124 - PSYCHOMOTOR PROFILE IN SCHOLARS IN NORTH OF MINAS GERAIS

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INTRODUCTION

According Le Boulch (1987), Fonseca (1995), Rosa Neto (2002), Papalia and Olds (2000) and Aleixo et al. (2012), during the growth and biological process of being human occurs many changes in its physical constitution, represented by modifications in anthropometric characteristics of dimensions, structure and body compositions. Those features are related, in different ways, to the motor development (ALEIXO et al., 2012).

The motor development is highly specific, in other words, is related to many factors, which also is affected by wide variety of biological exigencies and environments and related to specific tasks, may or not depend them for work correctly (GALLAHUE; OZMUN, 2005).

Through history, changes in lifestyle of population are directly linked to main factor for improvement of overweight and obesity in all ages, acquiring epidemic proportions (GUEDES; GUEDES, 1998; DAMIANI, 2000). The sedentary life is crossing generations, taking disasters for all, among them the most visible are overweight and obesity. However, infant obesity is the most concerning, because causes disasters in short and long ways.

The initial of obesity can happens in any phase of life, being the higher prevalence rates of infant obesity has been observed in age line of 4 to 8 years (OLIVEIRA et al., 2003). So, this study intends characterize the psychomotor profile of students of both sexes, with 7 years old, from public school of Montes Claros city.

MATERIAL AND METHODS

The research is descriptive, with qualitative and quantitative approach of cross-sectional.

The population of study was 71 children of 7 years old from major school (by enrollment) of basic education from the Montes Claros – MG.

The sample was composed by 60 children of both sexes. The selection of sample was random for children with normal weight.

To collect information about psychomotor profiles, it was used as instrument of evaluation the Psychomotor Battery – BPM, of Vitor da Fonseca (1995), which is a group of situations in tasks that analyze dynamically the psychomotor profile of children with reciprocal, intense, creative and ludic interaction between watcher and watched, with objective to evidence the human potential of learning in each children (FONSECA, 1995). All tasks proposed by BPM were pointed in psychomotor profiles. The period of evaluation was from 30 to 40 minutes (monitored by trained evaluators). The scale of points of psychomotor profiles is translate in the end as: 1- Apraxic Profile (APX) – imperfect, uncoordinated and incomplete realization; 2- Dyspraxic Profile (DPX) – realization with difficulty of control (satisfactory); 3- Eupraxic Profile (EPX) – adequate and controlled realization (good); 4- Hyperpraxic Profile (HPX) – perfect, harmonious and controlled realization.

To verify the Body Mass Index (BMI), the stature and the weight were measured and it was used the digital balance. To classify the sample in children with normal weight, overweight and obesity, through the BMI, it was used the classifications proposed by Cole et al. (2001).

This study was realized based in resolution 196/96 of “Comissão Nacional de Ética em Pesquisa – CONEP” of “Conselho Nacional de Saúde – CNS” and submitted to the aproval of Ethics Committee from “Universidade Estadual de Montes Claros – Unimontes”, which receveid the approbation of approval by the opinion embodied Nº 1639/2009.

For the statistical analysis of data collected it was used the descriptive analysis (average and standard deviation), percent frequency and the T Test of Student with level of significance of $p \leq 0.05$. All data were analyzed using the software Statistical Package for the Social Sciences – SPSS, version 18.0.

APRESENTATION AND DISCUSSION OF RESULTS

The students analyzed evidenced that weight presented A= 31.11 and SD= 5.8; the height presented A= 1.27 and SD= 0.05; and the BMI had A= 19.26 and SD= 2.70.

Table 1 – Values of percent frequency of psychomotor factors of BPM of whole simple sample inside psychomotor profiles.

Psychomotor Fator	N	APX	DPX	EPX	HPX	Total
Tonicity	60	0%	13,3%	76,7%	10%	100%
Equilibrium	60	0%	28,3%	48,3%	23,3%	100%
Lateralization	60	83%	16,7%	0%	0%	100%
Body Idea	60	3,3%	51,7%	41,7%	3,3%	100%
Time-space Structure	60	8,3%	35%	50%	6,7%	100%
Global práxis	60	0%	30%	66,7%	3,3%	100%
Slim práxis	60	13,3%	75%	11,7%	0%	100%

APX= Apraxic = bad; DPX= Dispraxic = insufficient; EPX= Eupraxic = normal; HPX= Hiperpraxic = superior or good

Were watched after analyses of table above that total sample has Eupraxic (EPX) development in tonicity factors, equilibrium and global praxis; with Dyspraxic (DPX) development in body idea factors, time-space structure and slim praxis; and Apraxic (APX) development in lateralization.

In tonicity, it is observed that majority of children (76.7%) is in EPX level, not presenting any case of APX, as well in tonicity and equilibrium there is not case of children with APX development. However, 48.3% of children with EPX profile and rest of the sample evidenced DPX (28.3%) and HPX (23.3%) profile. According with positions of Fonseca (1995), the children of this

sample did not present difficulties of selective, inhibition or control of movement attention, because the tonicity and equilibrium factors are well formed.

For Fonseca (1995), the normal psychomotor profile (Eupraxic profile – EPX) is obtained for children without difficulties of learning, may, however, to present psychomotor factor more variable and different. The level of realization is complete, adequate and controlled in many factors, may arise one or other factor that reveals immaturity or imprecision of control. These are children without psychomotor problems.

The insufficient psychomotor profile (dyspraxic profile), according Fonseca (1995), identifies the child with difficulties of fast learning. These are children who realize the tasks with difficulties of control and with combinations of deviant signals, which are spread for many factors of BPM.

The bad psychomotor profile (apraxic profile) is obtained for children with difficulty of significant learning of moderate or severe kind. The children who gain that profile do not realize, or do realize in imperfect or incomplete way, the majority of tasks of BPM.

Table 2 – Comparison of psychomotor factor of BPM of children groups with normal weight and overweight over "t" test.

Factor Psychomotor	Group BMI	N	Average	Standard Deviation (SD)	"t" observed	p
Tonicity	Normal	20	2,9	0,5	0,712	0,481
	Overweight	20	2,8	0,4		
Equilibrium	Normal	20	2,9	0,8	0,441	0,661
	Overweight	20	2,8	0,6		
Lateralization	Normal	20	1,1	0,3	-0,467	0,643
	Overweight	20	1,1	0,4		
Body Idea	Normal	20	2,5	0,5	-1,165	0,251
	Overweight	20	2,3	0,6		
Time-space Structure	Normal	20	2,6	0,9	0,418	0,679
	Overweight	20	2,5	0,6		
Global práxis	Normal	20	2,7	0,5	0,330	0,744
	Overweight	20	2,6	0,5		
Slim práxis	Normal	20	1,5	0,5	-0,620	0,539
	Overweight	20	2,0	0,5		

p< 0,05

Through results of T Test, it is observed in table 3 that, between children with normal BMI and with overweight, were not found differences statistically significant. That result evidences that overweight do not interfere in psychomotor development of the children, because the rates encountered were not higher than significance suggested.

Table 3 – Comparison fo psychomotor factors of BPM of children groups with normal weight and obesity through "t" test.

Factor Psychomotor	Group BMI	N	Average	Standard Deviation (SD)	"t" observed	p
Tonicity	Normal	20	2,9	0,5	-0,892	0,378
	Obesity	20	3,1	0,5		
Equilibrium	Normal	20	2,9	0,8	-0,399	0,692
	Obesity	20	3,0	0,7		
Lateralization	Normal	20	1,1	0,3	-1,241	0,222
	Obesity	20	1,2	0,4		
Body Idea	Normal	20	2,5	0,5	0,244	0,809
	Obesity	20	2,5	0,7		
Time-space Structure	Normal	20	2,6	0,9	0,192	0,849
	Obesity	20	2,5	0,7		
Global praxis	Normal	20	2,7	0,5	-0,892	0,378
	Obesity	20	2,8	0,6		
Slim práxis	Normal	20	1,9	0,5	0,0	0,122
	Obesity	20	1,9	0,5		

Unlike the study realized by Barreto (2000), whose research had as objective to verify the psychomotor profile in obese children with ages from 4 to 11 years and whose results indicated that the larger group of children with obesity (40%) presented psychomotor profile classified by Rosa Neto (2002) like "normal low", inferring that obesity influences badly in psychomotor development. The researches realized by Molinari and Sens (2003) and Silva and Borges (2008) pointed that infant obesity has relation with low psychomotor development of students. In this study were not found significant differences between the samples of normal group, overweight and obesity.

CONCLUSIONS

The classification of general psychomotor development of group studied was Eupraxic profile, being that factor showed like more affected were the slim praxis and lateralization. However, to verify the development of psychomotor factor: laterality, body system, equilibrium, tonicity, strong motor coordination, weak motor coordination and time-space guide both in children with normal weight and in with overweight and obesity, it was possible to observe that all groups are in general way with development from normal to good.

However, despite of children have been found with difficulties mainly in psychomotor factor lateralization, it is conclude that adoption of strategies are necessary to improve the development of this psychomotor factor in these children. It is conclude also that between children with normal weight and overweight, beyond those with normal weight with obese children, significant differences were not found, inferring that overweight or obesity do not interfere in normal motor development of children.

Comparing this study with theoretical framework of Vitor da Fonseca, it can be conclude the need of better though and

analysis under perspective of psychomotor development in children in order to develop them fully, both in physical and in psychologically and socially, once these studies in this area still scarce and have different opinions in researches.

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PSYCHOMOTOR PROFILE IN SCHOLARS IN NORTH OF MINAS GERAIS

ABSTRACT

The objective of this research was to characterize the psychomotor development of students of both sexes, with 7 years old and from public schools of Montes Claros city. The research is descriptive e comparative, with qualitative and quantitative approach and cross-sectional. The sample was composed by 60 children of both sexes, with normal weight, overweight and obesity. The selection of sample was of intentional way for children with overweight and obesity, but randomly for children with normal weight. It was used the Psychomotor Battery of Vitor da Fonseca. The research was approved by Ethics Committee of "Universidade Estadual de Montes Claros – Unimontes". The statistical procedures were descriptive analysis of data, average, standard deviation and percentage. Were used the t test of student and ANOVA, with the level of significance of $p \leq 0.05$. It was concluded in the results that total sample has Eupraxic (EPX) development in factors tonicity, equilibrium and global praxis; with Dyspraxic (DPX) development in factors body idea, time-space structuration and slim praxis; and Apraxic (APX) development in lateralization. Between children with normal and with overweight BMI, were not found differences statistically significant. It is conclude that classification of general psychomotor development of group was Eupraxic profile, being that the factors more affected were slim praxis and lateralization.

KEYWORDS: Psychomotor Battery. Overweight. Obesity.

PROFIL PSYCHOMOTEUR DE L'ÉCOLE NORD DE MINAS

RÉSUMÉ

Le but de cette étude était de caractériser le développement psychomoteur des étudiants des deux sexes, âgés de sept ans, de l'école publique à Montes Claros. La recherche est descriptive, comparative, l'approche quantitative et qualitative transversale. L'échantillon comprenait 60 enfants des deux sexes, poids normal, surpoids et l'obésité. La sélection de l'échantillon a été intentionnellement pour les enfants en surpoids et obèses et des enfants aléatoires de poids normal. Nous avons utilisé une batterie de psychomotricité Vitor da Fonseca. L'étude a été approuvée par le comité d'éthique de l'Universidade Estadual Claros Montes. Procédures statistiques étaient l'analyse descriptive, moyenne, écart-type et pourcentage. Nous avons utilisé le test t de Student et ANOVA et le niveau de signification de $p \leq 0,05$ a. Dans les résultats, il a été constaté que l'échantillon total se réunit de développement Eupráxico (EPX) facteurs dans la pratique tonalité, balance et dans l'ensemble, le développement de dyspraxique (DPX) des facteurs: le concept de corps, structure et spatio-temporelle praxis mince; apraxique et le développement (APX) dans latéralisation. Parmi les enfants ayant un IMC normal ou en surpoids, il n'y avait pas de différences statistiquement significatives. Nous concluons que la classification du développement psychomoteur général du groupe était profil Eupráxico, et les facteurs qui ont été les plus touchées sont la latéralisation mince et pratique.

MOTS-CLÉS: Batterie Psychomoteur. Excès de poids. Obésité.

PERFIL PSICOMOTOR DE LOS ALUMNOS EN EL NORTE DE MINAS

RESUMEN

El objetivo de este estudio fue caracterizar el desarrollo psicomotor de los estudiantes de ambos sexos, de siete años, de la escuela pública a Montes Claros. La investigación es de tipo descriptivo, el enfoque comparativo, cuantitativo y cualitativo con la sección transversal. La muestra fue de 60 niños de ambos sexos, peso normal, sobrepeso y obesidad. La selección de la muestra fue intencional para niños con sobrepeso y obesos y niños al azar de peso normal. Se utilizó una batería de psicomotricidad Vitor da Fonseca. El estudio fue aprobado por el Comité de Ética de la Universidade Estadual de Montes Claros. Los procedimientos estadísticos fueron el análisis descriptivo, media, desviación estándar y porcentajes. Se utilizó la

prueba t de Student y ANOVA y el nivel de significación fue de p ≤ 0,05. En los resultados se encontró que el total de la muestra cumple con el desarrollo Eupráxico (EPX) factores en la praxis tono, equilibrio y, en general, el desarrollo de dyspraxic (DPX) en factores: Concepto de cuerpo, estructura y espacio-temporal praxis delgada; apráxica y desarrollo (APX) en la lateralización. Entre los niños con IMC normal y sobrepeso, no hubo diferencias estadísticamente significativas. Llegamos a la conclusión de que la clasificación del desarrollo psicomotor general del grupo era el perfil Eupráxico, y los factores que se vieron más afectados fueron lateralización delgada y praxis.

PALABRAS CLAVE: Bateria Psicomotora. Sobrepeso. Obesidad.

PERFIL PSICOMOTOR EM ESCOLARES NO NORTE DE MINAS GERAIS

RESUMO

O objetivo desta pesquisa foi caracterizar o desenvolvimento psicomotor de estudantes de ambos os sexos, com idade de sete anos, provenientes de escola pública da cidade de Montes Claros. A pesquisa é descritiva e comparativa, com abordagem quanti-qualitativa de corte transversal. A amostra foi composta por 60 crianças de ambos os sexos, com peso normal, sobrepeso e obesidade. A seleção da amostra foi de forma intencional para crianças com sobrepeso e obesidade, e aleatória para crianças com peso normal. Foi utilizada a Bateria Psicomotora de Vitor da Fonseca. A pesquisa foi aprovada pelo Comitê de Ética da Universidade Estadual de Montes Claros. Os procedimentos estatísticos foram análise descritiva dos dados, média, desvio-padrão e porcentagem. Foram utilizados os testes t-student e ANOVA, com o nível de significância de p ≤ 0,05. Foi constatado nos resultados que a amostra total se encontra com desenvolvimento Eupráxico (EPX) nos fatores de tonicidade, equilíbrio e praxia global; com desenvolvimento Dispráxico (DPX) nos fatores de noção corporal, estruturação espaço-temporal e praxia fina; e desenvolvimento Apráxico (APX) na lateralização. Entre as crianças com IMC normal e com sobrepeso, não foram encontradas diferenças estatisticamente significativas. Conclui-se que a classificação do desenvolvimento psicomotor geral do grupo foi de perfil Eupráxico, sendo que os fatores que se mostraram mais afetadas foram a praxia fina e a lateralização.

PALAVRAS-CHAVE: Bateria Psicomotora. Sobrepeso. Obesidade.