

98 - NEUROMUSCULAR FITNESS LEVEL OF PHYSICAL EDUCATION STUDENTS THE FACULDADES INTEGRADAS DE PATOS – PB - FIP

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INTRODUCTION

Lately, it is known that the human being has settled on the facilities acquired over time through technology, not exercising or getting rid of physical activities. In this step, Oliveira (2005, p. 32) states that contemporary man is used less and less of their physical capabilities and that the low level of physical activity thus generating low levels of physical fitness which in turn hampers their own health. Taking part of this statement one of the most important components to our health are the practice of physical exercises and physical activities, these practices provide the individual with an improvement of neuromuscular fitness, in addition to cognitive well-being.

In fact the practice of physical exercises on guidance from a healthcare professional, it is extremely important to be referred directly to the functioning of neuromuscular fitness causing a major positive impact on both the physical effort and consequently the activation of large muscle groups for most irrigation in capillaries and also activations among other hormones in the body, or carry oxygen throughout the body also causing positive results in the control of body weight, according to (OLIVEIRA, 2005, p. 109).

An important distinction that literature does refers to the health-related physical fitness (AFRS) and related physical fitness performance (RPPF) "(LOCH et al., 2006, p. 65). In this step, the present study was aimed directly at HRPF that this, in turn, related to neuromuscular issue, targeting neuromuscular fitness levels of young college students aged 18 to 25 years of the course Bachelor of Physical Education of the Faculdades Integradas de Patos- PB - FIP

The aim of the study was to measure the strength levels of university students of both sexes duly enrolled in the Physical Education of the Ducks Integrated College - FIP through test, identify and compare the neuromuscular fitness levels of students of the 1st period and 8 period of the course of Physical Education of the Faculdades Integradas de Patos- PB - FIP.

MATERIALS AND METHODS**Characterization of research and study site**

The study was conducted in FIP FITNESS Academy of course of Physical Education of the Faculdades Integradas de Patos- PB - FIP. and is a quasi-experimental approach cross-sectional where it sought to establish a quasi-effect relationship between the study variables (THOMAS; NELSON, SILVERMAN, 2012).

Population and sample

The study was composed of college students enrolled in the Bachelor of Physical Education of the course of Physical Education of the Faculdades Integradas de Patos- PB - FIP. The sample is of the intentional formed by 28 men and 8 women, divided in 4 women in the 1st period and 4 of the 8 th period, another 15 men of the 1st period and 13 of the 8th all students of Bachelor of Physical Education of FIP, having the age between 18 and 25 years. Those individuals with joint involvement or muscle were excluded; individuals with cardiovascular or respiratory diseases, individuals who had blood pressure levels ≥ 140 mmHg for systolic blood pressure ≥ 100 mmHg and for diastolic blood pressure, where the variables of this study were strength, muscular endurance, physical fitness and youth.

Tools

To evaluate the neuromuscular fitness level, we used the muscular endurance test localized proposed by Heyward (2004). Determination of test loads takes into consideration the subject's body weight for the calculation. .

After the determination of the charges assessed underwent hold up to 15 repetitions in each exercise, the sum of all the repetitions could reach 105 complete movements. The end result observed set the level of neuromuscular fitness assessed.

Data collection procedure:

First, it was released in the rooms of the 1st and 8th period Course of Physical Education to conduct research, inviting interested students to a meeting where they were informed and enlightened about the procedures such as food before the test, test time, type clothing, and procedures relating to the protocol, risks and benefits.

The meeting was held in FIP FITNESS gym, week following the call made in the classroom, aiming to clarify any doubts regarding the survey. After the clarifications the volunteers were asked to sign an informed consent form - ICF, with the day's schedule and test time. The volunteer was also oriented, so that before the test was readiness the following points to make a light power at least 2 hours before testing; not perform physical exercises or moderate or vigorous physical activity the day before the test and; be wearing appropriate clothing shorts, shirt and shoes.

Test Protocol:

On the day and time scheduled volunteers appeared in FIP FITNESS gym 15 minutes before as reported at the meeting, so that they could acclimatize to the temperature of the room that was between 20 e 22 C°. Therefore, remained seated after 5 minutes at rest where blood pressure was measured (PA). If the volunteer had submitted revised figures for AP, it was held over one or two measurements if the values remain altered the individual was recommended not to participate in the survey without first seeking a medical specialist.

The last 15 minutes, the body mass and height was measured then the subject performed a 10-minute warm on the conveyor belt with a speed 5-6 Km / h added to the heating specific to each body segment. The exercises were performed with a low load, with the aim of proprioceptive activation and increased blood flow. The period of heating loads were also calculated for each exercise. During testing, the following points were observed: Volunteer Placement in your; The execution speed of 2 seconds in the concentric phase and 2 seconds in the eccentric phase (2x2); Recovery interval between exercises 1 minute; Range of motion, if the individual had not made the movement completely or correctly was not computed on the sum.

At the end of testing the volunteer performed a return to calm, to this end, a 10-minute walk was held on the conveyor

belt speed of 5 or 6 km / h, measured the PA at the end of the walk.

Data analysis

The results were described using statistical central tendency and dispersion. After checking the normality of the data (Shapiro-Wilk test), which was applied a test for independent samples (t or Mann-Whitney test). The significance level for acceptance of difference to the groups was $p < 0.05$.

Ethical aspects

This project was submitted and approved by the Ethics of Ducks Integrated Schools Committee, which data collection was carried out only after approval.

The subjects were all informed of the purpose of the study, risks, benefits and confidentiality of information and agreeing to participate in voluntarily sign a consent form and clear - IC, serving thus the requirements of the Council Resolution 196/96 National Health.

Physical skills related to dynamic muscle strength are constantly activations, either by a simple up and down stairs or even getting inside your own residence, where we use our capabilities being one muscle strength dynamics, although we us away from certain physical efforts migrating and adapting on the facilities acquired by the technology. This study resulted according to the repetitions made by the 1st period of both sexes and the 8th period of both sexes establishing a classification given as excellent for the two periods, relating the average in Table 1.

Table 1 - Statistics of repetitions periods.

STATISTICS GROUP				
SEX	PERIOD	N	MEDIA±SD	
FEMALE	REPS	1	4	63,5±11,9
		8	4	71,5±18,4
MALE	REPS	1	15	96,07±15
		8	15	96,54±10,3

In terms of age, body mass index and repetitions performed of physical education course of the university did not obtain any difference as shown in Table 2.

Table 2 - Statistics for age, body mass index and repetitions.

STATISTICS GROUP				
PERIOD	SEX	N	MEDIA±SD	
1° P	AGES	F	4	21±2,45
		M	15	19,67±1,65
	BMI	F	4	24,97±1,9
		M	15	23,7±2,9
	REPS	F	4	63,5±11,9
		M	15	96,07±15
8° P	AGES	F	4	21,25±0,5
		M	15	22,54±1,6
	BMI	F	4	23,2±4,2
		M	15	24,7±2,5
	REPS	F	4	71,5±18,4
		M	15	96,54±10,3

DISCUSSION

The difference between workers show the consequences of these new habits that lead more and more individuals will low levels of physical fitness and muscle is what shows the study by Corseuil, MW; Petroski, EL (2010) which was conducted with students enrolled in Physical Education Curriculum of the Federal University of Santa Catarina, Brazil, shows that 16.6% of the students showed physical fitness below the recommended health indicators for musculoskeletal components (engines) It is 13.4% female and 19.7% male.

Another study related to university students studied Check whether or not the practice of regular exercise in university students of the Federal University of Santa Maria (BEFORE et al., 2009, p. 30), consisted of 170 students, 82 of gender female and 88 male, mean age 22.03 ± 2.86 years, which was objectified the following results that 28.05% female and 30.68% male practice physical exercises regularly. Therefore, this study shows that university students who attend the course of physical education are considerably physically active, since those entering the course to those who are leaving, considering, perhaps more aesthetic than health itself.

REFERENCES

- ANTES, D. L.; BIDINOTO, P. P.; KATZER, J. I.; CORAZZA, S. T. O jovem universitário e a busca pela saúde através do exercício físico. *Arq. Ciênc. Saúde Unipar, Umuarama*, v. 13, n. 1, p. 29-32, jan./abr. 2009.
- OLIVEIRA, R. J. *Atividade Física e Saúde*. São Paulo: Shape, 2005, 235 p.
- LOCH, Mathias. R; Konrad, Lisandra. M; Perfil da Aptidão Física Relacionada à Saúde de Universitários da Educação Física Curricular. *Revista Brasileira de Cineantropometria & Desempenho Humano*. v. 1, n. 1, p. 2, juh./ago 2006.
- LOCH, Mathias. R; Konrad, Lisandra. M; Perfil da Aptidão Física Relacionada à Saúde de Universitários da Educação Física Curricular. *Revista Brasileira de Cineantropometria & Desempenho Humano*. v. 1, n. 1, p. 2, juh./ago 2006.
- CORSEUIL, Maruí W; PETROSKI, Edio L. Baixos níveis de aptidão física relacionada à saúde em universitários. *Revista Brasileira de Educação Física e Esporte*. São Paulo. v. 24, n. 1, p. 49-54, Jan./Mar.2010.
- HEYWARD, Vivian. *Avaliação Física e Prescrição de Exercício: Técnicas Avançadas*. ed. 4, Porto Alegre: Artmed. 2004.
- THOMAS, J. R.; NELSON, J. K.; SILVERMAN, S. J. *Métodos de pesquisa em atividade física*. 4. ed. Porto Alegre: Artmed, 2012.

NEUROMUSCULAR FITNESS LEVEL OF PHYSICAL EDUCATION STUDENTS THE FACULDADES INTEGRADAS DE PATOS – PB - FIP**ABSTRACT**

This research study has elements which were obtained through testing to verify neuromuscular conditions of certain muscle groups of the body, the excellence order neuromuscular fitness. In this step, the study investigates the different levels of neuromuscular fitness distinct periods of the course Bachelor of Physical Education Integrated School of Patos-PB (FIP). The study was conducted in bodybuilding gym Fip Fitness of the Faculty, so there was no use of different machines or outside the vestments of the inclusion criteria. Before the survey analyzes the results showed no significant difference between the times of the 1st and the 8th. The study was conducted with 37 students from both periods properly enrolled in the course. The study found no difference between the neuromuscular fitness levels of students who are entering the course and those completing the course.

KEYWORDS: University. Physical aptitude. Muscle strength.

NEUROMUSCULAIRE ADAPTATION DE NIVEAU ETUDIANTS EN EDUCATION PHYSIQUE LES FACULDADES INTEGRADAS DE PATOS - FIP**RÉSUMÉ**

Cette étude comporte des éléments qui ont été obtenus grâce à des tests pour vérifier les conditions neuromusculaires de certains groupes musculaires du corps, de l'ordre de l'excellence neuromusculaire fitness. Dans cette étape, l'étude examine les différents niveaux de remise en forme neuromusculaire périodes distinctes du baccalauréat de cours de physique scolaire intégré de l'éducation de Patos-PB (FIP). L'étude a été réalisée en salle de musculation Fip de remise en forme de la Faculté, il n'y avait donc pas d'utilisation de machines différentes ou à l'extérieur des vêtements des critères d'inclusion. Avant l'enquête analyse les résultats ont montré aucune différence significative entre les moments de la 1ère et la 8e. L'étude a été menée avec 37 étudiants des deux périodes correctement inscrits au cours. L'étude n'a trouvé aucune différence entre les niveaux de condition physique neuromusculaires des étudiants qui entrent dans le cours et ceux qui ont terminé le cours.

MOTS-CLÉS: Université. La forme physique. La force musculaire.

NIVEL DE APTITUD NEUROMUSCULAR DE LOS ALUMNOS DE EDUCACIÓN FÍSICA DE LAS FACULDADES INTEGRADAS DE PATOS - FIP**RESUMEN**

Este estudio de investigación tiene elementos que se obtuvieron a través de pruebas para verificar las condiciones neuromusculares de ciertos grupos musculares del cuerpo, la aptitud neuromuscular para la excelencia. En este paso, el estudio investiga los diferentes niveles de aptitud neuromuscular en los períodos distintos de los alumnos de Bachillerato en Educación Física de las Facultades Integradas de Patos-PB (FIP). El estudio se llevó a cabo en el gimnasio de musculación Fip Gimnasio de la Facultad, así que no había uso de diferentes máquinas o fuera de las vestiduras de los criterios de inclusión. Antes de análisis de la encuesta los resultados no mostraron diferencias significativas entre los tiempos de la primera y la octava. El estudio se realizó con 37 estudiantes de ambos períodos debidamente inscritos en el curso. El estudio no encontró diferencias entre los niveles de condición física neuromusculares de los estudiantes que están entrando en el curso y los que terminan el curso.

PALABRAS CLAVE: Universidad. La aptitud física. La fuerza muscular.

NÍVEL DE APTIDÃO NEUROMUSCULAR DOS ALUNOS DE EDUCAÇÃO FÍSICA DAS FACULDADES INTEGRADAS DE PATOS - FIP**RESUMO**

Este estudo apresenta elementos de pesquisa da qual foram obtidos através de teste que verifica as condições neuromusculares de determinados grupos musculares do corpo, visando a excelência da aptidão neuromuscular. Nesse passo o estudo buscou analisar os diferentes níveis de aptidão neuromuscular de períodos distintos do curso de Bacharelado em Educação Física da Faculdade Integradas de Patos-PB (FIP). O estudo foi realizado na academia de musculação Fip Fitness da própria Faculdade, para que não houvesse nenhuma utilização de máquinas diferentes ou fora dos paramentos dos critérios de inclusão. Diante das análises da pesquisa os resultados apontaram que não houve diferença significativa entre os períodos do 1º e do 8º. O estudo foi feito com 37 alunos de ambos os períodos devidamente matriculados no curso. O estudo chegou à conclusão que não houve diferença entre os níveis de aptidão neuromuscular dos universitários que estão ingressando no curso e os que estão concluindo o curso.

PALAVRAS-CHAVE: Universitários. Aptidão Física. Força Muscular.