110 - DIFFICULTIES OF COORDINATION MOTORA OF SCHOOL OF 9 A 12 YEARS OLD.

CRISTIANI DE FRANÇA; JULIANA DA SILVA; THAIS SILVA BELTRAME.
University of the State of Santa Catarina - UDESC / Florianopolis, Brazil, Brazil.
cristianidefranca@gmail.com

INTRODUCTION

The motor development is the continuous change in behavior over the life cycle, performed by the interaction between the needs of the task, the biology of the individual and the conditions of the environment (GALLAHUE and OZMUN, 2005). This phenomenon permeates the lives of all people, the inability, for the skill and again to the inability advanced. While the meaning of raise for the first time and the difficulty of standing up at the end of life is different, everything is part of the development process that occurs throughout life (KRETCHMAR, apud SANTOS, DANTAS and OLIVEIRA, 2004).

For Eckert (1993), despite the continuous development during the school term, marked changes occur and the child's behavior is characterized by constant exploratory activity. According Gallahue and Ozmun (2005), in late childhood, children in this age group of 9 to 12 years, are in the phase motor specialist, where the movement becomes a tool that applies to many activities motor complex present in daily life, in the recreation and sporting goals. This is a period in which the balance skills, locomotors and manipulative, are progressively refined, combined and developed, for use in situations increasingly demanding.

However, not all children have a normal sequence of development. Henderson and Sugden (1992) emphasized the importance of children to be aware that to perform simple motor tasks, it is trying too. The motor skills are almost prerequisites for the adequacy of the child in the school curriculum, not only the classes of physical education, as difficulties in swiftly manual could disturb the writing, and even aggravate the inattentive (SANTOS, DANTAS and OLIVEIRA et al. 2004).

Studies involving the development engine school in late childhood, are important as that according Gallahue and Ozmun (2005), several movements, both related to sports, such as those used frequently in the daily life of people depend on the good development in this band age. Thus arose the following question: What is the incidence of motor difficulties presented by school aged 9 and 12 years?

METHODOLOGY

This research, whose goal is to investigate the difficulties of driving school aged between 09 and 12 years of age, characterized as being exploratory, descriptive in nature, with cross design.

The universe of the study characterized as being in school for 9 to 12 years, enrolled in the system of education of San Jose Part of this study 88 schools, randomly selected randomly, of which 50 were males and 38 females.

As the measuring instrument was used Movement Assessment Battery for Children-M-ABC (Drums for the Evaluation of the Children's Movement-M-ABC; HENDERSON AND SUDGEN, 1992), specifically designed to identify and evaluate children with limitations of motor coordination. The Movement ABC assesses the manual skills, skills of controlling object, static equilibrium and dynamic equilibrium of children aged between 4 and 12 years. Each test is scored from 0 to 5, with the score 5 indicates difficulties and severe motor scores 0 indicates no problems. For each area, manual skills, with ball skills and balance are set scores of the tests and the sum of these values indicate the total score of the test, the scores of each subject is compared to a table of percentiles, generating a classification according to the standards established by the Protocol of the test. The subjects classified with percentile above 15 are identified as not having motor difficulties, those who classify themselves with percentile < 5 and <=15, as light and difficulty with motor percentile <= 5 are identified as severe difficulty driving.

The children were assessed individually in the area of the school itself. The evaluations were conducted by people, being a guiding and showing the tasks to be performed and at least one filling the Scoreboard. The demonstrations, guidance and verbal attempts to practice were provided by the evaluators in accordance with the protocol suggested by the authors of the test (HENDERSON and SUGDEN, 1992). Evaluators have been properly trained for a particular purpose.

For the analysis of the data was used the technique of descriptive statistical distribution of frequency to characterize the incidence and the severity of the difficulties driving the children. For the comparison of the difficulties driving between the sexes, has been used for the test of normality Kolmogorov-Smirnov (n> 50) and the observation of histograms for checking the normality of the data and the Levene test for the verification of the homogeneity of variance. To see the difference between the sexes for the total score of the M-ABC was used t test for independent samples, as a normal data. The Kruskal-Wallis test was used to determine the differences between the sexes for each sub-area the M-ABC (manual skills, with ball skills and balance), since the data did not show normality and homogeneity of variance. For all the statistical analysis was adopted the significance level of 5%.

RESULTS

The results of incidence of motor difficulties separated by sex are shown in table 1. By comparing the total score of the test M-ABC between male and female, has been achieved through the t test for independent samples, there was no statistically significant difference, despite the girls present values of average higher than those of boys.

Table 1- Incidce of motor difficulties

Sex	Motor dificulties			TOTAL (%)
	Normal (%)	Light (%)	Several (%)	
Masculine	32 (36,4)	9 (10,2)	9 (10,2)	50 (56,8)
Female	21 (23,9)	13 (14,8)	4 (4,5)	38 (43,2)
TOTAL	53 (60,2)	22 (25)	13 (14,8)	88

The results of incidence of motor difficulties separated by sex are shown in table 1. By comparing the total score of the test M-ABC between male and female, has been achieved through the t test for independent samples, there was no statistically significant difference, despite the girls present values of average higher than those of boys.

DISCUSSION

The difficulties of motor skills have been highlighted in the school age, being observed while writing, the class of

physical education or sports. The prevalence of these disturbances have been varied between countries. The incidence of school with severe motor problems observed in this study finds itself according to the reports raised by the literature, may be 5% to 15% (WILSON, 2005; VAN WAELVELDE, DE WEERDT, IN COCK, 2005). For Maldonado-Durán and Glinka (2005), a conservative estimate suggests that 5% of children have these problems worldwide. In England, for example, 10% of children have been reported with difficulties in motor coordination. In a study by Wright and Sugden (1994) in Singapore, 4% of children from 6 to 9 years of age of a randomly sample were found with difficulties in motor coordination, and that this study included only those children with impairments in motor skills that significantly interfered in the activities of daily life. In Europe, the estimate is 5 to 8% of the school population that has the development of competence motor of progress below normal school activities in general and particularly in Physical Education (SUDGEN and Wright, 1998 apud RUIZ, GRAUPERA, GUTIÉRREZ, MIYAHARA, 2003).

This classification of M-ABC in "severe" may indicate a Developmental Coordenative Disorder (DCD). The DCD, according to the American Psychiatric Association (APA, 2003), occurs when there is delay in the development of motor skills and trouble coordinating the movements, resulting in the inability of the child to perform the daily activities. The DCD affects between 5-6% of school and can occur alone or may be present in children with a learning disorder, difficulty in speech / language and / or attention deficit disorder in, which can interfere significantly in the development of the individual (MISSIUNA , 2003). In addition to an estimated high prevalence among children, it is observed that the absence of intervention in children with disorders of motor coordination can make the symptoms persist during adolescence to adulthood (GEUZE and BÖRGER, 1993; CANTELL, SMYTH and AHONEN , 1994; VISSER, GEUZE and KALVERBOER, 1998).

The results of this study will meet the Pellegrini et. Al. (2006), showing that girls have more difficulties in skills with ball in relation to boys. Meanwhile differ to show that more children are classified with severe motor difficulty. Langendorfer apud Santos, Dantas and Oliviereira (2004), says that possible differences in the pattern of global skills between boys and girls may be arising from the low development submitted by girls, possibly due to cultural reasons. Cole and Cole (2003), also agree that cultural conceptions of activities appropriate to the girls can play a major role in these differences in behavior, citing examples of American culture, where according to the authors parents encourage their children more men to participate in sports that require more extensive motor skills.

CONCLUSION

It may be noted that the results for the motor skills followed the pattern exposed in the literature, with better results for the boys in with ball skills, and for girls in the skills of balance. Thus it is believed that greater care is needed on the part of educators, so that both genders have equal conditions for the full development.

Even with the expected within the literature, the number of children with movement disorders can be considered high, this factor that can be attributed to lack of driving experience, or the neurological problems as DCD. Therefore, it is suggested greater attention to the causes, prognosis and possible treatments, which aim to improve the driving skills of these children.

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Rua Lauro Linhares, n 1670, bl C, Apto 204.
Florianópolis/Santa Catarina. CEP:88036-002
Fone: (48) 3028 6591 - cristianidefranca@gmail.com

DIFFICULTIES OF MOTOR COORDINATION OF SCHOOL OF 9 A 12 YEARS OLD.
ABSTRACT:
The difficulties of coordination of motor skills have been highlighted in the school age, being observed while writing, the class of physical education or sports. The goal of the study was to investigate the difficulties driving school aged between 09 and 12 years old. Part of this study 88 schools, randomly selected randomly, 50 male and 38 female. The instrument used in this study was the Movement Assessment Battery for Children-ABC Movement (Drums for the Evaluation of the Children's Movement-M-ABC; HENDERSON AND SUDGEN, 1992). The M-ABC has been specifically developed to identify and evaluate children with limitations of motor coordination. This instrument assesses the manual skills, skills of controlling object, static equilibrium and dynamic balance. According to the results, 22 schools had difficulty driving light and 13 difficulty severe motor, corresponding to 14.8% of the participants. When compared the results of the scores of swiftly manual skills of school, it was observed that there was no statistically significant difference (p = 0.168) between the male and female group. In carrying out with ball skills, the boys have been better than girls, and this difference statistically significant, with p <0.001. For skills of static and dynamic balance, it was possible to see better performance of girls, and this significant difference (p = 0.04). Even with the expected within the literature, the number of children with movement disorders can be considered high.
KEYWORDS: Difficulties for the Motor Coordination. Motor Development. Scholars.

LES DIFFICULTéS DE COORDINATION MOTRICE DES éCOLIERS AYANT L'ÂGE ENTRE 9 E 12 ANS.
RESUMé:
Les difficultés de coordination des habilitées motrice ont été mises en évidence dans l'age scolaire, elles ont été observées dans l'écriture, dans les cours d'éducation physique ou dans les sports. L'objectif de l'étude a été d'investiguer les difficultés motrices des écoliers d'age entre 9 e 12 ans. Ont participé de celle étude 88 écoliers choisis au hasard, 50 du sexe masculin et 38 du sexe féminin. L'instrument utilisé dans cette étude a été le *Movement Assessment Battery for Children - Movement ABC* (Batterie d'évaluation des Mouvements de l'enfant - M-ABC; HENDERSON E SUDGEN, 1992). Le M-ABC a été développé pour identifier et évaluer les enfants avec limitation de coordination motrice. Cet instrument évalue des dextérités manuelles, habilité de contrôle de l'objet, équilibre statique e dynamique. Selon les, 22 écoliers ont présenté des difficultés motrices légères et 13 sévère, correspondant a 14,8% des participants. Quand on compare les résultats de la ponctuation de la dextérité manuelle des écoliers, on n'a pas observée des différences statistiquement significatives, (p=0,168) entre le groupe féminin et masculin. Cependant dans les habilitées avec le ballon, les garçons ont eu une meilleurs performance par rapport aux filles, cette différence a été statistiquement significative (p<0,001). En ce que concerne l'équilibre statique et dynamique, on a pu observer une meilleur performance chez les filles, et cella a été significatif (p=0,04). En dépit que ces résultats soient attendus selon la littérature, le nombre d'enfants avec troubles motrices peut être considéré élevé.
MOT-CLÉS: Difficultés de coordination motrice. Dévellopment moteur. Écoliers.

DIFICULTADES DE COORDINACIÓN MOTORA EN ESCOLARES DE 9 A 12 AÑOS DE EDAD.
RESUMEN:
Las dificultades de coordinación de las habilidades motoras han sido evidenciadas en la edad escolar, siendo observadas durante la escrita, en las clases de educación física o deportes. El objetivo de la investigación fue verificar las dificultades motoras de escolares de 9 a 12 años de edad. Participaron 88 escolares seleccionados al azar, siendo 50 del sexo masculino y 38 del sexo femenino. El instrumento utilizado en la investigación fue el Movement Assessment Batery for children Movement ABC (Bateria de Avaliacion del Movimiento de los niños M ABC HENDERSON & SUDGEN,1992). El M-ABC fue específicamente desarrollado para identificar e evaluar niños con limitaciones de coordinación motora. El instrumento evalúa las destrezas manuales, habilidades de control del objeto, equilibrio estático y equilibrio dinámico. Los resultados apuntan 22 que escolares presentan dificultades motoras liviana, 13 con dificultades motora severa, correspondiendo a 14,8 de los participantes. Cuándo comparados los resultados de la puntuación en las habilidades de destrezas manuales de los escolares, fue observado que no hubo diferencia estadísticamente significativa (p= 0,168) cuanto al sexo. En las habilidades con pelota los niños obtuvieron mejor desarrollo con una diferencia estadística significativa de p< 0,001. Con relación las habilidades de equilibrio estático y dinámico, fue posible observar un desarrollo mejor en las chicas, siendo esta diferencia estadística significativa (p=0,04). Los resultados van a la dirección de lo presentado en la literatura, el número de niños con disturbios motores pueden ser considerados elevados.
PALABRAS CLAVES: Dificultad de Coordinación Motora. Desarrollo motor.

DIFICULDADES DE COORDENAÇÃO MOTORA DE ESCOLARES DE 9 A 12 ANOS DE IDADE.
RESUMO:
As dificuldades de coordenação das habilidades motoras têm sido evidenciadas na idade escolar, sendo observadas durante a escrita, na aula de educação física ou esportes. O objetivo do estudo foi investigar as dificuldades motoras de escolares com idade entre 09 e 12 anos de idade. Participaram deste estudo 88 escolares, sorteados aleatoriamente, sendo 50 do sexo masculino e 38 do sexo feminino. O instrumento utilizado neste estudo foi o *Movement Assessment Battery for Children - Movement ABC* (Bateria de Avaliação do Movimento da Criança - M-ABC; HENDERSON E SUDGEN, 1992). O M-ABC foi especificamente desenvolvido para identificar e avaliar crianças com limitações de coordenação motora. Este instrumento avalia as destrezas manuais, habilidades de controle de objeto, equilíbrio estático e equilíbrio dinâmico. De acordo com os resultados, 22 escolares apresentaram dificuldade motora leve e 13 dificuldade motora severa, correspondendo a 14,8% dos participantes. Quando comparados os resultados da pontuação nas habilidades de destreza manual dos escolares, foi observado que não houve diferença estatisticamente significativa (p=0,168) entre o grupo masculino e o feminino. No desempenho das habilidades com bola, os meninos desempenharam-se melhor que as meninas, sendo esta diferença estatisticamente significativa, com p<0,001. Em relação às habilidades de equilíbrio estático e dinâmico, foi possível observar um desempenho melhor das meninas, sendo esta diferença significativa (p=0,04). Mesmo estando dentro do esperado pela literatura, o número de crianças com transtornos motores pode ser considerado elevado.
PALAVRAS-CHAVE: Dificuldades de Coordenação Motora. Desenvolvimento Motor. Escolares.