

## 146 - THE PHYSICAL FITNESS OF SCHOOLCHILDREN OF THE PRIMARY EDUCATION IN MOSSORO/RN CITY

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### INTRODUCTION

Health is a multiple function of aspects related to human behavior, which refers to the physical, mental and social wellbeing, and not merely to the absence of infections and diseases. (GUEDES; GUEDES, 1995 APUD MACEDO et al, 2012).

The relationship between health and physical fitness, refers to energy demands that aims to enable the development of daily activities with more vigor that provides a lower risk of developing degenerative problems. (PEREIRA, 2011).

Physical fitness is the ability to perform a muscular work in a pleasurable way, covering strength, muscular endurance, flexibility, body composition and cardiorespiratory capacity. (BURGOS, et al, 2012).

The physical fitness improvement enables children and adolescents to adopt an active lifestyle during or after the school years, enabling the maintenance of a status of physical fitness from the beginning till the end of life. (ARAÚJO; OLIVEIRA, 2008).

The human is becoming increasingly less dependent on their physical abilities to survive, since modern times reduced the labor and daily activities of physical predominance (ARAÚJO; OLIVEIRA, 2008).

While on the one hand the technological resources increase productivity of consumer goods on the other have contributed negatively to physical fitness levels. Therefore, the aim of this descriptive study was to evaluate the physical fitness and motor skills of the primary school students in the city of Mossoró/ RN.

### MATERIAL AND METHODS

This descriptive study was conducted with a sample group consisted of 50 children of both sexes, aged 09-11 years enrolled in the 4th and 5th year of the primary School of SESC, in the town of Mossoró-RN. Were used as an evaluation tool, the motor tests (flexibility, agility, abdominal strength and speed) of the PROESP and, to check the body weight and height was used a digital anthropometric scale brand Welmy and, a Sanny stadiometer, with these measures was obtained the Body Mass Index (BMI). All tests were compared with the reference data of PROESP. For statistical analysis was used the SPSS software version 20.0 Portuguese, the normality of the data was checked with the Shapiro Wilk test, with a confidence level of  $p > 0,05$ . For nonparametric variables was used the Man Whitney test. During the application of the instruments, was protected the privacy and anonymity of the participants in the results presentation, ensuring ethical precepts advocated by the Resolution 446/12-CNS. It was also guaranteed clarification before and after of the research, the free participation and the participant's right to withdraw from the research at any time.

### RESULTS AND DISCUSSION

The table 01 presents the frequency of the sample composed of 50 children.

Table 01 – Stratification of the sample by age and sex.

Age (years)	Male		Female	
	n	fr(%)	n	fr(%)
9	3	11,1	6	26,1
10	16	59,3	12	52,2
11	8	29,6	5	21,7
Total	27	100	23	100

n = absolute number of participants; fr = relative frequency.

In respect to the data on the table 01 in relationship to age and sex there are a large number of participants and relative frequency in the age group of 10 years for both sexes: 59.3% boys and 52.2% girls, 10 years old.

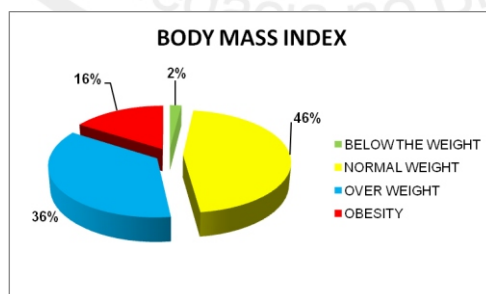
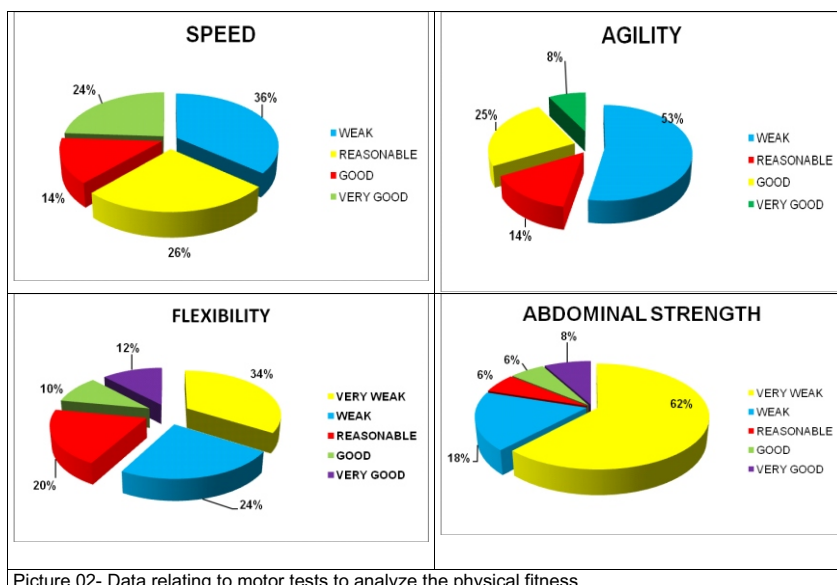


Gráfico 01- Dados referentes ao Índice de Massa Corporal de escolares

When we analyzing the body mass index of students in Figure 01, it was found that 46% of the students have a of normal weight, 36% overweight, 16% were obese and 2% underweight. the Mayer study, Weber (2013) about the body mass index of adolescents, shows similar results, the index pointed that 73% of students were normal weight, 13% overweight, 5% obese and 9% were underweight. Burgos (2012) when analyzing the body mass index found that 71.3% of schoolchildren were classified as normal weight, but is important the percentage of classes that presented overweight and obesity combined, amount to 26.8%, not having underweight children. Despite the students present a normal body mass index, there is a concern for individuals who are overweight, obese and underweight, evidenced by the sedentary that is an ally of the obesity. The trend is to show children and teenagers habits and healthy lifestyle that may benefiting them from childhood to adult life.



The picture 2 shows the tests for analysis of the physical fitness. On the speed, 24% presented a great level, 14% were good, 26% modest and 36% had a poor performance. Looking at the data for agility was detected that 8% had a great level, 25% good, 14% modest and 53% poor, demonstrating that for these two skills, the sample group shows a poor result. Regarding to flexibility was found that 34% of the students showed a very weak level, and 12% presented a poor level. In abdominal strength, 62% of the group showed a poor level and only 8% got a great result in the practice. With similar results of this study, Burgos et al (2012), shows that for the flexibility test the results were unsatisfactory, since 69.9% of students in the classes had their performance classified as "very weak", "weak" and "reasonable". The same study on the aspect of abdominal strength presented contradicted results because most children and adolescents evaluated, presented results from "reasonable" to "good", totaling 49.7% of the students. As to the motor tests to analyze physical fitness there is a clear evidence of weak rates in all tests, presenting problems and dissatisfaction in the physical fitness of the students, what points that they need adherence to physical activities and healthy habits.

Table 02 - Data of the motor tests for SESC students .

Variables	Sex	Average	Standard Deviation	Minimum	Maximum
BMI	M	19,96*	3,8	12	28
	F	19,26*	5,1	13	32
Flexibility	M	22,44*	4,3	17	30
	F	24,04*	7,58	11	40
Agility	M	7,35*	1,05	5,66	9,5
	F	7,55*	0,7	5,84	8,39
Speed	M	4,01*	0,47	3,07	5,19
	F	4,38	0,39	3,36	5,02
Abdominal	M	23,04*	9,31	0	46
	F	25,14*	7,42	14	42

\*p>0,05 Abreviations: M- Male F- Female

The table 02 concerning to the battery of motor tests, shows the average of the variables related to sex, where girls presented better results in the test of flexibility and abdominal, since the boys were better in variables speed and agility. For the variable BMI both sexes had an average that fits in the normal pattern according to PROESP, however the girls had an average lower than boys. With similar results in the study of Burgos (2012), there were differences in physical fitness related to gender (gender indicates both sexes). In addition to the physiological and anatomical changes that occur as a result of the hormonal discharges that increases with the puberty, this may also be attributed to the practice of physical activity, which declines from childhood to adolescence. Luguetti, Ré, Bohme (2010) also presented, in their physical fitness studies, significant differences between the sexes at all ages.

**CONCLUSION**

After analyzing the results could be concluded that most of students showed satisfactory results regarding body mass index. Regarding to physical fitness it was seen that the majority of students is evaluated at "very low" level and "weak". It is recommended that well beyond the planning of physical education classes in school, the students should adopt healthy practices in their daily life aiming to improve the quality of life.

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### THE PHYSICAL FITNESS OF SCHOOLCHILDREN OF THE PRIMARY EDUCATION IN MOSSORO/RN CITY ABSTRACT

Summary: Physical fitness is the ability to perform muscular work in a pleasurable way, encompassing strength, muscular endurance, flexibility, body composition and cardio respiratory fitness. The purpose of this descriptive study was to evaluate the physical fitness of 50 children of both sexes aged 9-11 years enrolled in the 4th and 5th year of elementary school SESC City Mossley / RN. As an evaluation tool, the motor tests (flexibility, agility, abdominal strength and speed) and PROESP to check the weight and height was used anthropometric scale digital brand Welmy and Sanny stadiometer, with these measures was obtained Index Body Mass Index (BMI). All tests were compared with the reference data of PROESP. For statistical analysis we used the SPSS software version 20.0 Portuguese, the normality of the data was checked with the Shapiro Wilk test, with a confidence level of  $p > 0.05$ . For nonparametric variables used - the Man Whitney test. The analyzed data allow us to conclude that most of the students showed a satisfactory result considering the body mass index regarding fitness concluded that the majority of students is evaluated at very low level and weak. It is recommended that well beyond the planning of physical education classes in school and practice, students should adopt healthy behaviors in their day - to-day efforts to improve the quality of life.

**KEYWORDS:** Physical Fitness, School, school.

### RÉSUMÉ

La forme physique est la capacité à effectuer un travail musculaire d'une manière agréable, englobant la force, l'endurance musculaire, la souplesse, la composition corporelle et la capacité cardiorespiratoire. Le but de cette étude descriptive était d'évaluer la condition physique de 50 enfants des deux sexes âgés de 9-11 ans inscrits dans les 4e et 5e année du primaire école de l'école SESC Ville Mossley / RN. Comme un outil d'évaluation, les tests du moteur (flexibilité, l'agilité, la force abdominale et vitesse) et PROESP pour vérifier la taille et le poids ont été utilisées échelle anthropométrique marque numérique Welmy et Sanny toise, avec ces mesures ont été obtenues Index Indice de masse corporelle (IMC). Tous les tests ont été comparés avec les données de référence de PROESP. Pour l'analyse statistique, nous avons utilisé la version du logiciel SPSS 20.0 portugais, la normalité des données a été vérifiée avec le test de Shapiro Wilk, avec un niveau de confiance de  $p > 0,05$ . Pour les variables non paramétriques utilisés - le Whitney de Man. Les données analysées permettent de conclure que la plupart des élèves ont montré un résultat satisfaisant compte tenu de l'indice de masse corporelle concernant l'aptitude a conclu que la majorité des étudiants est évalué à un niveau très bas et faible. Il est recommandé de bien au-delà de la planification des cours d'éducation physique à l'école et la pratique, les élèves doivent adopter des comportements sains en leur temps - les efforts au quotidien pour améliorer la qualité de vie.

**MOTS-CLÉS:** conditionnement physique, école, école.

### RESUMEN

La aptitud física es la capacidad de realizar el trabajo muscular de una manera placentera, la fuerza que abarca, la resistencia muscular, la flexibilidad, la composición corporal y la condición cardiorrespiratoria. El propósito de este estudio descriptivo es evaluar la condición física de los 50 niños de ambos sexos de 9 a 11 años matriculados en el cuarto y quinto año de la escuela de primaria SESC City Mossley / RN. Como una herramienta de evaluación, las pruebas de motor (flexibilidad, agilidad, fuerza abdominal y velocidad) y PROESP para comprobar el peso y la estatura se utilizó la escala antropométrica de marca digitales Welmy y Sanny tallímetro, con estas medidas se obtuvo el Índice de Índice de Masa Corporal (IMC). Todas las pruebas se compararon con los datos de referencia de PROESP. Para el análisis estadístico se utilizó el programa SPSS versión 20.0 portugués, la normalidad de los datos se comprobó con la prueba de Shapiro Wilk, con un nivel de confianza de  $p < 0.05$ . Para las variables paramétricas utilizadas - la prueba de Man Whitney. Los datos analizados permiten concluir que la mayoría de los estudiantes mostraron un resultado satisfactorio teniendo en cuenta el índice de masa corporal respecto a la aptitud concluyó que la mayoría de los estudiantes se evalúa en un nivel muy bajo y débil. Se recomienda que mucho más allá de la planificación de las clases de educación física en la escuela y en la práctica, los estudiantes deben tener comportamientos saludables en su día - esfuerzos a día para mejorar la calidad de vida.

**PALABRAS CLAVE:** aptitud física, escuela, escuela.

### APTIDÃO FÍSICA DE ESCOLARES DO ENSINO FUNDAMENTAL DA CIDADE DE MOSSORO - RN

#### RESUMO

A aptidão física é a capacidade de desempenhar um trabalho muscular de uma forma prazerosa, englobando a força, a resistência muscular, a flexibilidade, a composição corporal e a capacidade cardiorrespiratória. O objetivo do presente estudo descritivo foi avaliar a aptidão física de 50 escolares de ambos os sexos na faixa etária entre 9 a 11 anos, matriculados no 4º e 5º anos do Ensino Fundamental da Escola SESC da cidade de Mossoró/RN. Como instrumento de avaliação, os testes motores (flexibilidade, agilidade, força abdominal e velocidade) da PROESP e para verificar o peso corporal e a estatura foi utilizada uma balança antropométrica digital marca WELMY e um estadiômetro da marca Sanny, com essas medidas foi obtido o Índice de Massa Corporal (IMC). Todos os testes foram comparados com os dados referenciais da PROESP. Para a análise estatística dos dados foi utilizado o software SPSS 20.0 versão português, a normalidade dos dados foi verificada com o teste de Shapiro Wilk, com um nível de confiança de  $p > 0,05$ . Para as variáveis não paramétricas utilizou - se o teste Man Whitney. Os dados analisados permitem- nos concluir que a maioria dos escolares apresentou resultado satisfatório quanto ao índice de massa corporal Com relação à aptidão física concluiu-se que a maioria dos alunos avaliados se encontra no nível muito fraco e fraco. Recomenda-se assim que além dos planejamentos das aulas de Educação Física na escola e a sua prática, os escolares devem adotar comportamentos saudáveis no seu dia - a - dia visando à melhoria da qualidade de vida.

**PALAVRAS-CHAVE:** Aptidão Física, Escolares, ensino fundamental.