic. We identified seven themes that encompassed the social representations of “eating regularly and carefully”: 1) paying attention to what you eat; 2) having several meals; 3) eating slowly; 4) having time to eat; 5) eating without distractions; 6) eating adequate amounts; and 7) ensuring a nutritional balance. Four themes emerged from the analysis of the social representations of “eating in appropriate environments”: 1) a pleasant environment; 2) at the table; 3) without interferences; and 4) a clean environment. The following themes encompassed the social representations of “eating in company”: 1) eating in company is good; 2) I prefer to eat alone; and 3) eating in company is inconsequential. Although participant representations align with DGBP recommendations in the three orientations, in general, they extend beyond them. Professionals and government organizations in Brazil or abroad could take into consideration these results in order to optimize this tool’s potential for research and policy in nutrition and public health.

Keywords: Brazil; Commensality; Diet; Guideline; Nutrition.
INTRODUCTION

Food-Based Dietary Guidelines (FBDG) are official documents drawn up and published by government agencies to guide public policies on food and nutrition and advise people on diets that promote healthy habits and lifestyles and reduce rates of obesity and food-related diseases. Worldwide, more than one hundred countries have developed FBDG. The majority of existing FBDG focus their recommendations on “what” and “how much” to eat, underestimating the context of “how”, “when”, “why”, “where” and “with whom food and/or meals are consumed”, thus neglecting socio-cultural aspects of eating. Several studies have reported that environmental factors can influence the type and amount of food that will be consumed. Ambient characteristics, such as temperature, lighting, odor, and noise, can influence the immediate eating environment. Distractions such as reading or watching television can increase consumption. The presence of other people can not only influence what is eaten, but also increase how much is eaten.

Brazil was the first country to include these aspects in a FBDG, by including a chapter titled “Modes of Eating” in the second edition of the Dietary Guidelines for the Brazilian Population (DGBP), published in 2014. This chapter refers to three recommendations that influence the consumption of food and the pleasure of eating: “eating regularly and carefully”, “eating in an appropriate environment” and “eating in company”. With this new approach, the DGBP stood out in the national and international scenes, and as a result, some countries (such as Uruguay and Canada) have adopted a more holistic perspective and are now taking into account the socio-cultural aspect of eating in their FBDG.

To be effective, dietary recommendations should be easy to understand, practical, realistic, accessible and actionable. In Brazil, a public consultation was carried out by the Ministry of Health before the publication of the DGBP. This was done to get to know people’s opinions about the DGBP. However, there are no studies evaluating people’s understanding of its recommendations. To fill this gap, in a previous article, we presented the state of knowledge of a sample of Brazilians about the NOVA classification of foods, present in some recommendations of the DGBP. In this article, we present results of the social representations of the same sample on the recommendations “eating regularly and carefully”, “eating in an appropriate environment” and “eating in company”. Thus, the objective of this study was to know the social representations of a sample of Brazilian adults regarding these three recommendations and analyze how such representations relate to the official DGBP stance (Table 1).

METHODS

Study design and setting

This exploratory, cross-sectional, and qualitative study was conducted at the Federal University of Grande Dourados (Universidade Federal da Grande Dourados [UFGD]), located in the city of Dourados, state of Mato Grosso do Sul, Brazil. In 2021, Dourados had an estimated population of 227,990 inhabitants, and concentrates a large part of the population that migrates to the State of Mato Grosso do Sul, which comes from several Brazilian states, mainly from the South, Southeast, Northeast, and from the Central-West region itself. The academic community of UFGD shows reflections of this migratory flow and as a consequence exhibits important socio-cultural diversity. This and the proximity of the first author of this study with the UFGD justify the choice of the setting.
Participant selection

Teachers, administrative technicians, and students from the UFGD were selected to participate. Segmentation, following the process described by Bauer and Gaskell14, was applied to create natural groups. In natural groups, all members interact and form a social milieu; such groups are suitable for qualitative research15. This selection, however, was not a method of stratification axis for the analysis. The inclusion criteria for the study were: 1) being Brazilian, 2) being affiliated with the UFGD, and 3) aged between 18 and 60 years. The exclusion criterion was belonging to a traditional community (for example, indigenous people). This was because specific ethical issues were not considered at the time of proposal submission to the Research Ethics Committee.

An invitation to participate in the study was sent to a list of email addresses of teachers, administrative technicians, and students. The email list included 3,142 email addresses registered at UFGD. For each participant that replied to the email, a meeting was scheduled by the first researcher, on a mutually agreed upon day and place (within the premises of UFGD). Adequate conditions regarding comfort and privacy were ensured. Next, an iterative process of data collection and revision was performed until saturation; that is, the point that the selected data-collection methods could obtain no new relevant information from additional participants15. The thesis co-director of the main author performed a brief coding of emerging themes to evaluate saturation16. As coding progressed, new themes were found, indicating that saturation had not been reached. The first author continued the participant-selection process, adding one additional person interested in participating in the study per sex and segment. Additional coding was performed after adding new participants until no new relevant information contributing to the themes of the study emerged (N= 24; 12 women and 12 men).

Data collection

Data collection was performed in 2016. A script with open questions was developed by the researchers, and pre-tested in a pilot study to determine how clear the interview questions were. The pilot study was conducted with teachers, administrative technicians, and students from the UFGD. Semi-structured interviews were used for data collection, in which the participants were asked the following questions: “what does it mean to you to eat regularly and carefully?”; “what do you consider an appropriate environment for eating?” and “what do you think about eating in company?”. The interview started with the first question, and the other two were asked as aspects related to them emerged naturally during the conversation, in order to allow the participant to speak as freely as possible. Interviews had an average duration of 40 minutes and all were recorded. The age and sex of each participant were collected at the end of the interview.

Data analyses

The interviews were transcribed by the interviewer and analyzed using exploratory content analysis, which involves the application of an inductive approach to identify emerging themes16. We read the transcripts several times. Then, we highlighted quotes that seemed crucial and grouped them into themes using the cutting and sorting method described by Bernard and Ryan16. For this we used Microsoft Word program. These authors described this approach as a process which “involves identifying quotes or expressions that seem somehow important—these are called exemplars—and then arranging the quotes/expressions into piles of things that go together”. Similarities that each exemplar shared with the others in its group were identified, and this common essence helped in nominating the themes, which appear in the results section. The list of themes that emerged from analysis was then discussed and refined by the researchers.

Table 1. Official stances on recommendations of the Dietary Guidelines for the Brazilian Population.

<table>
<thead>
<tr>
<th>Eating regularly and carefully</th>
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<tbody>
<tr>
<td>When possible, eat daily meals at regular times. Avoid “snacking” between meals. Eat slowly, with full attention, and enjoy your food without engaging in other activities.</td>
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<tr>
<th>Eating in appropriate environments</th>
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<tr>
<td>Always try to eat in clean, comfortable, and quiet places, where there are no stimuli to consume excessive amounts of food.</td>
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</table>

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<th>Eating in company</th>
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<tr>
<td>Favor eating with family, friends, or colleagues. At home, partake in the acquisition, preparation, cooking, and organization of food, both before and after eating.</td>
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*adapted from Brazilian Ministry of Health (2014).
until a consensus was reached. Subsequently, a codebook was developed to conform with the practices described by Bernard and Ryan\textsuperscript{16} and MacQueen, McLellan, Kay, and Mistein\textsuperscript{17}.

The themes were described considering their core and peripheral aspects (what was most and least common in each theme, respectively), with greater attention to their focus or central tendency\textsuperscript{16}. Following the criteria described in the codebook, we coded the interviews and discussed them again until we reached a consensus. We presented the anonymized answers of the participants as citations (in italic and between quotation marks), followed by the letter P and numbers 1 to 24, and age.

The interpretation of the representations of the participants on the guidelines of the DGBP was performed taking into account the various aspects of eating, with a special focus on the socio-cultural aspect\textsuperscript{18}.

**Ethical considerations**

This study was approved by the Research Ethics Committee of the University of São Paulo, report number 1.127.723/2015. Written informed consent was obtained from all participants.

**RESULTS**

A total of twenty four adults participated in the study (twelve women and twelve men), with a mean age of 30 years (SD= 9.4). A total of 258 interview excerpts were coded into 14 themes that emerged from the content analysis. The themes are displayed in table 2.

<table>
<thead>
<tr>
<th>Question</th>
<th>Themes</th>
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<tr>
<td>What does it mean to you to eat regularly and carefully?</td>
<td>Paying attention to what you eat&lt;br&gt;Having several meals&lt;br&gt;Eating slowly&lt;br&gt;Having time to eat&lt;br&gt;Eating without distractions&lt;br&gt;Eating adequate amounts&lt;br&gt;Ensuring a nutritional balance</td>
</tr>
<tr>
<td>What does it mean to you to eat in an appropriate environment?</td>
<td>A pleasant environment&lt;br&gt;At the table&lt;br&gt;Without interferences&lt;br&gt;A clean environment</td>
</tr>
<tr>
<td>What do you think about eating in company?</td>
<td>Eating in company is good&lt;br&gt;I prefer to eat alone&lt;br&gt;Eating in company is inconsequential</td>
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Table 2. Themes that emerged through content analysis of the narratives of 24 Brazilian members of UFGD community.
participants: “This (eating carefully) is something that I really do, because it’s already a habit that I learned from my mother...I learned that by eating right, chewing, I can control myself, always making sure to chew well” (P18, 19 years old). And “it would be eating slowly, chewing more, and paying more attention to what I eat” (P10, 35 years old). The main peripheral aspect of this theme was the body’s reaction to feeding, indicating attention to satiety: “I think that means paying attention, to understand if you are already satiated” (P2, 32 years old).

The central tendency of the theme eating without distractions was specific aspects (for example, using mobile phones and watching television) which participants considered to be distractions. The main peripheral aspect of this theme was non-specific mentions of “distractions” within excerpts: “I believe that it means not paying attention to things other than eating” (P24, 22 years old).

The other two themes emerging from the first question were eating adequate amounts and ensuring a nutritional balance. The central tendency of eating adequate amounts was avoiding eating to excess, to maintain a healthy body. For example, we quote: “‘attention’ is eating just right, isn’t it? Not eating too much” (P18, 19 years old). The central tendency of the theme ensuring a nutritional balance related to a balanced daily intake of nutrients through food: “Eating regularity is ensuring a daily balance, trying to keep your feeding habits constant, and eating a balanced amount of proteins and carbohydrates; I think that’s what it means” (P23, 50 years old). In a more peripheral feature of this theme, we observed that the maintenance of nutritional balance related to the regular intake (not necessarily daily) of nutrients that the body needs for optimal health.

Themes from the question “What does it mean to you to eat in an appropriate environment?”

The central tendency of the theme pleasant environment indicated aspects relating to comfort of the surroundings. The following words and features were mentioned by the participants: peaceful, calm, relaxing, cool, well-ventilated, with ambient music, and/or pleasant company. For example: “a proper environment has an ideal temperature; it should be fresh and well-ventilated” (P16, 21 years old).

The theme at the table centrally indicated aspects around a properly set table and eating while sitting at the table, as cited: “I learned from my parents that a meal should be taken at the table” (P22, 32 years old). This topic covers aspects related to the company while eating: “The ideal situation is being able to sit at the table surrounded by the whole family” (P13, 27 years old).

Excerpts from the theme without interferences indicated that the central tendency was the absence of television, mobile phones, computers, toys, and animals (for example, dogs around the table at home), and the activity of others (for example, people talking, moving around, and frequently standing up and sitting down). In this case, for example, we quote “an appropriate environment for eating is a place that does not have a television” (S, 25 years old). A more peripheral feature of this theme indicated non-specific interfering factors, as we quote: “a place where you can focus on food; there is nothing else going on” (P1, 26 years old).

An appropriate environment for eating was referred to as a clean environment. The central tendency was the adequate hygiene in the location, referred to with the terms “clean”, “hygiene” and “hygienic”: “an appropriate place for me would be a clean place” (P20, 28 years old). As peripheral aspects, participants referred to the physical structure of the place (covered; closed; not outdoors, where dust, soot, and other debris can be present).

Themes from the question “What do you think about eating in company?”

Some participants believed that eating in company is good, others stated that eating alone was a preferable alternative, and others were comfortable with either option. Regarding this aspect, three themes emerged: eating in company is good, I prefer to eat alone, and eating in company is inconsequential. The central keyword on the theme eating in company is good were the following: good, great, pleasing, enjoyable, important, essential, sacred, communion, entertainment, social act, and social habit. These were evident in responses such as: “for me, eating with someone is sacred” (P8, 30 years old).

The central tendency of the theme I prefer to eat alone included aspects such as the preference for eating alone, and the peripheral aspects included assertions from participants that implicitly stated that eating in company is not good, either in general or in given situations, for a variety of reasons. Participants who preferred to eat alone reported poor experiences stemming from eating in company; most cases mentioned that when they eat in company they eat too much, talk too much, don’t pay attention to what they are eating, eat too quickly, or are discouraged from maintaining a healthy diet. Finally, the theme eating in company is inconsequential expressed the indifference of some participants with regard to eating in company, or a lack of opinion on the matter.

DISCUSSION

Our interpretation of the answers given to the first question of the study (“what does it mean to you to eat regularly and carefully?”) is that the study participants’ representations extend beyond the official DGBP recommendations. Their representations aligned with the DGBP, as they understood the recommendation as eating slowly, having time to eat and eating without distractions; however, their representation extended beyond these factors, and also considered the recommendation indicative that they should pay attention to what they eat, have several meals a day, eat in adequate amounts and ensure a nutritional balance in their diet. Interestingly, we noticed that the first three themes show an appreciation of “how” to eat; however, the remaining themes pertain to “what”, “when”, and “how much” to eat.
In other words, participants expressed greater concern with the quality and quantity of food that is eaten.

Concerning the theme paying attention to what you eat, we observed two dimensions to participants’ representations: one related to the food itself (for example: avoiding fatty foods) and the other related to characteristics derived from the first (for example, avoiding unhealthy foods, such as fatty foods). According to Poulain & Proença\textsuperscript{19}, both dimensions represent examples of dietary norms, which are generally dictated by health professionals. They describe, in quantitative or qualitative terms, what adequate food and a balanced diet are, helping people to remain healthy\textsuperscript{18}. Hence, it is important to know the extent to which dietary norms permeate social representations about nutritional recommendations, similar to those analyzed in this study.

The representations of the participants regarding the meaning of eating regularly and carefully (paying attention to what you eat, having several meals, eating adequate amounts and ensuring a nutritional balance) can be understood and interpreted within the context of the guidelines of the first edition of the DGBP, which appears to be present in these representations\textsuperscript{19}. This is likely due to the fact that this edition of the DGBP emphasized that several meals a day should be eaten, and also specifies the number of portions of food groups (such as legumes, meat, and dairy products) to be consumed per day.

Our interpretation for the answers given to the second question of the study (“what does it mean to you to eat in an appropriate environment?”) is that the representations of our study’s participants were in line with the DGBP stance study. These representations were shown by the themes: pleasant environment, at the table, without interferences and a clean environment. These themes correspond to two situations: eating at home (domestic environment) or outside the home (for example, in restaurants).

Within the domestic environment, the kitchen and the dining room have been, throughout history, the main spaces of commensality. Changes in terms of technology, working hours, social rhythms, time allocated to leisure activities, and family structures have favored the shortening and even merging of these spaces\textsuperscript{20}. The tables in the kitchen and the dining room are now smaller, and in many households, there is only one table, used for both purposes. Despite the recent rearrangement and reorganization of the domestic spaces, we observed that the table remains frequently indicated as an appropriate environment for eating; moreover, the participants mentioned that a table should be surrounded by people, directly associating it with eating in company. The participants also indicated that the reduction of domestic space (either due to individual or familial economic status) and the presence of a television in the same room as the table was a reason for eating while watching television. It is important to note that, for some participants, the television is their company during meals, as we will discuss later.

In the study conducted by Scagliusi, Pereira, Unsain and Sato\textsuperscript{21} in the Baixada Santista region in the state of São Paulo, Brazilian working mothers ate on the couch or in bed, in front of the television. In this case, the lack of space was due to poverty and lack of resources. According to the findings of these authors, however, the table is not always seen as an aggregating element; some think of the table as a space associated with hierarchy and dissatisfaction and of the sofa as an element of relaxation and intimacy\textsuperscript{21}.

With regard to the representations of the participants regarding an appropriate environment to eat, we emphasize that the theme pleasant environment presented a more positive connotation and was related to more abstract aspects such as the ambience of the space. The theme without interferences, in turn, had a negative connotation and was related to more concrete aspects such as the presence of a television, mobile phones, and even people. In this sense, we realize that for some participants, people can be perceived as company (positive connotation) or a disturbance (negative connotation); this likely depends on individual values or norms. This illustrates how important it is to have a deep understanding of how people perceive eating in an appropriate environment, to correctly transmit this DGBP recommendation. Nevertheless, it is important to mention that an “appropriate environment” is a subjective concept, and a variety of settings fit these criteria, given people’s different life circumstances and different sensitivities to stimuli (e.g., light and noise).

Our interpretation for the answers given to the third question of the study (“what do you think about eating in company?”) is that the representations of our study’s participants do not show a consensus that eating in company is good. Despite the representations of participants who think eating in company is good, some prefer to eat alone.

Concerning the recommendation for eating in company, the DGBP’s guidance opens an opportunity to reflect on commensality. Generally, commensality is defined as the practice of eating at the table, in the company of others\textsuperscript{22}. The consumption of food is intrinsically related to sociability, culture, beliefs, and habits of a social or cultural group; food is prepared with the expectation of being shared\textsuperscript{23}, during the week with the nuclear family, and at weekends with friends and the extended family. From the participants’ statements, we observe that, in spite of the difficulty of eating with other people during the week, commensality is desirable at the end of the week.

Giacoman\textsuperscript{24} assessed the relevance of commensality among adult Chileans, and noted that although some may see the company of other people as something positive, others see it as something that may be conflicting, depending on the characteristics of each group\textsuperscript{24}. Likewise, Cho et al.\textsuperscript{25} studied the perceptions and practices of commensality and eating alone among Korean and Japanese students, and observed that Koreans prefer to eat in company and tend to eat more when accompanied, while the Japanese prefer to eat alone, and eat the same amount of food with or without company.

The higher amount of food ingested when eating in
company was one of the reasons mentioned in our study to justify the preference for eating alone. In our study, only single participants were indifferent to having company (or not) while eating. While we were unable to explore this further, it could be done so in future studies.

In spite of the anthropological and historical evidence showing that people prefer to eat at the table and in the presence of other people\textsuperscript{22}, there are several reasons for this practice not being a moment of commensality. For example, eating alone can symbolize independence\textsuperscript{23,24}, or be a way to avoid moments of tension and manifestations of hierarchy that may arise from this practice\textsuperscript{25}. Given that eating in the company of others is part of the culture both in Brazil and in other countries, it is important to understand and investigate what people think about eating in company.

Finally, the answers obtained in this study raised a discussion about two elements that stood out in the representations of the participants: television and mobile phones. While some participants considered them to be a distraction by interfering with the ability to eat carefully, others considered them as a replacement for company during meals. According to Grevet, Tang and Martin\textsuperscript{26}, these individuals exercise a “remote commensality”: in other words, eating in the company of someone who is not physically present\textsuperscript{27}. In modern times, technology is heavily ingrained in our daily lives and can modify them; therefore, it is important to take into account that the act of eating is also subject to novel social dynamics.

**CONCLUSIONS**

In the food and nutrition field, there must be more opportunities for dialogue between official regulatory agencies and the population; this is necessary both to ensure that technical terms and knowledge are correctly interpreted by the target population, and that the individual reality within the target population is considered by the agencies themselves\textsuperscript{28}. This study allowed for that.

This study showed the importance of the public consultation carried out by the Ministry of Health before the publication of guidelines in order to understand the public’s understanding of the recommendations that were included in the DCBP. Although the participants’ representations align with the advice of the DGBP in the three orientations studied here, generally, they go beyond them.

It is not possible to predict when the DGBP recommendations will be fully internalized by the Brazilian people. Until they are, nutritionists and other health professionals must take into account the different possible interpretations of these guidelines by individuals, which may not match the official stance.

The results of our study can be used by healthcare professionals to further optimize communication between the DGBP orientations and the target community for which they are intended, to establish efficient actions for food and nutrition education. Similarly, researchers and government officials from other countries can benefit from the methodology and results reported in this study, in order to improve their communication and dietary guidelines on modes of eating described in their own FBDGs.

**Limitations**

Although the sample size was limited to 24 Brazilian adults living in Dourados, MS, using appropriate methodology, data saturation was reached and the study objectives were achieved.

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