143 - COMPARISON OF FITNESS INDICES BETWEEN STUDENTS IN CACERES-MT CITY

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ABSTRACT

This study aimed to compare the levels of physical fitness among students in the city of Caceres, Mato Grosso, comparing performance between students from public and private schools. For this survey was conducted including 87 students, aged 11 and 12 years, male and female, 49 students of Public School and 38 students Private School, using the tests and measures battery (GAYA , 2005), weight (body mass), Height (Height), BMI (body mass Index), Build, Abdominal, Horizontal Leap (Force Upper Extremities) Medicinebol (Strength Upper Extremities), Flexibility, Agility, Speed, Member Resistance superiors General and resistance. Also the questionnaire was used to identify the main living habits, divided into socioeconomic characterization, everyday organization, socio-cultural participation and sports practices. It was found that for most tests there was little significant difference only in the flexibility test was verified significance between the two schools, a fact explained by the great difference in the level of education of parents and the pattern of family life. The results of other tests were balanced, BMI (Body Mass Index) proved to be within the normal range for the vast majority of students. Compared to the Standards Table nationally referenced to sportspeople, between Genders, there were positive results for Strength testing of the lower limbs and resistance, and negative for flexibility.

Keywords: Physical education, physical assessment, motor performance.

1. INTRODUCTION

Caceres, a city located in southwestern Mato Grosso, with a population of 85.857 inhabitants (IBGE, 2000), is located in the Pantanal (Cáceres City Hall / 2005). But being a border town with Bolivia, it is constantly marked by drug trafficking, causing serious social problems. A constant problem is the involvement of children and adolescents with drugs, alcohol, sexual exploitation and drug trafficking itself.

To minimize and prevent such impacts, the development of physical culture movement in physical education, including sport, they are fundamental. According GUEDES & GUEDES (1997), proficiency in terms of motor fitness is an important attribute in the repertoire of motor behaviors of children and adolescents, becoming therefore essential for effective participation in sports activities. Thus, there has been considered interest worldwide for the development of studies aimed at obtaining information regarding the motor fitness levels among the members of the youth population.

Many studies are conducted in the sports area in the world, always looking for better results or an improvement in the population's quality of life. Information about the health status of significant samples are very important in the diagnosis and monitoring the development of a specific population.

And in schools, physical education is various intervention factors, whether of a social nature or human development, and this study is based on engine development principle through regular practice of Physical Education in Schools.

This study was based on two main themes, Education and Sports School Physics, seeking technical and scientific data regarding the physical fitness levels of students from public and private in the city of Cáceres-MT.

2. THEORETICAL

2.1 Conceptions and General Aspects of Physical Fitness

We began to conceptualize, from the views of the authors cited, physical fitness and their different approaches. From BÖHME cited Hebbelinck (1984):

The overall fitness refers to bio-physio-social totality of man, that is, the fact that the individual be able to all your needs from a biological point of view, psychological or social, taking it to a proper integration to their environment ; It is the result of the integration of the genetic characteristics of the environment and is directly related to the constitution, that is, the individual's phenotype.

Still, according BÖHME cited Hebbelinck (1984) psychologically stable individual is not seriously affected by worry or stress, have a realistic perception of the world and set in socially living.

Despite the development of physical fitness to be recognized as one of the main objectives to be achieved by Physical Education, BÖHME (1993) reports the meanings of words (fitness, physical):

- Fitness - s.f. quality that is fit; ability, skill, disposition; set of requirements to carry something; natural ability or acquired; - Physical - adj. What tangible, material on the laws of nature.

The combination of two words - physical fitness in etmológico the same direction, (Caldas Aulete, 1968) leads us to the concept or to an association of ideas regarding the ability, skill, material provision of driving and indicates that the individual is able bodily (BÖHME, 2005).

In the late 1960s to early '70s, there was a more modern concept of fitness that was considered a part of motor fitness, which was considered prior to this period, a component of the "general motor skills."

According BÖHME (1993) cited in Barrow and McGee (1978), the general motor capacity is defined as "the innate ability or acquired to perform motor skills of general or fundamental nature", ie it comprises all the physical qualities, namely: force , endurance and muscle power, flexibility, agility, cardiorespiratory endurance, speed, balance, and coordination.

So overall fitness encompasses toas the dimensions of the human, psychological, biological and social, which are closely intertwined. The motor fitness is included in the biological dimension and encompasses all human movement, which is part of physical fitness. Physical fitness is directly related to the physiological fitness, and consists of aspects related to health, and aspects related to the skills or sports skills (speed, agility, balance, potential, reaction time).

2.1 Quality of Life and Physical Education

When entering the school physical education, seeking to enter physical fitness and issues concerning the quality of life, such as content of the course, where the presence of sports is present in the culture of the students, it is at the same time make a prevention of the physical situation each student.

It is of great importance, bringing this content to the classroom, because in addition to being part as content of physical education classes, the school community will be aware of the benefits the practice of physical activity is good for health.

Another highlight is to evaluate physical fitness in children and adolescents, aims to know the physical qualities and compare scores in the ratings with established benchmarks (ARAUJO; OLIVEIRA, 2008). The improvement of physical fitness components enables children and adolescents to identify these components and their health benefits, seeking to encourage the development of a physically active lifestyle into adulthood (BERGMANN et al., 2005a).

In a period where the work and study usually occupy much of people's lives, making it difficult to regular exercise and lack access to adequate and safe places and to the practice of physical activities. Even with new technologies (mobile phones, tablets, etc) do (or not) people to be concerned less with activity that spend more energy.

Several researchers have shown concerns regarding the role of physical education in health promotion (GUEDES; GUEDES, 1997; 2001; MARQUES; GAYA, 1999; NAHAS; CORBIN, 1992). What is seen in the physical education is the predominance of recreational activities and games, focusing on coordinative motor skills, and showing some reluctance on the applicability of programs where the conditional motor skills (strength / muscular endurance and cardiorespiratory endurance) is requested (MARQUES ; GAYA, 1999). In this sense, Guedes and Guedes (2001), indicate that the efficiency of programs (training projects) school physical education is associated with the type of activity performed and the time that the school will be involved in physical effort that could lead to physiological adaptations favorable.

Worrying about the health and welfare of students in physical education classes is to work at the same time the dimensions of the area: conceptual, procedural and attitudinal, preserving the health and quality of life, fighting mainly sedentary in from school.

3. METHODOLOGY, RESULTS, ANALYSIS AND INTERPRETATION OF DATA

We evaluated 87 students in the city of Caceres in the age group of 11 to 12 years, male and female, 49 students of the 3rd Phase of the 2nd Cycle and Phase 1 of the 3rd Basic Education Cycle (School Cycling), the State School Senator Mario Motta, and 38 students of 5th and 6th Primary Education Series Private School Institute of Santa Maria, who attend two (02) weekly physical education classes, 45 minutes each session.

It was applied to the battery of proposed measures and tests by GAYA (2005), comparing public and private school students, the following measurements and tests related to engine performance: body mass (weight), height, stature, body mass index (BMI), flexibility, abdominal, explosive strength of upper limbs (medicineball the pitch) and lower (horizontal jump); agility (square), and speed (20 meters), strength of upper limbs and general resistance.

Although we used the questionnaire adapted by TORRES (1995), to identify the main living habits, divided into socioeconomic characterization, everyday organization, socio-cultural participation and sports practices.

The materials used for the testing were Condor scale with precision of up to 500 grams, measuring tape metric accurately up to 2mm, gym mats, digital timer Technos, medicinebol 2kg, and plastic cones.

Statistical analysis was performed using the t test for mean comparison between groups, following ZAR procedures (1996).

The characterization of the potential engine for students is initially presented through statistical comparisons between public and private schools, the battery of tests and measures (GAYA, 2005) (Table 1).

Table 1. Comparison of tests and measures battery between Public Schools and Private (GAYA, 2005).

Tests/Reviews	Public School		Private School	
	Average	± DP	Average	± DP
Stature	1,52	0,07	1,52	0,08
Weight	40,81	10,06	41,50	11,27
Body Mass Index	17,48	3,49	17,52	3,29
Wingspan	1,54	0,08	1,55	0,09
Flexibility *	3,44	6,00	- 4,31	9,03
Abdominal	25,61	6,47	27,89	6,75
Horizontal jump	1,64	0,24	1,72	0,20
Medicinebol	2,83	0,52	2,95	0,68
Agility	7,45	0,82	7,28	0,65
Speed	4,13	0,40	3,97	0,61
Resistencia of Upper Limbs	5,75	6,37	4,42	3,99
General Resistencia	1609,14	475,33	1534,42	395,25

* Significant difference between schools compared ($p < 0.05$)

We can see that students from public school, have higher average weight (body mass), BMI, Build, Abdominal, Horizontal Leap (Force Upper Extremities) medicinebol (Superior Force members). The private school has a higher average Flexibility, Agility, Speed, of Upper Limb Strength and General Endurance. Being equal to the extent of stature. There is only one significant difference in the flexibility test, with $p < 0.05$. This may be related to the socio-economic issue, because analyzing the results of the questionnaire, it was noticed that the level of parental education and economic standard of living justify this difference. For students have DVD players, computer, car, video game, providing a higher sitting or lying down time, increasing sedentary lifestyles, reducing their physical activity.

Regarding the comparison with the results of Table PROESP-BR and (GAYA, 2005), at national level, positive results has been the Horizontal Leap (Force Upper Limbs) and resistance (9 minutes of running), the results were good and very good, respectively. A plausible explanation for this is the great practice for both sexes in Escolinhas football and futsal teams, and culture of use of bicycles by Cacerense population and among students, which strengthens the power of the lower limbs and increases resistance. This can be explained by the number of bicycles, for 93.10% of students ie of 87 students, 81 students have; with 100% of private school, and 83.67% of public schools have bike.

On the performance of students in Cáceres-MT, compared to the national standard the results are unsatisfactory and worrying, as Table 2, even though physical education students compared with the Standards Table for referenced physical fitness sports provision, where competition and training goals are more evident.

Table 2. Evaluation of Test Battery and Measures (GAYA, 2005) between Gêneros1 of Public Schools and Private Cáceres-MT, using as reference the national table Proesp2 standards.

Tests/Reviews	Public School		Private School	
	Male	Female	Male	Female
Flexibility	Below Weak	Very Weak	Below Very Weak	Below Very Weak
Abdominal	Weak	Reasonable	Weak	Reasonable
Horizontal Jump	Very Good	Very Good	Very Good	Very Good
Medicinebol	Reasonable	Good	Good	Good
Agility	Reasonable	Very Weak	Weak	Weak
Speed	Weak	Weak	Very Weak	Reasonable
Resistencia of Upper Limbs	Reasonable	Weak	Weak	Weak
General Resistencia	Very Good	Good	Good	Good

1 - To evaluate the average gender for public and private school was used.
2 - Table available on the website of Project Sport Brazil (GAYA, 2005).

4. DISCUSSION AND CONCLUSIONS

A Educação Física tornou-se, nas duas últimas décadas, um veículo de difusão do esporte, sendo muitas vezes este termo confundido ou utilizado como sinônimo de educação física. Na Escola isto não é diferente, vários estudos demonstram uma associação entre Educação Física Escolar e o Esporte, embora por si só o esporte não possa ser considerado como “educativo” (CAVIGLIOLI, 1976; KUNS, 1991; BETTI, 1991; LOVISOLO, 1995; BRACHT, 1986)

A promoção da atividade ou exercício físico é uma necessidade básica para todos, principalmente em crianças e adolescentes , pois é nessa fase da vida que os benefícios da prática poderão atuar contra esses fatores.

Com base nos resultados encontrados em estudantes do município de Cáceres, Mato Grosso, na faixa etária de 11 e 12 anos, houve uma diferença estatística entre as Escolas no teste de flexibilidade. Na comparação com a tabela referenciada da Tabela Proesp Brasil (GAYA, 2005), foi constatado apenas em dois testes, Salto Horizontal (Força de Membros Inferiores) e Resistência, um resultado positivo. Nos outros testes, houve uma inferioridade significativa e preocupante, conforme Garganta (2004):

Physical education has become in the last two decades, a broadcast vehicle sport, often this term confused or used as a synonym for physical education. In school it is no different, several studies have shown an association between School Physical Education and Sport, although by itself the sport can not be considered "educational" (CAVIGLIOLI, 1976; kuns, 1991; BETTI, 1991; LOVISOLO 1995 ; BRACHT 1986)

The promotion of the activity or exercise is a basic necessity for everyone, especially in children and adolescents as it is in this stage of life that the benefits of the practice may act against these factors.

Based on the results found in students in the city of Caceres, Mato Grosso, aged 11 and 12 years, there was a statistical difference between the schools in the flexibility test. Compared to the referenced table Table PROESP Brazil (GAYA, 2005), it was found only in two tests, Horizontal Salto (of Lower Limbs Strength) and resistance, a positive result. In other tests, there was a significant concern and inferiority as Garganta (2004):

"Gone are the days when children and young people have the time and enough spaces for the practice of spontaneous leisure activities. Today, the pouring amount of materials and teaching hours that the school imposes increasingly associated with the rampant urban growth, evade, increasingly, the right to the enjoyment of these activities and announces its disappearance”

And because the number of physical education classes come gradually diminishing in school units, loses its physiological effect on improving physical fitness.

Specifically in relation to BMI results go according to suggesting the WHO (World Health Organization), that environmental characteristics and ethnic formation of the studied populations can lead to very different values, yet studies indicate a good relationship of BMI with the parameters referenced the health of schoolchildren. I believe that studies and research systematically in the search for Brazilian standards for the evaluation of our school can contribute to the institutions involved in improving the quality of life of our children and adolescents.

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COMPARISON OF FITNESS INDICES BETWEEN STUDENTS IN CACERES-MT CITY

ABSTRACT

This study aimed to compare the levels of physical fitness among students in the city of Caceres, Mato Grosso, comparing performance between students from public and private schools. For this survey was conducted including 87 students, aged 11 and 12 years, male and female, 49 students of Public School and 38 students Private School, using the tests and measures battery (GAYA , 2005), weight (body mass), Height (Height), BMI (body mass Index), Build, Abdominal, Horizontal Leap (Force Upper Extremities) Medicinebol (Strength Upper Extremities), Flexibility, Agility, Speed, Member Resistance superiors General and resistance. Also the questionnaire was used to identify the main living habits, divided into socioeconomic characterization, everyday organization, socio-cultural participation and sports practices. It was found that for most tests there was little significant difference only in the flexibility test was verified significance between the two schools, a fact explained by the great difference in the level of education of parents and the pattern of family life. The results of other tests were balanced, BMI (Body Mass Index) proved to be within the normal range for the vast majority of students. Compared to the Standards Table nationally referenced to sportspeople, between Genders, there were positive results for Strength testing of the lower limbs and resistance, and negative for flexibility. Keywords: Physical education, physical assessment, motor performance.

COMPARAISON DE FITNESS INDICES ENTRE LES ÉTUDIANTS EN CACERES-MT CITY

RÉSUMÉ

Cette étude visait à comparer les niveaux de condition physique chez les étudiants dans la ville de Caceres, Mato Grosso, comparer les performances entre les élèves des écoles publiques et privées. Pour cette enquête a été menée dont 87 étudiants, âgés de 11 et 12 ans, hommes et femmes, 49 élèves de l'école publique et 38 élèves de l'école privée, en utilisant les tests et mesures batterie (GAYA , 2005), le poids (masse corporelle), Hauteur (Height), l'IMC (indice de masse corporelle), Construire, abdominale, Horizontal Leap (force Supérieure Extremities) medicinebol (force Upper Extremities), Flexibilité, Agilité, Vitesse, Résistance membre supérieurs généraux et de la résistance. De plus, le questionnaire a été utilisé pour identifier les principales habitudes de vie, divisés en caractérisation socio-économique, l'organisation quotidienne, les pratiques de participation et de sport socio-culturelles. Il a été constaté que, pour la plupart des tests il y avait peu de différence significative que dans le test de flexibilité a été vérifiée signification entre les deux écoles, un fait expliqué par la grande différence dans le niveau d'éducation des parents et le mode de vie de la famille. Les résultats d'autres tests ont été équilibrés, l'IMC (indice de masse corporelle) est avérée dans la fourchette normale pour la grande majorité des étudiants. Par rapport à la table des normes nationales référencées aux sportifs, entre Genders, il y avait des résultats positifs pour les tests de résistance des membres inférieurs et de la résistance, et négative pour la flexibilité.

Mots-clés: éducation physique, évaluation physique, les performances du moteur.

COMPARACIÓN DE APTITUD ÍNDICES ENTRE ESTUDIANTES EN LA CIUDAD CACERES-MT

RESUMEN

Este estudio tuvo como objetivo comparar los niveles de aptitud física entre los estudiantes en la ciudad de Cáceres, Mato Grosso, la comparación de rendimiento entre los estudiantes de escuelas públicas y privadas. Para esta encuesta se llevó a cabo incluyendo 87 estudiantes, con edades entre 11 y 12 años, hombres y mujeres, 49 estudiantes de la escuela pública y 38 estudiantes de la escuela privada, el uso de la batería pruebas y medidas (GAYA , 2005), el peso (masa corporal), Altura (Altura), IMC (Índice de masa corporal), urbanizado, abdominal, salto horizontal (Fuerza extremidades superiores) medicinebol (Fuerza extremidades superiores), flexibilidad, agilidad, velocidad, resistencia miembro superiores generales y la resistencia. También se utilizó el cuestionario para identificar los principales hábitos de vida, divididos en caracterización socioeconómica, organización cotidiana, socio-culturales y deportivas de participación prácticas. Se encontró que para la mayoría de las pruebas hubo poca diferencia significativa sólo en el ensayo de flexibilidad se verificó importancia entre las dos escuelas, un hecho se explica por la gran diferencia en el nivel de educación de los padres y el patrón de la vida familiar. Los resultados de otras pruebas fueron equilibrados, el IMC (Índice de Masa Corporal) resultó estar dentro del rango normal para la gran mayoría de los estudiantes. En comparación con la tabla de normas de referencia a nivel nacional para los deportistas, entre los géneros, los resultados fueron positivos para la prueba de fuerza de las extremidades inferiores y la resistencia, y negativo para la flexibilidad.

Palabras clave: educación física, la evaluación física, el rendimiento del motor.

COMPARAÇÃO DE ÍNDICES DE APTIDÃO FÍSICA ENTRE ESTUDANTES NA CIDADE DE CÁCERES-MT

RESUMO

Este estudo teve como objetivo, comparar os índices de aptidão física entre estudantes do município de Cáceres, Mato Grosso, comparando-se o desempenho entre alunos de escolas pública e privada. Para isso, foi realizada pesquisa incluindo 87 estudantes, na faixa etária de 11 e 12 anos, do sexo masculino e feminino, sendo 49 alunos de Escola Pública, e 38 alunos de Escola Privada, utilizando-se a Bateria de Testes e Medidas (GAYA, 2005), Peso (massa corporal), Estatura (Altura), IMC (Índice de Massa Corporal), Envergadura, Abdominal, Salto Horizontal (Força Membros Superiores) Medicinebol (Força Membros Superiores), Flexibilidade, Agilidade, Velocidade, Resistência de Membros Superiores, e Resistência Geral. Também foi utilizado o questionário para identificar os principais hábitos de vida, divididos em caracterização sócio-econômica, organização do cotidiano, participação sócio-cultural e práticas esportivas. Foi verificado que para a maioria dos testes houve pouca diferença significativa, apenas no teste de flexibilidade foi verificada significância entre as duas escolas, fato justificado pela grande diferença do grau de escolaridade dos pais e o padrão de vida familiar. Os resultados dos outros testes foram equilibrados, o IMC (Índice de Massa Corporal) mostrou-se dentro da normalidade para a grande maioria dos estudantes. Comparando com a Tabela de Normas a nível nacional, referenciada para esportistas, entre Gêneros, houve resultados positivos para os testes de Força de Membros Inferiores e Resistência, e negativos para a flexibilidade.

Palavras-Chave: Educação física escolar, avaliação física, desempenho motor.