80 - MOTOR ASSESSMENT OF CHILDREN HAVE DISTORTED PICTURE

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INTRODUCTION

Gallahue and Donnelly (2008) defines development as a continuous process of change over time that begins at conception and ceases only in death. Thus, Conolly (2002), states that motor development is also a phenomenon that permeates the lives of all people.

From birth several transformations guide the motor, physical, cognitive, social and emotional individual, especially in childhood, because she's at the stage of acquisition of broad learning, so necessary to work constantly in search of a higher infant motor development, stimulating so that the child has opportunities to experience different movements in search of new developments including the knowledge of his own body (GALLAHUE And OZMUN, 2005).

Gallahue and Donnelly (2008) argue that the process of Motor Development is influenced by a variety of factors such as developmental genetics (the individual's own factors) and the environment (external factors). The Childhood Obesity is identified as one of these factors, which can be classified as both genetic and environmental. However, statistical data from the Brazilian Institute of Geography and Statistics (IBGE) (2010), we show that the environment has become such an evil factor century, because in 2008, excess weight reached 33.5% of children aged five to nine years, with 16.6% of boys were obese also, among girls, obesity appeared in 11.8%.

The data of the IBGE (2010) also indicated that excess weight in children was identified in greater quantities in urban areas than in rural areas: 37.5% and 23.9% for boys and 33.9% and 24.6% for girls, respectively.

According to Birch LL (1998) (cited in Mello et al, 2004) poor diet is the main factor that causes childhood obesity. They argue that obesity can be divided into exogenous obesity - the most common - and endogenous.

In endogenous, one must identify the underlying disease and treat it. Exogenous obesity stems from an imbalance between caloric intake and expenditure and should be managed with dietary guidance, especially changes in habits and optimization of physical activity (LL BIRCH, 1998 apud MELLO et al., 2004).

According to Lawrence, 1991; Thelen, Powell, Lawrence & Kuhnert, 1992 (apud CARVALHO et al., 2005) body image that children and adolescents have of yourself is an ally to the imbalance in food as influences bad eating habits.

These authors argue that happen during puberty may increase the desire to be slimmer, there is evidence that in the pre - pubertal children also worry about their bodies and seek to lose weight. However, body image, usually also can camouflage overweight or obesity in children and adolescents that is. Thus, the emergence of perceptions of themselves in relation to the physical type affect the sense of self and satisfaction with one's own body, because the body type is subject to association with personality traits, as assessed in the other, with satisfaction and happiness when assessed by the individual (CARVALHO, 2005).

According to Molinari and Sens (2003), the movement is a means by which the individual expresses himself and tries to have a relationship with the environment in which they live because of the child at the time of learning and maturing to experience basic features that make up the movement, controlling your body, as knowing it and understanding its operation, including its flexibility gain and weight loss.

However, even though the need to develop a thorough job for the "move" of children and adolescents, many still do not find opportunities for them to be developed, becoming reflect future problems in engines and body composition that will have greater impairment in adulthood (MASCARENHAS, 2010).

In order to verify the relationship of body image problems with engines this study was to evaluate the age of children with motor problems distorted picture and the relation of childhood obesity with motor problems. We hypothesized that subjects identified problems with body image problems also present engines.

METHOD

Search characteristic

This research is characterized as descriptive and explanatory, because developing a work of observation, recording, analysis, classification, interpretation and identification of factors that alter and interfere motor development of children obese by the data collected without any intervention by the researcher, also qualifies as a genuinely experimental type research by analyzing two groups: the experimental group to be manipulated and a control group who remain influenced by the researchers (Gil, 1991).

Participants

Participants were 18 children of both sexes aged 7 years enrolled in private school located in the city of Manaus / AM.

The subjects were divided into two groups: 09 subjects in the control group containing children identified with proper image and 09 subjects in the experimental group containing children identified with distorted picture.

INSTRUMENT AND EQUIPMENT

The perception of body image of the subjects was assessed through a questionnaire and identification of body mass index. This questionnaire is themed "Lifestyle of young Luso-Brazilian" and was developed by Professors Portuguese. Has 55 multiple choice questions.

The body mass index of the subjects will be held (BMI) by checking the weight and height. To perform the evaluation of the IMC, it uses the following formula: Current BMI = weight (kg) / height2, ie BMI equals the current weight of children divided by height squared. For this evaluation will be used a manual scale and a tape measure to be wall mounted.

To identify the motor age will use the evaluation protocol Motor Development Scale (EDM) described by Rosa Neto (2002). This instrument is behave for 7 tests: fine motor, gross motor control, balance, body scheme, spatial organization, temporal organization and laterality.

Independent component evaluated, each test starts with the proof corresponding to their chronological age (CA). If success is achieved in the task corresponding to their age, the most advanced will be presented. In case of failure, the task

corresponding to the previous age is repeated, obtaining a Age motor (IM) (Neto, 2002).

Procedure

We begin with the evaluation of picture perception. The estimated time for each application and the questionnaire identification BMI is approximately 30 to 45 minutes. The examination site was at the school where the study subjects, where students answered the questionnaire and then were called to collect the BMI.

Then the subjects performed the test engine. The estimated time for each application is approximately 30 to 45 minutes; may sometimes reach 60 minutes due to individual differences. The location of the exam will be in a classroom quiet, well lit and ventilated, free from outside noise and interruptions. The material required for application of the tests will be ordered, thereby avoiding confusion and delay in passing the tests.

The evaluation of the perception of image occurred in one day and the next day was initiated application of the test engine. The heads of the subjects signed a free informed consent to confirm on their participation in the research.

Data analysis

The engine test results were analyzed by Motor Age (IM) and Motor Quotient (QM), obtained in each event. The results are sorted by a QMG score (General Motor Quotient) which is obtained by dividing the motor age and chronological age multiplied by 100, you can: very superior, superior, high-normal, normal, average, normal, low, and much lower lower.

For statistical analysis, data were discussed through descriptive analysis, measures of central tendency (mean) and dispersion (standard deviation) between Chronological Age (IC) and IM obtained as performance on tests. To compare the data between groups sofrerm initially a test of normality Shapiro-Wilking. As the data showed a normal distribution test was used T-student. All tests will be performed in computational package SPSS 19.0 for Windows, with the significance level $p < 0.05$ for comparison between groups.

RESULTS AND DISCUSSION

For this study beyond the general objectives of assessing the age of children with motor problems distorted picture and the relation of childhood obesity with motor problems, we aim to evaluate the specific perception that children images of themselves, evaluate the motor age Children who present proper image and compare the motor age of children who have distorted and proper image. Results and discussion of these targets are shown in Table 1.

Table 1: Mean, standard deviation (SD) and a significant difference (p) between groups of chronological age (CA), general motor age (GMG), general motor quotient (GMQ), body mass index (BMI) and motor tests thin (MT), coarse motor (CG), balance (B), body schema (BS), spatial orientation (SO) and temporal orientation (OT). Ns: not significant.

	GROUP CONTROLE		GROUP EXPERIMENTAL		
TESTS	**MEAN**	**SD**	**MEAN**	**SD**	***P***
CA	7,6	3,77	7,6	3,2	ns
GMG	7,3	6,85	7,6	12,37	ns
GMQ	97,1	10,35	100,2	13,57	ns
BMI	14,7	1,64	18	3,23	0,04
MT	7,6	4,69	7,6	12,88	ns
CG	8,4	21	7,7	28,26	ns
B	7	11,61	7,6	28,46	ns
BS	7,4	7,93	6,4	10,39	0,015
SO	6,6	8,48	6,7	16,91	ns
OT	8,1	22,8	8,2	24,57	ns

The data presented in Table 1 show that the experimental and control groups show similarities between the motor age and chronological age and overall classification average normal ratio for the engine overall. These results indicate that the physical activities that the subjects are practicing contribute to the development of motor performance.

We know that the subjects of this study practice twice a week for physical education classes, and the school where they study require planning work for their teachers, leading us to believe that the discipline of Physical Education has contributed to the good performance engine of his students.

Many authors analyze and describe the benefits of physical education for the motor development of children (Flinchum 1982, Harrow 1983, Tani 1988, Gallahue 1989 and Eckert 1993). They argue that physical education has an important role from the moment she can structure the environment for the child, providing experiences, when well planned and results in a great helper for the promotion of human development, especially the development engine, ensuring learning specific skills in games, sports, gymnastics, dance etc..

Anastasius says (2006) that physical education at the school routine Psychomotricity improve and create opportunities to move the subject aware of your own body schema body field of balance and control the global coordination of spatial and spatio-temporal structures, improving possibilities and adaptations to the external world, structuring perceptions. It can be seen that when the school physical education is done well planned, using content and approaches appropriate to the age group, the motor repertoire is broad and motor performance of children is it with various motor experiences.

Corroborate Magalhães et al (2007) which states that "physical education classes should be conducted in schools, as a time where children can, through the playfulness, develop the cognitive, social-emotional and motor together. However, they must be planned and implemented with objectives, content, teaching procedures and appropriate evaluation and systematized, so that development is achieved in the best way possible. "

However, we note that in relation to gross motor function test, that indicates motor coordination, the control group, ie, normal body image that have obtained a better result (Table 1).

A study by Paim (2003) in order to check the motor development of preschool children, aged 5-6 years, found that the product of motor development is related to the experiences and experiences of individual children. The greater the number of motor experiences quality, the higher the performance in the motor tasks performed by them, ie the importance of working motor coordination in children would give at the moment that it has a variety of experiences, whether at school or in their day to day.

From the moment that the child has difficulty performing a specific motor skill, it may exclude themselves out of shame and fear of not being able to perform and be accurately discriminates by classmates. Daddy, (2006) in their study reported that many young obese do not support the feeling of exclusion in their daily activities and often end up leaving healthy lifestyle when that age should practice sports, are "confined" at home, probably in technological toys, thus seeking limitations vivencias large

motor, limiting the development of motor skills that are latent in this period of life, and need to be stimulated. It is important that at each stage of life, children have every chance of livings, so they do not affect their motor coordination and logo as well as throughout its development.

According to Mitchell (2002) (cited BORGES and SILVA, 2008) "an evil scheme constituted body will result in a child who does not coordinate their movements well, dresses or undresses slowly, the craftsmanship it is difficult to handwriting is ugly, your reading is meaningless, not harmonious. " The way the child sees, that is, if you think you're overweight or underweight, according to the standard that is imposed, may harm you when the practice of physical education, because it will delete itself thus limiting their motor experiences both in school and at home.

In relation to the test of spatial orientation, both groups had motor age below chronological age (Table 1). As discussed Brêtas (1991) (cited Brêtas et al, 2005) literacy is required before the child is in your body to experience the color, thickness, longitude, latitude, trajectory, angle, shape and orientation and spatial projection. Fonseca (1995) (cited Brêtas et al, 2005) states that it is important for spatial orientation is well developed, because the child needs to know which direction to read and write, for example, and that is to know the direction of the prerequisites to find your way in the street, as well as to learn the cardinal points and learn geography. Thus a child who does not grow well on the spatial orientation may present difficulties in reading, writing and even orient themselves in your space daily, also delaying development in other areas psychomotor.

In the test of body schema only experimental group obtained below the chronological age motor. When comparing the groups testing body schema was also the only one that showed a significant difference, indicating that the group has distorted picture has worst body orientation compared with those with normal body image (Table 1).

Different authors define the body schema and body image differently. Neto (2002) considers the body schema as an organization of feelings regarding her own body in combination with data from the outside world. To Slade (1988) (cited BOSI at al. 2,006), the term body image refers to an illustration, one has in mind, the size, body shape image and expressing feelings also related to these characteristics as well as the parts that constitute it.

Already Vayer (1979) (cited Neto 2002) Body image describes "... as the synthesis of all the messages, all stimuli and all actions that allow the child to differentiate themselves from the outside world and do the "I" the subject of his own existence.

However, Barros (2005) comes to the conclusion that the body schema is interposed in body image and vice versa, forming a single concept, no matter which one to use. Almeida et al. (2005) (cited in BOSI at al. 2006) argues that the "body dissatisfaction has often been associated with the discrepancy between perception and desire on a size and body form", so that the child has body dissatisfaction may submit Changes in Body Scheme.

In relation to BMI found a significant difference between groups. The subjects in the experimental group are overweight, while the other is normal weight.

A study done in Ribeirão Preto (SP) with 27 obese children show eating behaviors indicative of excessive eating and body image dissatisfaction. According to studies of how Simões and Meneses (2007) where other authors cite as Barlow (1993/1999) et al, "obese children tend to feel less satisfied with their physical appearance. Thus, several studies conducted in the context of obesity (child) show a tendency of obese individuals to percepcionarem negatively about their physical appearance.

The results regarding the Athletic Competence and Physical Appearance may be related to feelings of dissatisfaction and depreciation charges caused by a society that cultivates an ideal of thinness, ultimately stigmatize the child, making her believe that she is different and inferior the other children. "

We can say that being overweight can influence body image and vice versa, mainly on grounds that the individual does not feel satisfied with the way they see themselves.

CONCLUSION

Through this study we can conclude that the children studied body image dissatisfaction with present BMI lower than expected, overweight, and motor problems, such as difficulties in the body schema, spatial orientation and motor coordination compared with children who own satisfaction with body image . We also conclude that the importance of having PE lessons well prepared, help psychomotor development, leading them to experience a variety of skills that do not affect the progress of your daily development. For the avoidance situations as excluding students who are dissatisfied with their image, it is necessary for teachers to identify early on and make interventions in their classrooms, and parents need to be alert to food and lifestyle that lead their children because prevents children to exclude and restrict themselves in the process of learning new motor skills.

REFERENCE BIBLIOGRAPHY

ANASTACIO, MN. The contribution of physical education as an aid to overcome the problems of poor Spatial orientation in children of school age from 06 to 12 anos.2006. Monograph (specialization in Psychomotricity). Universidade Cândido Mendes. Niterói, 2006.

BARROS, D. D.: Body image: the discovery itself mesmo.História, Science, Health-Manguinhos, vol. 12, no. 2: p. 547-54, May-Aug. 2005.

BOSI, MLM, LUIZ, RR, MORGADO CMC, SHORE, MLS; OAK, RJ. Self-perception of body image among students nutrition: a study in the city of Rio de Janeiro. Bras Psiquiatr J, 55 (2): 108-113, 2006.

BORGES, P. F.B. SILVA, A. B. The importance of early childhood education Psychomotricity n. Journal of Pedagogy Perspectives in Education. In 2008 JRS Breton, SR PEREIRA, CINTRA CC, KM AMIRATI. Evaluation of psychomotor functions of children between 6 and 10 year of age. Acta Paul Enferm. 2005, 18 (4) :403-12

CARVALHO, A. M. Q: Cataneo, C.; grimace, E. M; MAIFARÁ, G. C. Body Image and Self Concept in obese children. Paideia, São Paulo, 15 (30), 131-139, 2005.

Connolly, K. Motor Development: Past, Present and Future. Rev. paul. Educ. Fís., São Paulo, Supl.3, p.6-15, 2002

GALLAHUE DL, JC OZMUN. Understanding motor development: infants, children, adolescents and adults. 3rd ed. São Paulo, 2005.

GALLAHUE D, F. Donnelly Developmental physical education for all children. Phorte. 1st Edition. São Paulo. 2008.

GIL, Antonio Carlos. How to design research projects. Sao Paulo: Atlas, 1991. Brazilian Institute of Geography and Statistics (IBGE). POF 2008-2009 - Anthropometry and Nutritional Status of Children, Adolescents and Adults in Brazil. Media. 2010.

MAGALHÃES, Joan S. Kobal, Marília Correal. GODOY, Regiane of Peron. Physical Education in Early Childhood Education: A Necessary Partnership. PUC Campinas - Brazil Mackenzie Journal of Physical Education and Sport - 2007, 6 (3): 43-52

MASCARENHAS, Josiene Lima, CROSS, Solange, LESSA, Lidiane, VIANA, Joaquim Albuquerque. Analysis of

motor development in school of seven years of age: a comparative study. FIEP Bulletin. , V.78, p.148 - 151, 2010.

MELLO. D. E; LUFT, V. C., MEYER, F. Childhood Obesity: How Can we be effective? J. Pediatr. (Rio J). V. 80 n. 3 Porto Alegre may / june 2004.

MOLINARI, Angela Maria da Paz, SENS, Solange Mari. Physical Education and Its Relation to Psychomotricity. Journal of Corporate Education Program (SGP), Curitiba, vol. 3, no. 1, p. 85-93, jul. 2002-Jul. 2003.

PAIM, Maria Cristina Chimelo. Motor Development of preschool children between 5 and 6 years. Digital Magazine Efdeportes. Buenos Aires. In 2003

PAZIN, Jori. FRAINEr, Deivis Elton S. Obese children have delayed motor development. Digital Magazine Efdeportes. Buenos Aires. In 2006

ROSE GRANDSON Francisco. Motor assessment. Porto Alegre: New Haven, 2002.

SIMÕES. Daniela; MENESES. Ruth F. Self-concept in children with obesity. Psicol. Reflex. Crit. v.20 n.2 Porto Alegre 2007.

MOTOR ASSESSMENT OF CHILDREN HAVE DISTORTED PICTURE

ABSTRACT

For this study beyond the general objectives of assessing the age of children with motor problems distorted picture and the relation of childhood obesity with motor problems, we aim to evaluate the specific perception that children images of themselves, evaluate the motor age Children who present proper image and compare the motor age of children who have distorted and 18 children participated adequate picture of both sexes aged 7 years enrolled in a private school in the city of Manaus / AM. The subjects were divided into two groups: 09 in the control group containing children identified with proper image and 09 in the experimental group containing children identified with distorted picture. The perception of body image of the subjects was assessed through a questionnaire and identification of body mass index. This questionnaire is themed "Lifestyle of young Luso-Brazilian" and was developed by Professors Portuguese. The body mass index (BMI) of the subjects was also conducted. To identify the motor age used the evaluation protocol Motor Development Scale (EDM). The results indicated that both groups show similarity between the motor age and chronological age and overall classification average normal, however, observed that over the coarse motor test, which indicates motor coordination, the control group had the best results. In the test of body schema only the experimental group received below the motor age and chronological data significativamentes different, indicating that the group has distorted picture has worst body orientation. In BMI significant difference found, the subjects in the experimental group were found overweight, while the other is normal weight. These data lead us to believe that children have distorted body image may have excess weight and also motor problems.

KEYWORDS: Motor Development, Childhood Obesity, Body Image.

ÉVALUATION DU MOTEUR DES ENFANTS ONT FAUSSEE IMAGE

RÉSUMÉ

Pour cette étude, au-delà des objectifs généraux de l'évaluation de l'âge des enfants ayant des problèmes de moteur déformé l'image et la relation de l'obésité infantile avec des problèmes de moteur, nous cherchons à évaluer la perception spécifique que les images des enfants d'eux-mêmes, d'évaluer l'âge du moteur Les enfants qui présentent une bonne image et de comparer l'âge du moteur des enfants qui ont faussé et 18 enfants ont participé image adéquate des deux sexes âgés de 7 ans inscrits dans une école privée de la ville de Manaus / AM. Les sujets ont été divisés en deux groupes: 09 dans le groupe témoin contenant enfants identifiés avec une bonne image et 09 dans le groupe expérimental contenant les enfants identifiés avec image déformée. La perception de l'image corporelle des sujets a été évaluée grâce à un questionnaire et à l'identification de l'indice de masse corporelle. Ce questionnaire a pour thème «mode de vie des jeunes luso-brésilienne» et a été développé par les professeurs portugais. L'indice de masse corporelle (IMC) des patients a également été menée. Pour déterminer l'âge du moteur utilisé le protocole d'évaluation Motor Development Scale (EDM). Les résultats ont indiqué que les deux groupes présentent des similitudes entre l'âge du moteur et l'âge chronologique et la moyenne normale classement général, cependant, fait remarquer que sur le test du moteur grossier, ce qui indique la coordination motrice, du groupe témoin avaient les meilleurs résultats. Dans le test de schéma corporel que le groupe expérimental a reçu dessous de l'âge du moteur et des données chronologiques significativamentes différente, indiquant que le groupe a faussé image a une orientation pire corps. En IMC différence significative, les sujets du groupe expérimental ont été trouvés en surpoids, tandis que l'autre est un poids normal. Ces données nous amènent à croire que les enfants ont déformé l'image corporelle peut avoir un excès de poids et aussi des problèmes de moteur.

MOTS CLES: développement moteur, l'obésité infantile, l'image corporelle.

EVALUACIÓN DEL MOTOR DE LOS NIÑOS HAN IMAGEN DISTORSIONADA

RESUMEN

Para este estudio más allá de los objetivos generales de la evaluación de la edad de los niños con problemas motores distorsionado la imagen y la relación de la obesidad infantil con problemas motores, nuestro objetivo es evaluar la percepción específica que las imágenes de los niños de sí mismos, evaluar la edad del motor Los niños que presentan una imagen adecuada y comparar la edad motora de los niños que han distorsionado y 18 niños participaron imagen adecuada de ambos sexos mayores de 7 años de edad de una escuela privada en la ciudad de Manaus / AM. Los sujetos fueron divididos en dos grupos: 09 en el grupo control con los niños identificados con la imagen adecuada y 09 en el grupo experimental que contenía los niños identificados con la imagen distorsionada. La percepción de la imagen corporal de los sujetos se evaluó mediante un cuestionario e identificación de índice de masa corporal. Este cuestionario tiene como tema "Estilo de vida de los jóvenes luso-brasileña" y fue desarrollado por los profesores portugueses. El índice de masa corporal (IMC) de los sujetos se llevó a cabo también. Para identificar la edad de motor usado el protocolo de evaluación Desarrollo Motor Scale (EDM). Los resultados indicaron que ambos grupos muestran una similitud entre la edad del motor y la edad cronológica y la clasificación global promedio normal, sin embargo, observó que durante la prueba de motor grueso, lo que indica la coordinación motora, el grupo control tuvo los mejores resultados. En la prueba de esquema corporal sólo el grupo experimental recibió por debajo de la edad del motor y datos cronológicos significativamentes diferente, lo que indica que el grupo ha distorsionado imagen tiene peor orientación cuerpo. En diferencia significativa IMC encontrado, los sujetos en el grupo experimental se encontraron sobrepeso, mientras que la otra es de peso normal. Estos datos nos llevan a creer que los niños que han distorsionado la imagen del cuerpo puede tener exceso de peso y también problemas motores.

PALABRAS CLAVE Desarrollo Motor, la obesidad infantil, la imagen corporal.

AVALIAÇÃO MOTORA DE CRIANÇAS QUE POSSUEM IMAGEM DISTORCIDA

RESUMO

Para esse estudo além dos objetivos geral de avaliar a idade motora de crianças com problemas de imagem distorcida e verificar a relação da obesidade infantil com problemas motores, temos como objetivo específico avaliar a percepção de imagens que crianças possuem de si próprias, avaliar a idade motora das crianças que apresentam imagem adequada e comparar a idade motora de crianças que possuem imagem distorcida e imagem adequada Participaram 18 crianças de ambos os sexos com idade de 7 anos matriculados em uma escola privada na cidade de Manaus/AM. Os sujeitos foram distribuídos em dois grupos: 09 no Grupo Controle contendo crianças identificadas com imagem adequada e 09 no Grupo Experimental contendo crianças identificadas com imagem distorcida. A percepção de imagem corporal dos sujeitos foi avaliada através de um questionário e identificação do Índice de massa corpórea. Tal questionário tem como tema "Estilo de Vida dos jovens Luso-Brasileiros" e foi desenvolvido por Professores Portugueses. O Índice de massa corpórea (IMC) dos sujeitos também foi realizado. Para identificar a idade motora utilizamos o protocolo de avaliação Escala de Desenvolvimento Motor (EDM). Os resultados indicaram que ambos os grupos apresentam similaridade entre a idade motora geral e idade cronológica e classificação normal médio, contudo, observamos que em relação ao teste motricidade grossa, que indica coordenação motora, o grupo controle obteve melhor resultado. No teste de esquema corporal somente o grupo experimental obteve idade motora abaixo da cronológica e dados significativamentes diferentes, indicando que o grupo que possui imagem distorcida possui pior orientação corporal. Em relação a IMC verificamos diferença significativa, os sujeitos do grupo experimental se encontraram com excesso de peso, enquanto que o outro está com o peso normal. Esses dados levam-nos a acreditar que crianças que possuem imagem corporal distorcida podem apresentar excesso de peso e também problemas motores.

PALAVRAS-CHAVE: Desenvolvimento Motor, Obesidade Infantil, Imagem Corporal.