147 - THE CONTRIBUTION OF PHYSICAL EXERCISES FOR PERSONS SUFFERING WITH THE CONSEQUENCES OF NEUROLOGICAL PROBLEMS

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INTRODUCTION

The physical activity adopted today is a primary component for the rehabilitation, independence, and prevention of secondary illnesses, and also a better quality of life in people with any type of deficiency. Programs of physical activity, and recreational practices, on a regular basis can provide a person with physical deficiencies a new outlook for their life. In this context, we have written this article and have explained the experiences or results of the practice of physical Education in the Program of Motor Activities for Physically deficient persons. PROAMDE, in the Federal University of the Amazon with a group of participants that have neurological consequences caused by such things as Cerebral Vascular Accidents (CVA), Incomplete Medulla Lesions, Cerebral paralysis (CP) and Cranial Encephalic Trauma (CET).

The CVA causes damage to the cerebral mass, as a result of damage from the inadequate blood flow, thereby causing severe damage in certain areas of the brain that control vital functions. These functions affected may involve: motor capacities, or motor control, perception and sensibility, as well as problems in communication, emotion and conscience (WINNICK, 2004) Participants that have had CVAs, demonstrate varied degrees of deficiencies, in degrees from just minor loss of function to total dependency.

The incomplete lesions of the medulla manifest themselves in paresis rather than paralysis. This may show up in the partial commitment of some functions, or even the total loss of other functions, and yet there may be functions undamaged or unharmed. (Souza, 1994)

In the case of Cerebral Paralysis according to Fischinger (1970), it is a sensory disturbance caused by a non progressive sensor motor lesion of the brain, during its developmental stage. This can happen during the pre, peri, and post-natal stages. It damages the movements and posture of the body. The disturbance of the brain is stationary, but its long term effects, of movement are progressive if treatment is not activated.

In the case of Cranial Encephalic Trauma (CET) a lesion of the brain can reduce or alter the state of consciousness and promote a compromise of physical functions, cognitive and emotional. In general the compromising physical effects cause orthopedic problems at varied intensities. Even when the individual does not present loss of coordination, or decreased motor functions or sensibility, there may be apraxia or inability to perform coordinated movements or to recognize objects. This paralysis can very from minor to severe (WINNICK,2004)

METHODOLOGY

There were 8 participants in this study. Their ages very from 26-77, and there are 3 of the mascular gender, and 5 females. In this group there was one with Cerebral paralysis, one that had Cranial Encephalic Trauma (CET) one has the consequences of an incomplete medullar lesion, and five have the consequences of Cerebral Vascular Accidents. These participants are divided into two groups. The first group is made up of those that have more equilibrium, or can do activities faster, and normally do not need to be accompanied. The second group is made up of those that have more difficulty in locomotion and that need to be accompanied. To be included in this study one needs to be an adult that can walk.

The physical activities for both groups have the same objective, but with obviously different strategy. The participants in this study have difficulty with equilibrium, speech, locomotion, and manipulation. These classes will be administrated twice a week, from 2-3:30 pm, and will involve the following context. These will be carried out in the form of recreational games being individualized or collective. We will train them to march (locomotion), re-educate them in muscular abilities with balls and give them an introduction to sports or recreation (Bocce, athletics, and table tennis), socializing, hygiene and health, with the educational aspects. There were also practical activities of throwing, walking, running races, rolling, marching, moving or relocation, manipulation and others. All striving to help the participant to do all he is capable of, so that in this way he obtains success.

In the 1st semester the activities were done in a Gymnasium , in a place that the floor was all on the same level which made it easier for those in the group with less equilibrium. In the 2nd semester the activities were held out doors in a grassy area, and this represented a little more difficulty due to the uneven grassy surface. This was done to promote a greater intensity of the equilibrium process. It is worth mentioning that at the end of each class, the facts obtained by observing each of the participants were recorded in their daily individual diaries. An evaluation to verify the level of motor coordination is checked each semester (at the beginning and at the end of the year). Another way to check the advances and difficulties of each participant, is the report that is made each semester, based on the daily accompaniment of the participant. A copy of this report is given to each of the participants.

RESULTS

In general terms, the results are obtained after the facts are collected from the evaluation of the facts of the accompanied participants diary. There are many and varied progressions with the patients of this group.

Three participants of the group that had less difficulties of equilibrium progressed dynamically in (locomotion) and increased greatly in cardio-respiratory resistance.

The other participants accomplished a greater ability in the aspects related to motor abilities, such as static equilibrium and dynamics, and improved the quality or vastness of the range of articulation, In the rhythmic activities, they learned to coordinate the movements of their lower and upper limbs. In the aspect of emotion it was evidenced that there was a significant improvement with their families, friends and group members. This was demonstrated by the total involvement with the others of the group in a cooperative united manner.

DISCUSSION

According to the results obtained, we can verify a significant improvement in the general quality of life of the

participants. Therefore we affirm that the regular physical activity can not only bring physical benefits in the sense of prevention of a reoccurrence of a Cerebral Vascular Accident (CVA) as well as benefit in the emotional aspect. This will provide them with more self confidence, autonomy and independence.

One of the more important aspects of applying this type of program of physical activity, in participants that have suffered Cerebral paralysis, CVAs, Cranial Encephalitic Trauma (CET) and with those suffering from medulla lesions, is the recovery of the relative independence of the execution of trivial activities on a day to day basis. Before beginning these activities one of the group could not move with the help of a wheelchair, but just in the 1st month she was able to walk with help and accompanied, and in the 2nd month was able to move around by herself. Another participant presented great difficulty in equilibrium, not being able to flex or move his lower members (knees) in order to overcome small obstacles. After approximately two months of beginning the program of physical activity, the participant demonstrated noticeable improvement in equilibrium, and was able to overcome the obstacles by flexing his knees, thereby increasing and amplifying the speed of movements of his lower members. In the aspect of socializing, an important factor is the participants awareness of himself as an important individual. Before beginning the physical activities, the participants felt like they were very limited physically; but with the activities they realized, or rediscovered their own capabilities, by learning, or the acquiring of new abilities, and then they had a more intimate relationship with their friends, and family.

CONCLUSION

Physical education for those with the consequences of neurological problems, is not much different from physical education for persons without deficiencies. One should teach physical exercises that will benefit or help in the rehabilitation or adoption of physical and mental activities. One must be careful to consider and respect each ones limitations and work with them according to their individual potential.

The physical activity adapted is necessary for the reconstitution of the persons independence of those that have; Cerebral paralysis, CVAs, or CET, thereby providing a healthier life style, and even avoiding the reoccurrence in the cases of CVAs, and CETs.

A program of physical activity that is adequately elaborated can provide an experience of movements that are well accomplished. These will help motivate the participants and also help them acquire the confidence necessary for them to realize a positive personal image.

The persons with deficiencies do have capability and potential, given the opportunity to reconstruct their lives.

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THE CONTRIBUTION OF PHYSICAL EXERCISES FOR PERSONS SUFFERING WITH THE CONSEQUENCES OF NEUROLOGICAL PROBLEMS.

ABSTRACT

The Physical activities adopted are considered today a primary component for rehabilitation, independence, prevention of secondary illnesses and a better quality of life for persons that have any form of deficiency. Programs of Physical Activity on a regular and recreational basis may provide an individual who has a deficiency with a new out look on life. In this context, this article describes an experience of Physical Education in the Program of Motor Activities for those with deficiencies - (PROAMDE, in the Federal University of the Amazon with a group of participants that suffer the consequences of neurological problems such as; CVAs, Incomplete Medulla lesions, Cerebral Paralysis (CP) NS Cranial Encephalic traumatism (CET). This team was made up of 8 participants in the age group of 26-77 years old. Three being of the male gender and 5 females. The classes were taught twice a week from 2-3:30pm and included recreational games on an individual basis or in a group context. They were taught to march for (locomotion) re-educated of their muscles, the abilities in hadeling balls, and introducing them to diversion such as (Boccia, athletics, and table tennis or Ping Pong). They were also taught: socialization, hygiene and health, aspects of pedagogy, throwing exercises, walking, rolling, marching, and dislocation or the act of transfer, manipulation and others. The results were obtained from the assessments made from the semester evaluations and the accompaniment of the individuals diary. We obtained varied progressions from the participants in this group. They all obtained better, or more motor abilities, as well as the social and affectionate capabilities. Therefore we can affirm that the physical activities on a regular basis, bring about not only physical benefits, in the aspect of prevention of a reoccurrence of a CVA, but can also influence in a beneficiary way in their emotional well being. Thereby helping them to gain self-confidence, and autonomy.

Key words: Physical activities, physical deficiencies, and neurological consequences.

LA CONTRIBUITION DES ACTIVITÉS PHYSIQUES POUR LES GENS QUI ONT DES CONSÉQUENCES EN NEURONE

RÉSUMÉ

L'activité physique adaptée est considerée aufourd'hui un composant primordial pour la réhabilitátion, indépendance, prévention des maladies secondaires et une meilleur qualité de vie des gens qui possedent quelque défaut. Programmes de l'activité phsique et récréatif régulieres qui peuvent donner à la personne qui a une défaut une nouvelle opportunité dans sa vie. Dans un contexte, cet travail décrit l'expérience d'une pratique de l'éducation physique dans le programme des activités physique pour les déficients - PROAMDE, a l'Université Federal d'Amazonas, avec un groupe d'élèves qui possédent consequence en neurose, a savoir : accident vasculaire cérébral (AVC), lésion médullaire incomplet, paralysie cérébral (PC) et traumatisme crâne encéphalique (TCE). Le groupe est constitué pour 8 élèves avec âge parmi 26 (vingt-six) et 27 (vingt-sept) ans, 3 (trois) hommes et cinq (5) femmes. La classe arrive deux fois pour semaine, des 14 :00 a 15 :30 heures, en approche les suivants contenus, qui sont travaillés en forme des jeus récréatifs, individuels et collectifs : locomotion, reéducation musculaire, habilité avec boulle, introduction au sport (« boccia, athlétisme, tennis du table), socialisation, hygiène et santé, aspects pédagogiques ; encore sont realisées acitivités de jet, longue marche, course roulement, marche, déplacement, manipulation et

autres. Les résultats fûrent obteni à partir de la collecte des informations à travers des avaliations semestrieles et accompagnement individueles quotidienne. Plusiers progrès avec les élèves et cet groupe. Les mêmes attendirent mieux dans les habilités moteurs comme dans les aspects sociaux et afectifs. Ainsi, nous pourrons affirmer que l'activité physique regulier peut occasionner bienfaisant phyisiologique pour prevenir une nouvelle récidiviste de AVC, comme autant influencer de forme salutaire dans l'aspect émouvent offrant une plus grand auto-confiance, autonomie et indépendance.

Mots - Clefs: Activité physique, défaut physique, suites neurologiques

LA CONTRIBUCIÓN DE LOS EJERCICIOS FÍSICOS PARA LAS PERSONAS QUE SUFREN CON LAS CONSECUENCIAS DE PROBLEMAS NEUROLÓGICOS

RESUMEN

La actividad física adaptada, actualmente es considerada un componente primordial para la rehabilitación, independencia, prevención de enfermedades secundarias y una mejor calidad de vida en personas que poseen algún tipo de deficiencia. Programas de actividades físicas y recreativas regulares pueden propiciar al deficiente un nuevo sentido para su vida. En ese contexto, este trabajo describe la experiencia de una práctica de educación física en el Programa de Actividades Motoras para Deficientes - PROAMDE, en la *Universidade Federal do Amazonas*, con un grupo de alumnos con secuelas neurológicas, que son las siguintes: accidente vascular cerebral (AVC), lesión medular incompleta, parálisis cerebral (PC) y traumatismo encéfalocraneano (TCE). Ese grupo es constituído por ocho alumnos, entre las edades de 26 y 77 años, siendo tres, del sexo masculino y cinco del femenino. Las clases son regidas dos veces a la semana, en el horario de 14:00 a 15:30 horas, comprendiendo trabajados en formas de juegos recreativos, individuales y colectivos: entrenamiento de marcha (locomoción), reeducación muscular, habilidades con pelota, introducción al deporte (boxeo, atletismo, tenis de mesa), socialización, higiene y salud, aspectos pedagógicos; también son realizadas actividades de lanzamiento, caminata, corrida, rodar, marcha, desplazamientos, manipulación y otros. Los resultados fueron obtenidos a partir de la colecta de datos a través de las evaluaciones semestrales y acompañamientos individuales diarios. Fueron observados varios progresos con los alumnos de ese grupo. Ellos alcanzaron mejorías, tanto en las habilidades motoras como en los aspectos social y afectivo. De esa manera, podemos afirmar que la actividad física regular no puede solamente traer beneficios fisiológicos en el sentido de prevenir una reincidencia de accidente vascular cerebral, como también influenciar de forma benéfica en su aspecto emocional, proporcionándoles mayor autoconfianza, autonomia e independencia.

Palabras-Claves: Actividad física, deficiencia física, secuelas neurológicas.

A CONTRIBUIÇÃO DOS EXERCÍCIOS FÍSICOS PARA PESSOAS COM SEQUELAS NEUROLÓGICAS

RESUMO

A atividade física adaptada é considerada hoje um componente primordial para a reabilitação, independência, prevenção de doenças secundárias e uma melhor qualidade de vida de pessoas que possuem algum tipo de deficiência. Programas de atividades físicas e recreativas regulares podem propiciar ao indivíduo deficiente um novo sentido para a sua vida. Nesse contexto, este trabalho descreve a experiência de uma prática de educação física no Programa de Atividades Motoras para Deficientes - PROAMDE, na Universidade Federal do Amazonas, com um grupo de alunos que possuem seqüelas neurológicas, a saber: acidente vascular cerebral (AVC), lesão medular incompleta, paralisia cerebral (PC) e traumatismo crânio encefálico (TCE). Essa turma é constituída por 8 alunos, na faixa etária entre 26 e 77 anos, sendo três do sexo masculino e cinco do sexo feminino. As aulas são ministradas duas vezes por semana, das 14:00 às 15:30 horas, compreendendo os seguintes conteúdos, que são trabalhados em formas de jogos recreativos, individuais e coletivos: treinamento da marcha (locomoção), reeducação muscular, habilidades com bola, introdução ao desporto (boccia, atletismo, tênis de mesa), socialização, higiene e saúde, aspectos pedagógicos; também são realizadas atividades de lançamento, caminhada, corrida, rolamento, marcha, deslocamento, manipulação e outros. Os resultados foram obtidos a partir da coleta de dados através das avaliações semestrais e acompanhamentos individuais diários. Ocorreram vários progressos com os alunos dessa turma. Os mesmos alcançaram melhoras, tanto nas habilidades motoras como nos aspectos social e afetivo. Assim, podemos afirmar que a atividade física regular pode não só trazer benefícios fisiológicos no sentido de prevenir uma nova recidiva de acidente vascular cerebral, como também influenciar de forma benéfica no seu aspecto emocional, proporcionando-lhes maior autoconfiança, autonomia e independência.

Termos-chaves: Atividade física, deficiência física, seqüelas neurológicas.