

# Values about food and dietary behavior of students at the University of Brasilia

Ruanda Pereira Maia<sup>1</sup>  
Elisabetta Recine<sup>1</sup>

<sup>1</sup> Universidade de Brasília, Departamento de  
Nutrição, Faculdade de Ciências da Saúde.  
Brasília-DF, Brasil.

Correspondence  
Ruanda Pereira Maia  
Universidade de Brasília, Departamento de  
Nutrição, Faculdade de Ciências da Saúde -  
Campus Universitário Darcy Ribeiro  
70910-900 Brasília-DF, Brasil  
E-mail: [ruanda\\_maia@yahoo.com.br](mailto:ruanda_maia@yahoo.com.br)

## Abstract

The aim of this research was to investigate the dietary knowledge, beliefs and behavior of students at the University of Brasilia. It is a cross-sectional, quantitative study conducted with 350 students, aged between 18 and 25 years, who responded to an online questionnaire. Results were analyzed using the SPSS statistical program to calculate descriptive statistics and the chi-square test with significance level at 5%, and the software *MS Excel* was used to determine the mean and standard deviation. We investigated dietary patterns, social relationships, related beliefs, intrinsic beliefs and dietary behavior. The priority topics for the lives of the university students were health (73%), education (71%) and food (45%); and the most important aspects for a healthy diet are price (62%), self-interest (61%) and time (51%). The students considered the following aspects as important: knowledge and time available to cook, eating in a calm place and eating with other people, choosing their food, taking care of their health at present and having fresh and natural foods available. They agreed with the statements made on: influence on food choices for convivial groups, concern about hunger, overuse of pesticides for food production, importance of reliable information on food, and food advertising increases consumption of unhealthy foods. Young people have shown great interest in their food and in food-related issues from a social point of view, although they were not always a priority in their daily lives. We suggest this topic should be prioritized in strategies that promote the quality of life of university students, and in further research conducted in the fields of Nutrition, Public Health and Social Sciences.

**Key words:** Youth. Dietary behavior. Beliefs about food. University students.

## Introduction

While youth can be defined objectively as the period between childhood and adulthood, other dimensions and aspects can characterize it from the social and cultural point of view. Brazil's Constitutional Amendment 138/03, approved for the Federal Constitution, defines the term “youth” as Brazilians aged between 15 and 29 years old. According to the Institute for Applied Economic Research (IPEA), the young population is distributed in three groups: young-adolescent, from 15 to 17 years; young-youth, from 18 to 24 years; and young-adult, from 25 to 29 years. It is known that the young currently account for 26% of the total population of the country, totaling 51 million people.<sup>1</sup>

From the social point of view, youth is seen as a period for broadening one's horizons, having various initiatives of expression, and for entry into the labour market. These aspects encourage young people to take their own independence and emancipation. The beliefs present in the lives of young people involve several variables that identify them and distinguish them from others. Fashion, for example, is perceived by them as means of expression, self-fulfillment and display of identity and independence.<sup>2</sup>

From the political point of view, part of this group evaluates the political system as bureaucratic and corrupt, in which most politicians do not defend the interests of the population. However, young people also believe that the path of politics comprises power and decision-making power. To control these negative points, the youth points to the need for other paths of social change, but also the need to supervise, control and charge the actions of politicians through elections and direct activities in political parties, councils, non-governmental organizations (NGOs), social movements, etc. For this group, engagement in politics produces greater impact on overcoming the social problems of the country.<sup>3</sup>

The aspirations of young people help explain their concerns and wishes of self-fulfillment, and the most important aspects are: having a job (48%), education (30%), financial stability (25%), housing (22%) and raising a family (13%).<sup>4</sup>

According to the 2010 Population Census, about a quarter of the Brazilian population consists of young people, with 49.6% males and 50.4% females, predominantly *pardo* (brown-skinned). In terms of beliefs, housing and schooling, 56% self-reported as Catholics, 85% live in urban areas, and 38% have finished high school.<sup>4</sup>

Understanding who these young people are poses a challenge. In 2013, the IPEA conducted a survey in Brazilian households in order to gather information about Brazilians' interests, needs and understanding of national public policies. For young Brazilians, the six following categories

were considered as priority, in descending order: quality education (85.2%), health services (82.7%), food quality (70.1%), honest and active Government (63.5%), protection against crime and violence (49%) and better job opportunities (46.9%).<sup>5</sup>

As seen above, food quality was the third priority of youth, among many topics. Knowledge of the dietary behavior of that group is crucial, not only in terms of amount and nutritional value, but also of the whole context and meaning of such behavior for young people.

It is known that dietary practices involve the procedures for preparation and intake of food, and they are influenced by beliefs, memories, daily experiences, socioeconomic status, family memories, cultural identity, symbolisms, etc. Therefore, comprehension of dietary behavior involves identifying what someone eats, when, why, how, with whom, how choices and combinations were made, thoughts during the action of eating, among other points that are part of such context and reality.<sup>6</sup>

Many young university students commonly live alone and/or spend most of the day away from home, and these conditions also influence their dietary behavior. Studies by Vieira<sup>7</sup> found that 60% of the university students they had interviewed did not have three daily meals on a regular basis, and 37% did not have breakfast. In the eating habits of young people and adolescents, breakfast is increasingly losing ground, and dinner is being replaced with snacks.<sup>8</sup>

Other important beliefs to be observed and whose influence on food intake should be evaluated are collectiveness and commensality. For students who leave their parents' home and start living alone, in student lodgings or with other people, food intake is a new task they are responsible for, which is ruled by the new environment and their lifestyle as university students. From the perspective of university students, food intake is not always a priority; in addition to affinities and personal interests, academic life is marked by new experiences and discoveries, new relationships, leisure, cultural activities, etc.<sup>9</sup>

It can be seen, depending on the belief and importance of food intake in the life of young people, that they may adopt strategies to improve the quality of food intake, e.g. combine socializing with the convenience of eating at their parents' home, or prepare their own meals as they please, for example. Young people see the possibility of benefiting from the autonomy of their own food choices as a representation of self-determination and freedom.<sup>9</sup> However, understanding what young people think and what they expect from the world is very important to understand the changes that have occurred in the beliefs and the aspirations of every society. Their attitude and behaviors interfere in the whole picture and pose new challenges to the Government, entities and organizations.<sup>1</sup>

In the above context, do young people also express themselves in the world through their food choices and their way of life? It is essential to know the practices and beliefs associated with young people's eating habits, in view of the scarce amount of Brazilian research on this topic, in order to encourage educational, health, economical and political strategies to support their identity and foster their development at the personal and global levels.

Thus, the present study aims to investigate the general knowledge, beliefs and food intake behavior of students at the University of Brasilia. The specific objectives are to: characterize the students' eating habits; identify interests and autonomy as to food; identify dietary practices adopted for convenience and practicality; associate commensality and social context; investigate links between beliefs on nutrition and health, environment and social equity.

## Method

This is a cross-sectional, quantitative study, which data collected on food intake as well as demographic and socioeconomic variables. Convenience sampling was performed; the sample was composed of university students aged between 18 and 25 years, regularly attending undergraduate degree programs at the University of Brasilia (UnB). The research project was reviewed and approved by the Research Ethics Committee of the School of Health Sciences of UnB (CAAE 33698014.9.0000.0030). Data was collected in November 2014.

Sample calculation was carried out on the basis of the number of students enrolled in undergraduate courses at the University of Brasilia (UnB) in the year 2012. Confidence level and margin of error were set at 95% and 10%, respectively, with a total of 350 participants.

Research data was collected by means of a structured and self-applicable questionnaire, made available on an online platform. The items of the questionnaire were designed by the research team based on topic maps, literature review and brainstorming. The questionnaire was pre-tested with 10 students and edited as needed before its effective application. No validation was performed.

The questionnaire was made up of multiple choice questions and the Likert psychometric scale to evaluate the degree of importance or agreement of the topics presented, ranging from "1 - very unimportant / strongly disagree to "5 - very important / strongly agree", respectively, in addition to the option "not applicable/don't know". The students were invited to participate in the survey through social media and messages sent to students' email addresses. To respond to the questionnaire, the participants had to read the informed consent form (ICF) and select a checkbox at the end of the document ("I agree to participate in the study described above.") in order to be able to participate in the study.

The questionnaire was made up of: 1) socio-demographic Information, with variables on sex, age, degree course being attended, group of people who they live with, predominant means of transportation; 2) world's most important topics and variables that enable a healthy diet; 3) food-related variables: a) qualitative profile of the diet: frequency of intake of rice, beans, milk, meat, fruit and vegetables; b) Main meals: breakfast, lunch and dinner; c) Place and time of meals: at the table, in front of the computer or tv and while in motion; 4) degree of importance or agreement with the statements and aspects presented: a) dietary practices: cooking skills, food shopping, choices for convenience and practicality; b) intrinsic beliefs: importance of food in personal life, concern for health at present and in the future; c) social context and commensality: eating with other people, interpersonal and intrapersonal influence, environment, time/duration; d) related beliefs: concern about pesticides, deforestation, hunger and food advertising. The questions were presented to the respondents within the above blocks at random, and they could be understood independently of others.

Data were analyzed by using SPSS (Statistical Package for The Social Sciences) version 17.0 for calculation of descriptive statistics and the Chi-square test. The level of significance was set at 5% ( $p < 0.05$ ). The software Excel 2013 was also used for calculation of the means and standard deviation. To evaluate the Likert-scale questions, the score was calculated based on the average of responses of each item, ranging from 1 to 5, and the standard deviation was also calculated. The respondents who marked "don't know" / "not applicable" were not considered for this calculation.

## Results

The final sample was composed of 350 university students with an average age of 20 years ( $SD = 2.04$ ): 65% were females ( $n = 229$ ) and 35% were males ( $n = 121$ ). The undergraduate degree programs attended by respondents were grouped into large areas, totaling 138 students of Humanities (39%), 118 of Biological Sciences (34%) and 94 of Exact Sciences (27%).

As far as income is concerned, the majority (63%;  $n = 221$ ) said to have personal income, and the following sources of income were cited: athletic scholarship, private research grant, allowance, internship wage, child support, tutoring, Tutorial Education Program (PET), research project, private tuition, regular job and job as a civil servant.

As for housing, 91% ( $n = 318$ ) declared to live with parents and/or family; 5% ( $n = 17$ ) answered that they lived alone; 2% ( $n = 9$ ) responded that they lived with friends; and 2% ( $n = 5$ ) reported living with a spouse or partner.

The means of transportation most frequently reported were car (46%;  $n = 161$ ) and public transportation (37%;  $n = 129$ ). Other respondents commuted in different ways, by bike or on foot.

The analysis of the answers about commensality in the household showed that 47% of the university students usually have meals with their family, while 44% have their meals alone. The other students reported eating with different people, with friends or not having their meals at home.

In order to understand the concerns of young people about the world and their priorities, several topics were presented, and the respondents were required to check the three most important topics in their perception (Table 1). The three categories most frequently checked were: health (73%), education (71%) and food (45%). It should be noted that these figures do not indicate the degree of importance or the exact order of the categories, as each student ranked the three topics with the same weight.

**Table 1.** Most life-relevant topics as viewed by the university students. Brasília-DF, 2014.

Topic	N	%
Health	254	73
Education	249	71
Food	158	45
Culture and Leisure	154	44
Security	130	37
Sports	52	15
Transportation	34	10
Other*	12	3

\*Other topics included: love, relationships, religion, infrastructure, knowledge, God, sex, independence, housing.

The respondents were also asked about the three topics that they considered the most important for a healthy diet. The most frequently checked were: price (62%), self-interest (61%) and time (51%), as shown in Table 2.

**Table 2.** Aspects that the university students considered the most important for healthy food intake. Brasília-DF, 2014.

	N	%
Price	218	62
Interest (personal desire)	213	61
Time	180	51
Cooking/Preparation skills	161	46
Easy to purchase	146	42
Information	123	35
Other	11	3

\*Topics listed as other included: access to food of non-animal origin, quality, organic foods, taste, sports nutrition, self-esteem and available foods.

## Dietary pattern and food quality

Questions about food quality and dietary pattern of the meals were also asked. Most respondents have breakfast (70.3%) and lunch (93.1%) daily. Dinner is eaten every day by 57.1% of the students. Men had higher prevalence in having lunch ( $p = 0.003$ ) and dinner ( $p = 0.001$ ) daily. Dinner, in turn, is eaten every day by 57.1% of the students. Daily lunch and dinner ( $p = 0.001$ ) had higher prevalence in men ( $p = 0.003$ ).

Table 3 shows results about eating behavior and food intake. As for places, times and objects involved in food intake, more than half the sample reported eating at the table daily (53%), which was more prevalent in men ( $p = 0.033$ ); there was low prevalence for daily intake in front of the TV set (23%) and the computer (11%). While eating in front of the computer was not a daily habit, 35% of respondents reported performing this action occasionally.

**Table 3.** Frequency of food intake and dietary practices of the university students. Brasília-DF, 2014.

	M/F	1 x/week	2 ou 3 x/ week	Daily	Occasionally	Never	P
		----- % -----					
Breakfast	M	1.7	18.2	6.6	7.4	4.1	
	F	2.2	12.2	71.2	13.1	1.3	
	<b>Total</b>	2	14.3	70.3	11.1	2.3	0.122
Lunch	M	0.8	0.8	97.5	0.8	-	
	F	-	7.9	90.8	-	1.3	
	<b>Total</b>	0.3	5.4	93.1	0.3	0.9	0.003
Dinner	M	0.8	19.8	68.6	9.1	1.7	
	F	5.7	18.8	51.1	17.5	7	
	<b>Total</b>	4	19.1	57.1	14.6	5.1	0.001
Eating away from home	M	6.6	45.5	40.5	7.4	-	
	F	11.4	39.3	38	10.9	0.4	
	<b>Total</b>	9.7	41.4	38.9	9.7	0.3	0.373
Eating in front of the TV set	M	6.6	31.4	14	27.3	20.7	
	F	5.7	27.1	28.4	30.1	8.7	
	<b>Total</b>	6	28.6	23.4	29.1	12.9	0.002



	M/F	1 x/week	2 ou 3 x/ week	Daily	Occasionally	Never	P
Eating in front of the computer	M	7.4	17.4	15.7	35.5	24	
	F	5.2	21.8	8.3	34.9	29.7	
	<b>Total</b>	6	20.3	10.9	35.1	27.7	0.168
Eating at the table	M	5	28.9	54.5	6.6	5	
	F	5.7	20.5	51.5	18.3	3.9	
	<b>Total</b>	5.4	23.4	52.6	14.3	4.3	0.033
Eating while in motion	M	9.1	11.6	4.1	33.1	42.1	
	F	10	11.4	5.2	41.9	31.4	
	<b>Total</b>	9.7	11.4	4.9	38.9	35.1	0.352
Eating fruit	M	9.9	35.5	33.1	15.7	5.8	
	F	13.5	27.1	46.7	10.9	1.7	
	<b>Total</b>	12.3	30	42	12.6	3.1	0.018
Eating rice and beans	M	1.7	15.7	75.2	5.8	1.7	
	F	2.2	22.3	69	3.5	3.1	
	<b>Total</b>	2	20	71.1	4.3	2.6	0.441

	M/F	1 x/week	2 ou 3 x/ week	Daily	Occasionally	Never	P
Eating meat	M	-	11.6	86.8	0.8	0.8	
	F	-	18.3	76	2.2	3.5	
	<b>Total</b>	0	16	79.7	1.7	2.6	0.086
Having milk	M	7.4	33.9	33.9	16.5	8.3	
	F	11.4	23.1	39.3	17	9.2	
	<b>Total</b>	10	26.9	37.4	16.9	8.9	0.257
Eating fried foods	M	16.5	44.6	7.4	25.6	5.8	
	F	21.4	30.6	6.1	38.9	3.1	
	<b>Total</b>	19.7	35.4	6.6	34.3	4	0.025
Eating vegetables	M	5.8	35.5	43.8	9.1	5.8	
	F	7	30.6	48	12.7	1.7	
	<b>Total</b>	6.6	32.3	46.6	11.4	3.1	0.007

The respondents reported, for food groups, daily intake of rice and beans (71%), meat (80%), fruit (42%); leafy greens and vegetables (47%) and milk (37%). Daily intake of fruits and vegetables was higher for women ( $p = 0.018$  and  $p = 0.007$ ). The participants responded on the aspects and assertions about practices and beliefs about food using a five-point scale according to level of importance (Table 4).

**Table 4.** Classification of aspects and statements that refer to beliefs about food and dietary practices of university students according to degree of importance. Brasília-DF, 2014.

	Degree of importance						Mean
	1	2	3	4	5	NA	
	%						
Knowing how to cook	2	5	15	50	28	1	3.98 ± 0.9
Having enough time to cook	2	5	16	47	29	1	3.97 ± 0.92
Having ready-to-eat foods at home	19	34	18	19	8	1	2.63 ± 1.23
Having someone prepare the meals	5	13	23	31	28	0	3.64 ± 1.16
Having a practical meal to save time	3	19	20	40	17	1	3.50 ± 1.09
Eating in a quiet place	5	9	24	31	31	0	3.76 ± 1.13
Eating with other people	8	9	33	31	20	0	3.47 ± 1.14
Participating in food purchase	9	15	31	26	19	1	3.31 ± 1.20

	Degree of importance						Mean
	1	2	3	4	5	NA	
	%						
Choosing what you want to eat	1	4	6	43	46	0	4.29 ± 0.83
Eating healthy foods at present	1	3	10	33	54	0	4.36 ± 0.83
Eating healthy foods in the future	0	1	7	25	68	0	4.59 ± 0.67
Doing physical activity at present	2	4	8	33	51	1	4.30 ± 0.92
Taking care of your health at present	1	1	7	29	60	1	4.49 ± 0.76
Eating foods produced locally by small farmers	13	14	43	19	9	2	2.99 ± 1.12
Purchasing food products with recycled and recyclable packaging	13	12	39	23	9	2	3.05 ± 1.13
Having fresh and natural foods available	2	6	14	40	37	0	4.06 ± 0.96
Eating vegan or vegetarian food	52	14	21	3	5	5	1.89 ± 1.16
Controlling intake of foods of animal origin	24	22	24	21	7	1	2.64 ± 1.26
Eating foods produced without pesticides and GM seeds	13	15	27	26	18	1	3.22 ± 1.27

Caption: 1 – Very unimportant; 2 – Unimportant; 3 – Neither Important or Unimportant; 4 – Important; 5 – Very important; and NA – Don't know/Not applicable.

When answering questions about preparation of meals, choices for practicality or convenience and food shopping, the students considered the following aspects as very important: knowing how to cook (50%) and having enough time to cook (47%). Having ready-to-eat and quick-to-make processed foods at home was considered as unimportant by 34% of the young people; 31% neither agreed or disagreed on participating in food purchase; however, choosing what they want to eat was considered as important by 43% of the respondents, and as very important by 46% ( $4.29 \pm 0.83$ ).

### Social context and commensality

This block of questions was about social relations, environment and importance of time; 40% of the students think it is very important to have a practical meal to save time and 31% find it very important to have someone prepare the meals. The environment was also a very important aspect in this category, and a sign of this is the classification of “eating in a quiet place” as important (31%) and very important (31%). The results for eating with other people have two large prevalences: 33% of young people find it neither important or unimportant to eat with other people, while 31% believe it is important. Together, 78% of the students who claim to agree and strongly agree, believe that social groups can influence their food choices.

### Intrinsic beliefs

This category includes topics involving health and health care at present and in the future. The listed aspects were considered as very important by more than half of the sample, which is indicative of self care and health-related aspects. The following aspects were considered as very important: having a healthy diet at present (54%;  $4.36 \pm 0.83$ ) and in the future (68%;  $4.59 \pm 0.67$ ); doing physical activity at present (51%;  $4.30 \pm 0.92$ ) and general health care at present (60%;  $4.49 \pm 0.76$ ). Finally, having available fresh, natural foods was one aspect considered to be important (40%) and very important (37%) by young people ( $4.06 \pm 0.96$ ).

## Related beliefs

The questionnaire also addressed beliefs about the environment (pesticides, GMO, organic food, food production and recycling), hunger and food advertising (Table 5).

In the case of hunger, 85% said they agree and strongly agree that they worry about people from the same community, city or country who are starving ( $4.21 \pm 0.81$ ). Similar data was found for world hunger ( $4.24 \pm 0.75$ ).

**Table 5.** Classification of statements about beliefs related to the dietary practices of the university students, according to degree of agreement. Brasília-DF, 2014.

	Degree of agreement						Mean
	1	2	3	4	5	NA	
	%						
I believe that convivial groups <b>can</b> influence my food choices	4	7	11	47	31	1	3.95 ± 1.02
<b>My</b> food choices are influenced by the people that I live with	10	24	13	37	16	0	3.26 ± 1.26
I worry about people in my community/city/country who are starving	1	3	10	46	39	1	4.21 ± 0.81
I worry about people who are starving worldwide	1	2	10	47	39	1	4.24 ± 0.75
The use of pesticides for food production must be controlled immediately and reduced drastically	3	7	25	31	30	5	3.82 ± 1.04
The use of GM seeds must be prohibited	17	13	35	10	10	15	2.80 ± 1.22

	Degree of agreement						Mean
	1	2	3	4	5	NA	
	%						
The use of native forest areas for production of agrofuels and cattle raising must be controlled and prohibited	4	11	18	33	27	7	3.71 ± 1.14
It is important to search for reliable information on foods on a regular basis	1	0	9	39	50	1	4.37 ± 0.76
The way I eat expresses my opinions about the world	15	16	30	24	12	4	3.04 ± 1.24
Food advertising increases the intake of unhealthy foods	4	6	5	38	45	2	4.18 ± 1.03
Children-focused food advertising must be prohibited	11	20	17	24	23	4	3.31 ± 1.34
I am willing to engage in volunteer activities to help develop local communities and solve the problem of hunger	10	8	28	31	15	9	3.36 ± 1.17

Caption: 1 - Strongly disagree; 2 - Disagree; 3 - Neither agree or disagree; 4 - Agree; 5 - Strongly agree; and NA. Not applicable / Don't know

For questions that addressed the environment, 61% of the university students reported that they agree and strongly agree with the urgency in control and drastic reduction in the use of pesticides for food production. Also, 60% claim to agree and strongly agree with the control and prohibition of use of native forest areas for production of agrofuels and cattle raising. There was no clear opinion about the prohibition of the use of transgenic seeds.

As for food advertising, 89% of the young people agree and strongly agree on the importance of frequently searching for reliable information on food ( $4.37 \pm 0.76$ ), and 83% said that food advertising increases the intake of unhealthy foods ( $4.18 \pm 1.03$ ).

## Discussion

The results shed light on the profile of the university students. Most of them (91%) said to live with their parents and/or family, which is a typical behavior in the 18-25 age group, because they largely depend on parental income, lack their own income (37%) or have insufficient income for their own livelihood, and they are also uncertain about the decisions they need to take over higher education, family, work, home, financial independence, etc. Data from IPEA<sup>10</sup> indicated that 70% of young people aged between 21 and 25 years want to live independently and the main reasons for living with family or roommates are lack of financial resources (54.8%) and unwillingness (37.5%). Although most students live with parents or relatives, only 47% of the whole group have meals with their family on a regular basis. The other large part of them (44%) usually has meals alone, most likely because they spend a great deal of time away from home and their schedule does not match that of their family, and also because they choose to eat alone.

Another finding is that young people consider health (73%), education (71%) and food (45%) as the most important topics in the world and, consequently, to their lives. Although the categories were not listed in order of priority, such data suggest the greatest prevalence of priority topics. A study carried out by the Department of Strategic Affairs of the Presidency of the Republic, based on field research conducted by IPEA in 2013, found that the following actions are priority for youth: quality education (85.2%), health services (82.7%) and food quality (70.1%).<sup>5</sup> The present study had similar results to those found by IPEA, i.e. health, education and food are the three most important areas in the world.



Healthy eating is a practice that involves the intake of food, while adapting to the biological aspects, particular features of each stage of life, culture-based dietary practices, sustainable use of the environment, etc.<sup>11</sup> It is already known that food is an important aspect in the lives of young people in the present study, and they believe that the criteria that most favor a healthy diet are price, self-interest and time.

Studies conducted by Canesqui & Garcia<sup>12</sup> with adults, in São Paulo, found that lack of time, financial difficulties and cultural habits were barriers to healthy eating. Radaelli<sup>13</sup> and Teixeira<sup>14</sup> also highlighted cost and lack of time as possible obstacles to food choices. It is believed that self-interest, i.e., individual willingness to have a healthy diet, is one of the main aspects that help the promotion of this way of life, contributing positively to abandoning unhealthy lifestyles, which cannot always be directly controlled.

The block of questions about dietary pattern investigated the implementation of daily meals: breakfast, lunch and dinner. Each one of them is valued for different reasons. According to Barbosa,<sup>15</sup> breakfast is considered the most important meal of the day; it is very important in human physiology, but people usually have it on their own because household members have a large number of tasks to perform. Lunch is considered as the most energetic meal, and family members relate to it in varied ways. Finally, dinner is a meal whose significance is in transition; it is more frequently replaced with snacks.

The behavior of having dinner was selected by little more than half of the students (57.1%); it is believed, however, that this topic is underestimated because many people do not consider snacks as dinner. The study by Barbosa<sup>15</sup> focused on sandwiches, for example, which are not considered either lunch or dinner by a large part of the youth. In short, the dietary pattern of the study population reinforces the changes in commensality and the effects of lack of time on the everyday life of these people.

In order to better understand the number of meals and frequency of intake, studies have to apply in-depth surveys and explore more variables, e.g., time spent on meals, place of food intake, meal companions, foods eaten, etc. The results show that students still have the habit of eating at the table and occasionally eat in front of the television, the computer or while in motion. Eating at the table is a natural and expected process, as the table has a social representation that is socially established and can be a place also for sharing and engaging in conversation.<sup>16</sup>

Another study on the eating behavior of Brazilians in the household, addressed the break of old habits and a new relationship with the dining table. The eating habits of Brazilians are informal, and meals at the table are no longer deemed as special. Nowadays people eat more often in places other than the table, for example, in front of the TV set. This habit has downsides when it prevails over conversations and hinders moments of conversation and interaction between parents and children, family, friends and commensality in general.<sup>15</sup> In addition, eating quickly, in motion and anywhere, tends to reduce people's relationship with food, because they usually do not pay as much attention to the pleasures and flavors of the meal. The current generation of young people is always connected with the world through the advancement of information technology. Therefore, it can be inferred that the occasional food intake in front of the computer reflects the priority that other activities listed in the questionnaire are likely to have over food.

The intake of foods indicative of healthy dietary practices (rice, beans, meat, fruits, vegetables and milk) is present in the daily meals of the majority of students. Data from the household budget survey (POF)<sup>17</sup> showed high intake of rice (84.0%) and beans (72.8%) by the Brazilian population, which corroborates the findings of the present study. Men reported lower per capita intake of vegetables and salads than women, a result found in the present study, in which 48% of women and 43.8% of men reported daily intake of fruits and vegetables ( $p = 0.007$ ).<sup>17</sup> This data is not conclusive about the frequency of food intake among young people, because it has not taken into account all the food groups and amounts ingested. A better assessment of this aspect requires the application of a more detailed and appropriate instrument for collection of data on usual food intake.

As regards dietary practices, half of the participants believe it is very important to know how to cook and 47% think it is very important to have time to perform this activity. It is believed that the habit of preparing one's own meal requires certain technical skills, willingness and personal time to practice and perform this action. It is increasingly clear that time is crucial for the dietary practices of university students. Alves and Boog<sup>9</sup>, in study with university students, found that food preparation at home positively influences eating, and their study also corroborated the perception of young people.

Another point that was considered extremely important by young people was choosing what they want to eat. This result was expected, because tastes and food experiences are personal, and choosing one's own food reveals a great deal of information about people's understanding of the world and form of expression. Food is commonly associated with different situations by the

emotional symbolism tied to it. The consumption of certain foods may evoke the expression of independence, self-control and greater proximity with interest groups.<sup>18</sup>

In the case of students' social context and commensality, aspects that can be highlighted are the appreciation of time and the importance of being able to rely on help to prepare meals, having meals in a quiet environment and eating with other people on occasion. A study by Alves and Boog<sup>9</sup> indicates that about half of the university students surveyed considered that eating with other people changes dietary practices positively. Therefore, it can be inferred that the group which finds this activity important appreciates the moment of the meal and the bonds created among people.

At the same time, different perceptions about the importance of eating with other people indicate a transition of this habit; having meals alone is increasingly common. It is known that several factors influence food choices of a group of people. Viana et al.<sup>19</sup>, in a literature review, described some determinants of behavior and eating habits in children and young people, discussed reasons that lead to the intake of certain foods, e.g. intrinsic qualities of food, social influence, impact on body and body weight, preferences since childhood, family influence, economic conditions, level of education, sex, marketing, political factors, etc. These reasons do not exhaust all the determinants involved in the complex process of choosing food, but clarify the opinion of young people surveyed (=agreed 47%; strongly agreed = 31%) that convivial groups can influence their food choices.

Another aspect considered in the survey were intrinsic beliefs related to food, which are indicative of the importance and engagement of young people in self-care. The university students pointed health as a priority in their lives and, at the same time, considered having a healthy diet and doing physical activity at present and throughout life as extremely important. Although they understand what is necessary for taking care of their health, awareness does not always implies initiatives and changes. Young people may use lack of time and more convenient attitudes for each moment as justifications for the difficulty they faced in improving their dietary practices and health care.<sup>20</sup>

Lastly, they were asked questions about food-related beliefs, such as use of pesticides, deforestation, hunger and food advertising. In the last decade, the use of pesticides in food production has alarmed the population, because of the consequences for human health, the environment and food quality in the short and long term.<sup>21</sup> For this reason, young people are in favor of control and urgent reduction of these compounds.

When answering the topics about the environment, the respondents reported worrying about deforestation of native forest areas, which has caused imbalance between flora and fauna, in addition to environmental impacts already present and growing further. According to a study carried out in 2008, it is estimated that at least 70% of the Amazon rainforest gave way to cattle raising, and deforestation continues progressing at unsustainable levels.<sup>22</sup>

About food advertising, Monteiro and Castro<sup>23</sup> claimed that there should be control of food advertising because there is a vast number of advertisements broadcast by major brands which stimulate, above all, the consumption of highly processed products. These products are considered unhealthy because they have a high content of sugars, salt, fat and preservatives. This information confirms the understanding of young people that food advertising increases the consumption of unhealthy foods. It is believed that the frequent search for reliable information about food is an important action to maintain good habits and encourage appropriate dietary behavior.

Another perspective of the present study was young people's concern about others and about social inequality, expressed in statements about hunger in the world and in their community. The young people in this study have shown to be worried about the needs of others and considered it to be an important cause. Although not explicitly, this view approaches the concept of the human right to adequate food, which advocates that every person must have physical and economic access to adequate and healthy food without compromising resources for enjoying other fundamental rights.<sup>24</sup>

Finally, food intake is understood as a mode of representation of a society, and varies according to its culture, food availability, beliefs, priorities, etc. Menasche<sup>25</sup> assumes that if people are what they eat, their identities are formed by what they eat, where, with whom, when and what this action means to them. This study corroborates results that illustrate the various spheres that influence beliefs about food and dietary practices of young university students.

## Conclusion

The initial question of the study – “Do young people express themselves in the world through their food choices and their way of life?” – was answered within methodological limits, and the beliefs about food and dietary practices of students were identified. The university students have shown great interest in their diet and food-related topics from the social point of view, even if this is not always a priority in their daily lives. Their identity is being formed by choice of practical foods; valorization of time; autonomy; commensality; deforestation-related beliefs, use of pesticides

in food production, children-focused food advertising, hunger in the world, influence of convivial groups on their dietary habits and concern about their health.

In order to obtain more reliable results and complementary versions of this study, further research should explore each belief and practice, from its conceptualization to determinants such as socio-economic conditions, lifestyle, aspirations in the world, among others.

Some of the limitations of the study are: convenience sampling, without representativeness by areas of study at the undergraduate level; use of a non-validated questionnaire and limited approach of the variables on beliefs and practices, as it is a quantitative study.

Considering the role played by food intake in the context of health, self-care, integration of individuals into groups where they belong and into society, this topic should be prioritized in the strategies that promote the quality of life in this group and in the lines of research on Food and Nutrition in Collective Health and Social Sciences.

## References

1. Brasil. Governo Federal Presidência da República. Secretaria de Assuntos Estratégicos. Juventude levada em conta – demografia. Brasília, 2013.
2. Pais JM. A construção sociológica da juventude. *Análise Social*, vol. XXV (105-106), 1990.
3. Instituto Brasileiro de Análises Sociais e Econômicas. Pólis – Instituto de Estudos, Formação e Assessoria em Políticas Sociais. Juventude Brasileira e Democracia: participação, esferas e políticas públicas, 2005.
4. Brasil. Governo Federal Presidência da República. Juventude Brasil. Pesquisa Nacional sobre Perfil e Opinião dos Jovens Brasileiros. Brasília, nov. 2013.
5. Neri M. Secretaria de assuntos estratégicos da Presidência da República. Juventude que conta. Brasília, 2013.
6. Garcia RWD. Representações da comida no meio urbano [Tese de Doutorado]. São Paulo: Faculdade de Psicologia da USP, 1999.
7. Vieira VCR et al. Perfil socioeconômico, nutricional e de saúde de adolescentes recém-ingressos em uma universidade pública brasileira. *Rev. Nutr.*, Campinas, v. 15, n. 3, p. 273-282, set/dez. 2002.
8. Gambardella AMD, Frutuoso MPF, Frachi C. Prática alimentar de adolescentes. *Ver Nutr.* 1999; 12:55-63.
9. Alves HJ, Boog MAF. Comportamento alimentar em moradia estudantil: um espaço para a promoção da saúde. *Rev. Saúde Pública*, São Paulo, v. 41, n. 2, p. 197-204, 2007.

10. Instituto de Pesquisa Econômica Aplicada. Comunicados do IPEA. Coabitação familiar e formação de novos domicílios nas áreas urbanas brasileiras. Abr, 2012.
11. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Guia alimentar para a população brasileira: promovendo a alimentação saudável / Ministério da Saúde, Secretaria de Atenção à Saúde, – Brasília: Ministério da Saúde, 2008.210 p.
12. Canesqui AM, Garcia RWD. Antropologia e Nutrição: um diálogo possível. Rio de Janeiro: Fiocruz, 2005.
13. RadaelliPG. Atitudes da população adulta do Distrito Federal, Brasil, relacionados com a alimentação saudável [dissertação]. Brasília (DF): Departamento de Nutrição, Faculdade de Ciências da Saúde, Universidade de Brasília, 2003.
14. Teixeira BA. Caracterização dos fatores de escolha e compra de frutas e hortaliças pela população adulta do Distrito Federal saudável [dissertação]. Brasília (DF): Departamento de Nutrição, Faculdade de Ciências da Saúde, Universidade de Brasília, 2013.
15. Barbosa L. Feijão com arroz e arroz com feijão: o Brasil no prato dos brasileiros. Horizontes antropológicos, Porto Alegre, ano 13, n.28, p. 87-116, jul./dez. 2007.
16. Romanelli G. O significado da alimentação na família: uma visão antropológica. Medicina, Ribeirão Preto, 39 (3): 333-9, jul./set. 2006
17. Instituto Brasileiro de Geografia e Estatística. Pesquisa de Orçamento Familiares, 2008-2009. Análise do Consumo Alimentar Pessoal no Brasil. Rio de Janeiro: IBGE, 2011. 150 p
18. Chapman G, MacLean H. Junk food and healthy food: Meanings of food in adolescent womens culture. Journal of Nutrition Education, 25, 108-113, 1993.
19. Viana V, Santos PL dos, Guimarães MJ. Comportamento e hábitos alimentares em crianças e jovens: Uma revisão da literatura. Psic., Saúde & Doenças. 9(2): 209-231, 2008.
20. Story M, Resnick M. Adolescents views on food and nutrition. Journal of Nutrition Education, 18, 188-192, 1986.
21. Associação Brasileira de Saúde Coletiva. Dossiê ABRASCO: um alerta sobre os impactos dos agrotóxicos na saúde. 1ª parte. Rio de Janeiro: Abrasco, 2012.
22. Repórter Brasil e Papel Social Comunicação. Conexões Sustentáveis São Paulo – Amazônia. Quem se beneficia com a destruição da Amazônia. Fórum Amazônia Sustentável e do Movimento Nossa São Paulo, 2008.

23. Monteiro CA, Castro IRR. Por que é necessário regulamentar a publicidade de alimentos? *Ciênc Cult*; 61(4):56-9, 2009.
24. Lei Orgânica de Segurança Alimentar e Nutricional – LOSAN. Lei nº 11.346, de 15 de setembro de 2006.
25. Menasche R. O ato de comer enquanto prática política. *IHU On-Line*, v. XIV, n. 442, p. 31-34, 2014.

Received: December 22, 2014

Revised: December 30, 2014

Accepted: January 05, 2015

