

## 103 - MOTOR PROGRESSION OF A CHILD WITH HYDROCEPHALUS THROUGH ACTIVITIES OF PHYSICAL EDUCATION: A STUDY OF CASE

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### INTRODUCTION

The hydrocephalus refers to a condition in which abnormal accumulation of cerebrospinal fluid quantity increases inside the head, occurring when there is an unbalance between production and the reabsorption of this liquid, whether by prematurity, cysts, tumors, traumas, infections or one badly of the nervous system as Spina Bifida. The child who owns hydrocephalus can seem unable of look upwards, with the eyes always diverted downwards and could still present vomits, irritability, sleepiness and convulsions. In the larger children (above 2 years), like the bones already welded, liquor excess will lead to a pressure increase inside the head, what can cause Headache, nausea, vomiting, visual disturbances, motor incoordination, alterations in personality and difficulty concentrating, also could occur a gradual worsening in the school performance. The main symptoms are: Disturbances motors, alterations in the walk, signs pyramid, extrapyramidal signs, pathological reflexes, cognitive symptoms, memory deficit, personality alteration and of behavior, mental confusion, lowering of consciousness, disturbances of sphincter function, urinary incontinence, fecal incontinence, convulsive crises, migraine and another (MELATO, 2000). Borges and Palm (2007) argue about the balance deficits matter (static and dynamic) realized in this population, the which ones can have connection with the head diameter of the same. They pointed out, also, that such size can influence and to interfere in the balance acquisition and development, by the difficulty that these have in maintain the head in stability. Thus, it is believed that the hydrocephalus can interfere in the static and dynamic balance of people with this deficiency.

In the Program of Motor Activities for Disabled Person - PROAMDE, which is an extension project from Federal University of Amazons - UFAM, There is a child (GV) of the male, that owns hydrocephalus, which is 4 (four) years old. This child belongs to the infantile group of the referred Program, which is composed by children of 2 (two) to 6 (six) years that own several disabled. In this of age band the child is developing a variety of fundamental motive abilities (GALLAHUE & OZMUN, 2005), because of this it is fundamental that they play a lot, explore their space, discovering the potential of their body. Gallahue and Ozmun (2005) argue that the jokes are the way by which the children realize their bodies, their motor capacities and are an important facilitator of the cognitive and affective growth, besides helping in the development of refined motive and rudimentary abilities.

As a result, this article aims to show the progression of motor GV after 8 (eight) months of activities for Physical Education in PROAMDE.

### METHOD

When entering the Program at the beginning of school year (March 2007), GV performed a motor evaluation which it verified the level of his motor abilities. This assessment is composed by items related to fundamental motor abilities of balance (walk on a Swedish bench, remain in a foot only, jump at the same place with a foot), locomotion (walk on a line straight line, run, jump with a foot and with both in a certain distance, walk in four supports, walk in six supports, crawl, roll sidelong for both sides, sit down, stand up) and manipulation (launch and grab with one and with both hands, kick, to clip). In the abilities locomotives and of balance, GV presented the next characteristics: It rolled sidelong with difficulty, did not crawl, not walk in four supports, not walk in six supports, does not jump and it is in foot with help. Regarding the abilities of manipulation, GV presented difficulties launching and to receive a ball with both hands as well as difficulty in grasp of objects and in the clip. During the classes were proposed activities in groups, individual, recreative and in circuits, with goals of developing the fundamental motor abilities as well as the cognitive and affective aspects of the students. We list below some examples of performed activities:

#### a) Locomotion and balance activities:

1. "The chicken, the young chicken and the fox", where a student represents the chicken, other represents the fox and, the remaining, the young chicken. The purpose of this joke is to make the young chicken *run* until the chicken without being catch by the fox.

2. "The master ordered", where, according to master's command, the student will imitate animals like the dog, the cat, the alligator, the toad, among others, with purpose that the student walk in six supports, walk in four supports, jump, it drag finally, leading him to develop their abilities locomotives.

3. Activities in circuit: Crawl going pass underneath of a rope, go up on the bench Swedish and to jump, walk forward on E.V.A's carpets. (Also it asks to walk aside and of back), walk in zigzag between cones.

4. Activities in circuit: Roll sidelong on a mattress, go pass inside of arcs, go up and go down the ramp/stair, walk on a sinuous line drawn on the ground, pass by obstacles top (close to the knees).

5. Walk in six supports going pass underneath of half arcs, pass by top of small cones, and catch a small object plan that will be in the ground and come back equilibrating this object on the head.

6. Go pass inside of a tunnel; go up on the bench Swedish and to jump.

#### b) Activities of gross and fine manipulation:

7. Launch arcs to hit in the cones.

8. Launch balls to hit in the bottles (bowling).

9. Launch balls to hit inside the arcs.

10. In dual, launch the ball with both hands for the colleague and receives it.

11. Drag the ball with hands for the colleague, or use a stick.

12. Rebut balloon with hands or with a badminton racket.

13. Roll arcs for the colleague.

14. Manipulate ribbons of rhythmical gymnastics.

15. Knead newspaper to do paper balls.

16. Set up pedagogical puzzles.

17. Tear paper, do collages and paintings.

The used materials are very diversified and very colorful, in order to help to stimulate the student to have pleasure in performed the activities. In GV's case, his mother assists you in some activities and, sometimes, it uses the strategy of changing of companion in order to verify as the child is going to react to perform a certain task. When concluding every class is written down in records of individual accompaniment student's behavior in that day, highlighting the activities that he did and as it did, a help was needed, finally, for then have a base of how the student is progressing. Other important aspect that we carry in account is as the student manages to accomplish a certain activity, in other words, if he just manages to hit the ball in the cone closely, thus he will do; If he just manages to load an object in the head holding him, thus he will do; If in an activity of passing for top of an obstacle in the height of the knee he just manages to pass if decrease the height, thus he will execute this task. That makes him has success and get motivated most to continue executing the proposed activities.

### RESULTS AND DISCUSSION

It realizes through the done observations that GV has been progressing not only in the aspect motor as well as in the cognitive and affective. Today he no longer cries anymore in activities that provide develop the space notion, how to go pass inside of the tunnel, go pass underneath of a rope and to go pass inside of arcs. Before GV cried a lot and sat down to do not perform these activities. Already in the race activities, like "The chicken, the young chicken and the fox" and "The master ordered", GV looks like a lot of the same, because it like smiling to when execute them and, when stop, it wants to cry. A very interesting fact was that GV never had passed inside of the tunnel and, recently, in a class that it used this material, GV it showed very interested, sat down in front of the same, keep looking into and smile I sell the colleagues pass. After so much stimulus by his mother, of the teacher and of other companions, GV came in a little in tunnel and shrink the same in order to it stayed a shorter space for he running through, however GV did not go until the final and it came back, leaving the same. Continuing the incentive, after some time, GV came in the tunnel and was until the final, of this time without shrinking it. When it left was applauded and it showed himself very satisfied with that done. Inside this aspect of encouraging always, Gallahue and Ozmun (2005) leave very clear when they relate that the "environmental terms, like the encouragement and the instruction, they are crucial for the development of mature standards of fundamental actions". Other important aspect is mother's participation together with her son, what show is important for the affective development between the same.

In the aspect locomotors and of balance, GV already rolls sidelong and crawls with little difficulty and walk in six supports without help, what demonstrated passing by the tunnel. Regarding the abilities of manipulation, GV launch balls with both hands for a target or for a colleague, even though are in a short space, not needing anymore help to perform this movement. In this development process of the motor abilities, Campos et Al (1997) stress the importance of the motor experiences for the individual in development process, mostly in the acquisition period and basic motor combination of the abilities.

### FINAL CONSIDERATIONS

The activities of physical education are essential to develop the motricity, the cognition and the affectivity of any individual, mostly when if it treatment children who are in development process, and this also was proved through the obtained results in this study through activities that contribute in the development of the fundamental motive abilities, the which ones are of extreme importance for the tasks accomplishment of the daily life, providing a better life this children quality.

The results of this study were visible and notorious so much for the teachers as for the child mother and the companions of the other students, fact that brought a personal satisfaction and valorization of the developed work.

It realizes that how much earlier a child is stimulated through motive activities, have her a deficiency or not, better will be his development motor. The ideal so that the child obtains success in some activity is that are provided her that that she manages to accomplish, seeking strategies to stimulate his potentialities.

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### MOTOR PROGRESSION OF A CHILD WITH HYDROCEPHALUS THROUGH ACTIVITIES OF PHYSICAL EDUCATION: A STUDY OF CASE ABSTRACT

This assignment intends to demonstrate the motor progression of a child (GV) that owns hydrocephalus after 8 (eight) activities months of Physical Education in The Program of Motor Activities for Disabled Person - PROAMDE, that is a extension program from Federal University of Amazons - UFAM. When entering the Program at the beginning of school year, GV performed a motive evaluation which verified the level of his basic motive abilities of locomotion, manipulation and balance. During the classes were proposed activities in groups, individual, recreative and in circuits, with goals of developing the fundamental motive abilities as well as the cognitive and affective aspects of the student. When concluding every class is written down in records of individual accompaniment student's behavior in that day, highlighting the activities that he did and as it did, a help was needed, finally, for then have a base of how the student is progressing. Through the done annotations that GV is observed has been progressing not only in the aspect motor as well as in the cognitive and affective. Today he does not cry anymore in activities that provide develop space notion, how to go pass inside of the tunnel, go pass underneath of a rope and to go pass inside of arcs. GV already rolls sidelong, it crawls with little difficulty and walk in six supports without help. Regarding the abilities of manipulation, GV launch balls with both hands for a target or for a colleague, even though are in a short space, not needing anymore help to

perform this movement. Thus, how much earlier a child is stimulated through motive activities, have her disabled or not, better will be his development motor. The ideal so that the child obtains success in some activity is that are provided her that that she manages to accomplish, seeking strategies to stimulate his potentialities.

KEY-WORDS: Hydrocephalus; Motor activities; Basic motor abilities.

### **PROGRESSION MOTEUR D'UN ENFANT AVEC HYDROCÉPHALIE A TRAVERS DES ACTIVITÉS D'ÉDUCATION PHYSIQUE: UN ÉTUDE DE CAS.**

#### **RÉSUMÉ**

Cet travail propose démontrer la progression d'un enfant (GV) qui possède hydrocéphalie après huit 8 mois des activités d'Éducation Physique en Programme des Activités Motrices pour Déficiant - PROAMDE, que est un projet d'extension d'Université Federal d'Amazonas - UFAM. À la entrer du programme début au début d'année de 2007, GV il a réalisé une évaluation de moteur pour laquelle si elle vérifiait le niveau de ses capacités moteurs de locomotion, manipulation et équilibre. Dans l'écoulement des leçons ils avaient été des propositions activités en groupes, individuel, récréatif et en circuit, avec les objectifs de développer les habilités moteurs fondamentales comme aussi les aspects cognitive et affectif d'élève. En finissant chaque leçon est noté dans les fiches de l'accompagnement individuel le comportement de l'élève du fait jour, ayant détaché les activités qu'elle a faites et pendant qu'il faisait, si l'aide nécessaire, enfin, arrête des limites postérieures une base de pendant que l'élève progresse. Par les notations faites on l'observe cela que GV faire des progrès au aspect moteur comme en cognitive et affectif. Aujourd'hui il ne pleure pas davantage dans les activités qu'ils fournissent pour développer la notion de l'espace, comme traverser a l'intérieur de tunnel, passer pour la partie basse de le câble e passer pour l'intérieur des arcs. GV déjà roule sur le côté, faire d'action de suivre la piste avec un peut de difficulté et sextupeda sans aide. En rapport aux habilités de manipulation, GV lance balle avec les deux mains au pint de mire ou pour le collègue, exactement qu'il est dans un espace court, n'ayant pas besoin d'aide davantage que pour réaliser ce mouvement. Pourtant, plus un enfant sera stimulé par les activités moteurs plus tôt, l'a une insuffisance ou pas, meilleur ce sera son développement de moteur. De sorte que l'enfant obtienne le succès idéal dans une certaine activité est qu'il est proportionné ce qu'il obtient pour exécuter, recherchant des stratégies pour stimuler ses potentialités.

MOTS-CLEFS: Hydrocéphalie; Activités Motrices; Capacités moteurs.

### **PROGRESIÓN DEL MOTOR DE UN NIÑO CON HIDROCEFALIA CON ACTIVIDADES DE LA EDUCACIÓN FÍSICA: UN ESTUDIO DE CASO**

#### **RESUMEN**

Este trabajo se prepone demostrar la progresión del motor de un niño (GV) ese él hidrocefalia de los possess después de 8 (ocho) meses de actividades de la educación física en el Programa de las Actividades Motrices para Deficientes - PROAMDE, de que es un proyecto de la extensión de la Universidad Federal de Amazon - UFAM. Al entrar en el programa en el principio del año escolar, GV llevó con una evaluación del motor para la cual si verificó el nivel de sus capacidades básicas del motor de la locomoción, de la manipulación y del balance. En el transcurso de las lecciones habían sido actividades de las ofertas en los grupos, individuo, recreativas y en circuitos, con los objetivos para desarrollar las capacidades básicas del motor así como el cognitivo de los aspectos y afectivo de la pupila. Al acabar cada lección se anota en fichas del acompañamiento individual el comportamiento de la pupila en que día, separando las actividades que hizo y mientras que él hizo, si la ayuda necesaria, en el último, para términos más últimos una base de mientras que está progresando la pupila. A través de las notaciones hechas se observa que GV ha progresado no solamente en el aspecto del motor como también en el cognitivo afectivo y. No grita hoy más en las actividades que proporcionan para desarrollar la noción del espacio, en cuanto a pasan encendido el interior del túnel, para pasar debajo de una cuerda y para pasar encendido el interior de arcos. GV rueda ya lateralmente, sigue abajo con poca dificultad y sextupeda sin ayuda. En lo referente a las capacidades manipulantes, GV lanza bolas con las manos para una blanco o un colega, exactamente que está en un espacio corto, no necesitando la ayuda más que llevar a través de este movimiento. Por lo tanto, cuanto anterior estimulan a un niño con actividades de motor, lo tiene una deficiencia o no, mejor será su desarrollo del motor. De modo que el niño consiga el éxito ideal en una cierta actividad que es proporcionado qué obtiene para llevar a través, buscando estrategias para estimular sus potencialidades.

PALABRAS-CLAVE: Hidrocéfalie; Actividades Motrices; Capacidades Motrices.

### **PROGRESSÃO MOTORA DE UMA CRIANÇA COM HIDROCEFALIA ATRAVÉS DE ATIVIDADES DE EDUCAÇÃO FÍSICA: UM ESTUDO DE CASO**

#### **RESUMO**

Este trabalho pretende demonstrar a progressão motora de uma criança (GV) que possui hidrocefalia após 8 (oito) meses de atividades de Educação Física no Programa de Atividades Motoras para Deficientes - PROAMDE, que é um projeto de extensão da Universidade Federal do Amazonas - UFAM. Ao entrar no Programa no início do ano letivo, GV realizou uma avaliação motora pela qual se verificou o nível de suas habilidades motoras básicas de locomoção, manipulação e equilíbrio. No decorrer das aulas foram propostas atividades em grupos, individuais, recreativas e em circuitos, com objetivos de desenvolver as habilidades motoras fundamentais bem como os aspectos cognitivo e afetivo do aluno. Ao finalizar cada aula é anotado em fichas de acompanhamento individual o comportamento do aluno naquele dia, destacando as atividades que ele fez e como fez, se precisou de ajuda, enfim, para depois termos uma base de como o aluno está progredindo. Através das anotações feitas observa-se que GV tem progredido não só no aspecto motor como também no cognitivo e afetivo. Hoje ele não chora mais em atividades que proporcionam desenvolver noção de espaço, como passar por dentro do túnel, passar por baixo de uma corda e passar por dentro de arcos. GV já rola lateralmente, rasteja com pouca dificuldade e sextupeda sem ajuda. Em relação às habilidades manipulativas, GV lança bolas com ambas as mãos para um alvo ou para um colega, mesmo que seja em um espaço curto, não necessitando mais de auxílio para realizar este movimento. Portanto, quanto mais cedo uma criança for estimulada através de atividades motoras, tenha ela uma deficiência ou não, melhor será o seu desenvolvimento motor. O ideal para que a criança obtenha sucesso em alguma atividade é que seja proporcionado a ela aquilo que ela consegue realizar, buscando estratégias para estimular suas potencialidades.

PALAVRAS-CHAVE: hidrocefalia; atividades motoras; habilidades motoras básicas.