143 - LEVEL OF CARDIORESPIRATORY FITNESS OF ADMINISTRATIVE DEPARTMENT RUNNERS

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INTRODUCTION

The concept of physical fitness was defined as a set of attributes that people have or achieve and is related to the ability to perform physical activity, represented by elements related to the activities, and physiological health. (ACSM, 2007).

The physical fitness tests are intended to, exercise programs, instruct individuals as to their fitness as State health standards, have the data needed to conduct the exercise prescription, initial data collection in future comparison will give a reply how to progress to the end of the training program and motivation about achieving the objective and to carry out the risk of the individual laminate (ACSM, 2003).

Studies done in other countries show that the regular practice of physical activity, preferably of moderate intensity, reduces mortality from chronic diseases, including cardiovascular disease. However, the number of studies conducted in Brazil that correlate to the practice of AF with cardiovascular disease is still small. Existing studies, most evaluated only the prevalence or determinants of physical inactivity but not the impact of the regular practice of physical activity in health and disease (LUNZ et al., 2010).

The identification of these physiological parameters is of remarkable attention with two purposes, to be used in the evaluation to select individuals and direct them to certain sports activities, and for physical training for prescribing overload (volume and intensity) emphasizing metabolic aspects (DENADAI, ORTIZ and MELLO, 2004).

The level of training is among the factors that directly affect the kinetics of VO2, Dallaire et al (2011), citing Phillips et al (1995) showed that after 30 days of aerobic training, its volunteers showed reduction in blood lactate concentrations, increased mitochondrial potential and increased VO2 peak.

The objective of this study was to quantify and qualify the initial fitness level of individuals so that they could initiate the preparation of training in order to improve the lifestyle and physical fitness for the same.

MATERIALS AND METHODS

This is a quantitative study that involves research methods usually containing rigid control of variables and statistical analysis. This type of research tends to focus on analysis. Thus, the investigation was a descriptive exploratory quantitative traits (THOMAS E NELSON, 2002).

The subjects were 11 individuals, practitioners of street racing and employee of the Administrative Department of higher education institution in Rio de Janeiro, aged between 25-46 years. The average age was 34.71 + 8.86 years (men) and 32.5 + 5.75 years (women).

All subjects in the sample who agreed to sign the Statement of Participation in Research consented prepared in accordance with Ordinance No. 196, 10 \ 10 \ 1996 of the National Health Council - Guidelines and Standards for Conducting Experiments with Human Beings.

Individuals responded to the International Physical Activity Questionnaire - Short Version (IPAQ) (CELAFISCS, 2002).

All subjects also underwent the questionnaire PAR-Q (Physical Activity Questionnaire Readniness) (CSEP, 2002), formulated by the Canadian Society of Exercise Physiology to delineate the risk of adverse cardiovascular activities and prevent any complications.

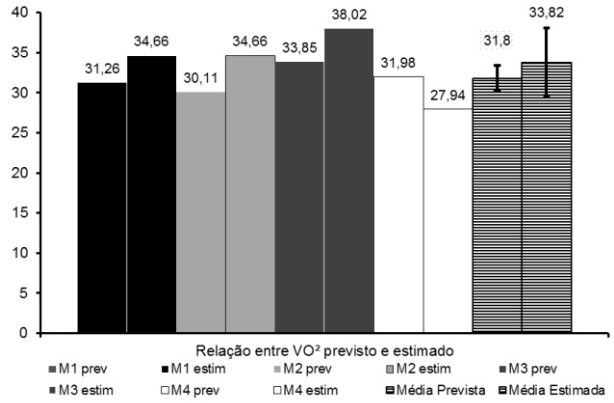
In view of the objectives of this study were conducted three tests to each volunteer, using the Bruce Protocol exercise treadmill. This Protocol was the first protocol for maximum standardized test and routinely employed in conveyor belt, being one of the main models used in cardiopulmonary exercise testing laboratories worldwide. With load increase progressively, is composed of 3 minutes per stage, and their increments are made with variations of speed and elevation of the conveyor belt (HESPANHA, 2004).

For stopping the stress test was used the Borg RPE scale that had been slightly modified in the mid-1980 (BORG, 2000). It was developed in order to permit safe and valid estimates of perceived exertion and making easy the comparison with physiological variables, having their ranks increased linearly with the intensity of exercise, the heart rate (HR) and oxygen consumption (VO2).

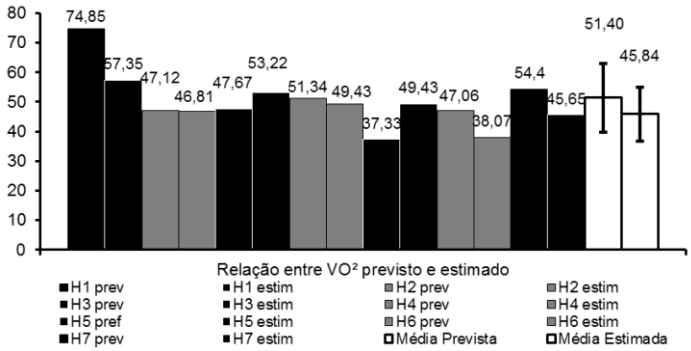
ANALYSIS AND DISCUSSION OF RESULTS

All subjects had negative responses in PAR-Q questionnaire (CSEP, 2002). With IPAQ, 57% were classified as insufficiently active, 29% active and 14% very active (men) and for women, very active 25%, active 25% and 50% insufficiently active.

The VO ² max referred to this group of women (31,8 + 1,57 ml/Kg/min) was underestimated, even though half of the group have been classified as insufficiently active, reached a higher value in the VO ² max estimated in cycling test (33.82 + 4,23 ml/Kg/min). Only one volunteer got its ability to test oxygen consumption lower than predicted (Figure 1).



In contrast to that found for the voluntary women's group, the Group of men earned an average of maximum oxygen uptake capacity achieved in test (45,84 + 9,13 ml/Kg/min) below the predicted values (51,4 + 11,6 ml/Kg/min). In the case of this group, two volunteers have achieved superior results on treadmill test in relation to planned.



CONCLUSION

On the basis of the data, there appears to be a non-conformity between the indirect and indirect method of obtaining the value of maximal oxygen consumption. Towards women, the direct method seems to underestimate the physical capacity of the volunteers.

Several studies, according to Souza et al (2011), have been analyzing the ability of physiological and neuromuscular for performance prediction of recreational runners or with a bit of amateur training, but always having a direct influence on the distance to be practiced or competed.

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LEVEL OF CARDIORESPIRATORY FITNESS OF ADMINISTRATIVE DEPARTMENT RUNNERS

ABSTRACT

The concept of physical fitness was defined as a set of attributes that people have or achieve and is related to the ability to perform physical activity, represented by elements related to the activities, and physiological health. (ACSM, 2007). Are physical fitness tests, exercise programs, instruct individuals as to their fitness as State health standards, to have the data needed to conduct the exercise prescription, initial data collection in the future comparison will give a reply how to advance to the final of the training program and motivation about the purpose and the risk of the individual laminate (ACSM2003). The subjects were 11 individuals, practitioners of street racing and Administrative Department official of the higher education institution in Rio

de Janeiro, with ages between 25-46 years. The average age was of 34.71 + 8.86 years (men) and 32.5 + 5.75 years (women). The VO ² Max referred to this group of women (31.8 + 1.57 ml/Kg/min) was underestimated, even though half the group is classified as insufficiently active, reached a higher value in the test cycle ergômetro (33.82 + 4.23 ml/Kg/min). The Group of men earned an average of maximum oxygen uptake capacity achieved in test (45.84 + 9.13 ml/Kg/min) below the predicted values (51.4 + 11.6 ml/Kg/min). On the basis of the data, there appears to be a non-conformity between the direct and indirect method to get the value of the maximum consumption of oxygen. Towards women, the direct method seems to underestimate the physical capacity of the volunteers.

KEYWORDS: physical fitness; maximal oxygen uptake; exercise stress test.

NIVEAU D'APTITUDE CARDIORESPIRATOIRE DE COUREURS DE DÉPARTEMENT ADMINISTRATIF

RÉSUMÉ

Le concept de conditionnement physique a été défini comme un ensemble d'attributs que les gens ont ou atteindre et sont liées à la capacité d'effectuer l'activité physique, représentée par les éléments liés aux activités et santé physiologique. (ACSM, 2007). Tests de conditionnement physique, des programmes d'exercices, sont instruire des individus quant à leur forme physique comme des normes de santé d'État, pour que les données nécessaires à la réalisation de la prescription d'exercices, de la collecte de données initiale à l'avenir comparaison donnera une réponse Comment faire pour passer à la finale de la programme de formation et de motivation sur le but et le risque de l'individu en stratifié (ACSM2003). Les sujets étaient des 11 personnes, professionnels des courses de rue et fonctionnaire du département d'administration de l'établissement d'enseignement supérieur à Rio de Janeiro, avec des âges entre 25-46 ans. L'âge moyen était de 34,71 + 8,86 ans (hommes) et 32,5 + 5,75 ans (femmes). La VO ² Max fait référence à ce groupe de femmes (31,8 + 1.57 ml/Kg/min) a été sous-estimée, même si la moitié du groupe est classé comme insuffisamment actifs, atteint une valeur supérieure à l'ergômetro cycle de test (33.82 + 4.23 ml/Kg/min). le groupe d'hommes gagnaient en moyenne de la capacité d'absorption maximale d'oxygène atteindre en test (45,84 + 9.13 ml/Kg/min) inférieurs aux valeurs prédites (51,4 + 11,6 ml/Kg/min). Sur la base de données, il semble être un défaut de conformité entre la méthode directe et indirecte pour obtenir la valeur de la consommation maximale d'oxygène

MOTS CLÉS: conditionnement physique ; consommation maximale d'oxygène ; épreuve d'effort.

NIVEL DE FITNESS CARDIORRESPIRATORIO DE CORREDORES DE DEPARTAMENTO ADMINISTRATIVO

RESUMEN

El concepto de aptitud física se definió como un conjunto de atributos que las personas tienen o lograr y está relacionado con la capacidad para realizar actividad física, representada por elementos relacionados con las actividades y salud fisiológica. (ACSM, 2007). Son pruebas de aptitud física, programas de ejercicio, instruir individuos respecto a su aptitud como normas de salud del Estado, para tener los datos necesarios para llevar a cabo la prescripción de ejercicio, colección de datos inicial en el futuro comparación dará una respuesta como avanzar a la final del programa de capacitación y motivación sobre el propósito y el riesgo del individuo laminado (ACSM2003). Los sujetos fueron 11 personas, profesionales de carreras callejeras y oficial del Departamento Administrativo de la institución de educación superior en Rio de Janeiro, con edades entre 25-46 años. La edad promedio fue de 34,71 + 8,86 años (hombres) y 32,5 + 5,75 años (mujeres). El VO ² Max que se refiere a este grupo de mujeres fue subestimado (31,8 + 1.57 ml/Kg/min), aunque la mitad del grupo se clasifica como insuficientemente activo, alcanzó un valor más alto en el ciclo de prueba ergômetro (33.82 + 4.23 ml/Kg/min). El grupo de hombres obtuvo un promedio de capacidad de absorción de oxígeno máximo alcanzado en la prueba (45,84 + 9.13 ml/Kg/min) por debajo de los valores predichos (51,4 + 11.6 ml/Kg/min). Sobre la base de los datos, parece haber una falta de conformidad entre el método directo e indirecto para obtener el valor del consumo máximo de oxígeno

PALABRAS CLAVE: aptitud física; consumo de oxígeno máximo; prueba de estrés de ejercicio.

NÍVEL DE APTIDÃO CARDIORRESPIRATÓRIA DOS CORREDORES DE DEPARTAMENTO ADMINISTRATIVO

RESUMO

O conceito de aptidão física foi definido como um conjunto de atributos que as pessoas têm ou alcançar e está relacionado com a capacidade de realizar atividade física, representada por elementos relacionados com as atividades, e a saúde fisiológica. (ACSM, 2007). Destinam-se a testes de aptidão física, programas de exercício, instruir os indivíduos quanto à sua aptidão como normas de saúde do Estado, a ter os dados necessários para realizar a prescrição de exercício, coleta de dados inicial no futuro comparação vai dar uma resposta como para avançar para a final do programa de treinamento e motivação sobre o objetivo e realizar-se o risco da estratificação individual (ACSM2003). Os sujeitos foram 11 indivíduos, praticantes das corridas de rua e funcionário do departamento administrativo da instituição de ensino superior no Rio de Janeiro, com idades entre 25-46 anos. A idade média foi de 34,71 + 8.86 anos (homens) e 32,5 + 5,75 anos (mulheres). O VO² máximo previsto para este grupo de mulheres (31,8 + 1,57 ml/Kg/min) foi subestimado, mesmo que metade do grupo seja classificado como insuficientemente ativo, alcançaram um valor maior no teste em ciclo ergômetro (33,82 + 4,23 ml/Kg/min). o grupo dos homens obteve uma média de capacidade de absorção de oxigênio máxima alcançada no teste (45,84 + 9,13 ml/Kg/min) abaixo dos valores previstos (51,4 + 11,6 ml/Kg/min). Com base nos dados, parece haver uma não conformidade entre o método direto e indireto de se obter o valor do consumo máximo de oxigênio. Em relação às mulheres, o método direto parece subestimar a capacidade física dos voluntários.

PALAVRAS-CHAVE: aptidão física; consumo máximo de oxigênio; teste ergométrico.