

**49 - PROFILE OF PEOPLE WITH CEREBRAL PALSY IN PHYSIOTHERAPIC CARE IN CADEF**

GUSTAVO JACOB FEIERTAG;

LEONARDO ALLEVATO;

BRUNA SILVEIRA CHAVES

Especialização em Esportes e Atividades Físicas inclusivas para pessoas com Deficiência da Faculdade de Educação Física e Desportos da UFJF – MG - Brasil

UNIPAC IPATINGA – MG - Brasil

gifeiertag@yahoo.com.br

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**INTRODUCTION**

The term Cerebral Palsy - CP or Non-Progressive Chronic Encephalopathy of Childhood is a group of brain disorders with steady characteristics which are due to some injury or developmental abnormalities that occur during fetal life or during the first months of life (BOBATH, 1990).

This disease has a variable etiology and factors are related to aggression happens to the brain before, during and in the first years after birth. Among the prenatal factors, we find brain malformations and infections such as toxoplasmosis. Perinatal causes encompass mainly the lack of oxygen to the brain during birth and after birth causes, involving especially diseases such as brain tumors and head injuries (GIANNI, 2007).

The Centre for Disability – (CADEF) is a rehabilitation center of the Unified Health System (SUS) in Brazil, serving the macro-region of the city of Governador Valadares, Minas Gerais, in several areas: orthopedics, internal medicine, physiotherapy, speech therapy, occupational therapy, dietitian, nursing, psychology, social work.

Therefore, the objective of this study was to draw a profile of people with cerebral palsy in physical therapy in the Centre for Disability - CADEF and create criteria to meet as many factors as age, functional diagnosis, prognosis gear, school attendance, type of disability, associated disabilities, early physical therapy treatment and frequency to physical therapy treatment.

The present study was justified by the need to analyze the growing demand for people with cerebral palsy on the waiting list of CADEF. There are factors such as lack of criteria for calls from users with cerebral palsy; users who do not accept being discharged from treatment presenting deficits such as chronicity of the case, severe functional diagnostics, advanced age, poor prognosis for gait; lack of attendance at physiotherapy sessions causing discontinuation of treatment without success and return to the waiting queue; lack of attendance to early physiotherapy turning to a chronic case with endless unsuccessful sessions that need to be analyzed and may justify the investigation.

**METHODOLOGY**

This study was descriptive and qualitative, because draw the profile of people with cerebral palsy with documented analysis of physiotherapeutic assessment in CADEF. Inclusion criteria for the study were being a patient of physiotherapeutic care in CADEF, present clinical diagnosis of cerebral palsy, being in treatment from July, 7 to July, 11 in 2014, consisting of 11 participants in total, which is the number of effective patients held in treatment. The assessment tool used was a table with the name of the patient describing their respective factors: clinical and functional diagnosis, age, school attendance, type of disability, related disabilities, gait prognosis, early physical therapy treatment and frequency to physical therapy treatment. Data collection was authorized by CADEF and obeyed Resolution 196/96 of the National Health Council/CNS. For data processing, we used simple statistics (statistical average and frequency).

**RESULTS AND DISCUSSIONS**

11 people with cerebral palsy who attended physiotherapeutic treatment at CADEF took part in this study, all of them with physical and mental disabilities, age between 1 and 19 years (mean age of approximately 10.46 years).

Regarding clinical diagnosis, cerebral palsy can be classified as: the specific topographical classifications, featuring functional diagnosis (quadriplegia, hemiplegia, paraplegia, diplegia); clinical changes in muscle tonus (spastic, athetoid or dyskinetic, ataxic, hypotonic and mixed); severity based in means of locomotion (mild, moderate or severe) (OLNEY et al., 1945).

Regarding the functional diagnosis variable, 54.54% had spastic tetraparesis, and the other cases paraparesis, tetraparesis, left spastic hemiparesis, right hemiparesis and paraplegia, each of them at a percentage of 9.09%.

Among tonus disorders, the most common is spasticity, and 75% of children with CP have increased tonus, exacerbation of tendon reflexes and resistance to rapid passive movement (CASTRO, 2005), which corroborates this study that showed the majority of patients with spastic tetraparesis.

As for the types of disability, mental disability is associated with limitations in at least two aspects of adaptive functioning: communication, personal care, activities of daily life, social skills, use of community resources, autonomy, academic skills, leisure, work; physical disability is described by the functional diagnosis observed; it should be considered the possibility of hearing impairment in all children complaining lack of response to sounds, delay in speech acquisition, preference for loud sounds, characteristics of constant distraction and inattention; all children in the first months of life should be referred to a systematic ocular evaluation, being critical the evaluation of the delay in setting and monitoring objects, for instance (MIRANDA et al, 2003). Speech impairment is significant when there is no emission of recognizable sounds at around two years of life, and the absence or insufficiency of balance of the head, at that age, points to a diagnosis of poor speech development (BLECK and NAGEL 1982).

Regarding the shortcomings associated, 36.36% presented, beyond physical and mental disabilities, also some kind of speech impairment; 27.27% presented beyond physical, mental and speech problems, also some kind of visual impairment; 18.18% had only physical and mental disabilities, and 18.18% presented, beyond physical and mental disabilities, associated visual problems.

Regarding the type of disability, 100% of participants presented physical disability and 100%, mental retardation; 63.63% had a speech impairment; 45.45% had visual impairment and none presented hearing impairment.

According to Morales (2005), patients related disability or severe mental disabilities are not eligible for the rehabilitation program, although there is a possibility of these individuals eventually keep a follow up with the medical staff and therapists through periodic orientation. Reflections for clinical approach is needed, reinforcing the need for an interdisciplinary team in monitoring and rehabilitation of patients and their families, with special care for the physical, psychological and social

aspects.

Apart from neuromotor impairments, cerebral palsy can also result in impairments and limitations in performing daily activities and tasks of the child and his family: these tasks include, for example, self-care activities like eating by himself, taking a bath and dressing, or mobility activities such as being able to get out of bed in the morning and go to the bathroom, play soccer and ride bikes with friends, in addition to social and cognitive activities such as playing with toys and with other children and attend school (MANCINI et al., 2002).

Regarding the frequency in regular school, 54.54% do not attend any form of education. Information about the performance of such functional activities is extremely relevant, since the difficulties in performing them usually constitute the main complaint of children, parents and relatives. Therefore, the promotion of the activities and performance of functional tasks can be defined as a goal to be achieved by prescribed therapies (PELLEGRINO, 1995).

School attendance depends on the evaluation of the particular circumstances of each case, held by psychologist and specialist teachers; it's at the school that the child demonstrates her sufficient motor independence and intellectual capacity for her social life training; this behavior is also important for normal children, which will get used to the disabled colleague, developing the spirit of human solidarity (CANDID, 2004).

Regarding gait prognosis, 54.54% presented gait prognosis (mean age 10.33 years), however, of this total, the majority (66.66%) had gait prognosis with upper limb support, i.e., showed moderate severity mobility. Another result was that of all who presented a gait prognosis, 33.3% had spastic tetraparesis. The criterion for classifying the severity of children with cerebral palsy was based on the means of locomotion (PETERSEN, 1998): children who had independent locomotion were classified as mild; those which locomotion needed some assistance (cane, crutch, walker) were identified as moderate severity and those who didn't locomote (made use of a wheelchair) were considered as serious according to the literature. Although the analysis of gait prognosis in patients with CP is complex and multifactorial, the topographic diagnosis of CP is an important factor, i.e., hemiplegic, followed by diplegic, generally have a favorable prognosis for gait development while that the prognosis is unfavorable for quadriplegics.

According to Molnar (1979), the likelihood that a child achieves independent ambulation decreases after four or five years in any type of motor involvement and it is unlikely after eight years of age. Molnar (1979) found a significant correlation between sitting at the age of two and gait, and a positive relationship between sitting at two and walking at eighth. The same study presents some conclusions regarding the relationship between topography and gait prognosis: generally, all children with spastic hemiplegia achieve independent gait; regarding diplegia, in a study with 116 children, most of them walked between two and four years (20% required support) and only 8.5% could not walk at eight years of age (MIRANDA, 1979); patients with the most severe forms, athetoid or spastic quadriplegia, have the worst motor prognosis, and usually end up requiring wheelchair and assistance in almost all daily activities.

Regarding early physiotherapeutic treatment, 18.18% underwent physical therapy before one year of age, and had a diagnosis of functional spastic quadriplegia, however, one had a gait prognosis and the other didn't. Early stimulation aims to enable the individual to develop into their full potential; the more immediate the intervention is, preferably before 3 years of age, the greater the chances of preventing and/or minimizing the installation of postural patterns and abnormal movements (CAMPOS, 2006). Early intervention is based on exercises aiming at the development of the child according to the phase in which she finds herself: thus a set of activities designed to provide that the child, in the early years of life, reach full development is implemented.

Since few people with cerebral palsy underwent physical therapy before one year of age it is recommended to give priority treatment to those who seek the service of Physiotherapy before one year of age, thus avoiding the waiting list and the chronicity of the case. According to Braz (1999), early intervention brings good results, but in practice, many babies are referred late to institutions, usually featuring some sort of disability, making the intervention more restrict in not achieving the goal of preventing pathological changes in development; so it's when deficiencies become evident that parents begin to seek help and treatment.

With disability already installed, the treatment consists in mitigating future complications for the child, improving functionality at maximum for social adaptation, besides preventing new disabilities that might occur. This type of procedures falls within the type of tertiary prevention (NUNES, 1995).

Tudella (1989) states that the intervention should be initiated up to 4 months of age because that is when the most rapid changes in development occur, with a great tonus and posture change, as well as change in primitive reflexes, sensory-motor coordination primary emerges, movements begin to have a voluntary control and the baby is ready to act on the environment. She argues that in this period, intervention would have a more preventive than rehabilitator characteristic, considering the abnormalities resulting from cerebral palsy, because clinical cases that are considered 'light' in this period are likely to become 'serious' if not treated properly.

Regarding the frequency in physiotherapy, 72.72% attended at least once a week; however, the total, 75% did not undergo early physiotherapeutic treatment. Regarding the principle of time of child development, literature has shown that children who are early stimulated (within the first year of life) and for a longer period of time have better results in the prevention of motor, cognitive delays, language and socialization (RAMEY & RAMEY, 1997). According to these authors, the most intensive programs, with more sessions associated with the involvement of parents, produced more positive effects on children development than programs with sporadic or intermediate sessions. Regarding the intensity of the program, Guralnick (1997) highlights that intervention effects can already be observed in the short-term in infants born prematurely and with low birth weight; a measure of intensity was created by combining the participation of family and children in various aspects of the intervention and a strong association between the intensity levels of family involvement on cognitive aspects of child development was shown.

Thus, although the PC is not a progressive disease, it may present very severe symptoms and, as it is a chronic situation, treatment time can be very long, in some situations, for the whole life. Thus, parents need two to three days a week on average for the treatment of the child, which changes the routine of this family, differentiating it from the routine of parents of non-disabled children (FREITAS; MOREIRA; REZENDE, 2006 ).

## FINAL CONSIDERATIONS

It was found that the profile of people with Cerebral Palsy in physiotherapeutic treatment in CADEF presented mostly functional diagnosis of spastic tetraparesis; associated with physical, mental and speech impairment; did not attend any form of school education; presented gait prognosis with upper limb support; underwent therapy with more than one year of age; minimum frequency treatment performed once a week.

For physiotherapy treatment in CADEF, it becomes necessary to establish criteria for the care of patients in the rehabilitation treatment: severe mental retardation or related disabilities, besides physical and mental, may get regular rather

than weekly guidelines; speech impairment is significant when there is a deficit in the control of the head around two years of age, presenting evidence of poor prognosis of the development; lack of school attendance undermines the promotion of motor and intellectual independence; impairment of cerebral palsy by means of locomotion is considered severe when children move around in a wheelchair and are quadriplegic; independent ambulation is considered unlikely after the age of eight or when patient does not sit at the age of two; functional diagnostics that have better gait prognosis are spastic hemiplegia and diplegia; early intervention before one year to three years of age should be considered a priority; parents need on average two to three days a week for the treatment of children with cerebral palsy who is eligible for treatment.

It is seen that CADEF primarily treats patients with functional diagnosis of spastic tetraparesis, do not attend any form of school education, present associated disabilities such as physical, mental and changes in speech and begin physical therapy after one year of age making the patient ineligible treatment. However, by presenting gait prognosis and undertake physiotherapy treatment at least once a week, these factors favor rehabilitation.

Therefore, it is necessary to adopt the recommended criteria for all calls from users with cerebral palsy not only in CADEF, but in any rehabilitation center so that discharging of treatment may be successful, encourage attendance in physical therapy, emphasize early physical therapy treatment, prioritizing patients who are most likely to have good prognosis.

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Rua: Pau Brasil, 299. Cidade Nova. Governador Valadares/MG – Brasil – CEP: 35063-002

## PROFILE OF PEOPLE WITH CEREBRAL PALSY IN PHYSIOTHERAPIC CARE IN CADEF ABSTRACT

The aim of this study was to draw a profile of people with cerebral palsy in physiotherapeutic care at the Centre for Disability (CADEF) and create criteria to meet as many factors as age, functional diagnosis, prognosis gear, school attendance, type of disabilities, related disabilities, early physical therapy treatment and frequency to physical therapy treatment. The present study was justified by the need to analyze the growing demand for people with cerebral palsy on the waiting list of CADEF. This study was descriptive, qualitative in nature with documental analysis of the physiotherapeutic assessment of 11 patients with cerebral palsy in CADEF. It was found that the profile of people with Cerebral Palsy in physiotherapy in CADEF present mostly spastic tetraparesis functional diagnostics, do not attend any form of school education, have related disabilities such as physical, mental and changes in speech and begin physical therapy treatment after one year of age making them ineligible to treatment. However, by presenting gait prognosis and undertake physiotherapeutic treatment at least once a week, these factors favor rehabilitation.

**KEYWORDS:** cerebral palsy; physiotherapy; Profile.

## PROFIL DES PERSONNES AYANT LA PARALYSIE CÉRÉbraLE APPEL DE THERAPIE PHYSIQUE CADEF RÉSUMÉ

L'objectif de cette étude était de profil des personnes atteintes de paralysie cérébrale en thérapie physique dans le Centre pour personnes handicapées - CADEF et créer des critères de rencontrer autant de facteurs comme l'âge , le diagnostic fonctionnel , les engins de pronostic , la fréquentation scolaire , le type de tôt et souvent dans la thérapie physique , les

déficiences liées , la thérapie physique. La présente étude a été justifiée par la nécessité d'analyser la demande croissante pour les personnes souffrant de paralysie cérébrale sur la liste d'attente de CADEF . Cette étude était descriptive , de nature qualitative à l'analyse de documentaire de l'évaluation de physiothérapie de 11 patients atteints de paralysie cérébrale en CADEF. Il a été constaté que le profil des personnes atteintes de paralysie cérébrale en physiothérapie dans CADEF présente la plupart du temps avec le diagnostic fonctionnel de tétraparésie spastique , ne participent à aucune forme d'éducation de l'école , ont des troubles liés à la physique , mentale et des changements dans le discours et commencer la thérapie physique après d'un an le rend inéligible pour le traitement des patients. Cependant , en présentant la démarche pronostic et entreprendre un traitement de physiothérapie au moins une fois par semaine , ces facteurs favorisent la réadaptation.

**MOTS-CLÉS:** paralysie cérébrale ; Physiothérapie ; Profil

**PERFIL DE LAS PERSONAS CON PARÁLISIS CEREBRAL EN LLAMADA DE FISIOTERAPIA EN CADEF**  
**RESUMEN**

El objetivo de este estudio fue caracterizar a personas con parálisis cerebral en la terapia física en el Centro para la Discapacidad - CADEF y crear criterios para cumplir con la mayor cantidad de factores como la edad , el diagnóstico funcional , artes de pronóstico , asistencia a la escuela , el tipo de discapacidad , discapacidades relacionadas , terapia física temprano y con frecuencia en la terapia física. El presente estudio se justifica por la necesidad de analizar la creciente demanda de las personas con parálisis cerebral en la lista de espera de CADEF . Este estudio fue descriptivo , de naturaleza cualitativa , con análisis documental de la evaluación de fisioterapia de 11 pacientes con parálisis cerebral en CADEF . Se encontró que el perfil de las personas con parálisis cerebral en fisioterapia en CADEF presente sobre todo con el diagnóstico funcional tetraparesia espástica , no asistir a ningún tipo de educación escolar , con discapacidades relacionadas con el bienestar físico, mental y cambios en el habla y comenzar la terapia física después un año de edad le hace inelegible para el tratamiento del paciente. Sin embargo , al presentar el pronóstico de la marcha y llevar a cabo un tratamiento de fisioterapia , al menos, una vez a la semana , estos factores favorecen la rehabilitación .

**PALABRAS CLAVE:** parálisis cerebral ; Fisioterapia ; Perfil .

**PERFIL DAS PESSOAS COM PARALISIA CEREBRAL NO ATENDIMENTO DE FISIOTERAPIA NO CADEF**  
**RESUMO**

O objetivo deste estudo foi traçar o perfil de pessoas com Paralisia Cerebral no atendimento fisioterapêutico no Centro de Apoio ao Deficiente Físico - CADEF e criar critérios para o atendimento conforme diversos fatores, como idade, diagnóstico funcional, prognóstico de marcha, frequência escolar, tipo de deficiência, deficiências associadas, fisioterapia precoce e frequência na fisioterapia. O presente estudo justificou-se pela necessidade de analisar a crescente demanda de pessoas com Paralisia Cerebral na lista de espera do CADEF. Esse estudo foi do tipo descritivo, de natureza qualitativa, com análise documental da avaliação fisioterapêutica de 11 pacientes com Paralisia Cerebral no CADEF. Verificou-se que o perfil das pessoas com Paralisia Cerebral no atendimento fisioterapêutico no CADEF apresentam em sua maioria com diagnóstico funcional tetraparesia espástica, não frequentam alguma forma de ensino educacional, apresentam deficiência associadas como física, mental e alteração na fala e iniciam a fisioterapia depois de um ano da idade tornando o paciente inelegível ao tratamento. No entanto, por apresentarem prognóstico de marcha e realizarem tratamento de Fisioterapia no mínimo uma vez por semana, esses fatores favorecem a reabilitação.

**PALAVRAS-CHAVE:** Paralisia Cerebral; Fisioterapia; Perfil.