

## 148 - LEVEL OF PHYSICAL FITNESS AND PERFORMANCE ENGINE TEENS FROM THE PERIPHERY MOSSORO – RN

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### INTRODUCTION

Social vulnerability and socioeconomic factors affecting the intellectual and motor development of children of all local acting broadly in children residing in slums and peripheries. One of consensus on the concept of social vulnerability is that this presents a multifaceted character, covering various dimensions, from which it is possible to identify situations of vulnerability of individuals, families or communities. (Cunha et al. 2001). Therefore, we are faced with the realities existing in this context where social inequalities influence the quality of life by slowing the growth potential of this population is in education, health, infrastructure, among others, a worrying delay in bringing education in healthy habits and the integral development of persons.

The intellectual and motor development are dependent variables, weighted by several aspects they are affective, motor, social, cultural and economic. Notes is thus that the "child development is particularly linked to the playful, to play, since the latter is presented as the child's own language, serving her as a gateway to culture and its assimilation in a dialectical movement characteristic the process of growth, maturation and development" (Martins, 2010, p14).

In communities, these issues become more apparent that affect the quality of life of its residents. In the educational process is not unlike the difficulties hinder the actions designed for children and adolescents. Among these actions, one is linked to physical activity through classes in Physical Education, which aims to develop and enter the body practices aimed at health promotion, as well as improving the level of physical fitness and motor performance.

Physical fitness can be defined as the "ability that each individual has to perform physical activities and may be attributable to genetic factors, health status, nutrition levels, and especially the practice of regular physical activity." (Pereira et al., 2011, p 222).

Children and adolescents with physical fitness levels of excellence have good performances in motor activities, exposing the relationship of proportion with one another, ie, the higher the fitness level of the individual ease into its full development engine. As physical fitness and motor skills are heavily "influenced by environmental factors, in addition to biological factors, it is necessary to have information how is the state of physical fitness and motor performance of children and adolescents in various regions of the world" . (Pereira et al, 2011, p 224).

According Alano et al. (2011) because of the difficulties in learning are related to motor deficits, as studies have shown above, and considering that children with motor deficits are less engaged in physical activity is possible that these children exhibit levels poor physical fitness, and that the variables of motor development may be related to the components of physical fitness, since the motor proficiency is a determining factor for physical activity.

Motor performance in children and adolescents has significance as the cognitive and physical fitness, however, happens when the motor development are provided experiences that objectify their potential with the intended purpose aspects of motor, affective and social as well as health thereof.

Therefore, the aim of this study was to analyze the levels of physical fitness and motor performance in children and adolescents from the outskirts of Mossoró - RN.

### MATERIAL AND METHOD

This was a descriptive study was conducted at SESC Social Project Citizen, located in Favela Wire, one of the poorest suburbs of Mossoró. The selection of students was done in a non-probabilistic, and the sample consists of 49 students with 37 males and 12 females aged 10 to 13 years. Were not included in the study that the school: a) had medical contraindication for physical exercises, b) did not obtain permission from parents or guardian to perform the evaluations and c) had neurologic or musculoskeletal problems, d) did not attend the class on the day of evaluations. For the assessment of nutritional status used the body mass index (BMI) by calculating the formula: (weight / height <sup>2</sup>). To determine BMI, height was measured by stadiometer To evaluate the agility test used the square and flexibility test using the Wells Bench, comprising the protocol PROESP (2009). SANNY brand, while body mass was measured on a digital scale portable brand SANNY. Also we applied the test of motor coordination proposed by Burpee. In all measurements, the subjects performed two trials, recording the highest value. To check the normality of the results we used the Shapiro-Wilk test. To compare the dependent variables with age and sex, which are independent variables, we used one-way ANOVA All data were analyzed at a significance level of 5% (p <0.05) and statistical analysis was carried out using the statistical package SPSS 16.0.

### RESULTS AND DISCUSSION

Table 1 shows that, when analyzing the results for the level of coordination, agility and flexibility visualize that there was no scattering, but the male got better results when compared to females. However, we find no significant difference between the two groups.

Table 1 - Analysis of data according to sex.

Variable	Male	Female
Coordination	3,11±1,08	2,25±0,75
Agility	7,2±0,43	7,47±0,35
Flexibility	28,66±5,27	26,75±7,15

p<0,05

The fact that males have obtained better results on tests of coordination, agility and flexibility, can possibly be related to physical activity where the male usually has more grip, acquiring healthy habits enabling better motor development as well as a level regular physical fitness.

Borges (2008) suggests that physical activity is one of the most important prerequisites for healthy growth and development of children and adolescents, but also for the establishment of an active lifestyle during adulthood, mainly assisting in acquiring a good functional capacity.

According to the data presented in Table 2, we find no significant differences related to the results of tests run at different ages. However, the 12-year group achieved better results in executions in all tests, but compared to the other showed no significant difference.

Table 2. Data distribution according to age.

Variable	10 years	11 years	12 years	13 years
Coordination	2,88± 1,19	2,50±0,85	3,38± 0,74	3,33± 1,53
Agility	7,22± 0,37	7,48± 0,41	7,03± 0,55	7,36± 0,35
Flexibility	27,0± 5,96	26,64±4,72	32,88±5,54	31,67± 2,52

$p \leq 0,05$

Probably the homogeneity of the test results presented can be associated with the fact that the group researched exhibit similar characteristics, beyond this assumption another factor to be considered is that at this age they are not at the stage of growth spurt, with no interference in the execution of tests.

### CONCLUSIONS

The results show that no significant differences were found regarding physical fitness and motor performance, when groups of both sexes and different age groups.

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RN

#### ABSTRACT

Physical fitness and motor performance variables are influenced by several factors. In children and adolescents, physical activity promotes the full development of these variables. The aim of this descriptive study was to analyze the levels of physical fitness and motor performance of 49 students (Male = 37, Women = 12), aged 10 to 13 years, participants SESC Social Project Citizen, located in Favela Wire, a of the poorest suburbs of Mossoró. - RN. As collection instrument used a portable digital scale and stadiometer brand SANNYPara assessment of nutritional status is used  $\rightarrow$  mass index (BMI). To evaluate the agility (Test Square) and flexibility test (bank Wells) was used protocol PROESP (2009). also, a test proposed by motor coordination. The results show that there were significant differences in physical fitness and motor performance, when groups of both sexes and different age groups.

**KEY WORDS:** physical fitness, motor performance, school

#### RÉSUMÉ

Le conditionnement physique et la performance moteur sont variables influencées par plusieurs facteurs. Chez les enfants et les adolescents, l'activité physique favorise le plein épanouissement de ces variables. Le but de cette étude descriptive était d'analyser les niveaux de condition physique et les performances du moteur de 49 étudiants (Homme = 37, femmes = 12), âgés de 10 à 13 ans, les participants do Projet social SESC citoyens, situé dans Favela du Fil, l'un des les plus pauvres » les banlieues de Mossoró. - RN. Comme instrument de collecte utilisé une échelle numérique portable et stadiomètre marque SANNYPara évaluation de l'état nutritionnel est utilisé  $\rightarrow$  indice de masse corporelle (IMC). Afin d'évaluer l'agilité (Test Square) et test de souplesse (banque Wells) a été utilisé protocole PROESP (2009). par ailleurs, un test proposé par la coordination motrice. Les résultats montrent qu'il existe des différences significatives dans la forme physique et les performances du moteur, lorsque les groupes des deux sexes et les groupes d'âge différents.

**MOTS CLÉS:** conditionnement physique, performance moteur, étudiants.

#### RESUMEN

La aptitud física y el rendimiento motor están variables influidos por varios factores. En niños y adolescentes, la actividad física promueve el desarrollo integral de estas variables. El objetivo de este estudio descriptivo fue analizar los niveles de aptitud física y el rendimiento del motor de 49 estudiantes (hombres = 37, mujeres = 12), con edades entre 10 a 13 años, participantes do Proyecto Social SESC Ciudadana, que se encuentra en Favela del Hilo, uno de los's más pobres suburbios de

Mossoró - RN. Como instrumento de recolección utilizado una báscula digital portátil y tallímetro marca SANNY. Para evaluación del estado nutricional se utiliza el índice de masa corporal (IMC). Evaluar la agilidad (Test del plaza) y la prueba de flexibilidad (banco Wells) se utilizó protocolo PROESP (2009). Además, una prueba propuesta por la coordinación motora. Los resultados muestran que no hay diferencias significativas en la aptitud física y el rendimiento motor, cuando comparado los grupos de ambos sexos y diferentes grupos de edad.

**PALABRAS CLAVE:** aptitud física, rendimiento motor, estudiantes.

#### **NÍVEL DE APTIDÃO FÍSICA E DESEMPENHO MOTOR DE CRIANÇAS E ADOLESCENTES DA PERIFERIA DE MOSSORO – RN**

##### **RESUMO**

A aptidão física e o desempenho motor são variáveis influenciadas por diversos fatores. Em crianças e adolescentes, a prática de atividades físicas propicia o desenvolvimento pleno destas variáveis. O objetivo deste estudo descritivo foi analisar os níveis de aptidão física e desempenho motor de 49 escolares (Masc=37, Fem= 12), com idades entre 10 a 13 anos, participantes do Projeto Social SESC Cidadão, localizado na Favela do Fio, uma das mais carentes da periferia de Mossoró. – RN. Como instrumento de coleta utilizou-se uma balança digital portátil e o estadiômetro da marca SANNY. Para a avaliação do estado nutricional utilizou-se o índice de massa corporal (IMC). Para avaliar a agilidade (Teste do quadrado) e o teste de flexibilidade (banco de Wells) foi utilizado o protocolo do PROESP (2009). Foi utilizado também um teste de coordenação motora proposto por . Os resultados apontam que não foram encontradas diferenças significativas quanto a aptidão física e desempenho motor, quando comparados os grupos de ambos os sexos e diferentes faixas etárias.

**PALAVRAS CHAVES:** aptidão física, desempenho motor, escolares.