



# iJERResearch

International Journal of Education and Research  
Vol-1, Number 1, March - 2024 | Peer-Reviewed Journal  
ISSN 2764-9733 | [ijerresearch.org](http://ijerresearch.org)  
DOI: 10.5281/zenodo.12608583

## THE INFLUENCE OF PSYCHOSOMATIC THERAPY ON NUTRITIONAL TREATMENT IN OBESITY

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### ABSTRACT

The objective of this study was to investigate the influence and relationship of psychosomatic therapy in nutritional treatment in obesity as one of the determining factors for therapeutic intervention. The research had three phases, being based on a study carried out by collecting data through interviews with the application of an open questionnaire, being a qualitative research, with a Nutritional Assessment Form (Anamnesis) being filled out by the researcher, applying the psychosomatic therapy that was used a Field Diary as a record of emotional occurrences and a Weight Assessment Form being filled out, with only personal data and anthropometric notes, thus, an experimental research. Through the interpretative and subjective analysis of the results in adult women affected by obesity, it was found that emotional factors influence the onset and/or maintenance of obesity, bringing the symptom and the causes that must be looked for in terms of motivations. unconscious of the subject. Thus, obesity has been a challenge not only in the area of mental therapy but also in other areas of human knowledge. Thus, it is recommended that the importance of understanding the psychodynamics of obesity has been of paramount importance for psychological treatment and the participation of psychologists in multidisciplinary teams that provide services and care to obese people in the most diverse contexts.

**Keywords:** Nutrition. Obesity. Psychosomatic Therapy. Treatment.

## INTRODUCTION

The number of people with eating problems, who eat more than they should, has exceeded the number of people who go hungry (WHO, 2002).

It is known that obesity has been a disease that is difficult to control, with very high percentages and also with many therapeutic failures, presenting serious organic and psychosocial repercussions, especially in severe forms (BERNARDI, CICHARELO & VITOLO, 2005).

Many cases of obesity have been linked to the exogenous type, that is, it has been caused by excess food, thus creating a disorder, which the patient comes to understand with therapeutic treatment, that, with excess weight, there can be a certain amount of anxiety, due to lack of control.

When endogenous obesity occurs, which has been the cause of psychological or metabolic factors that define the increase in white adipose tissue, being a special type of connective tissue which observes the predominance of adipose cells, called adipocytes.

The secretions of various hormones are positively related to the amount of tissue, through sleep disorders and stress-related disorders, which is a reaction of the organism due to psychological, physical and hormonal factors that occurs when the need for a major adaptation to a situation arises. serious event or situation. A great influence on body weight has been an increase in cortisol circulating in the blood or the amount of food ingested, with obese individuals using an anti-stress mechanism, thus suffering consequences of the process. Which, in the majority, has been directly linked to behavioral and environmental origin, bringing some favor to exogenous obesity that is caused by excess food.

Furthermore, when it comes to the aspect of the emergence and maintenance of the pathology, it must be associated with food and affection.

Families, from the mother's interaction with the baby, are rewarded and praised for the act of feeding in an accentuated way. Food has also been socialized, with people often going out with friends to eat. When a person feels alone, they may seek food as a form of compensation, due to the lack of people they feel, triggering an excessive increase in body weight (DONATO et al., 2004).

Hunger has been physiological in accordance with the body's need for energy, that is, food, and also appetite has been a psychological desire to eat, giving distinct anticipatory pleasure. It is known that the person's emotional state can bring about a reflection regarding appetite, as well as the increase or decrease in the universal experience of love and pain, with food playing a central role in the individual's emotional area.

It is seen that the act of eating, for obese people, is a tranquilizer for anxiety and anguish in the body, especially when there is difficulty in dealing with frustration and limits. The treatment of obesity can be effective, and health professionals must understand the psychological aspects of the disease. Furthermore, obesity has a multifactorial etiology, which has a treatment that can involve different types of approaches, from dietary guidance, physical activity programming, use of drugs and psychosomatic therapies (SEGAL & FANDIÑO, 2002).

Nutritional treatment is also essential at this stage, as it reduces surgical risk through initial weight loss, identification of eating disorders, and promotion of real weight loss expectations. Therefore, counseling should be provided to prepare the patient for post-operative nutrition.

## PSYCHOSOMATIC THERAPY

Psychology has demonstrated great effectiveness in the treatment of obese individuals, whose therapy has played a great role in adherence to treatment and control of people who eat excessively, bringing a focus on working on distorted thinking about food intake, weight and body image, thus demonstrating a possible modeling of patients' eating habits, making changes to healthy foods.

Although Psychology is traditionally seen as the science of the mind, the individual's body can be the target of psychological research, which can be rooted in any psychic process in bodily materiality, whose object adds up to the central object of several disciplines.

It is seen that the body brings a presentation regarding the field that explores and investigates the so-called human sciences, diversifying areas of natural sciences, whose object of greater number of cultural activities is not linked to science, as it

can bring a treatment regarding the multiple object, complex, open to great perspectives and subject to great representations. It is seen that the body can be a transdisciplinary object par excellence, a place of obligatory intersection for multiple disciplines, a multifaceted object marked by complexity.

The body is considered as an amalgam of life and death; and the psyche can be considered both body and symbol. It is known that the technique of psychoanalysis thinks about the body based on words, even if the body, seen as pure corporeality, there will always be action regarding specific attention, psychoanalytic psychosomatics (GRODDECK, 2008 apud SANTOS, MARTINS, 2013).

It is currently called Psychosomatics, which can be seen from two different perspectives (PORTER, 1997 apud MADEIRA, COUTINHO JORGE, 2019). When inseparable from mental and bodily processes, they were previously distinct from the origins of “natural sciences”, when separated from “human sciences”, such as psychology, sociology, history, anthropology, etc. On the other hand, Psychosomatics emerged through medical expansion, coming from the psychiatrist Johann Heinroth, in 1828 (SHORTER, 1995 apud ÁVILA, 2012).

From 1917, with Georg Groddeck (1992) apud Santos and Martins (2013), the study of psychoanalysis can be applied through organic processes, especially when one becomes ill and also when there are meanings. Over the last 100 (one hundred) years, psychoanalytic psychosomatics can be developed by the large body of evidence, which demonstrates the unconscious processes that can be affected by bodily functions, being produced by manifestations in the organism, aggravating diseases and translating psychic conflicts into somatized symptoms.

It is known that it is from psychoanalytic psychosomatics, when supported by the contributions of Freud, Groddeck, Bion and McDougall, that there is the development of psychosomatic phenomena that seeks to take into account the complex nature of these manifestations. The body that becomes ill is simultaneously both the individual's body, therefore experiential, eminently subjective, and the body that will be treated as a positive object

by the practices of medicine, pharmacology, physiotherapy, etc.

Know the biological origins of psychology in obesity and the best weapon to face it, understand why emotions exist and what they are for, and why they trigger a vicious cycle in obesity.

In this approach, joint treatment of psychosomatic and nutritional therapy can be essential for improving therapeutic intervention and improving preventive health actions in the context of obesity, a disease of global proportions.

## **NUTRITIONAL TREATMENT FOR OBESITY**

The Body Mass Index (BMI =  $\text{kg/m}^2$ ) is the standardized unit of measurement to assess body weight. The classification follows according to the BMI result in tables. Less than 20, the person evaluated is considered thin; classified between 20 and 25, your weight is normal; from 25 to 30, overweight; from 30 to 35, moderate obesity; from 35 to 40, more advanced obesity, from 40 to above, morbid obesity. (ACUÑA, CRUZ, 2004)

Obesity can appear at any stage of life, but it is most common in the first year of life, between five and six years of age and in adolescence. Childhood and adolescent obesity has increased alarmingly in all industrialized countries. In recent decades, prevalence in the USA and Brazil has increased by around 50%. (DIAS et al. , 2017)

Obesity can become a metabolic syndrome when there is a set of associated pathologies, glucose intolerance, increased abdominal circumference, dyslipidemia and high blood pressure, which characterizes a chronic condition of inflammation and a disposition to cardiovascular problems (SOUZA et al. , 2015).

The most indicative treatment for morbid obesity classified as grade III is bariatric surgery, both to reduce weight and maintain it. It is a viable alternative in a situation where conventional treatments have had no effect, such as diet, physical activity, medication and psychotherapy, with around 95% of patients regaining weight gain, equaling or exceeding their initial levels within two years (MARCELINO , PATRÍCIO, 2011).

Bariatric surgery is a radical method, and weight loss can reach 40 to 50% of the initial

to maintain weight in the long term (ALMEIDA, ZANATTA, REZENDE, 2012).

Treatment with medicines is also considered one of the main approaches, although the collection available on the market is still small, according to the Brazilian Consensus on Obesity, Sibutramine and Orlistat are considered the main drugs indicated for obesity grade II above, i.e. , BMI > 25kg/m<sup>2</sup> , according to the recommendation, pharmacotherapy can be administered to people with obesity who have not obtained results through nutritional treatment and physical activity. However, they must be made aware of possible side effects, and prescribed by professionals specialized in the subject. (MANCINI, HALPERN, 2002)

Although lifestyle changes are the cornerstones of obesity treatment, they are often only possible with the help of important behavioral changes. The main psychological intervention in obese patients is based on changes in behavior, with the aim of reducing caloric consumption and increasing energy expenditure. (LUZ, OLIVEIRA, 2013.)

This research sought to investigate the influence and relationship of psychosomatic therapy in the nutritional treatment of obesity, investigating whether there is effectiveness when two variables, food and psychological, are combined.

The study was carried out in the Nutrition Office at the Central Basic Health Unit of the Municipal Health Department-SEMUSA located at Rua Corumbiaria, n° 1880, Setor 03, CEP: 76880-000 in the city of Buritis, state of Rondônia, Brazil.

Figure 1. Central Basic Health Unit of the Municipal Health Department - SEMUSA in the municipality of Buritis -RO.



The universe is made up of those attending the Central Basic Unit of the Health Department of the city of Buritis. The population includes obese women in the adult age group who attend the central Basic Health Unit in the city of Buritis-RO every month and is made up of 280 obese patients.

## PSYCHOSOMATIC THERAPIES PROGRAM

To start the program, an obesity group was formed for a period of 3 (three) months. With the first general meeting to explain the objectives and methodology of the research to the participants, and one at the end to present the results and get together. The Psychosomatic Therapy sections were divided into 3 (three) individual meetings:

- Self-Reflection therapeutic behaviors were applied with a focus on obesity, identifying thoughts and emotions, recognizing what could be the trigger point that generates binge eating. And after a 30-minute induced Relaxation using the Video End Obesity by author Cristina Cairo, for the participants to initially come into contact with the science of serenity;

- In the second section of 1:30 minutes, which was 20 (twenty) days after the first section, the therapeutic behaviors applied were to encourage the participant to process the emotions and feelings identified in the first section with pleasurable activities (pay attention to what arises effect) such as: dancing, healthy games, painting, playing instruments, etc. This section also covers music therapy with calm and relaxing music, encouraging people to explore the style that works best for them and making a selection to listen to on a daily basis. And going over Doctor Augusto Cury's (DCD) Technique , when any doubtful or negative thoughts arise, Doubt, Criticize and Decide;

- The third and final section of 1:30 minutes 20 (twenty) days after the second section, the following actions were carried out in the first 30 minutes to find out how the participant is after the two previous sections. So some homework: Prayer of forgiveness, indication of Hooponopono for 90 (ninety) days to renew the psychic cycle, Phrases to bring positive sensations , Breathing Techniques, long and with intervals to accompany

relaxation, feet on the ground to feel energy from the earth.

Throughout the treatment, participants were encouraged to cultivate peace of mind with gratitude to the universe and have a positive attitude towards problems, not letting harmful thoughts accumulate and become addictions. Try to recognize victims' attitudes by changing behavioral patterns, being more flexible.

And to further assist the psychosomatic Program, participants were guided to alternative therapeutic indications, with other professionals of their choice, such as: Bach Flower Remedy, Acupuncture, Relaxing or therapeutic massage, aromatherapy, chromotherapy and Reick, etc.

## DATA COLLECTION ANALYSIS

Data analysis was carried out by identifying the factors generated in the results of therapies in the application of nutritional treatment, to what extent they are significant and to what degree they are achieved, observing the number of positive or negative points, whether there were changes in the emotional state of the participants, which the effect it has on obesity, whether or not it reduces body weight and any changes in lifestyle.

Quantitative data were tabulated and presented in graphs to better represent the data.

Minayo (2012) states that the structuring terms of qualitative analysis are based on: the nouns experience, experience, common sense and social action and the verbs understand and interpret.

Interpretation is the starting point in qualitative research according to Minayo (2013). The technique consists of data description, analysis, interpretation, and as an approach to qualitative material, content analysis, it is based on counting the frequency of appearance of characteristics in the content of messages. It is the most common data analytical approach in research with qualitative methods.

This research followed the ethical standards in accordance with Resolution no. 466/2012, which considers respect for human dignity and the special protection owed to participants in scientific research involving human beings.

It was approved by the CEP of Faculdades Integradas Aparício Carvalho - FIMCA on August 14, 2019 under opinion number 3,508,009.

## PRESENTATION AND DISCUSSION OF RESULTS

The present study brought data on the influence of psychosomatic therapy on nutritional treatment in obesity in patients residing in the city of Burity-RO, including a sample of 30 patients aged 25 to 60 years, as reported in the research methods, being classified as Obesity I to III, female.

During the research, of the 30 patients, in general, 4 dropped out, leaving a sample at the end of 26 patients, aged between 25 and 60 years.

The reasons for the 4 patients' withdrawal were: contact phone number did not complete the call; absence for an unidentified reason at previously scheduled meetings; withdrawal for work reasons, claim of not having available time to participate in the program and, also, withdrawal for Religious reasons (Jehovah's Witness Religion).

In the first phase, an interview was collected using a form from the Nutritional Assessment Form (Anamnesis) which was filled out by the researcher. In the second phase, psychosomatic therapy was applied, in which emotional events were recorded. And finally, in the third phase, the Weight Assessment Form was filled out, with only personal data and anthropometric notes.

The results were presented regarding the influence of psychosomatic therapy on nutritional treatment in obesity in the months of September to November 2019.

## RESULT OF THE WEIGHT ASSESSMENT FORM

Regarding the result of the weight assessment form, it is clear that of the 26 patients who participated in the research, their initial weight was between 70 and 140 kg, with their nutritional diagnosis before and after losing weight, varying between obesity I, obesity II, obesity III and overweight.

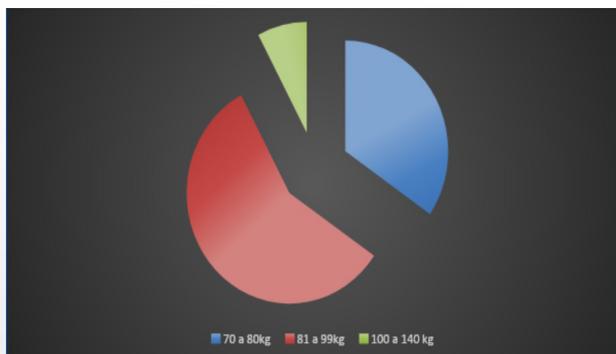
Table 1. Result of the participants' weight assessment form.

Participant	Weight (kg)	Obesity Category	Height (cm)	Weight (kg)	Weight Assessment
Participant 1	84,200	Obesity I	75	9	Overweight
Participant 2	137,800	Obesity III	130	7,800	Obesity III
Participant 3	90,450	Obesity I	83	7,450	Obesity I
Participant 4	92	Obesity II	85	7	Overweight
Participant 5	88	Obesity II	81	7	Obesity I
Participant 6	91,900	Obesity II	85	6,900	Obesity I
Participant 7	96,650	Obesity III	90	6,650	Obesity II
Participant 8	93,500	Obesity I	87	6,500	Overweight
Participant 9	107,200	Obesity II	101	6,200	Obesity II
Participant 10	78	Obesity II	72	6	Overweight
Participant 11	86	Obesity I	80	6	Overweight
Participant 12	86	Overweight	80	6	Overweight
Participant 13	73,900	Obesity I	68	5,900	Overweight
Participant 14	70,500	Overweight	65	5,500	Overweight
Participant 15	96	Obesity II	91	5	Obesity I
Participant 16	76,900	Overweight	72	4,900	Overweight
Participant 17	73,900	Overweight	70	3,900	Normal
Participant 18	98,600	Obesity I	95	3,600	Overweight
Participant 19	80	Obesity I	77	3	Obesity I
Participant 20	92,500	Obesity II	90	2,500	Obesity I
Participant 21	80,500	Overweight	78,650	1,850	Overweight
Participant 22	70,850	Overweight	70,700	0.00	Overweight
Participant 23	78,500	Obesity I	79,400	+ 1	Obesity I
Participant 24	91,400	Obesity I	91,500	0.00	Obesity I
Participant 25	82,650	Obesity II	82,650	0.00	Obesity II
Participant 26	87,400	Obesity II	90	+ 2,600	Obesity II

Source: Central Basic Unit of the Health Department of the city of Buritis, 2019

The results of each stage will be presented below. In graph 1 below, the initial weight of the participants was analyzed.

Graph 1. Participants' initial weight.



Source: Author, 2020.

It can be seen that according to the data in table 1, bringing together all the data collected on the initial weight, it was found that 58% of the participants weighed between 81 and 99 kg. Soon

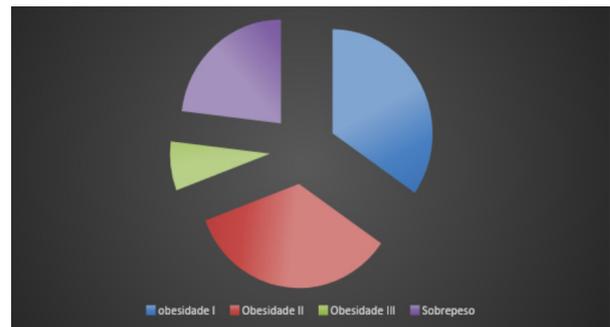
after, 34% of the participants weighed between 70 and 80 kg and finally, 8% of the participants weighed between 100 and 140 kg.

It is known that overweight and obesity have been increasing in a worrying way in terms of public health in Brazil. Therefore, excess weight is a current problem in the population, and weight loss has been a common concern in the population in different age groups (ALMEIDA et al. , 2009).

Adherence to proposed changes has been regarding eating practices to lose excess weight, which has been low in scientific studies.

Finally, excess weight has occurred when a person has a large body weight and is oriented towards their height, the importance of which weight should be body composition, that is, objectively greater than the person when they become thinner and stronger.

Graph 2. Nutritional diagnosis (initial weight).

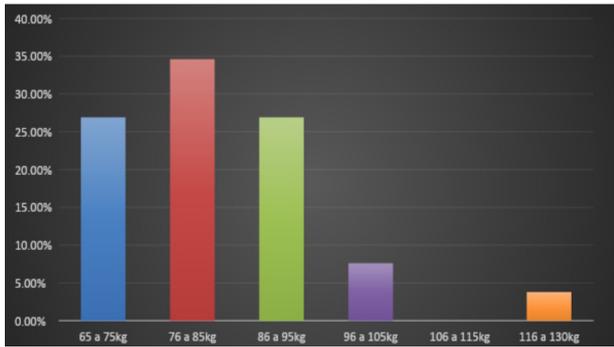


Source: Author, 2020

According to the total sum of table 1, regarding the nutritional diagnosis regarding initial weight, graph 2 shows the following result: 35% had obesity I and II, 23% patients were diagnosed with overweight and 7% of these were obesity III.

It is known that the analysis of the nutritional diagnosis of the patients studied was characterized by the prevalence of obesity according to BMI. Nutritional assessment has been extremely important to previously diagnose the condition, instituting appropriate nutritional therapy to improve their quality of life, which is important in terms of multidisciplinary action in patient care (FERRAZ, VIRIATO, MOURA, 2013).

Graph 3. Final weight of participants.



Source: Author, 2020

According to table 1, regarding the final weight of the participants, the graph above describes that 35% of these were around 76 to 85 kg, 27% were around 65 to 75 kg and 86 to 95 kg. Thirdly, 7% of participants weighed around 96 to 105kg. And only 4% weighed between 116 and 130 kg.

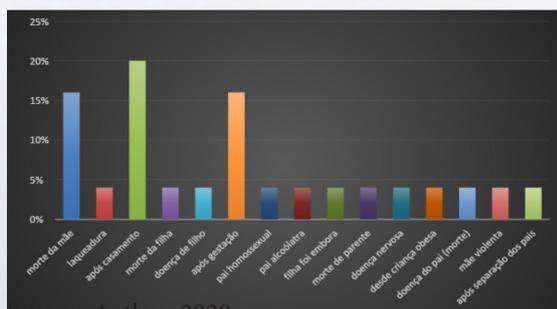
## RESULTS TO IDENTIFY EMOTIONAL FACTORS CAUSING OBESITY

It is known that people eat not only because they need to nourish themselves and/or when they are hungry, but it is seen that food also brings emotional meaning, due to the effect it brings of stimulation or relaxation, which is socialized in the representation and proportion to who consumes it, thus bringing triggers that cause obesity and the associated disease to occur.

In this sense, below the participants bring two trigger points, bringing diseases that are associated with obesity and also the intestinal assessment of each patient.

Below are the results of each stage. The graph below analyzed the first trigger point to identify emotional factors causing obesity.

Graph 4. First trigger point to identify emotional factors causing obesity.

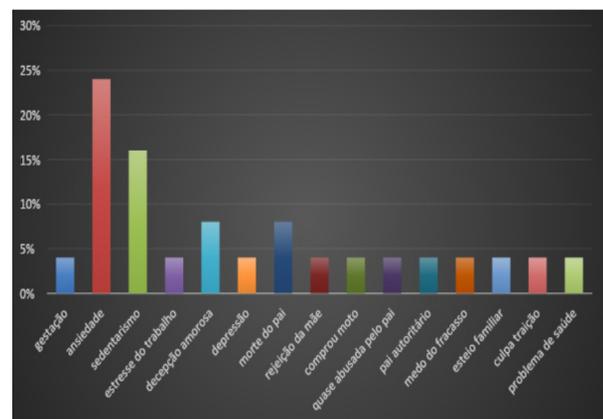


Source: Author, 2020

The graph above discusses the first trigger point to identify the emotional factors that caused obesity in patients, and it was noticed that 20% of these responded that it was after marriage, followed by 16% with the death of the mother and after pregnancy, coming 4% in the remaining results as mentioned above.

Thus, it was observed that obesity has varied causes, interacting with social, genetic, behavioral and even cultural factors. It is seen that the abuse of caloric intake and sedentary lifestyle have caused excessive calories (BRASIL, 2006).

Graph 5. Second trigger point to identify the emotional factors causing obesity.

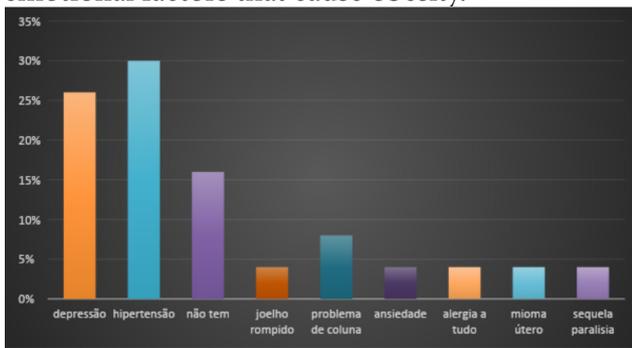


Source: Author, 2020

The second trigger point, which was identified as emotional factors causing obesity, found that 24% were due to anxiety, followed by 16% due to a sedentary lifestyle and 8% were due to the death of the father and disappointment in love. .

In the words of Mendonça and Anjos (2004), it is considered that when other factors are associated with excessive weight gain, there must be changes at certain moments in life, such as marriage, widowhood, separation and other factors, as well as situations of violence, psychological factors, such as stress, anxiety, depression and binge eating.

Graph 6. Associated disease to identify emotional factors that cause obesity.

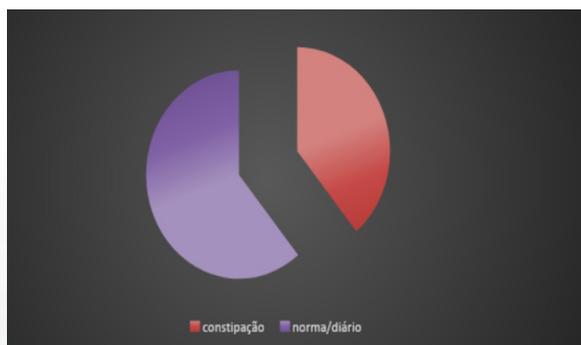


Source: Author, 2020

The graph above discusses associated disease to identify emotional factors causing obesity, and it was noticed that the participants responded that 30% is due to hypertension, 26% is due to depression, 16% has no associated disease and 8% is due to back trouble.

Silva et al (2006) described that there are changes in body image which cause weight gain, thus producing a decrease in self-image and even a devaluation of psychological self-concept, which consequently may result in symptoms of depression and anxiety, reducing the feeling of well-being and increased feeling of social inadequacy which can be consequently related to performance degradation.

Graph 7. Intestinal assessment when emotional factors causing obesity are identified.



Source: Author, 2020

According to graph 7, patients responded regarding intestinal assessment when the emotional factors causing obesity are identified, and 61% said it has been normal/daily and only 39% responded that they have constipation.

Coutinho and Benchimol (2006) discuss the search for explanations when it comes to the accelerated growth of obesity in populations,

which has highlighted the modernization of societies, thus causing food supply combined with the improvement of forms of work due to mechanization and automation. of activities.

It is seen that the way of living has changed the economy of energy expenditure at work and also in life activities, which has been associated with a greater supply of food, whose obesity has been called “disease of civilization” or “New World syndrome” (MANCINI, 2001).

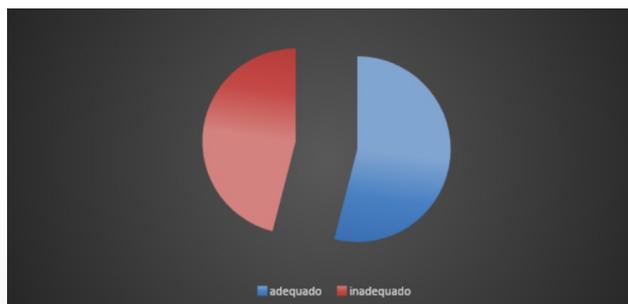
## RESULTS OF CHANGES IN PATIENTS’ EATING HABITS

The goals of behavioral therapy are to help patients improve their eating habits.

To establish a plan to change patients’ eating habits, behavioral changes are also necessary. This requires each patient to monitor their own eating behavior by recording the type of food they are used to eating, the places where these foods are consumed, the frequency with which the foods are consumed and the emotional condition at the time of consuming these foods.

By analyzing these records, patients are able to identify problems that can be corrected, particularly with regard to places and times of the day that facilitate greater food or calorie intake.

Graph 8. Changes in patients’ eating habits.



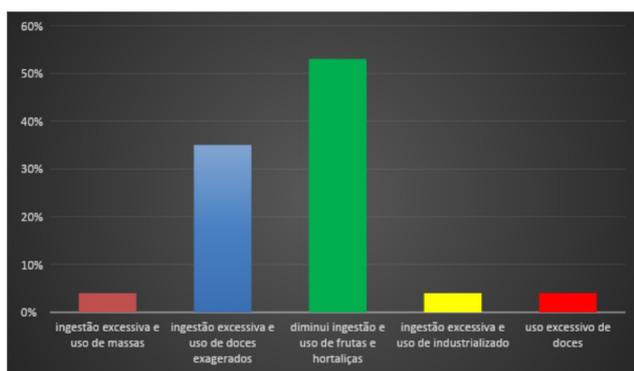
Source: Author, 2020

According to graph 8, regarding changes in patients’ eating habits, 54% of them responded that it has been adequate. That is, to lose weight, they used healthy foods. And 46% had inadequate eating habits, that is, they did not eat properly, probably not achieving the necessary weight loss.

In the words of Almeida et al. , (2009), the healthy eating index constitutes a measure of diet quality through an assessment system of 12

components (nine food groups and total content of saturated fat, sodium and energy from solid fat, alcoholic beverages and sugars ) in accordance with American dietary recommendations. This index has been considered an instrument with broad potential for use in nutritional epidemiology, useful for describing and monitoring the population's dietary pattern and for evaluating interventions carried out.

Graph 9. Details regarding changes in patients' eating habits.



Source: Author, 2020

Regarding the details of the changes in the patients' eating habits, 53% of the patients responded that they reduced their intake and use of fruits and vegetables, 35% responded that they had excessive intake and use of excessive sweets. And the remaining 4% was due to excessive intake and use of pasta, excessive intake and use of processed foods and excessive use of sweets.

According to Sharovsky et al. (2004) described that adherence to proposed changes, especially with regard to eating practices for losing - even if timidly - excess weight, has been very low.

The change in lifestyle habits and, consequently, in dietary issues should not come from a process of standardization, much less from blaming the individual, as the changes are not restricted only to changes in food consumption and physical activity, but have an influence about the entire constellation of meanings linked to eating, the body and living (BUENO et al. , 2011).

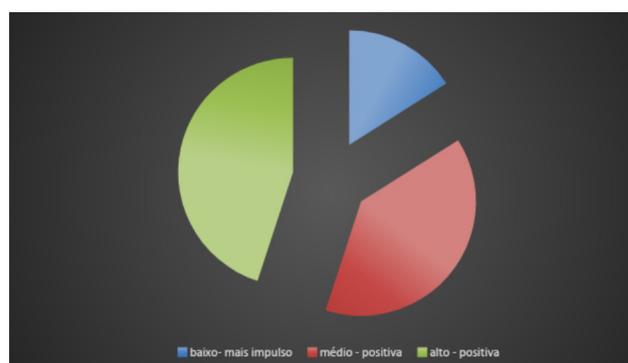
Food education plays an important role in relation to the process of transformation, recovery and promotion of healthy eating habits, as it can provide knowledge necessary for self-decision making, forming attitudes, habits and healthy and varied eating practices (BUENO et al. , 2011).

## EMOTIONAL RESULT OF PSYCHOSOMATIC THERAPY

Three levels were considered, high, medium and low, as results indicated by patients regarding psychosomatic therapy, thus influencing the presence of psychosomatic symptoms.

Below is a graph that will better demonstrate the emotional results of patients regarding psychosomatic therapy.

Graph 10. Emotional result of psychosomatic therapy.



Source: Author, 2020

And the last graph, regarding the emotional result of psychosomatic therapy, it was noticed that 45% of the patients were highly positive, that is, they noticed major emotional changes. 39% had a positive average, and 16% had a low plus impulse, that is, many of them were unable to lose weight due to their emotional impulses.

In the words of Viana et al. (2013), there are few effective therapeutic measures for the treatment of overweight and obesity, with treatments such as diets, medications and lifestyle modifications producing modest reductions in body weight, although with an important impact on the individual's health.

## COMPARE THE RESULTS OF APPLYING PSYCHOSOMATIC THERAPY WITH NUTRITIONAL THERAPY

According to the table below, it was found that the application of psychosomatic therapy together with nutrition was significant. Of the 26 patients, they performed well in terms of weight loss.

Table 2. Total loss and gain weight.

Participant 1	84,200	75	9	High - Positive
Participant 2	137,800	130	7,800	Low
Participant 3	90,450	83	7,450	Medium – Positive
Participant 4	92	85	7	Low- more boost.
Participant 5	88	81	7	High - Positive, s
Participant 6	91,900	85	6,900	Medium – Positive
Participant 7	96,650	90	6,650	High – Positive
Participant 8	93,500	87	6,500	Low- more boost.
Participant 9	107,200	101	6,200	Medium – Positive
Participant 10	78	72	6	Medium – Positive
Participant 11	86	80	6	High - Positive
Participant 12	86	80	6	Medium – Positive
Participant 13	73,900	68	5,900	Medium – Positive
Participant 14	70,500	65	5,500	High – Positive
Participant 15	96	91	5	Medium – Positive
Participant 16	76,900	72	4,900	Medium – Positive
Participant 17	73,900	70	3,900	High – Positive
Participant 18	98,600	95	3,600	Medium positive
Participant 19	80	77	3	High - Positive.
Participant 20	92,500	90	2,500	Low- more boost.
Participant 21	80,500	78,650	1,850	Medium – Positive
Participant 22	70,850	70,700	0,00	Low- more boost.
Participant 23	78,500	79,400	+ 1	High - Positive
Participant 24	91,400	91,500	0,00	Medium – Positive
Participant 25	82,650	82,650	0,00	High – Positive
Participant 26	87,400	90	+ 2,600	Low- more boost.

Source: Central Basic Unit of the Health Department of the city of Buritis, 2019

Of the 26 participants, the results were compared, and the majority of patients lost weight between 1 and 9 kg, in total, during the treatment for obesity, with the help of psychosomatic therapy. Thus, the more weight lost, the better the patients' emotions, resulting in positive results.

Patients 1 to 15 lost weight between 5 and 9 kg, with the majority being high and medium positive.

The majority had a positive high and average, with confidence and improved self-esteem, even if they did not feel motivated to practice physical activity and healthy eating habits, but noticed an improvement in depression, which is an important point for psychosomatic therapy.

Only two patients (23 and 26) had weight gain between 1 kg and over 2 kg, these being highly positive, feeling confidence and self-esteem, motivated to practice physical activity and have healthy habits.

## CONCLUSION

The research aimed to investigate the influence and relationship of psychosomatic therapy in nutritional treatment in obesity as one of the determining factors for therapeutic intervention, as it was evident that emotional factors influence the onset and/or maintenance of obesity, bringing the symptom and causes that must be sought in terms of the subject's unconscious motivations.

It was possible to conclude that the

objectives were achieved, since the influence of psychosomatic therapy on nutritional treatment in obesity was one of the determining factors for the therapeutic intervention, and the results were successfully obtained.

Obesity has been a challenge not only in the area of mental therapy but also in other areas of human knowledge. Thus, it is recommended that the importance of understanding the psychodynamics of obesity has been of paramount importance for psychological treatment and the participation of psychologists in multidisciplinary teams that provide services and care to obese people in the most diverse contexts.

That other Basic Health Units use the same program. That Nutrition practices add new psychosomatic therapies to the obesity treatment program.

Finally, we recommend that new studies associating psychosomatic therapies with obesity reduction be carried out to prove their effectiveness and for the benefit of the obese population.

## REFERENCES

ABESO: BRAZILIAN ASSOCIATION FOR THE STUDY OF OBESITY. Available at: < <http://www.abeso.org.br> >. Accessed on: 20 Aug. 2018.

ACUÑA, Kátia.; CRUZ, Thomaz. Assessment of the nutritional status of adults and elderly people and the nutritional status of the Brazilian population. *Arq Bras Endocrinol Metab* . - v. 48, n. 3 - São Paulo – June, 2004. Available at <https://doi.org/10.1590/S0004-27302004000300004> . Accessed on 20 Jan. 2020.

ALMEIDA, Jussara C. de. (et al.) Systematic review of weight loss diets: role of dietary components. *Arq Bras Endocrinol Metab* .; v . 53, n.5, 2009. Available at <http://www.scielo.br/pdf/abem/v53n5/20.pdf> . Accessed on 20 Jan. 2020.

ALMEIDA, Sebastião Sousa; ZANATTA, Daniela Peroco; REZENDE, Fabiana Faria. Body image, anxiety and depression in obese patients undergoing bariatric surgery. *Psychology Studies Magazine* , v. 17, n.1, p. 153-160.janeiro-abril/, 2012.

- ÁVILA, Lazslo Antonio. The body, subjectivity and psychosomatics. *Psychoanalytic time*. vol.44 no.1 Rio de Janeiro jun. 2012. Available at [http://pepsic.bvsalud.org/scielo.php?script=sci\\_arttext&pid=S0101-48382012000100004](http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S0101-48382012000100004) . Accessed on 20 Jan. 2020.
- BERNARDI, F.; CICHELERO, C.; VITOLO, MR Food restriction behavior and obesity. *Rev. Nutr* . v.18, n.1, Campinas Jan./Feb. 2005. Available <https://doi.org/10.1590/S1415-52732005000100008>
- BRAZIL. Ministry of health. Epidemiology: relevance of the problem and concept and classification. Brasília-DF: MS; 2006. p.16-26. Basic Care Notebooks n.º12. Series A. Standards and Technical Manuals.
- BUENO, Júlia Macedo (et al.) Food education in obesity: adherence and anthropometric results. *Rev. Nutr*. v.24 n.4 Campinas July/Aug. 2011
- COUTINHO, WF, BENCHIMOL,AK Morbid obesity and associated conditions. In: Garrido Junior AB, Ferraz EM, Barroso FL, Marchesini JB, Szego T. Obesity surgery . São Paulo: Atheneu; 2006. p.13-7.
- DIAS, PC. et al. Obesity and public policies: concepts and strategies adopted by the Brazilian government. *Public Health Cad* .; v. 33, n.7; e00006016. 2017.
- DONATO, A., et al. Obesity. In SR Busse (Org.), *Anorexia, Bulimia and Obesity* , pp.: 329-361. Barueri: Manole. 2004.
- FERRAZ, LF; VIRIATO, A.; MOURA, A. Analysis of the nutritional diagnosis of patients undergoing hospital infectious disease care. *The World of Health* , São Paulo – v. 37, no. 3, p.:253-258. 2013.
- LUZ, Felipe Quinto da; OLIVEIRA, Margareth da Silva. Cognitive-behavioral therapy for obesity: a review of the literature. *Aletheia* [online]. n.40, pp. 159-173. 2013.ISSN 1413-0394.
- MADEIRA, Maria Ormy Moraes.; COUTINHO JORGE, Marco Antonio. The Enchanter of It – a return to Groddeck. *Rev. Latinoam. Psychopath. Fund.*, São Paulo, 22(2), 238-253, jun. 2019. <http://dx.doi.org/10.1590/1415-4714.2018v22n2p238.5>
- MANCINI MC. Diagnostic obstacles and therapeutic challenges in obese patients. *Arq Bras Endocrinol Metab* .; v. 45, no. 6, p.:584-606. 2001.
- MANCINI, MC.; HALPERN, A. Pharmacological Treatment of Obesity. *Arq Bras Endocrinol Metab* v.46 n.5 São Paulo Oct. 2002. Available at: <https://doi.org/10.1590/S0004-27302002000500003>
- MARCELINO, FM.; PATRÍCIO, ZM. The complexity of obesity and the process of living after bariatric surgery: a public health issue. *Collective health science* v.16 n.12 Rio de Janeiro Dec. 2011. Available at: <https://doi.org/10.1590/S1413-81232011001300025> . accessed on Feb 9th. 2020
- MENDONÇA CP, ANJOS LA. Aspects of eating practices and physical activity as determinants of the growth of overweight/obesity in Brazil. *Cad Public Health* .; v.2, n. 3, p.:698-709. 2004.
- MINAYO, Maria Cecília de Souza. Qualitative analysis : theory, steps and reliability. *Collective health science* [online]. 2012, vol.17, n.3, pp.621-626.
- MINISTRY OF HEALTH, Natural health – obesity and nutrition. 1993. Available at: [http://www.geocities.com/curi\\_br/obesidade.html](http://www.geocities.com/curi_br/obesidade.html) (accessed on 09 Feb. 2020)
- SANTOS, Lucas Nápoli dos.; MARTINS, André . The originality of Georg Groddeck's work and some of his contributions to the field of health . *Interface (Botucatu)* vol.17 no.44 Botucatu Jan./Mar. 2013. Available at <https://doi.org/10.1590/S1414-32832013000100002>
- SEGAL, A., &FANDIÑO, J. Indications and contraindications for performing bariatric

operations. Brazilian Journal of Psychiatry, v.24, p.: 68-72. 2002.

SHAROVSKY, LL, et al .. Group psychotherapy in patients with metabolic syndrome. Rev Soc Cardio Estado de São Paulo; v. 14, no. 4, p.:646-651, 2004.

SILVA, MP, et al. Obesity and quality of life. Acta Méd Port. ; v. 19, p.:247-50. 2006

SOUZA, MD G. (et al.) Prevalence of obesity and metabolic syndrome in park visitors. ABCD, arch. bras. cir. dig . v.28 supl.1 São Paulo 2015. Available at: <https://doi.org/10.1590/S0102-6720201500S100010> . Accessed on 20 Jan. 2020.

VIANA, Luciana Verçoza (et al.). Factors determining weight loss in adults undergoing diet therapy interventions. Arq Bras Endocrinol Metab ., v. 57, n.9, 2013. Available at <http://www.scielo.br/pdf/abem/v57n9/a07v57n9.pdf> . Accessed on 20 Jan. 2020.