

## **CHALLENGES IN HOSPITALIZATION TREATMENT OF PATIENTS WITH OBESITY DURING THE COVID-19 PANDEMIC**

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**Abstract:** Obesity is a chronic and multifactorial metabolic disease triggered by environmental, cultural, nutritional, genetic and psychosocial aspects, demand for clinical treatment performed by a multidisciplinary technical team. Ensuring care for patients with obesity, in the midst of the coronavirus pandemic, was fundamental for the surveillance and control of comorbidities and risk reduction in case of contamination. Health services that cared for obese individuals throughout the pandemic period needed to reinvent themselves to keep care in line with measures to combat coronavirus, reduce the risk of contamination and guarantee the necessary clinical support. The present work is a cross-sectional, qualitative, descriptive study, comprised of an experience report arising from the experience of health professionals during the treatment of obesity and its comorbidities, between March 2020 and December 2021. The report considered the observations and challenges in this atypical period of pandemic by the coronavirus. The activities took place in a closed inpatient unit (wards and apartments) of the Hospital da Obesidade, a reference for the care of patients with obesity, located in the city of Camaçari-BA. It is noteworthy that during the COVID-19 pandemic, the scenario of hospitalization for the treatment of morbid obesity was challenging because it was something new with continuous adaptations of care and work flows. During the entire period, the joint and humanized work of each professional was fundamental, who managed to act specifically in each different area, but who talk to each other. During the entire period of this work, even in the midst of so many adversities never experienced before, a daily construction of knowledge and actions was carried out, always focused on humanization and care, promoting multiprofessional assistance based on a welcoming dialogue, active listening and

safe technical support.

**Keywords:** Obesity, hospitalization, pandemic and multiprofessional team.

## INTRODUCTION

Excessive caloric intake associated with decreased energy expenditure causes a positive energy balance with continued accumulation of adipose tissue. From the calculation of the body mass index (BMI), obtained by dividing body weight by height, in meters, squared, it is possible to classify excess weight whose results  $\geq 30 \text{ kg/m}^2$  constitute obesity. (WHO, 2021). As it is a chronic and multifactorial metabolic disease triggered by environmental, cultural, nutritional, genetic and psychosocial aspects, it demands clinical treatment performed by a multidisciplinary technical team.

Obesity stands out as one of the main risk factors for a worse prognosis related to COVID-19 (Moreira RF., 2020). Individuals with obesity have higher rates of hospitalization in acute or intensive care and a higher risk of invasive mechanical ventilation (Cava et al 2021). Ensuring care for patients with obesity, in the midst of the coronavirus pandemic, was fundamental for the surveillance and control of comorbidities and risk reduction in case of contamination.

Health services that cared for obese individuals throughout the pandemic period needed to reinvent themselves to keep care in line with measures to combat coronavirus, reduce the risk of contamination and guarantee the necessary clinical support.

## METHODOLOGY

This is a cross-sectional, qualitative, descriptive study, comprised of an experience report arising from the experience of health professionals during the treatment of obesity and its comorbidities, between March 2020 and December 2021.

The report considered the observations and

challenges in this atypical period of pandemic by the Coronavirus. The activities took place in a closed inpatient unit (wards and apartments) of the Hospital da Obesidade, a reference for the care of patients with obesity, located in the city of Camaçari-BA.

## RESULTS/DISCUSSIONS

Obesity, as a serious chronic disease, requires multidisciplinary treatment for correct directions, interventions, motivation and support for behavioral changes. During the hospital stay during the pandemic period due to Sars-CoV-2, due to the risk of increased incidence of admissions of suspected patients or patients with COVID-19, it was necessary to study and implement emergency measures to combat the pandemic, among which, highlighting the adjustment of the work flow and organization of spaces maintaining social distance, in addition to continuous training for safe dressing and undressing of uniforms and personal protective equipment (PPE), personal hygiene care and hand washing (Fan W, et al. al., 2020). The use of PPE such as face masks was challenging in the listening and speaking process, leading to the need for adjustments in communication between professionals, patients and family members.

At the time of admission, each patient was tested for the detection of COVID-19, remaining in isolation until the result. If not, the patient was welcomed and directed to consultations at the Health Center (Nutrition, Medicine, Occupational Therapy and Psychology)

The first evaluation was performed by a physician specializing in the diagnosis and treatment of obesity and comorbidities. The medical evaluation routine was daily and always performed as required by endocrinologists, cardiologists, psychiatrists and general practitioners. After admission, each patient was referred to their ward or

apartment, isolated from contact with other patients. Contact with health professionals took place according to the demand of the therapeutic plan or the patient, at previously scheduled times in a safe way to ensure the reduction of the risk of contamination by the coronavirus.

Biochemical tests for glycemic control (fasting glucose, glycosylated hemoglobin), lipid profile (LDL, HDL, VLDL, total cholesterol), inflammatory markers (C-reactive protein) and hormone levels were measured monthly or as needed. At each examination, the reduction of risks and health problems that can lead to death was evaluated. Whenever there were complaints of flu symptoms, patients were tested for possible diagnosis of COVID-19.

Nutritional support was provided through nutritional assessment, dietary assessment methods, education and nutritional guidance. Nutritional assessment was a challenge, because in anthropometry, it was often necessary to use reported weight measurements. Menu planning was based on low-calorie and high-protein diets, adjusted to the pathologies present. Dietary interventions were divided into three categories of calories/day, being 1200, 800 and 500 kcal calculated, prepared and served indoors, and at all meal times there was nutritional supervision of dietary consumption. Meals were served in the respective rooms and the entire service followed the recommendations of a note from the Federal Nutrition Council for the performance of a Nutritionist and Nutrition and Dietetics Technician during the pandemic ( CFN, 2020). as they were under hospitalization and 24-hour medical surveillance. Patients who tested positive received normocaloric diets until the end of the condition and returned to lower calorie diets only after a new clinical evaluation.

During the pandemic period, the synchronized work between pharmacists

and nurses was very important to guarantee safety in the dispensing of medicines, in a co-responsible way, through the educational process, for the development of autonomy and guarantee of the correct and safe use of medications according to prescribed dosages. All medications were dispensed individually and delivered via nursing technicians to the rooms where each patient was isolated.

Admission to Physical Therapy consisted of the initial physical therapy assessment followed by the presentation of the procedures, measurement of abdominal and hip circumferences and referral to physical activity. After these three steps, the prescribed procedures were sent to the administrative sector (schedule preparation) and specific physiotherapy sectors for specific physiotherapeutic assessments (Acupuncture, Aquatic Physiotherapy, Dermatofunctional, Musculoskeletal, Respiratory and Global Postural Reeducation). Only after all these steps did the patient initiate therapeutic interventions in Physiotherapy.

In the Aquatic Physiotherapy sector, professionals used N95/surgical masks and goggles, and during the most critical period of the pandemic, the number of patients per professional was greatly reduced, as a measure to prevent contamination. In the other sectors, the professionals also wore caps and aprons over their lab coats, in addition to cleaning the materials with 70% alcohol between visits.

In the Musculoskeletal and Respiratory Physiotherapy sector, as well as Global Postural Reeducation, the number of patients per professional and per schedule was also reduced, with the aim of preventing possible contamination. One of the main measures in this sector was the definitive suspension of a device called Air Flow Incentive, which was used to stimulate ventilation patterns, with a consequent effect on both diaphragmatic dynamics and pulmonary ventilation.

This measure was adopted due to the characteristic of this intervention with the sponsor, which was carried out without the use of protective masks, which was not possible during the pandemic, especially in a hospital environment.

The Occupational Therapy team actively acted to mitigate the harmful effects of the pandemic on the routine of patients who were in treatment. Occupational therapy worked with the idea that human beings are socially and physically stimulated by their occupation. Work, leisure, daily and everyday tasks are part of the “human being” itself. The service’s challenge was to keep patients active, making them aware of the importance and role of occupation. Even in the midst of fear, Occupational Therapy actions sought to follow health guidelines, complying with the safety protocol with the use of PPE, to maintain face-to-face calls. During periods when the patient tested positive, therapy was carried out remotely using specific kits in order to encourage occupancy.

Hospitalized patients who had medical clearance to practice physical exercises were instructed to follow safety measures such as the use of masks, distance of 2 meters between each one and hand hygiene at each change of activities. This way, it was possible to provide the practice of physical exercise with more safety for patients.

Waiting lists were implemented, with names and times that patients would be released for collective classes and attendance at the gym, with the orientation that collective classes could contain a maximum of 10 participants, respecting the minimum distance of two meters. The objectives of the classes were to develop efforts from light to moderate levels, always enhancing motor coordination.

The service in the weight room was performed through shorter aerobic training (treadmill, bicycle, elliptical) with a maximum

duration of 20 minutes, aiming at physical conditioning adjusted to each pathological condition. In the neuromuscular training (muscle strengthening machines) localized muscular resistance was worked, making the patients increase their overload level for a longer time. This way, the evolution of the patient in the context of weight loss and health was sought. All exercises were prescribed and monitored by Physical Education teachers specialized in obesity and its comorbidities. It is noteworthy that the practice of sports was only performed by patients tested negatively and after medical clearance and physiotherapeutic guidelines.

Patients also received individual psychological counseling, once a week or as needed, in order to understand which environmental factors interfered with the development of the patient's dysfunctional relationship with food. When seeking to study the existence of psychological comorbidities such as mood disorders and eating compulsions, the psychology team developed strategic actions aimed at the patient with obesity, in order to identify and mitigate the relationship between the disease and emotions, managing them in other ways than ingesting food.

The high viral transmissibility led to the need to suspend family visits. Thus, contact with family members became via technological tools. Through the Google Meet platform, meetings were held with the patients' families, aiming both at carrying out health education to deal with the patient's return to the family environment, as well as reducing the tension and sadness caused by the family's distance, social isolation and fears arising from the still unknown picture of contagion by the coronavirus. Active listening in this challenging period of isolation sought to work with the patient on previous information about the aspects that

influenced the development and maintenance of obesity to verify the degree of knowledge and motivation for change.

Carrying out this new support model provided safe experiences and great help through an interprofessional treatment model for obesity, being extremely important for consolidating the patient's ownership of his commitment to the necessary changes for a healthier lifestyle that would help in the maintenance of lost weight. It is known that there is a close relationship between emotional state and stressful situations and the development of diseases. Becoming aware of the emotional relationship with the general state of health and condition of being obese is the basis of treatment (SCHUTZ et al 2019).

## **FINAL CONSIDERATIONS**

Multidisciplinary treatments have favored important and relevant results in terms of weight reduction and quality of life, enabling improvement in cardiometabolic effects with the reduction of inflammatory aspects. Added to this, there is an understanding on the part of the individual of the need to care for the emotions that reflect on self-esteem and that favor the continuous management of health care.

It is noteworthy that during the COVID-19 pandemic, the scenario of hospitalization for the treatment of morbid obesity was challenging because it was something new with continuous adaptations of care and work flows. During the entire period, the joint and humanized work of each professional was fundamental, who managed to act specifically in each different area, but who talk to each other.

During the entire period of this work, even in the midst of so many adversities never experienced before, a daily construction of knowledge and actions was carried out, always focused on humanization and care,

promoting multiprofessional assistance based on a welcoming dialogue, active listening and safe technical support.

## **INTEREST CONFLICTS**

We declared that there are no conflicts of interest.

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