INTRODUCTION

Information about variables that looks for to evidence growth characteristics, body composition, physical fitness and its interactions could consist, as know, in important pointers of the levels of health in a young population. According to Guedes (1997), the concern in preventing and promote the health of children and adolescents is the main stimulation to the whole world researchers that develop studies in this area.

With measures as height and total body mass you can classify the normality standard about growth and chronological ages of children and adolescents.

The physical fitness of children and adolescents is an increasing concern between health specialists. This interest is justified because the physical activity can to prevent, conserve and increase the functional capacity, anyway, in the young health (OKANO, 2001).

It has been observed a little vantage, for male children, in the physical fitness, especially in the second infancy (6 to 12 ages). In this period the boys present a better physical fitness, mainly in activities that demand muscle potency. However, the girls present a better performance in the balance and flexibility activities.

Although exists the biological factor in relation to the sexual dimorphism in the motor tasks, it doesn’t have as not to disrespect the influences of enviroment factors, and mainly social and economical (MANOEL, 2001).

The number of studies that search to obtain relative informations to indices of physical fitness between the young population has grown quickly. Despite this, still there is a great difficulty in the interpretation of the information produced by related studies to the evaluation of the physical fitness of children and adolescents.

MATERIALS AND METHODS

Sample: Participated of these study 103 male students with age between 10 and 15 years, 47 students of public schools (12.45±1.50 years) and 56 (12.55±1.09 years) of private schools from Rio de Janeiro. In this sample they had been used adolescents without any fiscal problem that they hindered to carry through the motor tests and whose the parents signed the term of consent freedom and evident.

Anthropometric evaluation: The anthropometric measures were estimated by the anthropometric method indicated by ISAK - International Society for Advancement in Kinanthropometry (NORTON & OLDS, 2000). Were obtained height (stadiometer, 1cm) and total body mass (TBM, electronic balance SHOENLE, 50g).

Physical fitness testing: The following tests were applied: flamingo balance (total body balance), tapping test of arms (velocity of arms), sit and reach (standing), arm hang (explosive force), hand grip test (force), abdominal test (trunk muscle force), bent arm hang (force), velocity shuttle run (velocity and agility) and endurance shuttle run (cardio respiratory endurance), according to Committee for the development of sport of the council of Europe (Eurofit, cited by Marinas & Giannichi, 1996).

Social and economical levels: The social and economical levels were determinated according to their school: public school (low level) and private (high level). These schools were localizated in north and south zone of the city of Rio de Janeiro.

Statistics Analysis: The data were presented as average and standard deviation. For the statistics analysis was realized the Excel (2003) adopting the t-Student test non-pareated for the comparisons between groups (p = 0.05).

Ethical aspects: This study was approved by the Committee of Ethics of University Hospital Clementino Fraga Filho (UFRJ), according determination of National Committee of Health n° 196/96. Before the application of the tests, the students were informed about the protocols, being able to leave the evaluation at any time. The data were analyzed without identification, to preserve the students’ identify.

RESULTS

Analyzing the students’ anthropometrics characteristics (Table 1), was observed that the groups do not differ for the variables: chronological age, total body mass and height measures (without significantly differences for the average values), pointing for a similar physical development between the analyzed groups.

About physical fitness tests (Table 2), significantly differences were found only for the seat and reach test (p=0.02) and the reply time test (ruler) (p=0.02).
The joined results indicates high values for flexibility and speed of time of reply for boys of the private school.

DISCUSSION

The results found in this study, with relation to the anthropometrics characteristics (chronological age, total body mass and height), point to a similar physical development as soon for boys of the public school, as the private school.

The reaction time, that had significantly results to the boys of the private, it can be appraised as the time between the stimulation and the beginning of the reply (MARINS & GIANNICHI, 2003). It is important to say that is a variable influenced for some factors: the involved sensorial agency, intensity of the stimulation, general muscular tension, motivation etc. Although to be a factor considered innate, the reaction time can be trained (JOHNSON & NELSON, 1989). With this, can be considered the use of bent arm hang to an excellent parameter, despite the scarcity of works published about this subject.

The results of this study, related to the test that analyzed this physical valence was significantly favorable to the boys who studied in the private school (high social and economical level).

Corroborating, thus, with the study of Negrão (2000) in which it was observed that the students of the private school were 215% better in relation to the public school children. That is not confirmed in the study of Bragada (1995), where the Portuguese girls of the agricultural way reveal high values without significantly differences compared with the girls of the urban zone.

CONCLUSIONS

The adolescents of private schools, of this study, presented only high reach (flexibility of the hip, back and posterior muscles of the inferior members) and better time of reply to the visual stimulation of that the adolescents of the public school. The social and economical level didn’t promote evident morphologic differences between the groups.

REFERENCES


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PHYSICAL FITNESS OF STUDENTS OF DIFFERENT SOCIAL AND ECONOMIC LEVEL FROM RIO DE JANEIRO

ABSTRACT

The aim of this study was analyze the physical fitness of the male students of public (PuS) and private (PrS) school from Rio de Janeiro. The social and economical level were determined according to their school: public school (low level) and private (high level). Participated of these study 103 male students with age between 10 and 15 years, 47 students of public schools (12.45 1.50 years) and 56 (12.55 1.09 years) of private schools from Rio de Janeiro. Were obtained the height and total body mass to characterize the sample and the motor tests had been used to analyze the physical fitness (Eurofit): flanmigo balance, tapping test of...
CAPACIDAD FÍSICA DE ESTUDIANTES CON DIVERSO NIVEL SOCIAL Y ECONÓMICO, HABITANTES EN RÍO DE JANEIRO

RESUMEN:
El objetivo de este estudio fue analizar la capacidad física del estudiante registrado en escuelas privadas y públicas de la ciudad de Río de Janeiro. El nivel social y económico de los estudiantes fue determinado por la característica de la escuela (públicas=baño y privadas=alto). Material y Métodos: analizaban a 56 muchachos de escuela privada (12,55 años ±1,09) y a 47 estudiantes de las escuelas públicas (12,45 años ±1,50). El total de la masa y de la estatura del cuerpo fue medido para caracterizar físicamente la muestra. El estándar de Eurofit fue usado para evaluar la capacidad física. Abdominal; preençao manual (dynamometry); resistencia y capacidad del velocidad (Shuttle run); flexibilidad (prueba del alcance); balance (prueba del Flamenco); tiempo a la respuesta visual (prueba de la regla); velocidad del brazo (prueba que golpea ligeramente); resistencia del brazo (sustentación en la barra) y energía de las piernas (salto horizontal). El análisis estadístico fue hecho en el Excel 2003 (Microsoft) y el t-Student test fue adoptado para la comparación entre los grupos (p=0,5). Resultados: No había significación estadística para la edad, masa del cuerpo y estatura. Los grupos de los estudiantes parecen estar en el mismo nivel del desarrollo físico. La significación estadística fue observada solamente en la flexibilidad física (p=0,02) y para el tiempo a la respuesta visual (p=0,02), con los resultados favorables a los estudiantes de la escuela privada. Conclusion: Se concluye que los estudiantes de la escuela privada, habían presentado solamente mayor flexibilidad y una más rápida contestación a un estímulo visual que los estudiantes de la escuela pública. No hay evidencias que el nivel social y económico promovió diferencias de capacidad física entre los estudiantes.

PALABRAS CLAVES: Adolescentes, capacidad física y nivel social y económico.

CAPACIDADE FÍSICA DE ESCOLARES DE DIFERENTES NÍVEIS SÓCIO-ECONÔMICOS DO MUNICÍPIO DO RIO JANEIRO

RESUMO:
O objetivo deste estudo foi analizar a capacidade física de escolares do sexo masculino das redes de ensino pública (Epu) e particular (Epar), em algumas regiões do município do Rio de Janeiro. O nível sócio-econômico dos alunos foi determinado de acordo como a característica da escola (pública ou particular). Foram analisados 103 escolares, sendo 56 meninos da Epar (12,55 ± 1,09 anos) e 47 da Epu (12,45 ± 1,50 anos). Foram mensuradas a massa corporal total e a estatura a fim de caracterizar a amostra. Foram utilizados testes motores que analisaram a capacidade física (segundo o padrão Eurofit): força abdominal; preensão manual; shuttle run endurance; shuttle run; sentar e alcançar; equilíbrio do flamingo; teste da régua; tapping test; suspensão na barra e impulso horizontal. A análise estatística foi realizada no programa Excel (Microsoft, 2003) e o teste t-Student não pareado foi empregado na comparação entre os grupos (p 0,05). Os resultados encontrados não apresentaram significância estatística para as variáveis: idade, massa corporal total e estatura (apontando um desenvolvimento físico semelhante entre os grupos). Em relação aos testes motores foram encontradas diferenças estatisticamente significantes apenas para o teste de sentar e alcançar (p=0,02) e o teste da régua (p=0,02), ambos com valores favoráveis ao grupo da Epar. Conclui-se que os alunos das Epar apresentam maior flexibilidade do quadril, dorso e músculos posteriores dos membros inferiores e melhor tempo de resposta, comparados aos alunos da Epu. Desta forma constata-se que a condição sócio-econômica promoveu diferenças morfofuncionais evidentes apenas para estas duas capacidades físicas.

PALAVRAS-CHAVES: adolescentes, capacidade física e nível sócio-econômico.