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Thinkers of feeding: workers discuss their difficulties to incorporate healthy eating habits

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Abstract

Chronic non-communicable diseases have been the cause of more than half of deaths in the world, and, among many other diseases, obesity. One of the factors for the increase in obesity is unhealthy eating habits, and this study has aimed to present an educational diagnosis of the difficulties found by workers at a Pediatric Hospital at Brazilian Federal University of Rio Grande do Norte to incorporate healthy eating habits in their daily lives. Eating involves cultural, social, emotional and sensory aspects, making people eat seeking not only nutrients but also the significance of the chosen food. Thus, a food and nutrition education intervention should include these aspects and be preceded by an educational diagnosis, to address the question of intrinsic human subjectivity to eating. To trace this educational diagnosis, focus group sessions were addressed with 14 research subjects to obtain data on the basis of discussion focused on a specific theme. As a result, it is possible to list five categories of problems: "no time," "entrenched eating habits," "lack of access to healthy lifestyles," "tasty is unhealthy," and "dieting is a sacrifice." Therefore, nutritional food education strategies must take place focused on self-care and adequate food as an expression of citizenship. Furthermore, it is suggested that healthy eating practices be encouraged and promoted in the workplace.

Key words: Obesity; Eating Habits; Food and Nutrition Education; Promoting Healthy Eating.

Introduction

Eating involves different aspects that manifest cultural, social, emotional and sensory values. Thus, people do not eat nutrients, but food and preparations chosen and combined in a particular way, with smell, color, temperature, texture and flavor. They also eat food meanings and symbolic aspects. In this context, increasing importance is given to the ideas that individuals have about their eating habits, their opinion on the guidelines given by the health services, the difficulties to implement diet changes, and especially their values and the emotional conditions in which they are.[1]

In short, educational programs need to be always preceded by educational diagnoses, which are different from the diagnoses on the health situation. Vital and anthropometric indicators and those related to morbidity do not tell us much about people's subjectivity. To intervene in the field of food and nutrition education, more is needed: it is necessary to know the reasons why eating behaviors occur in this way. The access to the subjects' thoughts and the understanding that is gotten from that allow to formulate interventions and programs that are more appropriate to the realities and more significant to the subjects, who have a history that can not be ignored in the actions proposed, whether in food or any other field of health.[2]

Of all deaths worldwide in 2008, 63% were related to chronic noncommunicable diseases (NCDs). In Brazil, the NCDs are also the leading cause of mortality, and 80.7% of deaths are from chronic diseases in 2009.[3] Obesity is considered a disease that is part of the NCD group.[4] While the occurrence of malnutrition in children and adults declines at an accelerating rate, the prevalence of overweight and obesity in the Brazilian population increases. The projection of the results of studies conducted over the past three decades is indicative of a clearly epidemic behavior of the problem. Therefore, an antagonism of time trends is established between malnutrition and obesity, setting one of the defining characteristics of the nutritional transition process of the country.[5]

The prevalence of obesity is on the rise and one of the factors contributing to this is nutritional transition, with increasing supply of energy by diet and reduced physical activity, which some authors call the "contemporary Western lifestyle." A nutritional intervention is required, since it is known that obesity causes many health hazards, in addition to favoring the appearance of associated diseases such as dyslipidemia and diabetes.[6]

A competent educational intervention should therefore be guided by this information on the populations' illnesses, but also substantially by the meaning that individuals attribute to their eating habits. Such information is different. It includes seizing meanings, perceptions, life experiences, beliefs and attitudes. But it is complementary to that obtained by means of epidemiological studies that have identified food problems.[2] Often there are studies on anthropometry or food consumption that conclude on the need for an educational intervention aimed at solving the problem encountered.[7-9]

Health promotion actions call for the creation of democratic and participatory spaces in order to establish an approach to the reality of individuals and populations. In this respect, nutrition education plays a critical role to exercise and strengthen food citizenship. Nutritionists' practices take on the challenge of promoting an effective nutrition education with actions that promote changes in the eating habits of individuals and their families.[10]

This challenge has been perceived, for example, in the experiences of the researcher in the *More Health* extension project, which aims to promote the quality of life of workers in the Pediatrics Hospital at Brazilian UFRN (Universidade Federal do Rio Grande do Norte). During the realization of the project activities, the need for a deeper intervention was detected to understand the eating habits because, despite these employees receiving nutritional guidance and reporting knowing the principles for healthy eating, they said they were unable to implement such practices in their lives. This study appears as an attempt to understand this issue, considering that understanding is the first step in the dialogue in an effective Food and Nutrition Education (Brazilian government EAN). The objective of this work is to carry out an educational diagnosis of the difficulties encountered by employees to incorporate healthy eating habits in their daily lives.

Methodology

This is a cross-sectional and qualitative study. The subjects were participants in the *More Health* multidisciplinary extension project who voluntarily agreed to participate in the survey. The project was a strategy developed by the human resources sector at the UFRN Pediatric Hospital in order to promote well-being in the workplace. The general objective of *More Health* was to develop a quality of life project at work that would encourage the workers' motivation, making the work more enjoyable and mitigating the difficulties arising from this, especially in the case of a pediatric hospital, where the caregiver needs to be constantly careful to provide a more humanized service. In the field of nutrition, the researcher and scholarship holder of the project were responsible for performing nutritional counseling in nursing, pharmacy, nutrition, psychology, first aid rooms, academic department and human resources sectors during working hours.

At the time, about 40 employees participated in the project. With the desire, in principle, to start working with the full sample, they were all informed about the survey and invited to participate in the study. Only 16 voluntarily agreed to participate, blaming the working day and the difficulty of spending more time in the workplace to participate in the focus group sessions. Thus, the sample selection criterion was the non-probabilistic for convenience. Qualitative research does not prioritize the sample quantity but the quality of data processing. Still, while working with focus groups, it is possible to observe data saturation, at which time the interviews no longer add more novelty and their content becomes repetitive. According to Bauer and Gaskell, this is

the time to stop the collection phase and end the interviews.[11] This finish criterion was observed during the focus groups management.

The inclusion criteria for the research were: being a target audience of the *More Health* extension project targeted to the regular staff at HOSPED during the research and having available time in the work routine for activities proposed in the group. And the exclusion criteria were: being on vacation and/or leave of absence during the phases of data collection.

Ethical issues

This research has observed the regulatory guidelines and rules for research involving human beings, according to Resolution no. 466/12 of the Brazilian National Health Council. The study was approved by the Research Ethics Committee of the Brazilian University Hospital Onofre Lopes (HUOL/UFRN), according to CAAE 30213413.3.0000.5292. All received a copy of the Informed Consent Form in order to meet the requirements of the Research Ethics Committee at UFRN for research on people and ensure participants the data collection confidentiality. At the time of the signature, the objectives of the study were explained and how research progress would be carried on. In return for their collaboration with the research, the subjects were given frequent guidelines about their eating habits.

In order to maintain each one's identity confidentiality, names of famous philosophers were chosen as pseudonyms for participants, since the study seeks to generate a reflective thinking about food. The nicknames chosen, since we have handled such subjects as thinkers of their own food, were male and female philosophers': Hannah, Simone, Maria, Edith, Susanne, Sarah, Catarina, Elizabeth, Marilena, Rosa, Heloísa, Louise, Félix and Tales. The researcher has committed to deliver search results to the participants after the presentation.

Simplified nutritional diagnosis

For the group characterization, a simplified anthropometric assessment of the staff at HOSPED/UFRN (Pediatric Hospital) was held in order to obtain the first information necessary for their nutritional diagnosis.

A simplified anthropometric assessment is understood as the fact that the researcher has measured the volunteers' weight and height during working hours to calculate the BMI (body mass index). Anthropometric measurements were performed according to the Training Manual for Anthropometric Procedures[12] with some adjustments to the equipment of the UAN (Unit of Food and Nutrition) of the site that was available for the activity. The values were calculated

in accordance with the classifications established by the World Health Organization (1995) for adults, according to Table 1. Data analysis was by simple frequency and presented in table and chart formats.

Educational diagnosis

An educational diagnosis is an early look about the impressions and difficulties that an individual or group experience in view of the reality investigated. This type of activity underlies the actions of food and nutrition education because it allows to understand and achieve more easily the sense and meaning of the others' attitudes.

As explained by Boog, a previous diagnosis of food consumption and of how one has been dealing with food problems helps the health professional to think of content that may be significant because they are going to respond to real problems experienced and especially felt by people in everyday life.[2] She complements stating that all educational action must be preceded by an educational diagnosis. It is desirable that knowledge be as broad as possible and, a priori, no information is unnecessary.[2]

The traditional focus group comprises six to eight people previously unknown who meet in a comfortable environment for a time between one to two hours. The participants and the moderator seat in a circle so that there may be a face-to-face contact among them. When people sit, the moderator's first job is to present themselves, the topic and the idea of a group discussion.[11]

During the research, two people needed to leave. One because of a new job offer and another by a specific routine work at the hospital which did not allow timeliness in the focus groups. Thus, both left by their own free will. Therefore, it was finalized with 14 volunteers by the end of the study, divided into two groups of seven.

To begin this process, the moderator asked each participant to introduce themselves by saying their names and added that those who wished it could add any personal information that could lead the group to know them a little more. Each contribution ended with the moderator saying "thank you" and calling the person by their first name. As in the in-depth research, the moderator had a guide topic that summarized the discussion issues and subject matters. The moderator would actively encourage all participants to speak and respond to the comments and observations by the other members of the group.[11]

According to Boog, wherever educational activities take place, it is important to know the "other."[2] Therefore, after the anthropometric measurements, participants were asked to answer an objective questionnaire on eating habits, which was adapted by the interviewer from a model from the Brazilian government Web site Health Portal[13] with the title, "How is your food intake

going on?". To this instrument a question relating to smoking was added and some questions were adjusted from the original questionnaire to facilitate the quantitation of the food servings ingested. The answers provided in the questionnaires served as a support to the questions script used at first in the focus group in order to raise a discussion on the factors influencing each one's eating patterns.

Getting to know the group within the research

In the first session, participants were told that the group in which they were entered on that day would be the same for the second time to prevent the group change causing uneasiness or shyness, which would hinder the focus group essence. After the welcome greetings, everyone was encouraged to think a bit about the meaning of food in their day to day without the moderator mentioning the word "healthy" to not be biased.

For the participants to introduce themselves, a motivation group-dynamic game was held, where a script of answers would be suggested: "My name is...," "I work at sector...," "If I could be some food, I would be...," "because..." After the introductions, an activity was carried out to know the representations that participants would provide for certain foods. The mediation for that moment was previously thought from the data collected by questionnaires administered at a previous time (a simplified anthropometric assessment). The responses indicated the need for a dialogue on four categories of food.

For each category, a sequence of images of such foods ready for consumption was prepared on *Power Point*. Participants were invited to the exercise of Free Association of Words Technique (in Portuguese, TALP) which, according to Nóbrega & Coutinho,[14] is intended to arise spontaneously free and quick associations of words relating to a topic being discussed, from an inducing sentence such as the one I have used: "*Mention 2 to 3 adjectives about these foods*." They would write the words on a piece of paper and hand it to the group's moderator. Such situation was repeated for the four food categories.

Then the moderator would quickly resume reading all the words that arose, asking them to feel free to comment what they wrote. Some questions had been formulated before but most of the time they were free to comment and discuss their own difficulties in adhering to healthy eating. Afterwards, a discussion was raised on the search for alternatives that would circumvent these difficulties, letting the conversation flow freely. Finally, it was suggested that they wrote a promise for a healthy and tasty 2013.* Such material remained with them.

* The second session of data collection with the focus groups was held on August 14 and 21, 2013. Therefore, the promise was a thoughtful goal to be fulfilled by the end of that year.

A directed dialogue

In the second session, a video edited with clips from the Way Beyond Weight documentary by Brazilian director and producer Estela Renner was shown, which deals with childhood obesity as the biggest child epidemic in history and processed food as one of the causes. The key points discussed at first in the focus groups determined the choice of the video clips used in the research. The video in question was selected in order to encourage good eating habits, besides serving as a strategy contributing for the second group discussion script, which was the proposal to form a personal ranking, where each would answer: "Placing in an order of higher to lower difficulty, how would you organize the aspects that hinder your healthy eating habits?" Again, they would list some alternatives to circumvent the difficulties mentioned.

The closure took place with tasting a fruit salad and delivery of souvenirs. The two focus groups underwent the same sequence of steps and had their moments recorded and transcribed. There were two moments for each group, totaling four meetings. Sessions lasted on average 90 minutes and took place weekly and alternately between the groups. In a week there was the experience of the first time for group 1. And in another week the same for group 2 and so on.

The answers to the questionnaires and justifications that led to the decision for food categories and the words in TALP were organized in a summary table for better viewing of the results, as suggested by Bardin.[15] The focus groups were equally analyzed, according to the definition for content analysis:

> *A set of communication analysis techniques to obtain, by systematic procedures and objectives of message content description, indicators (quantitative or not) that allow the inference of knowledge related to the conditions of production/reception of these messages.*[15]

This analysis was done in three stages, the first being the *Pre-analysis* where there was the first contact with the material by means of a quick reading. Then there was the *Exploration of the material* which was carried out according to the choice of the analysis units, enumeration and classification of data. Finally, *Processing data, inference and interpretation* was the stage at which there was a production of graphs, charts, diagrams, or figures in order to give significance to the data and highlight the information obtained.[15]

Results

Simplified nutritional diagnosis

The sample consisted of 14 volunteers, including 12 women and two men, aged between 20 and 46 years, working in the following hospital departments: pharmacy, first aid room, psychology, nutrition, human resources and offices in the pediatrics and academic department. As for the BMI measure, 14% (2 people) were obese, 29% were overweight (4 people) and 57% were eutrophic (8 people).

Table 1 below shows the data for carrying out the volunteers' simplified nutritional diagnosis and their BMI classification, according to WHO (1995).

Table 1. Data collected for a simplified nutritional diagnosis of volunteers and BMI classification, according to WHO (1995).

Gender[1]	Age[1]	Sector of work[1]	Weight (kg)[1]	Height (cm)[1]	BMI (kg/m²)	BMI classification[2]
Female	32	Human Resources	56.3	161.0	21.7	Eutrophy
Female	28	First aid room	65.4	150.5	28.8	Overweight
Female	23	Pharmacy	55.1	165.0	20.2	Eutrophy
Female	23	Pharmacy	65.7	165.0	24.1	Eutrophy
Female	24	Psychology	70.4	155.0	29.3	Overweight
Female	42	Nutrition	52.7	145.0	25.0	Overweight
Male	46	Department of Pediatrics Office	82.4	162.0	31.3	Obesity
Female	27	Academic direction	93.6	165.5	34.1	Obesity
Female	41	First aid room	65.5	161,5	25.1	Overweight
Female	38	Pharmacy	56.1	151.0	24.6	Eutrophy
Female	20	Pharmacy	60.9	159.0	24.0	Eutrophy
Female	32	Psychology	45.3	159.0	17.9	Eutrophy
Female	26	Psychology	54.7	159.5	21.5	Eutrophy
Male	37	Department of Pediatrics Office	64.7	164.5	23.9	Eutrophy

Source: 1 – TCC (undergraduate thesis) data collection on July 17 and 18, 2013, in the hospital cafeteria. 2 – WHO, 1995.

The results were also shown in Chart 1 below for better viewing the simplified nutritional diagnosis.

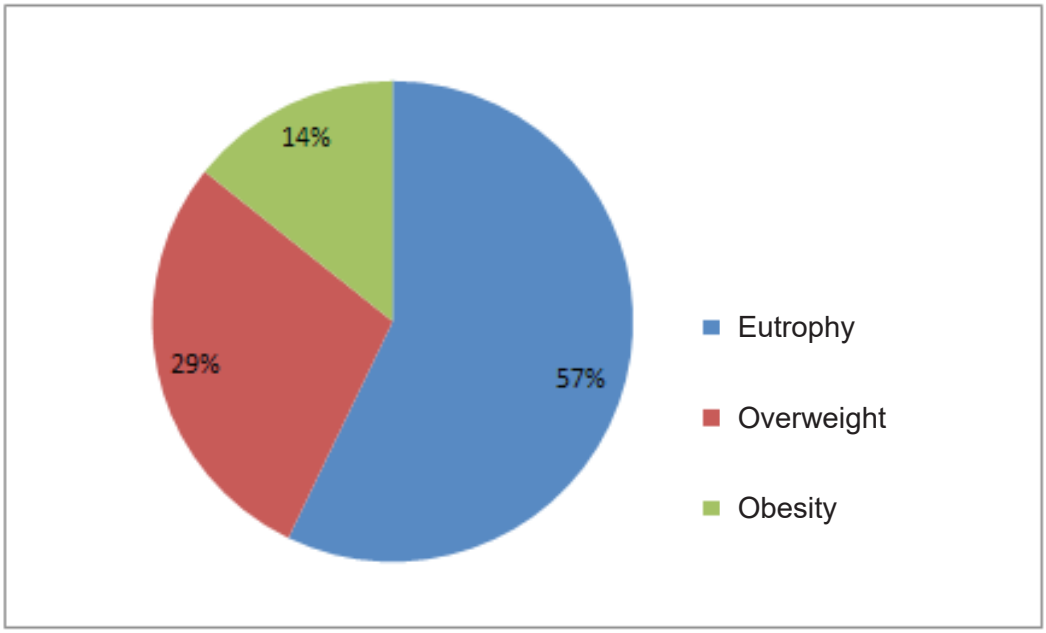

Chart 1. BMI classification, according to WHO (1995)

Source: TCC (undergraduate thesis) data collection on July 17 and 18, 2013, in the hospital cafeteria.

Educational diagnosis

In view of the answers obtained from the questionnaires, it was possible to see the need to emphatically address the topics of some questions, which were classified into four categories: *fruits, cured dry food, sweets and water.* From the principles and guidelines in the Food Guide for the Brazilian Population (*Guia Alimentar para a População Brasileira*),[16] fruit and water categories were chosen because of their importance in daily healthy eating. Furthermore, it was observed that the consumption of both was reduced. As for cured dry food and sweet categories, they represent foods that should be avoided or consumed in small amounts. However, the frequent consumption of these foods on a daily basis by many was noted.

The first session with the two focus groups generated a series of words associated with each category, according to TALP. The number of words in each category is not uniform, as the participants could insert two or three words, as suggested by the inducing question.

Discussion

Dialoguing about the difficulties

There is no time

Time, or actually the lack of it, is the villain in the story when it comes to difficulties in carrying out a healthy eating. All participants in both focus groups mentioned that aspect as a primary limitation on their work or study routines.

Nowadays, complaining about the lack of time is common and many people claim that it is for this reason that they do not have regular meals, that they always eat very quickly and often do other things while eating. Many people have to travel very long distances between their homes and workplaces or study sites and the chaotic traffic in many cities subtracts even more from this time.[17] When asked about ranking the difficulties to incorporate healthy eating habits on a daily basis, they would answer:

> **Sarah**: *[...] Firstly the most difficult (difficulty) is the time. At least it is so... I particularly usually leave home in the morning and come back only at night, at around 10 pm, after the classes, you know? Therefore, most of my meals are outside of the home [...].*

The lack of time also reveals another factor for not searching for healthy foods: the convenience of processed foods. Today, in supermarkets in most Brazilian cities it is possible to purchase foods that are already chilled, frozen, seasoned, prepared, breaded, stuffed, etc.[6] They are faster, sold ready-to-eat or semi-ready and have a good shelf life. Therefore, the demand for these products is large, especially for those who are all day long away from home: "[...] ease of acquiring and storing. Because you purchase, they are there and at any time when you want them. They are already ready for consumption!" (Thales).

The average consumption of fruit and vegetables is still half the amount recommended by the Food Guide for the Brazilian Population and has remained stable in the last decade, while highly processed foods such as candy and soda have their consumption increased each year.[16] As

for fruits, they are less and less incorporated because they are more perishable for people's daily consumption and these have most meals away from home. This is one of the reasons alleged for the low consumption of fruits on a daily basis:

> **Marilena:** *[...] I have two limitations, two very great difficulties! One [...] is to leave home at 5 am and sometimes I get home at 8 pm. [...] I am unable to handle it, I have already tried to transport it. Bananas, apples. When I arrive from work the banana skin is already black.*

Nevertheless, it can be inferred that fruits are also ready-to-it foods, can be eaten fresh or dried (dehydrated) as part of the main meals or as snacks in the intervals between such meals.[17] One aspect that is different about them that is worth emphasizing is that they do not require time-consuming preparation techniques for consumption, as recognized below:

> **Heloísa:** *I think it is practical, you don't have to cook fruits to eat them, you go and what you do most is to peel them! Therefore, it is easy, it is a healthy thing [...]*

Rooted eating practices

According to the Brazilian government Thematic Glossary: Food and Nutrition *(Glossário Temático Alimentação e Nutrição*), eating practices are uses, habits and customs that define food consumption patterns in accordance with the scientific and technical knowledge of good nutrition.[18] This process must be encouraged since childhood:

> **Louise:** *It was a matter of education indeed. I was not raised to eat fruits and I don't have such habit. [...]*

Food and nutrition education provides substantial assistance to rethink the reasons for this scenario and how we can behave in view of it. The launch of the Brazilian government Reference Framework for Food and Nutrition Education for Public Policies (*Marco de Referência de Educação Alimentar e Nutricional para as Políticas Públicas*) has strengthened the progress of this concept:

> *Therefore, 'Food and Nutrition Education' in the context of carrying out the Human Right to Adequate Food and ensuring Food And Nutrition Security is a field of knowledge and continuous and permanent practice that is transdisciplinary, intersectional and multidisciplinary, aiming to promote the autonomous and voluntary practice of healthy eating habits. Practicing EAN (Brazilian government Food and Nutrition Education) should use problem-solving and active educational approaches and resources to provide a dialogue with individuals and population groups, considering all walks of life, stages of the food system and the interactions and meanings that make up eating behaviors.*[1]

We point out that the nutrition education to which we refer relates to a process of learning, not training[10]. Food and nutrition education does not advocate a passive obedience to diets. It provides access to information, but also improves the subjective aspects of food, so that changes can happen in each person's time and rhythm. It must be tuned to a constant reflection on the food system to which the individual belongs. Therefore, food and nutrition education is not a trivial task.[1]

The role of food and nutrition education is linked to the production of information that serves as a support to assist in decision-making by individuals who were once blamed for their ignorance. These are then victims of a capitalist social organization, are provided with rights and called to extend their power of choice and decision.[19] To form healthy eating habits, lack of information was also remarked:

Simone: *[...] Er... I think it is the lack of information because with information at least you try other alternatives. If you don't have information, you are going to keep the behavior.*

Health education is a set of practices that contribute to increase the people's autonomy in their care and in a debate with health professionals and managers. Coupled with the promotion of healthy lifestyles, promoting healthy eating habits is a vital strategy to address the food and nutrition problems of the current context.[1] As in the guidelines about the importance of water consumption made in the extension project by the researcher, which were effective and showed that the change of eating habits is gradual indeed, but requires an efficient and daily awareness on the reasons for the changes and strategies chosen:

Marilena: *Now I watch myself. Then, there is some... after these instructions on water I drink it much more! And today I am more... I am almost young. (laughs)*

Human beings are social beings and the habit of eating with others is steeped in our history, as well as the division of responsibility for finding or acquiring, preparing and cooking food. Sharing eating and the activities involved in this act are a simple and profound way of creating and developing relationships among people. Thus, eating is a natural part of social life.[17] The act of eating is also a social fact. Therefore, commensality moments can influence our behavior on food choices, as is reflected in the excerpt below:

Elizabeth: *And another [aspect] is indeed the culture, the environment where one lives, [...] It is kind of... if you are led to healthier eating it is kind of like being excluded. There is a very cultural issue in the middle if you... if you start adopting some practices and excluding some things, people start excluding you. [...]*

Lack of access to healthy lifestyles

One difficulty also evident was with regard to access in terms of physical and financial aspects. Raw or minimally processed food – previously commonly sold in grocery stores, greengroceries, butcher shops and small markets located close to people's homes – today tend to be purchased in supermarkets far from homes. The distance turns food shopping into a weekly or even monthly activity, which reduces the homes availability of perishables such as fruits and vegetables.[17] This trend for the purchase of food is experienced below:

> **Sarah:** *[...] Where to shop? Around here, as I spend the whole day outside of home, I seldom have a healthy corner. I go outside, there is a lot of food booths. I have a snack or something like that in the afternoon and in the morning some Toddy® drink. [...]*

British chef and restaurateur Jamie Oliver states that companies need to take responsibility for feeding their workers properly, taking into account what they make available for their workers to eat.[20] Access on the workplace or study site was one of the main factors mentioned as difficult for the lack or reduction of proper water consumption on a daily basis. They claim that the sites with water available for drinking are far from their work sector, implying again the lack of time, a reality found below:

> **Susanne:** *Here it is the distance itself. I have to go down four flights of stairs to go to the water cooler to drink water. [...]*

In the Household Budget Surveys (HBS) (Brazilian government *Pesquisas de Orçamentos Familiares* – POF) data of the 1990s it is noted that the presence of carbohydrates in the diets tends to decline between surveys in the metropolitan areas of the North and Northeast regions of the country and this decline is offset, in similar parts, by the increased supply of proteins and lipids. The fraction of refined sugar (sucrose) grows on the fraction of other carbohydrates both in the North-Northeast and the Mid-South of the country. In both regions, the proportion of total calories from complex carbohydrates, which represent the vast majority of "other carbohydrates," is well below the recommended minimum of 50%.[21] Therefore, foods high in sugars and fats tend to offer more cost-benefit to consumers relative to energy intake, i.e., more energy with less cost. This makes them buy less fruit because these are less caloric and need to be bought in larger quantities, resulting in higher cost:

> **Hannah:** *[...] I would mention money. Because after I started going to the farmers' market I know how expensive it is to buy fruits. (laughs)*

What is healthy is not tasty

Since eating is the intake of food and not of nutrients, a healthy diet should be based on eating practices having social and cultural significance. Food has taste, color, shape, aroma and texture and all of these components need to be considered in the nutritional approach. The argument about the lack of taste in healthy eating is another taboo to be demystified because healthy eating is and must be pragmatically tasty. Resuming taste as a fundamental attribute is a necessary investment to promote healthy eating.[16] It is what can be seen in the excerpt below on the reduced consumption of fruits:

> **Elizabeth:** *Flavor. It is not very attractive. It is physically attractive, you know, it is beautiful, I don't know. You know it is healthy, but flavor... It is not as tasty as other foods. For me this is my greatest difficulty. [...] It's because the flavor doesn't attract me much. If it would, I would remember it. (laughs) [...] It is not what attracts me first. Therefore I end up eating other things. And fruits are not the preference.*

In this respect, there is a contrast with the products ready for consumption, increasingly "irresistible" in the light of technological advances that offer the industry virtually endless possibilities of manipulation of taste, aroma, texture and appearance of products. Products ready for consumption are convenient and attractive. They don't need or substantially reduce the culinary activities of preparation, seasoning and cooking, have long shelf life, can be stored for long periods and are very pleasing to most people's taste.[17] Therefore, unlike fruits, the presence of taste is more mentioned for foods like cured dry food:

> **Susanne:** *I think it is taaaaasty indeed! (laughs) It is tasty... something spiced at a barbecue meal. Who wouldn't eat it, for God's sake? [...] Everybody here knows how this is made. I am completely aware of how it is made and processed. But it is not like I'm eating it every day. [...] But it is tasty indeed. If I could, if it were as healthy as fruits, I would eat it every day. (laughs)*

Contemporary society is characterized by the pursuit of pleasure. Having pleasure is revealed in living a better life, in not depriving of anything, that is, satisfying emotional needs, whether physical, sensory, aesthetic, relational, playful, among others. For this, human beings are not deprived from superfluousness and consumption shall be governed by feelings, especially the feeling of happiness.[22] This pursuit of pleasure has a very strong relationship between sweets and this sensation:

> **Louise:** *Because candies boost serotonin, right?! It is a source of pleasure and happiness, say, instantaneous.*
>
> **Hannah:** *I think the difficulty in avoiding sweets is in the feeling of pleasure that they bring. [...]*

In general, the traditional method of nutrition education focuses on the biological effects of nutrients in the body, food guidance, and also in the preservation of nutritional properties of the food involving preparation techniques and storage.[10] Jamie Oliver mentions that, to start over and perform a tangibly visible change, supermarkets should, besides helping us to buy food, teach people who are busy to cook them quickly, tastily and seasonally.[20] This difficulty is reported below:

> **Catarina:** *[...] It is like that, little knowledge about tasty and healthy recipes. (laughs) Because I think this is rarely discussed. Then maybe if we started to talk more, "Ah, how is a dish like that prepared? Ah, it must be so tasty!" Because one knows how to make lasagna, Brazilian mashed potato dish escondidinho, pot pie...*

Brazilians of all ages, including children, adolescents and adults, spend on average more than five hours a day in front of television sets. For a considerable part of this time, they are exposed to commercial advertising, and the fraction corresponding to food advertising is substantial, particularly of products ready for consumption and highly processed.[17] According to Lipovetsky, marketing actors praise the merits of products that enable consumers to live imaginary, emotional and sensory experiences.[23] Consumption is emotional, thus the relationship between the brand and the good memories: family and friends gatherings, celebratory events or stories of the past. Therefore, the use of values and ideas need to be inserted in the brand.[22]

One of the principles of education brought to light is the strength of what we learn when we think we are not learning.[1] Advertising as a carrier of ideas related to food and nutrition may act in this gap, aiming to teach eating habits so that they are unobtrusively learned and incorporated into the daily life. This situation is seen below:

> **Tales:** *Ah, it is not so difficult for me. I think people buy more of these processed foods firstly due to marketing. [...] But Coke® and Guaraná® have broadcasted an ad that today has a heavy influence on me, because popcorn for me has to be with a guaraná (Paullinia cupana) drink! (laughs and laughter) [...] I think it was such a heavy ad... [...] Even the song I know! Therefore, I don't like guaraná drink. If I am to have a guaraná drink can I am not going to have it all [...] But if it is with popcorn, it is a guaraná drink and popcorn [...] (laughs) Then there is Coke. It is the same thing with pizza, because the soft drink that I enjoy most is the orange one. But if it is with pizza or fried fish, there there has to be Coca Cola. [...].*

"Dieting is a sacrifice"

Today, diets are seen by people as something in which they need to restrict some foods because of diseases. But the meaning of diets goes much beyond that. A healthy diet needs to be seen as something of daily life, as a way for people to take care of themselves. French philosopher Michel

Foucault refers to the care of oneself as the fact of minding oneself, worrying about oneself.[24] Therefore, if a healthy diet involves daily care, people should not feel like being out of this process but as active subjects in their own food choices.

Habits and lifestyles are closely associated with people's health conditions. Thus they integrate the broad spectrum of – social, economical, political and cultural – issues involving health promotion, which is a precondition for an individual and collective life quality.[25] Currently, it is clear that these factors contribute to a change in the global epidemiological scenario in which non-communicable chronic diseases such as obesity, type II diabetes, cardiovascular disorders, and some cancers have assumed prominence, since their prevalence has been considerably increasing. Most of these diseases present an etiology related to behavioral aspects such as diet and exercise, which have also historically been changed from the primitive man.[26] Concern about chronic diseases is already evident in the field of public health but when the disease process is something long-term it brings convenience to people's lives and diet changes are still left out, as reported below:

Elizabeth: *[...] At least in my case, in my genetics, I don't know... I don't feel the effects as fast. Let's say, I don't know... diabetes, obesity, high cholesterol. Not with me, thank God, the bad effects are not as fast. And then I don't care, let's say, you know? As I don't see it, it's not something that causes an effect soon, you... "Ah, tomorrow I am going to eat best," say. Time goes on...*

The increasing substitution of fresh food rich in fiber, vitamins and minerals for processed products makes up one of the major risk factors for obesity.[6] Sweets in general are known as those that need to be consumed in moderation because of their association with diseases such as diabetes and obesity:

Louise: *Sweets make me anguished, because... I have an insulin resistance. Therefore, I can't... eat candies, but I can't resist them! Therefore, I don't eat all the candies. I don't cake, I don't eat pie, I don't eat... I just eat chocolate! [...]*

Marilena: *[...] I've already pulled a piece of nail here by thinking about this. [...] Before the surgery, I could no longer eat, you know, because I would eat and it was painful! Then I removed the gallbladder [...] and it messed with all my psychological status. Avoiding sweets once and for all! [...] Everything I used to eat... Chocolate is over. Even today... I haven't adapted yet. [...] My dulce de leche, it is over. [...] I ended up feeling "the diabetic." [...] Then, what is my difficulty? Because I miss it and I can't eat it [...].*

Diets seen as a sacrifice are perceived by the subjects as a foreign practice to their lives, something that is going to be done to prevent evil and not as a life-giving everyday and enjoyable practice.

Health should be seen as a resource for life and not as a life goal.[16] Freedom and constraint, as never seen before, struggle to maintain balance in the individual control of bodies. We lack rules. The more insecure we feel, the more we see the multiplicity of speeches flourish offered by the market to "help" us cope with our dietary fears. The nutrition science discourse is one more of thousands faced by contemporaneous diners in their search for "eating well." Due to endless factors that go beyond food, we may not be able to get to a food theory that synthesizes good eating.[27]

Strategies

EAN as a daily practice

The new instantaneity of time radically changes the modes of human conviviality and more conspicuously the way humans care (or do not care, in any case) for their collective affairs. Or rather how they transform (or do not transform, in any case) certain issues into collective issues.[28]

The list of strategies on health aimed at Promoting Adequate and Healthy Eating (Brazilian government *Promoção da Alimentação Adequada e Saudável* – PAAS) involves food and nutrition education, which is added to food regulation strategies – involving labeling and information, advertising and improving food nutritional profile – and encouraging the creation of institutional environments promoting adequate and healthy eating, impacting the supply of healthy food in schools and workplaces. The development of personal skills in food and nutrition involves thinking about food and nutrition education as a dialogue process between health professionals and the population, which is of fundamental importance to exercise autonomy and self-care.[29] Nutritional counseling in the hospital sectors during the extension project performed by the researcher was one of the strategies that worked and could be used in the workplace, as described below:

Edith: *When Mariana started giving... ah... providing such information to us in the sectors, she had something about water: "Have you already had water today?" And I would stay there by the bulletin board. Every time I approached it I would see it, "Have you already had water today?" Then I would go straight to have water [...] (laughs)*

Maria: *[...] It was a strategy that I began to use. And I think it would be useful regarding water. To have a little bottle, bringing a little bottle in the morning. It gets much easier when the water is close to us. As I have noticed, most of the people here don't consume so much water due to the difficulty of access. [...] Therefore, I think that if we brought a little bottle and left it on the desk it would be impossible not to drink it [...].*

The video shown at the second meeting to the focus groups was also recognized as a good food and nutrition education tool to raise awareness about the risks of high consumption of processed foods:

Tales: *Yeah, the video. Ixxx think it is very interesting! [...] I for instance think that it would decrease my sandwich cookies consumption. (laughs)*

EAN as an eating policy

Recognizing any human rights can and should be required from states in various ways and in various branches of government. One of the key aspects for this requirement to occur is that citizens, public officials and civil society be informed about their rights and obligations.[30]

The human right to adequate food is:

[...] a human right inherent in every person to have regular, permanent and unrestricted access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of the people to which the consumer belongs, and which ensure a physical and mental, individual and collective, fulfilling and dignified life free of fear. Therefore, it takes place "when every man, woman and child, alone or in community with others, have the physical and economic access at all times to adequate food or means for its procurement."[30]

Thus, the promotion and full realization of the right to food (Brazilian government *Direito Humano à Alimentação Adequada* – DHAA) have large elements of social and economic justice in a country such as land reform; agricultural policy; appreciation of family farming, supply policies, encouraging agro-ecological practices; nondiscrimination of people, ethnic background and gender; health surveillance of food; water supply and sanitation; school meals; quality prenatal care; promotion of breastfeeding, among others.[30] That is why the possibility of health is not produced from the time when the individual makes a choice regarding what to eat. It starts from when a nation decides what to plant, how much it invests in this, how it subsidizes access to food for the population, among others. That is, providing nutrition education involves also making and discussing politics.

The debate on health promotion assumes that health and quality of life do not depend on singly offering a given service but on offering a set of living and working conditions.[10] Often, advising on healthy eating habits is not enough to ensure that they are incorporated, as environmental conditions are not always favorable. Therefore, regarding the access to a daily intake of water, it was suggested: "More drinking fountains around the hospital" (Simone).

Environments that do not promote healthy eating patterns, in no way unusual, imply the need for education about nutrition not being restricted to informing people about those standards attributes. It is equally important to empower people – in this case as citizens – to identify obstacles to the practice of healthy eating, the actions able to remove these obstacles and ways and strategies to implement these actions.[16] Then, if the workplace does not give conditions for a healthier diet, one can create strategies that involve the group, for example:

Marilena: *We usually don't bring snacks here in the sector? Okay, let's buy fruit and have a stock of it!*

Strengthening or increasing the degrees of autonomy for food choices and practices implies, on the one hand, the individuals' increased ability to interpret and analyze themselves and the world, and on the other, the ability to make choices, to govern and produce their own lives.[29] People can develop personal strategies to circumvent their own difficulties:

Maria: *Er... one thing I did to be able to resist sweets was to not buy it. I don't buy sweets. I don't have any candies around my home. I end up eating them when I go to a party. Then I don't avoid it. I also eat a small amount because previously I would eat a lot indeed, but I have reduced the amount [...].*

The mobilization of society, professionals and managers around an adequate and healthy food promotion is only going to be possible when this topic – as an expression of citizenship and a factor of life protection – is appreciated. For this to occur, we must recognize the complexity of the subject matter; the different views existing within society; a deep knowledge of the population's different eating habits and their determinants; the understanding that the desired impact requires permanent actions and the results are medium and long term.[1]

Vegetables and fruits are usually among the most expensive items on a diet based on food and cooking ingredients. Buying fruits and vegetables at farmers' markets and other places, such as "vegetables sales by kilogram" or "vegetable retail shops" where there are fewer intermediaries between the farmer and the final consumer, can also reduce costs.[17] Today, not only supermarkets but also smaller markets near our homes set aside a day of promotion for these foods (fruits and vegetables), usually on the day the merchandise arrives, that is, besides the low cost, the food is fresher:

Edith: *Near my house there is a farmers' market. Okay. Today is Thursday, the day of vegetables and fruits. Therefore, vegetables and fruits on Thursday are cheaper [...].*

Therefore, considering that the environment does not always favor the access to healthy living, it would be up to the Brazilian Ministry of Health to put in place measures that would help people, such as: promoting family farming, promoting the deployment of street fairs, and encouraging through financial subsidies foods that tend to be more expensive due to reduced shelf-life, such as brown rice, increasing the diet nutritional value with a more affordable cost.

EAN at schools

At Brazilian National School Feeding Program (*Programa Nacional de Alimentação Escolar* – PNAE), for example, the progressive strengthening of EAN has culminated in Law no. 11947,[31] where a guideline provides:

> *[...] including food and nutrition education in the teaching and learning processes within the school curriculum, addressing the topic of food and nutrition, and developing healthy life practices from the perspective of food and nutrition security.*[1]

This need is recognized below:

> **Marilena:** *It should be a compulsory subject [...] nutritional counseling since childhood.*

Jamie Oliver emphasizes the importance of teaching children in schools about food and nutrition, as these culinary skills must be values cultivated from an early age. It is important that children leave school knowing how to cook at least ten recipes that are going to save their lives. This means that no matter who they are – students, youth or adults –, they are going to be able to apply cuisine basics, no matter what time they live in. If they know how to cook, time does not matter.[20]

Not only teaching how to cook, but also reflect on advertising that revolves around the food topic. The amount of material on television and radio programs, magazines and the Internet is increasing with information and recommendations related to food and health. Often these materials emphasize specific foods, propagated as "superfoods" and ignore the importance of varying and combining foods.[17] Nutritionally rich foods should be appreciated and are going to enter naturally in the diet adopted without the need to mystify one or more of their characteristics.[16]

Good eating habits should also be encouraged from the eating times at school. Such values, when learned in fact, are taken home by children and grown in the family. Regular meals carefully and unhurriedly consumed favor the food digestion and also avoid eating more than necessary. The characteristics of the environment where we eat influence the amount of food we eat and the

pleasure we can derive from the food. Smells, sounds, lighting, comfort, cleanliness conditions and other site characteristics are important.[17]

An alternative action for healthy eating should favor, for example, the displacement of the consumption of unhealthy foods to healthier foods, respecting the cultural food identity of people and communities. Prohibitions or limitations imposed should be avoided, unless they are part of individualized and particularized guidelines on nutritional counseling for patients with specific diseases or nutritional disorders, properly justified and clarified.[16]

Conclusion

It was possible to observe, by the simplified nutritional diagnosis, that the employees' anthropometric profile is of 43% overweight or obese. Among other factors, this may be due to bad eating habits.

As for the difficulties encountered to incorporate healthy eating habits, the dialogue established allowed the closure of the following categories: *there is no time*, because the immediacy of modern life has created a lack of time for things that are fundamental, such as eating, thus changing human conviviality and its needs; *entrenched eating habits*, if not healthy, they lack gradual change, and that's when food and nutrition education steps in to offer food as a priority, allowing access to information that is going to give the individual autonomy to make their choices; *lack of access to healthy lifestyles*, related to the availability to food purchase that is often hampered by physical access to sales sites and the cost of healthy foods; *healthy is not tasty*, mainly because the taste is closely linked to taste formation – thus stimulating culinary skills is essential for food to become more attractive. Finally, *dieting is a sacrifice* because people still do not recognize it as a health promoter but as a sacrifice to avoid evil.

Based on the above, nutrition education should be experienced in everyday practice from the time when nutrition guidelines are focused on self-care, giving people the freedom of choice for their own health promotion. Proper and healthy eating needs to be recognized as an expression of citizenship and a protective factor to life. And since citizenship is learned from childhood in schools, the EAN must also be seen and encouraged in these environments as teaching and learning processes, stimulating from the culinary skills to good dietary practices.

What can be applied in schools also extends to the workplace, where companies must assume the role of being in charge of their employees' health, encouraging appropriate and healthy eating habits, among other measures.

In view of the few studies that address this issue in this way, more studies like this are needed in other work environments, which are not related to health either, in order to ascertain what professionals from other areas think about food and what difficulties they face in these environments.

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