

# THE CATEGORIZATION OF THE LEXICAL ITEM OBESITY BETWEEN EUTROPHIC AND NON- EUTROPHIC UNIVERSITY STUDENTS

---

***Camila Araújo Costa Lira***

Master's in Food Science and Technology  
Universidade Federal do Ceará  
Fortaleza, Ceará, Brazil  
<http://lattes.cnpq.br/3350468853746545>

***Brenda da Silva Bernardino***

Master's in Food Science and Technology  
Universidade Federal do Ceará  
Fortaleza, Ceará, Brazil  
<http://lattes.cnpq.br/4038006346829566>

***Antonia Ingrid da Silva Monteiro***

Specialist in Clinical Nutrition and Applied  
Phytotherapy  
Universidade Vale do Acaraú  
Fortaleza, Ceará, Brazil  
<http://lattes.cnpq.br/8908523706712064>

***Francisca Andressa Rabelo da Silva França***

Specialist in Clinical Sports Nutrition  
Faculdade de Quixeramobim  
Fortaleza, Ceará, Brasil  
<http://lattes.cnpq.br/2465007418998780>

***Maria Rayane Matos de Sousa***

Specialist in Clinical Sports Nutrition  
Faculdade de Quixeramobim  
Fortaleza, Ceará, Brazil  
<http://lattes.cnpq.br/6877069571686095>

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



***Ianara Pereira Rodrigues***

Specialist in Clinical Sports Nutrition  
Faculdade de Quixeramobim  
Fortaleza, Ceará, Brazil  
<http://lattes.cnpq.br/5754374816744526>

***Maria Luiza Lucas Celestino***

Specialist in Prescription of Herbal  
Medicines and Nutritional Supplementation  
Centro Universitário Estácio de Sá  
Fortaleza, Ceará, Brazil  
<http://lattes.cnpq.br/5621603466117576>

***Sandra dos Santos Silva***

Specialist in Environmental Engineering and  
Basic Sanitation  
Centro Universitário Estácio de Sá  
Fortaleza, Ceará, Brazil  
<http://lattes.cnpq.br/1337058711351377>

***Wallacy Ramon Pinheiro da Rocha***

Master's in Medical Sciences  
Universidade Federal do Ceará  
Fortaleza, Ceará, Brazil  
<http://lattes.cnpq.br/2330508801242602>

***Raquel do Carmo Rodrigues***

Undergraduate in Nutrition  
Centro Universitário Estácio de Sá  
Fortaleza, Ceará, Brazil  
<http://lattes.cnpq.br/4567390017496797>

***Gerliane Ferreira do Nascimento***

Undergraduate in Nutrition  
Centro Universitário Estácio de Sá  
Fortaleza, Ceará, Brazil  
<http://buscatextual.cnpq.br/buscatextual/visualizacv.do>

***Andreson Charles de Freitas Silva***

Master and Doctor in Physiological Sciences  
Universidade Estadual do Ceará  
Fortaleza, Ceará, Brazil  
<http://lattes.cnpq.br/4329024774989309>

**Abstract:** The present article sought to verify how people conceptualize and categorize exemplary obesity and what they associate this word with according to their life experience. The study was qualitative, quantitative, descriptive, cross-sectional, with non-probabilistic convenience sampling, carried out in the city of Fortaleza, Ceará, among university students, aged between 19 and 59 years, of both sexes, enrolled in the nutrition course. A semi-structured questionnaire was applied, initially composed of questions related to socioeconomic data and anthropometric data, then composed of three subjective questions regarding Obesity. The method adopted in the investigation was the hypothetical-deductive one. It was observed that there is a difference between the opinion of each person in relation to the words that came to their minds on the topic of Obesity, and there are no similarities between the expressions of each group, which leads to the inference that nutritional status may have relationship with the perception of Obesity of each individual in this research. We can conclude that the objectives of the study were achieved, and it was shown that the expressions on the subject present a distinction between each group of nutritional status.

**Keywords:** Lexical item, Obesity, College students.

## **INTRODUCTION**

According to the W.H.O. – World Health Organization (2000) Obesity is defined as the accumulation of atypical or immoderate adiposity that indicates a threat to the individual's health status. As the prevalence of Obesity grows, so does the occurrence of other related diseases such as the cardiovascular, respiratory, psychosocial, endocrine, intestinal, orthopedic damage, as well as the limits of affected functionalities (KLISH, 2016, MUNHOZ et al., 2017).

Lifestyle is a contributing factor to the occurrence of Obesity, this is due to interference in food intake, such as: lack of time to eat properly, entertainment practices that can lead to changes in eating habits, taste preference high-calorie foods, fewer meals eaten at home, and increased consumption of fast food (RATTNER, 2012; ABESO, 2016).

In addition to all these influences included in the lifestyle, we also have two other significant interferences: industry and the media, which increasingly encourage the consumption of fatty and industrialized foods and the reduction of the use of really natural foods such as fruits, vegetables, vegetables and cereals (TEIXEIRA et al., 2013).

The years of formal education contribute to nutritional choices, obtaining knowledge and the socioeconomic position of the individual. Your learning history can be revealed through an association of words about a certain subject. The set of semantically related words show us a linguistic relationship (SOARES & ORTIZ, 2009; DICKINSON, 2011; CALVO & BIALYSTOK, 2013, CALAIS et al., 2016).

Linguistics is connected to different levels of investigation. Today it is known, for example, that emotions are in a part of the brain, which involves language and that remarkable facts experienced by the person are reflected in language. Human beings are curious and seek explanations for everything (SOARES & ORTIZ, 2009).

Thinking in language is complex, as it encompasses subjectivity. For this reason, Cognitive Linguistics studies the use of language in the context of the formation of concepts, categories, mental processes, shared actions of individual, social and cultural experience, and is based on cognitive processes (SILVA, 2008; ARAÚJO, 2008).

Taking into account the study of cognitive linguistics, we seek to verify how people conceptualize and categorize exemplary

obesity and what they associate this word with according to their life experience.

## MATERIALS AND METHODS

This was a qualitative, quantitative, descriptive, cross-sectional study, with non-probabilistic convenience sampling, carried out in the city of Fortaleza, Ceará, with university students, aged between 19 and 59 years, of both sexes, enrolled in the nutrition course. The research took place in September and October 2017.

A semi-structured questionnaire was applied, initially composed of questions related to socioeconomic data and anthropometric data, then composed of three subjective questions regarding Obesity.

In order to assess the nutritional status, the participants were taken to a room individually, where anthropometric data of weight (in kg) and height were collected, weight was measured using a portable digital scale with a maximum capacity of 150 kg. and accurate to 100 grams. The students were weighed barefoot, wearing light clothes, without accessories and with their arms extended along their sides. Height was measured using a stadiometer with a minimum of 40 cm and a maximum of 210 cm. The individuals were properly barefoot, positioned with their backs to the wall and their heads in the Frankfour plane (2012).

Subsequently, the Body Mass Index (BMI) was calculated through body weight (Kg), divided by height (m) squared ( $W/E^2$ ). For the classification of the nutritional status of the participants, the recommendation of the World Health Organization (1995) was used. Then, the questionnaire questions were answered individually by each participant.

The method adopted in the investigation was the hypothetical-deductive one. This method advocates the emergence of a problem before it is subjected to observation

and experimentation. We therefore start from the hypothesis that people conceptualize and categorize Obesity differently, according to their life experiences.

The data were tabulated using Microsoft Excel 2010® software and for statistical analysis of the data the Chi-Square test was performed with a significance index of 5% using the SPSS 17.0 program, the results were presented as frequency and percentages, being portrayed in Tables.

All participants received a Free and Informed Consent Term (ICF), where they were duly signed, before the beginning of data collection.

This study is linked to the Graduate Program in Applied Linguistics at the State University of Ceará - Post LA of the research and extension laboratories and groups, LALDVS - Laboratory for Research and Extension in Language, Pain and Violence of the Estácio University Center of Ceará and of the GELP-COLIN - Study Group on Language, Thought and Cognition of the Federal University of Ceará approved with the opinion (459,008). The research is in accordance with resolution 466/12 of the National Health Council (CNS).

## RESULTS

According to the results obtained, 100 adults made up the sample. Of this total, 84% were female, 16% male, when analyzed about their nutritional status, it was possible to observe that 70% are classified as eutrophic, 19% with Overweight, 6% with Obesity and 5% with Thinness (Table 01).

In the first question, when asked to write about obesity, each group (Thinness, Eutrophic, Overweight and Obesity) got different answers, the Eutrophic, 83% consider that obesity is the "FAT ACCUMULATION", but 53%, 67% and 100 % of those evaluated as overweight, obese and thin respectively consider that obesity is a disease that is caused

by "SEVERAL FACTORS" (Table 02).

In the second question of the questionnaire, participants had to write 10 lexical expressions that "came in the minds of those evaluated" when they thought about obesity.

For the categorization of these expressions, some criteria were adopted, when the same word was written differently, however, with the same semantic root, the words were converted into just one, as in the example, "TRISTE" and "TRISTEZA", being used the word "SORRY".

In the eutrophic group, 700 expressions were registered (70 participants times 10 expressions), being the most registered: "LOW SELF ESTEEM", "DEPRESSION" and "FAT" (Table 03).

In the overweight group, there were 190 expressions (19 participants times 10 expressions), the most recorded being: "FAT", "SEDENTARY LIFESTYLE" and "DEPRESSION" (Table 04).

In the obese group, there were 60 expressions (6 participants times 10 expressions), the most recorded being: "DEPRESSION", "BAD FOOD" and "LOW SELF-ESTEEM" (Table 05).

In the thin group, there were 50 expressions (5 participants times 10 expressions), the most recorded being: "BAD FOOD", "WRONG CHOICES" and "SEDENTARISM" (Table 06).

It was possible to observe that there is a difference between the opinion of each person in relation to the expressions that come to their minds on the topic of obesity, and that there are no similarities between the expressions of each group, which leads to the inference that the nutritional status may have relationship with the perception of obesity of each individual in this research (Table 07).

In the last question of the questionnaire, the justification for the choices of these expressions (the first and the last) on the topic of obesity was required, according to the answers obtained, more than 90% consider

<b>Gender</b>	<b>n</b>	<b>%</b>
Male	16	16,0%
Female	84	84,0%
<b>Classification</b>	<b>n</b>	<b>%</b>
Thinness	5	5,0%
Eutrophy	70	70,0%
Overweight	19	19,0%
Obesity	6	6,0%

Table 01. Nutritional status of those evaluated.

Source: Research data.

<b>Eutrophic - n=70</b>		
<b>Cause of Obesity?</b>	<b>n</b>	<b>%</b>
Several factors	12	17%
Fat accumulation	58	83%
<b>Overweight - n=19</b>		
<b>Cause of Obesity?</b>	<b>n</b>	<b>%</b>
Several factors	10	53%
Fat accumulation	9	47%
<b>Obese - n=06</b>		
<b>Cause of Obesity?</b>	<b>n</b>	<b>%</b>
Several factors	4	67%
Body disorder	2	33%
<b>Thinness - n=05</b>		
<b>Cause of Obesity?</b>	<b>n</b>	<b>%</b>
Several factors	5	100%

Table 02. Definition of obesity in relation to nutritional status.

Source: Research data.

<b>Eutrophic, n=700 expressions</b>		
<b>Position</b>	<b>Expression</b>	<b>Number of times</b>
<b>1°</b>	Low self esteem	45
<b>2°</b>	Depression	44
<b>3°</b>	Fat	44
<b>4°</b>	Mobility	42
<b>5°</b>	Diseases	40
<b>6°</b>	<i>Fast-Food</i>	34
<b>7°</b>	Bias	32

8°	Bad eating habits	28
9°	Sedentary lifestyle	28
10°	Excess	22
11°	<i>Bullying</i>	21
12°	Slimming	15
13°	Anxiety	14
14°	Compulsion	14
15°	Hypertension	14

Table 03. Lexical expressions of eutrophics.

Source: Research data.

Overweight, n=190 expressions		
Position	Expression	Number of times
1°	Fat	29
2°	Sedentary lifestyle	20
3°	Depression	14
4°	Diseases	10
5°	<i>Fast-Food</i>	10
6°	Compulsion	8
7°	Bad eating habits	8
8°	Bias	8
9°	<i>Bullying</i>	7
10°	Mobility	6
11°	Low self esteem	4

Table 04. Lexical expressions of overweight.

Source: Research data.

Obese - n=60 expressions		
Position	Expression	Number of times
1°	Depression	8
2°	Bad eating habits	5
3°	Low self esteem	4
4°	<i>Bullying</i>	4
5°	Bias	4

Table 05. Lexical expressions of obese.

Source: Research data.

Thin - n=50 expressions		
Position	Expression	Number of times
1º	Bad eating habits	6
2º	Wrong choices	5
3º	Sedentary lifestyle	5
4º	Low self esteem	3

Table 06. Lexical expressions of the thin.

Source: Research data.

Lexical expression relationship on obesity and nutritional status					
Nutritional Position/Status	Eutrophic	Overweight	Obesity	Thin	X <sup>2</sup>
	Expression	Expression	Expression	Expression	
1º	Low self esteem	Fat	Depression	Bad eating habits	0,366189
2º	Depression	Sedentary lifestyle	Bad eating habits	Wrong choices	0,906994
3º	Fat	Depression	Low self esteem	Sedentary lifestyle	0,981213
4º	Mobility	Diseases	Bullying	Low self esteem	0,949922

Table 07. Relation lexical expression on obesity and nutritional status.

Source: Research data.

that the expressions they used are a factor that leads an individual to obesity as poor diet and sedentary lifestyle or are consequences of this visible obesity as the expression “fat” and “depression” common in people with obesity.

Performed the Chi-Square statistical test with a significance index lower than 5%, none of the expressions showed significance, which denotes that there is a difference in the expressions of each group, however, this difference is not significant.

## DISCUSSION

According to the Aurélio dictionary (2017), online, OBESITY is defined as: “*overweight characterized by an accumulation of fat greater than 20% of the individual’s total weight*”. In this survey, 83% of eutrophic people consider obesity to be “FAT ACCUMULATIONS”, and this answer is similar to the definition presented by the dictionary.

In addition, several authors claim that obesity is a pathology that can be acquired by several factors (RIBEIRO et al., 2012; SOAR et al., 2012; ABRÃO et al., 2014), and for 53%, 67% and 100% of those evaluated as overweight, obese and thin respectively, consider that obesity is a disease that is caused by “VARIOUS FACTORS”, corroborating the statements of the cited authors.

When analyzing the expression with the highest frequency, that is, with the highest number of appearances, in the main responses of each group (Eutrophic: LOW SELF-ESTEEM, Overweight: FAT, Obese: DEPRESSION and Skinny: BAD FOOD), we noticed that LOW SELF-ESTEEM AND DEPRESSION are closely linked, as are FAT and BAD FOOD, both of which are a consequence of each other.

The body constitution of the thin and obese subject has observable distinctions in physical

appearance, and the observation of physical characteristics is just a delimitation of the subjects' view of other bodies (VIGARELLO, 2011).

BAD FOOD was one of the most cited expressions in the Thin and Obese groups, the need for food is inherent to the human being, but the diet can be seen as institutionalized, relating two aspects of its application, where food contributes to the body constitution of the individual, since eating habits refer to the sociocultural and economic contexts of the subject (POPKIN, 2009).

In the survey findings, more than 90% of respondents consider that the expressions they used are a factor that leads an individual to obesity, such as poor diet and sedentary lifestyle, or are consequences of this visible obesity, such as the expression "fat" and "depression" common in people with obesity.

For Corbin *et al.*, (2011), the issue of obesity is addressed in the conceptual metaphor OBESITY IS WAR, in which the problematic aspects of overweight and obesity are revealed in the social and cultural issues that countless people suffer daily, such as the expressions PREJUDICE and BULLYING (a new form of

prejudice in the contemporary world) that are presented in this study, where due to their weight, they are considered "excluded beings" from our society.

The issue of gaining weight is something that worries many people, since society and the media convey certain standards to be followed, referring to a concept that weight gain can cause future health problems (ROCHA, 2004).

## CONCLUSION

We can conclude that the objectives of the study were achieved, being carried out the study of Cognitive Linguistics, where we seek to verify how people conceptualize and categorize the exemplary OBESITY and what they associate this word with according to their life experience.

Being exposed that the expressions on the subject present distinction between each group of nutritional status. We must understand that people with obesity are individuals who need to be supported and accompanied in their daily "battle" against weight, as they suffer daily from various comments and prejudices by countless people.

## REFERENCES

- ABRÃO L.V., JUNIOR F.L.C., LOPES C.M. Avaliação dos fatores de risco cardiovasculares nos acadêmicos do curso de medicina da Universidade Severino Sombra. In: **IV Jornada Severino Sombra**, 1, 2014, Vassouras, RJ. Anais (on-line). Vassouras, 2014.
- ARAÚJO, Daniela. A Linguística ontem e hoje. **Interletras (Dourados)**, v. 1, 2008.
- ASSOCIAÇÃO BRASILEIRA PARA O ESTUDO DA OBESITY E SÍNDROME METABÓLICA (ABESO). **Diretrizes Brasileiras de Obesity**. 4ª edição. São Paulo, 2016. Disponível em: <<https://www.endocrino.org.br/media/uploads/PDFs/vigitel.pdf>>. Acesso em: 06/11/2017.
- CALAIS, L.L. et al. Um estudo sobre associação semântica de palavras do português brasileiro. São Paulo, v. 4023, p. 062, 2016.
- CALVO, A.; BIALYSTOK, E. Independent effects of bilingualism and socioeconomic status on language ability and executive functioning. **Cognition**. v. 130, n. 3, p. 278-288, 2014.
- CORBIN, A.; COURTINE, J.; VIGARELLO, G. **História do corpo: As mutações do Olhar: O século XX**. Trad. Ephraim Ferreira. Vol. III. 4. ed. Petrópolis, RJ: Vozes. p. 7-12, 2011.
- DICIONÁRIO AURÉRIO, ON LINE, <<https://dicionariodoaurelio.com/Obesity>>. Acesso em: 23 Nov. 2017.
- KLISH, M.D. **Comorbidades e complicações da Obesity em crianças e adolescentes**. 2016. Disponível em: <[www.uptodate.com/contents/comorbidities-and-complications-of-obesity-in-children-and-adolescents](http://www.uptodate.com/contents/comorbidities-and-complications-of-obesity-in-children-and-adolescents)>. Acesso em: 06/11/2017.



MIRANDA DEGA. **Manual de avaliação nutricional do adulto e do idoso**. Rio de Janeiro: Editora Rubio, 2012, p. 85-105

MACHADO, M. L.; SCHEWITZER, T.; MACIEL, C. C.; SANTOS, S. H.; GONÇALVES, J. A.; COLUSSI, C. F. Avaliação do estado nutricional e estilo de vida dos alunos da disciplina de Condicionamento Físico da Universidade Federal de Santa Catarina (UFSC). **Rev.Digital**. Buenos Aires, v.16, n.158, 2011.

POPKIN, B.M. **O mundo está Fat: modismos, tendências, produtos e políticas eu estão engordando a humanidade**. Trad. Ana Beatriz Rodrigues. Rio de Janeiro: Elsevier, 2009.

RATTNER, D. et al. Saúde Brasil 2011: uma análise da situação de saúde e a vigilância da saúde da mulher. **Ministério da Saúde**. Brasília, v. 1, p. 371-397, 2012.

RIBEIRO, A. P; FACHINETO, SANDRA; FRIGERI, E. R. Índice de Massa Corporal de Adolescentes Pertencentes às Escolas da Secretaria de Desenvolvimento Regional de São Miguel do Oeste, Santa Catarina. Buenos Aires, 2012.

ROCHA, D., DAHER, M., SANT'ANNA, V. **A entrevista em situação de pesquisa acadêmica: reflexões numa perspectiva discursiva**. Polifonia, n. 8, 2004.

SILVA, Augusto Soares. Os estudos de linguística cognitiva do português. **Revista portuguesa de humanidades**, v. 11, n. 1, p. 51-83, 2008.

SOAR C., SILVA O.S., LIRA J.G. Consumo alimentar e atividade física de estudantes universitários da área da saúde. **Revista Univap**. v. 18, n. 31, 2012.

SOARES, E.C.S.; ORTIZ, K.Z. Influence of schooling on language abilities of adults without linguistic disorders. **São Paulo Medical Journal**. v. 127, n. 3, p. 134-139, 2009.

TEIXEIRA, P.D.S. et al. Intervenção nutricional educativa como ferramenta eficaz para mudança de hábitos alimentares e peso corporal entre praticantes de atividade física. **Ciência & Saúde Coletiva**. Rio de Janeiro, v. 18, n. 2, p. 347-56, 2013.

VIGARELLO, G. **História do corpo: Da Revolução à Grande Guerra**. Trad. João Batista Kreuch; Jaime Clasen. Vol. II. 2. ed. Petrópolis, RJ: Vozes, p. 181-266, 2008.

WORLD HEALTH ORGANIZATION. Obesity: preventing and managing the global epidemic. **Report of a WHO consultation on obesity**. Geneva: WHO, 2000.

WORLD HEALTH ORGANIZATION. Physical status: the use and interpretation of anthropometry. Geneva, Technical Report Series p.854, 2007.