62 - CHARACTERIZATION OF THE PSYCHOMOTOR DEVELOPMENT IN CHILDREN WITH CEREBRAL PALSY WHO WERE SUBMITTED TO EQUOTHERAPY IN ANÁPOLIS -GO.

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Introduction

The equotherapy, that uses the horse riding in an interdisciplinary approach on health, education and riding areas, is recognized as a therapeutical method by the Federal Counsel of Medicine in Brazil since 1997. The riding re-education is indicated on the following cases: motor deficiencies caused by neuromotor lesions; cerebral lesions; neuromotor deficiencies caused by lesions on spine and orthopedic pathologies (FREIRE, 1999).

The motor work on equotherapy helps the equilibrium and the muscular strength through the stimulation of the proprioceptivo, vestibular and sensomotor systems. The motor function, the intellectual development and the affections development are closely linked in an individual, and the psychomotoricity detaches this relation existent between the motoricity, the mind and the affection, making easy a global approach of the individual by technique. (LERMONTOV, 2004).

In the same way that disabled people need good conditions of health, so they can get well developed, these individuals are more sensitive to some diseases and health problems. It is necessary that specific medical exams are done, on the first months of life, so that some future complications might be avoided (ANDRADE, 1999).

Regarding the motor development, as GOMES, A.; ALBINO, F.; SILVA, C (2004) said, when we talk about mental deficiency people, this development isn't relationed to chronological age, because these people have the same sequence, and they just have it later than usual.

The cerebral palsy (CP) is a chronic non progressive encephalopathy, but it is frequently changing, it has a secondary motor commotion (tonus and posture) to the brain in development. The harmful event can occur before, during or after the birth (NELSON, ET AL. 1884). The semiology is divided in: tetraplegia, diplegia, paraplegia, triplegia, hemiplegia or monoplegia. When it regards the involvement it's divided in: spatic, ataxic, athetostic and mixed (LEVITT, 2001).

Due to the great alterations showed by the CP bearer, Cittério (1999) reinforces the importance of an early treatment, with the means of count with the advantages of plasticity and neuronal adaptations, making possible to the patient the experimentation of movements and postures that he probably wouldn't have access because of his neurological state. The same author says how important is the team work, and suggests that the treatment may have some coadjutants, as therapeutical ways, like the equotherapy.

As Medeiros (2003) studied, the equotherapy brings an improvement to the posture control (head, trunk) and to the coordination in individuals that with cerebral palsy, because its movement may activate mechanisms of posture control very useful to the maintenance or equilibrium control in many ways, and particularly, on the sagittal way.

So, it's important that there is a critic study of equotherapy so we can observe scientifically and truly account the motor contributions that the patient might have. For this, actually there are some scales that measure the abilities shown in patients with CP before and after the specific interventions, with the objective of measuring its effects (GARRIGUE, 1999).

Objetive

The objective of this research was to characterize the psychomotor development of the equotherapy patients in the EMDA - Equotherapy and Multiple Deficiencies Association in Anápolis-GO. The participants were 25 patients who practiced the therapy, with cerebral palsy, from both genders, 16 men and 9 women.

Material and method

25 patients with cerebral palsy participated from this research, 16 men and 9 women. Many psychomotor tests were done, the PMB by Vitor da Fonseca (1995), to identify the tonicity, the equilibrium, lateralization, body notions, space-time structure, global praxis, thin praxis. The training sessions were done twice a week, each one of 40 minutes, using the horse Mangalarga Marchador, the march is "walking" and the saddle used is the "manta".

Instruments

For the research development, it was used as valuation instrument the PMB (psychomotor battery) elaborated by Fonseca in 1995. The PMB is composed by seven psychomotor factors: tonicity, the equilibrium, lateralization, body notions, space-time structure, global praxis, thin praxis, subdivided in 26 factors.

Results/ Discussion

To have a better understand of these results, we need to consider the following psychomotor profiles, that are 4, and they indicate:

1 - Apraxic - imperfect realization, incomplete and inordinate.
2 - Dyspraxic - realization with difficult of control (satisfying).
3 - Eupraxic - controlled and appropriate realization.
4 - Hyperpraxic - perfect realization, harmonic and well controlled (excellent).

The chart 1 allows the general observation of the results of all valuated children in each psychomotor area of the battery.

psychomotor area	Apraxic profile		Dyspraxic profile		Eupraxic profile		Hyperpraxic profile	
	1ª Coleta	2ªColeta	1ªColeta	2ªColeta	1ªColeta	2ªColeta	1ªColeta	2ªColeta
Tonicity	8	1	11	7	5	12	1	4
Equilibrium	4	0	16	3	2	13	3	8
Laterality	6	4	13	12	4	6	2	2
Body notion	16	11	6	7	3	5	0	1
Space-time structures	21	12	4	5	0	7	0	0
Global Praxis	14	7	9	15	2	2	0	0
Thin praxis	18	10	7	13	0	1	0	0

Chart 1 - general result of the psychomotor profile of children - before and after the equotherapy

Following there is the description of results, and the discussion of each psychomotor area of those children who participated of the training, to a better understanding there is each area's discussion.

Tonicity

The tonicity, that indicates the muscular tonus, has a fundamental part on the motor development; it is what guarantees the attitude, the posture, the mimics, the emotions, from where emerge all the human motor activities. In this psychomotor area, children had a significant improvement, initially they were on the apraxic profile, with imperfect realization of the movement, and after the training they were on the dyspraxic profile, but they still had problems with movement control. As Barreto (2000), "the psychomotor development is very important on the preservation of learning problems and on tonus' reduction, of posture, directed age, laterality and rhythmic". The children education must show the relation through the movement of his own body, taking on account your age, body culture and interests.

Equilibrium

The equilibrium unites a group of static aptitudes (without movement) and dynamic (with movement), embracing posture control and development of locomotion acquirements. The static equilibrium is characterized by the kind of acquired equilibrium in some position, or by the capacity to keep a certain posture on a base. In this area, the children had a significant improvement (p=0,000), because before the training, they were on the dyspraxic profile, with difficulties on movements, but being considered as satisfying, and after the equotherapy, they went to the eupraxic profile, with an appropriate realization being classified as good.

Laterality

The body laterality refers to the intern space of the individual, which qualifies him/her to use one side of the body with a better ability. What generally happens is the confusion of laterality, with the right-left notion, that is involved with body scheme. On this research, the children obtained with the training a significant improvement (p=0,022), but it didn't change their psychomotor profile. They initiated on the dyspraxic profile and remained on it after the training. Romero (1987) submitted children with or without crossed laterality and learning difficulties to a program of physical exercises, and after a revaluation, he found that there was an improvement on the laterality definition of the children; however, he didn't found influence upon the school performance.

Body notion

The formation of the "me", this is, personality, comprehends the development of notion or body scheme, through which takes conscience of the body and of the possibilities of expressing by it. In this psychomotor area, these children presented an imperfect notion and incomplete knowledge of their bodies. Even getting a significant improvement (p=0,003), they couldn't get to another psychomotor profile. As Borges (1987) said, the body scheme is the basic element indispensable for the formation of the children's personality, and it has a scientific representation differentiated of his own body.

Space-time structures

The space-time structures is like an functional organization of laterality and body notions, once it's necessary to develop the spatial intern conscience of the body before projecting its reference to the exterior (FONSECA, 1995). In this aspect, children also presented a significant change (p=0,001), but the psychomotor profile was a continued weak, being classified as apraxic, with imperfect and incomplete realization. In the opinion of Franco and Navarro (1980) mentioning by Bueno (1998), the space-time structuring has an essential play in every learning problem, and the training of the same is a way to educate intelligence.

Global Praxis

Praxis has for definition the capacity of realizing an established volunteer movement so you can reach a purpose. After an equotherapy training, children kept the same profile, but even then, they had a significant improvement (p=0,005). It is observed that with individuals with cerebral palsy, this profile needs to be stimulated always, so it can bring improvements on the movement realization. These children continued in the apraxic profile, a weak one.

Thin praxis

The thin praxis comprehends every thin motor work, where it associates the function of the movement coordination to the eyes' movement when the attention fixing happens. Besides, it involves the functions of programming, regulating and verifying the activities. In a research with children from 8 to 10 years old, about the psychomotor profile of children involved in the learning of sports, Burgos (2006) found out some increases on the averages of all the valuated psychomotor structures. It resulted in a significant gain over the medium average comparison. This research also obtained a significant improvement on the thin praxis, but not enough to change the psychomotor profile, that remained before and after the training the same: apraxic. It was considered weak.

Conclusion

The results appointed increases on the average of all psychomotor structures that were valuated. It results in a significant gain on the general average on the before-after comparison. It can be suggested that the regular practice of the equotherapy had a positive influence over the development of these children. The usual motor activities, when well stimulated, are great allies over the childish psychomotor maturation.

The equotherapy can support the children education, helping their learning difficulties, physical or mental deficiencies with different special conducts and with high abilities.

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CARACTERIZAÇÃO DO DESENVOLVIMENTO PSICOMOTOR EM CRIANÇAS COM PARALISIA CEREBRAL SUBMETIDAS À EQUOTERAPIA EM ANÁPOLIS - GO

A Equoterapia, que utiliza o cavalo dentro de uma abordagem interdisciplinar nas áreas de saúde, educação e equitação, é reconhecida como método terapêutico pelo Conselho Federal de Medicina no Brasil desde 1997. A reeducação eqüestre é indicada nos seguintes casos: deficiências motoras causadas por lesões neuromotores; lesões cerebrais; déficits neuromotores por lesões na medula espinhal e lesões de nervos periféricos; distúrbios evolutivos e comportamentais e patologias ortopédicas (FREIRE, 1999). O objetivo deste trabalho foi caracterizar o desenvolvimento psicomotor dos praticantes de equoterapia na ADME - Associação de Deficiências Múltiplas Equoterapia no município de Anápolis/Goiás. Participam do presente estudo, 25 pacientes (praticantes) com Paralisia Cerebral, de ambos os gêneros sendo 16 homens e 9 mulheres. Foram feitos testes psicomotores, BPM de Vitor da Fonseca (1995). As sessões de treinamento consistiram duas vezes por semana com 40 minutos cada sessão. A análise estatística usada foi descritiva e para comparação dos momentos usou-se o test t student. Os resultados foram que: na tonicidade as crianças tiveram uma melhora significativa (p=0, 000), inicialmente estavão no perfil apráxico com realização imperfeita do movimento passando depois para o perfil dispráxico. No equilíbrio as crianças tiveram uma melhora significativa (p=0,000), pois antes do treinamento elas se encontravam no perfil dispráxico, com dificuldades no movimento, mas sendo considerado satisfatório e, pois da equoterapia passou-se para o perfil eupráxico com realização adequada sendo classificado como bom. Na lateralidade as crianças obtiveram com o treinamento uma melhora significativa (p=0,022), mas não mudou o perfil psicomotor, elas iniciaram no perfil dispráxico e nesse mesmo ficou depois do treinamento. Na noção de corpo as crianças apresentaram uma noção imperfeita e conhecimento incompleto de seu corpo. Mesmo tendo uma melhora signficativa (p= 0,003) elas não conseguiram evoluir de perfil. A Praxia Global as crianças mantiveram no mesmo perfil apráxico, mesmo assim, elas obtiveram uma melhora significativa (p=0,005). Na Praxia Fina obteve melhora significativa na praxia fina (p=0,003), mas não o suficiente para mudar o perfil psicomotor, as crianças iniciaram e terminaram o treinamento no perfil apráxico, sendo consideradas fracas. Conclui-se que o treinamento com equoterapia apontou resultados com melhoras significativas nas áreas psicomotoras avaliadas, mesmo não obtendo mudança em alguns perfis psicomotores. A equoterapia pode apoiar o desenvolvimento das áreas psicomotoras de crianças com paralisia cerebral e que dessa forma pode contribuir para melhora de sua vida.

Palavras chave: Paralisia cerebral, Psicomotricidade, Equoterapia.

CHARACTERIZATION OF THE PSYCHOMOTOR DEVELOPMENT IN CHILDREN WITH CEREBRAL PALSY WHO WERE SUBMITTED TO EQUOTHERAPY IN ANÁPOLIS -GO

The equotherapy, that uses the horse riding in an interdisciplinary approach on health, education and riding areas, is recognized as a therapeutical method by the Federal Counsel of Medicine in Brazil since 1997. The riding re-education is indicated on the following cases: motor deficiencies caused by neuromotor lesions; cerebral lesions; neuromotor deficiencies caused by lesions on spine and orthopedic pathologies (FREIRE, 1999). The objective of this research was to characterize the psychomotor development of those who practice the equotherapy on the EMDA - Equotherapy and Multiple Deficiencies Association in Anápolis-GO. 25 patients with cerebral palsy were part of the study, from both genders, 16 men and 9 women. Psychomotor tests were done, PMB from Vitor da Fonseca (1995). The training sessions consisted on two times in a week each one of 40 minutes. The statistical analysis was the descriptive one and to compare the moments the test "t" student was used. The results were: in tonicity the children had a significant improvement (p=0,000), initially they were on the praxis profile with an unperfected movement realization, and after they passed to the dyspraxic profile. In equilibrium, children had a significant improvement (p=0,000), because before the training they showed to be in the dyspraxic profile , with difficulties on the movement, but being considered satisfying and, after the equotherapy, they moved to the eupraxic profile with an appropriate realization being classified as good. In laterality, the children obtained with the training a significant improvement (p=0,022), but it didn't change the psychomotor profile, they were in the dyspraxic profile all the time. On the body notion, the children showed an imperfect notion and uncompleted knowledge of their bodies. They had a significant improvement (p=0,003), but they couldn't change their profile. On the global praxis, the children kept the same apraxic profile, but they had, anyway, a significant improvement (p=0,005). On the thin praxis, there was a significant improvement (p=0,003), but not enough to change the psychomotor profile. The children initiated and finished the training on the apraxic profile, being considered weak. It can be concluded that equotherapy training showed results with significant changing on the psychomotor valuated areas, even that some profiles didn't change. The equotherapy can support the development on children's psychomotor areas, and by this way they can have a contribution for their life improvement.

CARACTERIZACION DEL DESSARROLLO PSICOMOTOR EN NIÑOS COM PARALISIS CEREBRAL SOMETIDOS A LA EQUINOTERAPIA EN ANAPOLIS-GO

La Equinoterapia, la cual utiliza el caballo con un abordaje multidiciplinario a nivel de salud, educación y equitación, es reconocida como método terapéutico por el Consejo Federal de Medicina de Brasil desde 1997.El objetivo de este artículo fue caracterizar el desarrollo psicomotor de los practicantes de equinoterapia en la ADME - Asociación de Deficiencias Múltiples Equinoterapia en el municipio de Anápolis/Goiás. Participan de este estudio, 25 pacientes (practicantes) con Parálisis Cerebral, de ambos sexos, siendo 16 hombres y 9 mujeres. Fueron realizados tests psicomotores, BPM de Vitor da Fonseca (1955). Las sesiones de entrenamiento se llevaron a cabo 2 veces por semana con una duración de 40 minutos por sesión. Estadisticamente se realizó un análisis descriptivo y para comparar los momentos se utilizó el test t student. Resultados: la tonicidad muscular de los niños tuvo una mejoría significativa (p=0,000), dado que inicialmente estaban en el perfil apráxico con una realización imperfecta del movimiento pasando luego para el perfil dispráxico. A nivel de quilibrio los niños tuvieron una mejoría significativa p=(0,000), dado que antes del entrenamiento los mismas se ubicaban en el perfil dispráxico, y después de la equinoterapia pasaron para el perfil eupráxico con realización adecuada, siendo clasificado como bueno. En lo que respecta a la lateralidad, los niños obtuvieron con el entrenamiento una mejoría significativa (p=0,022), sin alteraciones en el perfil psicomotor , dado que inicialmente se encontraban en el perfil dispráxico, manteniéndose en el mismo luego del entrenamiento. El esquema corporal de los niños fue imperfecto y el conocimiento de su cuerpo incompleto, aun teniendo una mejoría significativa (p=0,003), no lograron cambiar de perfil. La práxia global de los niños se mantuvo en el mismo perfil apráxico, aún asi, se logró una mejoría significativa (p=0.005). Hubo una mejoría significativa (p=0,003) de la praxia fina, pero insuficiente para cambiar el perfil psicomotor apráxico. Se concluye que la equinoterapia logró mejorías significativas en las áreas psicomotoras estudiadas, aún sin obtener cambios en algunos perfiles psicomotores.

CARACTERISATION DU DEVELOPPEMENT PSYCOMOTEUR CHEZ LES ENFANTS AVEC PARALYSIE CÉRÉBRALE SOUMIS À EQUOTERAPIE EN ANAPOLIS-GO

L´objectif de ce travail a été de caracteriser le développement psycomoteur des practiquants de l´équotérapie dans les ADME- Association des Handicapés (avec des défauts multiples) d´Equoterapie dans la région Anápolis-Goiania.Vingt-cinq patients participent de cet étude. Tous avec paralysie cérébrale, de deux sexes : 16 hommes et 9 femmes. On a fait des testes psycomoteurs, BPM de Victor da Fonseca (1995).Les séances de dressage étaient deux fois par semaine, avec 40 minutes , chacune.L`analyse statistique utilisé a été descriptive, et pour comparer les moments d´entraînement on a utilisé le teste Student.Les résultats ont été ceux-ci : en tonicité, les enfants eurent une amélioration significative (p= 0,000), au commencement ils étaient en profil apraxique, avec réalisation imparfaite de moments, en passant après par le profil dispraxique. Les enfants ont eu une amélioration dans l´équilibre (p= 0,00), car avant le dressage, ils se trouvaient avec un profil dispraxique, et après l´équoterapie, on a passé à un profil eupraxique, avec une réalisation convenable et classifié comme bonne.D´un autre côté, les enfants ont eu avec le dressage, une amélioration significative (p= 0,022) , mais le profil psycomoteur n´a pas changé, ils ont commencé avec un profil dispraxique sans avoir eu un changement.Les enfants ont présenté une notion et une connaissance imparfaite de leurs corps, même ayant une amélioration significative (p= 0, 003) , ils n´ont pas pu évaluer le profil.Dans la Praxia Globale les enfants ont conservé le même profil apraxique , portant, ils ont eu une amélioration significative (p= 0,005).Dans la Praxia plus discriminé, appelé Praxia Fina on a eu une amélioration significative, mais pas suffisante pour changer le profil psycomoteur apraxique.En conclusion, on peut dire que le dressage avec équoterapie a signalé de bons résultats avec amélioration significatives dans les parties psycomotives évaluées, même n´ayant point changé dans quelques profils psycomotives.