PREVALENT PHYSICAL THERAPY DIAGNOSES IN A SCHOOL CLINIC

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ABSTRACT

Introduction: Chronic non-communicable diseases (NCDs), especially cardiovascular and respiratory diseases, have high morbidity and mortality and significantly impact quality of life, which makes rehabilitation programs essential. Factors such as smoking, hypertension, diabetes, and lifestyle influence the appearance of these conditions, compromising cardiorespiratory fitness and increasing the risk of complications. Cardiorespiratory physiotherapy is essential to reduce symptoms, improve functionality, and tailor interventions to individual needs. The physiotherapeutic diagnosis focuses on functional dysfunctions and physical limitations, guiding practices from the evaluation to the discharge of these patients. Objective: to identify the most common admission physical therapy diagnoses in patients of a Physical Therapy School Clinic. Methodology: cross-sectional, descriptive and explorative study with a quantitative approach, consisting of 20 adult patients, in September 2024. Results: The predominant admission physical therapy diagnosis in the cardiorespiratory sector was identified as kinetic-functional deficiency of cardiovascular function and kinetic-functional deficiency of respiratory function, according to the standardization promoted by the Brazilian Confederation of Physical Therapy (CBDF). Conclusion: The predominant admission physical therapy diagnosis in the cardiorespiratory sector was identified as kinetic-functional impairment of cardiovascular function and kinetic-functional impairment of respiratory function.

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INTRODUCTION

Chronic non-communicable diseases (NCDs) represent an important global public health problem, and cardiovascular diseases (CVD) and respiratory diseases are highly prevalent and have high morbidity and mortality. Cardiorespiratory dysfunctions interfere with the reduction of functional capacity, impaired oxygenation, and increased risk of developing other diseases, and rehabilitation programs are necessary to improve the quality of life of these individuals (Nascimento et al., 2022).

Respiratory diseases are mainly caused by infectious causes, allergies, smoking, chronic conditions, environmental factors and lifestyle. Among the risk factors for cardiovascular diseases, high blood pressure, high cholesterol, diabetes mellitus, age and stress stand out. Therefore, understanding these causes is essential for prevention and appropriate treatment, as the evolution of diseases has repercussions on a progressive loss of resistance to physical exercise, compromising cardiorespiratory fitness, which can lead to generalized weakness and immobility (Silva et al., 2023)

In this sense, cardiorespiratory physiotherapy becomes essential for these patients, whose main objectives are to reduce symptoms, providing the highest level of functionality, physical fitness and reduce the risk of complications. In view of this, an effective rehabilitation program is based on the evaluation of the patient and the determination of the correct physiotherapy diagnosis, applied and individually adapted to the needs and demand of patients (Smyrnova et al., 2018).

Thus, unlike medical diagnosis focused on the identification of diseases and pathological conditions, physiotherapy diagnosis focuses on the identification of functional dysfunctions and physical limitations, based on the analysis of how the patient's condition affects their functionality. Therefore, the physical therapist professional is trained to perform the kinetic-functional diagnosis, according to the Brazilian Classification of Physical Therapy Diagnosis (CBDF), important data to guide their practices, from the evaluation to the patient's discharge (Silva et al., 2021).

Therefore, in view of the importance of diagnosis for the strengthening of professional practice by the physiotherapist and for the patients, this study aims to identify the most common admission physiotherapy diagnoses among patients treated in the cardiorespiratory sector of a Physical Therapy School Clinic. Raising its justification for contributing to the improvement of physiotherapeutic care care, as well as developing more effective intervention strategies, promoting humanized care centered on the patient's physiotherapeutic diagnosis.

In view of the relevance of the diagnosis for the strengthening of the professional practice of the physical therapist and for the quality of patient care, this study aims to identify the most common admission physical therapy diagnoses among patients treated in the cardiorespiratory sector of a Physical Therapy School Clinic. The importance of this research is justified by its contribution to the improvement of physical therapy care, in addition to enabling the development of more effective intervention strategies. Thus, it seeks to promote humanized care centered on the diagnostic needs of patients, ensuring a more effective and adequate rehabilitation.

METHODOLOGY

TYPE OF STUDY

This is a cross-sectional, descriptive and explorative study with a quantitative approach.

LOCATION

The research was developed at the Physical Therapy School Clinic (CEF) of the State University of the State of Bahia (UESB), in the cardiorespiratory sector in the municipality of Jequié-BA, the only public service that provides specific individual physical therapy care in the sub-area of cardiorespiratory by the Unified Health System (SUS) to the population of the city and surrounding areas.

Jequié is a municipality in the state of Bahia in the Northeast region of Brazil, at a distance of 365 km west of Salvador, in the southwest of Bahia. Located in the transition zone between the caatinga and the forest zone, the municipality is positioned as the eleventh most populous in the state of Bahia (IBGE, 2022). In 2022, the estimated population of the city was 158,813 inhabitants (IBGE, 2022), occupying an area of 2,969.039 km² and presenting a demographic density of 53.49 inhabitants per km² (IBGE, 2022).

CEF plays a vital role in the region's education and healthcare landscape. As an important component of the academic training of future physiotherapists, the school clinic not only offers a practical environment for the application of theoretical knowledge, but also acts as a space for the provision of health services to the regional community.

In the field of research, the Physical Therapy School Clinic also plays an important role. By allowing direct interaction with patients and observation of real clinical cases, students and faculty have the opportunity to explore research questions pertinent to the field of physical therapy and seek innovative solutions to challenges faced in the field.

In short, the Physiotherapy School Clinic of the State University of Southwest Bahia is a multifaceted space that plays a key role in the training of future physiotherapy professionals, in the provision of health services to the community and in the advancement of research in the area. Its impact extends beyond the walls of the university, contributing to the development of health and education in the Jequié region.

POPULATION AND SAMPLE

The study population was represented by 20 adult patients attended by at least five (05) sessions, aged 18 years or older; both sexes; all religions and beliefs, with preserved oral and/or written verbalization capacity; with cognitive capacity to respond to the research instrument, and thus the mental state was assessed by the Mine Mental State Examination (MMSE).

The inclusion criteria for this study were established as follows: adult patients who participated in at least five (05) sessions of care, with preserved cognitive capacity to respond to the research instrument and who agreed to participate in the study were selected. Participants were guaranteed the right to interrupt their participation in any phase of the research, without suffering penalties or losses. In addition, confidentiality and anonymity were ensured in relation to the data collected, through the signing of the Informed Consent Form. This research strictly followed the ethical standards established by Resolution No. 446/12 of the National Health Council, which requires the obtaining of written consent from each participant.

A total of 20 participants were considered eligible for the study, of which 18 were diagnosed according to the Brazilian Classification of Physical Therapy Diagnosis. The study protocol was submitted to the Human Research Ethics Committee of the State University of Southwest Bahia (UESB). Patients with reduced cognitive capacity and comprehension deficit were excluded through the analysis of the MMSE (Mini Mental State Examination), since these individuals are considered vulnerable according to the ethical guidelines of the research.

RESEARCH INSTRUMENTS

Data were collected after approval by the Ethics Committee, in September 2024.A modified questionnaire prepared by Lopes et al (2009) was used, consisting of closed questions adapted to meet the specific needs of this research, allowing the registration of relevant observations and comments.

The questionnaire was applied through an interview conducted in an office of the School Clinic, where data were collected through a face-to-face format. To ensure the safety and comfort of the participants, the interview was conducted without the presence of other health professionals, including physiotherapists, thus ensuring the confidentiality of the answers.

This study is part of the research project entitled "Humanization and physiotherapeutic care aimed at hypertensive patients treated in the cardiorespiratory subarea in a school clinic in the municipality of Jequié-BA."

DATA ANALYSIS

A simple descriptive statistical analysis was performed, including the distribution of occurrences and percentages, using the JAMOVI Software version 2.3.28. The following information was analyzed: the sociodemographic characteristics of the participants; the admission physiotherapy diagnosis in the Cardiorespiratory sub-area of the Physiotherapy School Clinic of UESB; and the origin of the referral to the Cardiorespiratory Physiotherapy sector of the UESB School Clinic.

RESULTS

The study obtained a total of 20 participants, and in relation to the sociographic variables, it was observed that 17 (85%) were female while 3 (15%) were male. The age distribution revealed that 11 (55%) of the participants were between 40 and 59 years old, 8 (40%) were in the 60 to 79 year old group, 1 (5%) was over 89 years old.

With regard to marital status, most participants, i.e., 15 (75%), were married or in a stable union. In addition, 2 (10%) were divorced, another 2 (10%) were single and 1 (5%) was widowed. Regarding education, 12 (60%) had high school, 6 (30%) had elementary education, 1 (5%) had higher education and 1 (5%) had no formal education.

Regarding the origin of the indications for treatment, 14 (70%) of the participants were recommended by doctors, 2 (10%) were referred by health centers, another 2 (10%) were indicated by patients from the Physical Therapy School Clinic (CEF), and 2 (10%) were indicated by neighbors or friends. Regarding the number of sessions in the CEF, it was observed that 13 (65%) participated in more than ten sessions, while 7 (35%) completed between five and ten sessions.

Analyzing the participants' admission diagnoses, it was identified that 13 (65%) were diagnosed with cardiovascular function impairment; 4 (20%) with respiratory function

impairment; 1 (5%) with cardiorespiratory function deficiency and 2 (10%) with musculoskeletal function deficiency.

It is relevant to note that the diagnosis related to cardiorespiratory was recorded in only 10% of the cases, as well as a diagnosis of musculoskeletal deficiency that was not classified according to the Brazilian Classification of Physical Therapy Diagnosis (CBDF).

Finally, a diagnosis of kinetic-functional musculoskeletal deficiency according to the CBDF, presented the following characteristics: Musculoskeletal Kinetic-functional deficiency, with acute structural injury, mild pain, severe reduction in joint mobility, moderate reduction in strength, affecting a segment or part of the body, left lower limb.

Table 1. Sociodemographic characteristics, indication, number of sessions and admission diagnosis

VARIABLE (N=20)	N	%
GENDER		
Female	17	85%
Male	3	15%
AGE GROUP		
40-59	11	55%
60-79	8	40%
>89	1	5%
MARITAL STATUS		
Married/common-law partnership	15	75%
Divorced	2	10%
Single	2	10%
Widower	1	5%
SCHOOLING		
Complete high school	12	60%
Elementary school	6	30%
Higher education	1	5%
No education	1	5%
INDICATION		
Doctor	14	70%
Health center	2	10%
Patients of the CEF	2	10%
Neighbor or friend	2	10%
NUMBER OF SESSIONS		
More than 10	13	65%
5 to 10	7	35%
ADMISSION DIAGNOSIS		
Cardiovascular	13	65%
Respiratory	4	20%
Cardiorespiratory	1	5%
Musculoskeletal	2	10%

Source: Survey data

In the analysis of the physiotherapeutic diagnosis according to the CBDF, 13 (65%) of the participants had deficiency of cardiovascular kinetic-functional function, as shown in Table 2. In addition, 4 (20%) were diagnosed with impaired respiratory kinetic-functional

function, as shown in Table 3, and 1 (5%) had impaired kinetic-functional musculoskeletal function.

Regarding the deficiency of cardiovascular kinetic-functional function (Table 2), it was observed that 7 (53.9%) of the participants presented structural alterations and in 9 (69.9%) no aerobic capacity was specified. Regarding vessel function, 10 (77.0%) did not provide specific information. Regarding fatigability, 9 (69.2%) reported moderate fatigability, while 2 (15.4%) reported mild fatigability. It was also observed that 10 (77%) of the participants had heart rate alterations and that 7 (53.9) were using medication.

Table 2. Deficiency of cardiovascular kinetic-functional function (CHD), according to CBDF

CBDF D05 - Cardiovascular Function (n=13)	N	%
STRUCTURE CHANGE		
With	7	53,9%
Without	6	46,1%
AEROBIC CAPACITY (AC)		
Good	3	23,0%
Not specified	9	69,2%
Uncoded	1	7,8%
FUNCTION OF VESSELS		
Without	3	23%
Not specified	10	77,0%
FATIGABILITY		
Moderate	9	69,2%
lightweight	2	15,4%
No	2	15,4%
HR ALTERATION		
With	10	77,0%
Without	3	23,0%
MEDICATION		
With	7	53,9%
Don't know	6	46,1%

Source: Survey data

Regarding the deficiency of respiratory kinetic-functional function (Table 3), it was found that 2 (50%) of the participants presented functional or structural alterations of the obstructive type, while another 2 (50%) did not provide specifications about their conditions. In addition, 10 (77.0%) did not report information about vascular function. Regarding oxygenation, 2 (50%) of the participants had normal levels, while the other 2 (50%) had low oxygenation. In addition, it was observed that 2 (50%) had a secretive component and 2 (50%) had mild respiratory distress. Regarding lung expansion, 2 (50%) showed a slight reduction in the volume of lung expansion, whereas another 2 (50%) showed a moderate reduction. Regarding respiratory muscle strength, 2 (50%) of the participants showed a slight reduction and 2 (50%) a moderate reduction.

Table 3. Respiratory kinetic-functional function (DCR) impairment, according to the CBDF

CBDF D04 - Respiratory function (n=4)	N	%
FUNCTIONAL OR STRUCTURAL CHANGE		
Obstructive	2	50%
Not specified	2	50%
OXYGENATION		
Normal	2	50%
Low	2	50%
SECRETARY COMPONENT		
With	2	50%
Without	2	50%
RESPIRATORY DISTRESS		
Without	2	50%
Lightweight	2	50%
LUNG EXPANSION VOLUME (VEP)		
Slight reduction	2	50%
Not applicable	2	50%
RESPIRATORY MUSCLE STRENGTH (FMR)		
Slight reduction	2	50%
Moderate reduction	2	50%

Source: Survey data

DISCUSSION

The present study involved 20 participants aged 40 to 59 years and 60 to 79 years, 85% of whom were women. The prevalence of CVD increases with age; It is observed that, between 5 and 44 years of age, women have a higher prevalence than men. However, from the age of 44, this trend is reversed and the difference between genders reaches its peak in the age group of 60 to 69 years (Oliveira et al., 2023).

The predominance of females observed in this study can be attributed to women's greater concern in seeking health services, reflecting a greater awareness of self-care and disease prevention (Leslyê et al., 2022).

Regarding marital status, the predominance was of married individuals (75%), while the predominant level of education was complete high school (60%), followed by elementary school (30%). Studies indicate that a higher level of education is associated with a better understanding of the importance of preventive practices and adherence to early treatment of symptoms, resulting in better management of health conditions. Patients with lower levels of education often face greater challenges in understanding medical advice and adopting healthy habits (Rossi et al., 2011).

Although the socioeconomic factor related to family income was not collected in this study, it is important to highlight that income also exerts a direct and indirect influence on the health status of patients. Higher incomes tend to provide better access to essential resources, such as quality health services, medicines, adequate food and adequate

housing conditions, all of which are determining factors for maintaining general health and controlling chronic diseases, including cardiovascular diseases (Rossi et al., 2011).

From this perspective, public policy actions aimed at equity in access to health, associated with health education and social support, are essential to improve the prognosis and quality of life of these patients, in addition to reducing the social inequalities that aggravate the impact of cardiovascular diseases.

CVD remain the leading cause of death in Brazil and worldwide, contributing significantly to the increase in morbidity and functional disabilities. Although mortality rates are decreasing in Brazil, possibly as a result of more effective public health policies, the total number of these indicators continues to grow, mainly due to aging and worsening health conditions of the population. In addition, the presence of traditional risk factors such as hypertension, dyslipidemia, obesity, sedentary lifestyle, smoking, diabetes, and family history increases the probability of developing CVD (Précoma et al., 2019).

Most of the patients who participated in the study were referred by medical indication (70%). This practice is extremely important to ensure that the patient receives safe, effective, and well-targeted multidisciplinary treatment, in addition to translating the recognition and importance of cardiorespiratory physiotherapy, so that patients with cardiovascular disease can have a better quality of life (Karsten, 2018).

In the present study, the predominant admission diagnosis in the cardiorespiratory sector was cardiovascular function deficiency (65%), followed by respiratory function deficiency (20%). From this perspective, cardiorespiratory physiotherapy plays an important role in contributing to the improvement of health in several ways through its specialized interventions aimed at reducing the risks associated with diseases of the heart and respiratory system.

In Brazil, the first Cardiac Rehabilitation (CVR) programs appeared between the end of the 1960s and the beginning of the 1970s. Initially, these programs mainly served patients in the recovery phase after myocardial infarction or in the postoperative period of cardiac surgery, especially coronary artery bypass grafting, which was still in its early years of implementation. Currently, physiotherapists play a fundamental role in the multidisciplinary team, often being the main responsible for interventions related to physical exercise, especially in phases I and II of the program, as well as for patients at moderate or high risk (Karsten, 2018).

It is important to note that, although participation in Cardiac Rehabilitation (CVR) programs offers a number of proven benefits, only a small portion of the patients referred have access to these programs, both in developed countries and in nations with moderate

or low levels of development. This reality is extremely worrying, considering that about a third of deaths in the world are related to cardiovascular diseases (Karsten, 2018).

Respiratory physiotherapy encompasses interventions aimed at preventing, treating, and rehabilitating lung dysfunctions, as well as strengthening the respiratory system in patients with lung diseases. In this context, cardiorespiratory physiotherapy demonstrates great effectiveness in promoting health, contributing to functional recovery and improving the quality of life of patients (Silva et al., 2023).

Regarding the results of the deficiency of cardiovascular kinetic-functional function (D04) according to the CBDF, 65% of the sample, each characterizer represents the action of the cardiovascular system, identified in the semiological findings of the physiotherapist, with a focus on functionality, identifying the deficiencies that interfere with aerobic capacity, which is influenced by changes in the vasomotor activity of the skeletal muscles and in the contractile capacity of the heart muscle (CBDF, 2022).

Regarding the results of the deficiency of the respiratory kinetic-functional function (DO5) according to the CBDF, 20% of the sample, each characterizer of the action of the respiratory system, with a focus on respiratory mechanics, refers to the deficiencies that interfere with pulmonary ventilation and their consequences for the performance of the respiratory muscles and oxygenation. They are expressed by a clinical-functional picture that may be suggestive of or typical of a respiratory kinetic-functional deficiency, with or without alteration of the structure of the respiratory system.

It is important to emphasize that some characterizers were not coded, such as the qualifier of fatigability at rest or by exertion D05, and the qualifier of oxygenation and respiratory distress at rest or by exertion on D04. These markers are fundamental, as they clearly describe the degree of severity of the impairment and guide the most appropriate conducts for each situation. This can occur due to the professional's lack of skill during coding in the CBDF system or during patient evaluation.

CHD and RBD are essential to guide physiotherapeutic interventions focused on promotion, prevention, and functional recovery, and can be applied both in the absence and presence of cardiopulmonary and metabolic diseases, and these diagnoses may also include manifestations not directly related to the cardiorespiratory system (CBDF, 2022).

Regarding the physiotherapeutic diagnosis, according to COFFITO Resolution 80/1987, it is the responsibility of the physiotherapist to prepare the physiotherapeutic diagnosis and this process involves the physical-functional evaluation of the patient, where physical-functional deviations are analyzed to identify and measure alterations. Based on

this, appropriate conducts are prescribed, organizing the treatment and monitoring the patient's evolution (Silva, [s. d.]).

In this sense, in 2022 the CBDF was instituted, to standardize the description and coding of the terms of Physiotherapeutic Diagnoses. This classification represents a milestone for Physical Therapy in Brazil, standardizing diagnoses with its own terminology and with an accessible system. However, scientific knowledge is important to identify kinetic-functional problems following current recommendations (Silva, [s. d.]).

Therefore, in addition to reinforcing the professional identity of the physiotherapist, the CBDF guarantees autonomy to prescribe treatments based on their own diagnosis. Physiotherapeutic diagnoses are fully related to physiotherapeutic procedures, such as anamnesis, physical-functional examination and analysis of complementary exams, in view of these procedures the physiotherapist is able to define the complete diagnosis (CBDF, 2022).

CONCLUSION

In summary, the predominant admission physical therapy diagnosis in the cardiorespiratory sector was identified as kinetic-functional deficiency of cardiovascular function and kinetic-functional deficiency of respiratory function. The standardization promoted by the Brazilian Confederation of Physical Therapy (CBDF) is an indispensable tool to ensure efficient, individualized and safe care in the rehabilitation of patients.

However, it is important to recognize some limitations of the study, such as the sample size, the collection of more data related to sociodemographic characteristics, as well as the follow-up of the evolution of these diagnoses until the end of treatment.

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