177 - THE ACUTE EFFECT OF THE PHYSICAL EXERCISES WITH WEIGHTS IN THE MOOD STATES

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INTRODUCTION

The physical exercise has been widely studied as a method of promotion of physical and psychological health. For the elaboration of programs of promotion of the health, an ample arrangement of educational and ambient strategies becomes necessary, that can be boarded through the dimensions physical, social and psychological (Powell et a1. 1991; Farinatti 2001).

Inside of this context, similar studies and research to the health have supplied to information important how much the programs and strategies to stimulate and to acquire knowledge the population in favor of the physiological benefits of a program of physical activity (American College of Sports Medicine - ACMS 1998, 2000). A similar importance to the association of the physical exercise with its emotional answers exists (Weinberg and Gould 2001).

This perspective has been boarded for the Psychophysiology, that it searches to establish the relations of the internal corporal processes of the human behavior, through psychic concurrence (mental events) and physiological (corporal processes).

The Psychophysiology is presented as an area of study in construction and that it is based, according to Miranda (2000), "in the study of the simultaneous behavior of the physiological and psychic dimensions that express the systemic structure in accordance with human being its objectives and activities".

The present study it has intention to observe simultaneously, the psychic and physiological relations of the human behavior with the physical exercise, through a boarding of referenced research as "Psychophysiology of the exercise" (Ribeiro et al. 2001). As example of these proposals we can serve a writ upon McNair and Droppleman et al. (1971), that they had developed verifications of the emotional states for a questionnaire that evaluates 6 transitory states of mood: tension, anger, vigor, fatigue, depression and mental confusion, called from the profile of the mood states (POMS - Profile of Mood States).

In accordance with Paffenbarger et al. (1994), intense the physical exercise presented a reduction in the risks of depression in 27%, when compared with the light physical exercises. However, Carmack et al. (1999) they had related the physical activity of leisure and the aerobic exercise (aiming at profits of physical conditioning), with the intention to observe which of these activities would be more efficient for the protection of the organism against stressed it.

The results show that the physical activity of leisure is more related with the reduction of the anxiety, what was not observed in the aerobic activity. Morgan et al. (1988) they disclose through Profile POMS of swimmers, in 10 days of intense and gradual increments of training, of 4000 until 9000m, arriving the approach intensity of 94% of the Vo2máx, day could be perceived from the room, significant increases in them props up depression, anger and fatigue, as well as the reduction of you prop up it of vigor.

The authors had concluded that, with the intensive increase of the training, decreases had occurred of the mood states, being able this constant succession of increments to promote states of "overtraining".

In another research, Thirlaway and Benton (1992) had carried through an inquiry in 246 individuals through the fulfilling of questionnaires on habitual physical activity, health and test POMS, in order to observe the influence of the physical activity in the mood states. The results had supported the hypothesis of the practical of moderate physical exercises, promote better regulation of the emotional states had associated it, the high intensity physical exercises resulted less regulation of the emotional states. It is suggested of this form, that the physical exercise to be related with the regulation of the mood states must be practiced with a moderate intensity.

We will give emphasis in the present study to the muscular force, in if treating to this physical valence the used activity more it is the exercises with weights. The muscle exercise, that as recommendations of the ACSM (1998) must initially be practiced in a frequency of two the three times per week, with a block of 8 the 10 exercises distributed between the main muscular groups and with 8 the 12 repetitions for each exercise.

For this practical, in accordance with the recommendations of the ACSM, do not exist a position standard about the intensity of physical exercise with weights, as it is referenced for the aerobic activity, 55 90% of the Vo2máx.

Of this form, the present study it has for objective to investigate, which the acute effect of a session of physical exercise with weights in the different intensities (55 and 80%) of the maximum load in the different states of mood (tension, anger, vigor, fatigue, depression and mental confusion) in muscle exercise practitioners?

MATERIALS AND METHODS

The population will be composed for individuals of the masculine sex with age enters the 18 25 years, and the amostral group was constituted by 20 individuals that if find registered duly in an gymnastics academy in the city of Juiz de Fora, state of Minas Gerais, Brasil. All the practitioners had signed a term of after-informed assent, as the resolution of the National Advice of Health (196/96).

The minimum period of six months of practical was determined, in accordance with Dishman et al. (1988), for considering such critical mark, therefore in its studies, 50% of the people who had initiated programs of physical exercises they drop out the activity in the period of six months.

The frequency of weekly training was established with the minimum of 3 days, recommendation of the ASCM (1998). Possessing as the objective of training, increase of the force and muscular hypertrophy, carrying through exercises with maximum load between 55 and 80% being this type of characteristic profile of pupils of gymnastics academy (Saba 2001).

DELINEATION AND COLLECTS OF DATA

For this experiment, a delineation of a specifc group was used, therefore it does not present a controller group. As Thomas and Nelson (2001) the research is characterized as Quasi-experimental by trying to thus adjust it for more similar environments the reality and, to control as many threats how much possible the external validity. A pre-test will be applied, after that treatments and one pós-test in two intensities of trainings.

A maximum load test will be carried through for repetition, considered and recommended for Weineck (1999), for the profile of this population and the calculation of the percentages for a repetition principle-1RM O'Connor, cited for Bellwether was

used by Manso (2000). After the calculation of the maximum load for all the individuals, was elaborated a fiche of trainings that beyond following the recommendations of the ACSM (1998), represents a sequence of exercises that correspond the used reality in the academies. A fiche of trainings will have load of 55% of the maximum load (Trainings I) and another one of 80% of the maximum load (Trainings II) for each exercise. During all experiment the group will carry through 3 trains I and II, being collected the data pre and pos test, answering the POMS before and immediately after the ending of each one of the intensities.

INQUIRY INSTRUMENT

To verify the emotional states, McNair and Dropplemann et al. (1971) they had developed a questionnaire that evaluates 6 transitory states of mood: tension, anger, vigor, fatigue, depression and mental confusion, called from the profile of the mood states (POMS - Profile of Mood States). Originally to be used for comment of the circumstantial, 0ccasional and floating states of mood in psychiatric patients, also it was used and adapted for William Morgan (1974; 1987 and 1988) for the use in athlete, being that in 1993, Brandão et al. they had translated and they validated the test for Brazil which this being used for the present research.

To describe the factors of the POMS, McNair and Dropplemann et al. 1971 cited for Terry et al. (2001) they had characterized each exercises: Anger- it is characterized by feelings that vary inside of an intensity that can be intensified of light anger if extending to a fury state and is associated with an automatic nervousness, that normally provokes disturbance in the central nervous system. Mental confusion- it is been of elaborated feeling to represent the uncertainty associated with a riot or uncontrols general of the attention and the emotions. Depression- it is associated as low one auto-esteem, characterized for constructos the lack of hope, personal deficiency, auto-mercy and lack of valuation. Fatigue- it can be understood as from the constructos physical and mental fatigue. Tension- understood for feelings such as nervousness, apprehension, concern and the anxiety. Vigor- Characterized for feelings of excitement, physical energy and state of alert.

The 65 POMS consists of topics, in annex, where the individuals in accordance with answer a criterion of 5 alternatives that they mean: 0 (nothing), 1 (A little), 2 (More or less), 3 (Sufficiently) and 4 (Extremely).

In accordance with the manual of the POMS, the questionnaire approach the Vigor as positive factor of the mood; and as negative factors, tension, anger, fatigue, depression and mental confusion. Questionnaire POMS was answered under the orientation "as you are if feeling at this accurate moment", objectifying to immediately observe the variation of the mood states after the activity.

ANALYSIS OF THE DATA

The present study it looked for to verify if it exists significant difference in profile POMS daily pay stops after session of physical exercises with weights the intensity of 55 and 80% of the maximum load, also observing if this difference were positive or negative for the mood states. The interpretation of the data occurred in a general way, from a descriptive statistics and an exploration analysis given them. After that, a parametric test, an analysis of variance for repeated measures was used, ANOVA.

As the present study it investigates different variable, said as constructors of the profile of the states of mood POMS, they will be described in form of sub topics, in order to facilitate to the agreement and the understanding in its general scope, as it is common to be presented in this type of research Lane and Terry (2000).

The values of tension, depression, anger and mental confusion for the intensity of 55 and 80% had not presented a significant difference ($p<0,05$), in the scores pre and pos trainings, demonstrating that after trainings, the individuals had remained with the same ones initial scores.

The values of fatigue for the 55% intensity had presented a significant difference in them scores pre and pos trainings ($p<0,05$), demonstrating that after trainings of 55%, the individuals if had found with greater scores of anger of what before the trainings. Already for the values of fatigue for intensity 80%, significant difference in them was not evidenced scores pre and pos trainings ($p<0,05$), demonstrating that after trainings of 80%, the individuals if had found with the same ones scores of vigor trainings after.

The values of vigor, positive factor of the POMS, for the 55% intensity had presented a significant difference in them scores pre and pos trainings ($p<0,05$), demonstrating that trainings of 55%, the individuals if they had found with minors you scores of vigor of what before the trainings, what it means that for this intensity the individuals if had presented less vigorous the trainings after. Already for the values of vigor 80%, significant difference in them was not evidenced scores pre and pos trainings ($p<0,05$), demonstrating that after trainings of 80%, the individuals if had found with the same ones scores of vigor trainings after.

QUARREL OF THE RESULTS

The joined results had demonstrated that it had a significant effect ($p<0,05$) in the trainings of exercises with weights practiced in the academies, for the constructors vigor and fatigue in the intensity of 55% of the maximum load. For 55% had presented a significant increase ($p<0,05$) for fatigue and reduction of vigor.

This variation of the profile of mood characterized with increase of scores of the negative variable and reduction of the positive, after trainings, is characterized by Berger and Motl (2000), as an activity that affected the mood states negative, that is, this activity practiced to this intensity was harmful for the profile of the mood states.

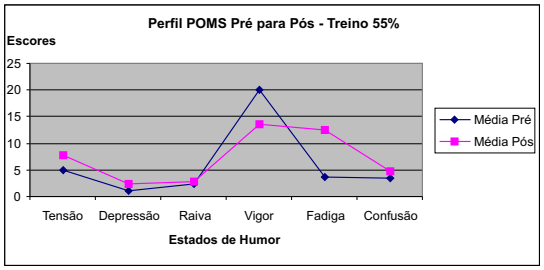

Gráfico 1

For the 80% intensity had not presented significant differences ($p<0,05$) in scores pre and pos trainings for the variable: tension, depression, anger, vigor, fatigue and mental confusion.

Literature demonstrates that practical the regular exercises is related the changes in mood states, such as reduction of the fatigue, tension and increases of the vigor, in the state of alert and the energy.

These positive changes are maximized with the light exercise of the moderate intensity, that can be of aerobic nature

and anaerobic Weinberg and Gould (2001). This boarding collates our present study, therefore it was observed that in the practical one of anaerobic exercise, physical exercise with weights, to a light, Tame considered intensity (2000), 55% of the maximum load the 12 15 repetitions, presented worsening in the mood states, with the increase of fatigue and reduction of vigor after trainings.

For the high intensity, 80% of the maximum load the 6 10 repetitions, the results had not shown significant ($p<0,05$) in profile POMS.

CONCLUSION

The results suggest that force training that uses the intensity of 55% of the maximum load can have negative effect on the profile of the mood states. 80% of the maximum load, the 6 10 repetitions send regards that other studies investigate the physiological reasons for which trainings with intensity 55% of the maximum load the 12 15 repetitions, considered for literature as trainings of light intensity, have a bigger negative impact on the states of mood when compared with trainings weighed.

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THE ACUTE EFFECT OF THE PHYSICAL EXERCISES WITH WEIGHTS IN THE MOOD STATES

ABSTRACT

INTRODUCTION :The study it searchs to establish relations between the training of force and the states of humor. OBJECTIVE verify which the acute effect of a session of exercises with weights in the different intensities (55 and 80%) of the maximum load in the different states of mood (tension, anger,vigor, fatigue, depression and mental confusion) in resisted exercises practitioners? MATERIALS And METHODS: The amostral group was constituted by 20 individuals with age enters the 18 25 years. Maximum load test was carried through for repetition, considered and recommended for Weineck (1999), for calculation of the series. A fiche of trainings will have load of 55% of the maximum load (Trainings I) and another one of 80% of the maximum load (Trainings II) for each exercises.During all experiment the group will carry through 3 series I and II, being collected the data daily pay and after test, answering the POMS before and immediately after the ending of each one of the intensities. RESULTS: For 55% you prop up them had presented a significant increase ($p<0,05$).CONCLUSION The results suggest the training of force with weights in the intensities of 55 % had a negative influence in the states of humor

Keywords: training, exercises with weights, states of humor

L'EFFET AIGU DES EXERCICES AVEC DES POIDS DANS LES ÉTATS D'HUMEUR

ABSTRAIT

INTRODUTION L'étude il searchs pour établir des relations entre la formation de la force et les états d'humeur. L'OBJECTIF vérifient quel l'effet aigu d'une session des exercices avec des poids dans les différentes intensités (55 et 80%) de la charge maximum dans les différents états d'humeur (tension, colère, vigueur, fatigue, dépression et confusion mentale) dans les praticiens résistés d'exercices ? MATÉRIAUX et MÉTHODES : Le groupe amostral a été constitué par 20 individus avec l'âge écrit les 18 25 années. L'essai de charge maximum a été exécuté pour la répétition, considéré et recommandé pour Weineck (1999), pour le calcul de la série. Une fiche des formations aura la charge de 55% de la charge maximum (formations I) et encore de 80% de la charge maximum (formations II) pour le chaque des exercices. Pendant toute l'expérience le groupe réalisera 3

séries I et II, étant rassemblé le salaire quotidien de données et après essai, répondant au POMS avant et juste après la fin de chacune des intensités. RÉSULTATS : Pour 55% que vous étayez vers le haut de eux avait présenté une augmentation significative (p<0,05) .CONCLUSION les résultats suggèrent que la formation de la force avec des poids dans les intensités de 55 % ait eu une influence négative dans les états d'humeur

Mots-clés : formation, exercices avec les poids, états d'humeur

EL EFECTO AGUDO DE LOS EJERCICIOS DE LA COMPROBACIÓN CON LOS PESOS EN LOS ESTADOS DEL HUMOR

RESUMEN

INTRODUCCIÓN: El estudio procura establecer relaciones entre el entrenamiento de la fuerza y los estados del humor. El OBJETIVO verificar120

cuál el efecto agudo de una sesión de ejercicios con los pesos en las diversas intensidades (55 y el 80%) de la carga máxima en los diversos estados del humor (tensión, cólera, vigor, fatiga, depresión y confusión mental) en los ejercicios? MATERIALES y MÉTODOS: A 20 individuos con edad entre los 18 y 25 años constituyó al grupo amostral. La prueba de la carga máxima fue llevada a través para la repetición, considerada y recomendada para Weineck (1999), para el cálculo de la serie. Una ficha de entrenamientos tendrá carga de el 55% de la carga máxima (entrenamientos I) y otro de el 80% de la carga máxima (entrenamientos II) para cada los ejercicios. Durante todo el experimento el grupo llevará con 3 series I e II, contestando al POMS antes e inmediatamente después del conclusión cada uno de las intensidades. RESULTADOS: Para el 55% que apoyas encima de él había presentado un aumento significativo (p<0,05) CONCLUSION los resultados sugieren que el entrenamiento de la fuerza con los pesos en las intensidades de el 55% tuviera una influencia negativa en los estados del humor

Palabras claves: entrenamiento, ejercicios con los pesos, estados del humor

O EFEITO AGUDO DOS EXERCÍCIOS FÍSICOS COM PESOS NOS ESTADOS DE HUMOR

RESUMO

INTRODUÇÃO: O estudo busca estabelecer relações entre o treinamento de força e os estados de humor.OBJETIVO:investigar, qual o efeito agudo de uma sessão de exercícios com pesos nas diferentes intensidades (55 e 80%) da carga máxima nos diferentes estados de humor (tensão, raiva, vigor, fadiga, depressão e confusão mental) em praticantes de musculação? MATERIAIS E MÉTODOS: O grupo amostral foi constituído por 20 indivíduos com idade entre 18 a 25 anos de uma academia de musculação de Juiz de Fora, MG. Foi realizado teste de carga máxima por repetição, proposto e recomendado por Weineck (1999), para cálculo dos percentuais. Uma ficha de treino terá carga de 55% da carga máxima (Treino I) e outra de 80% da carga máxima (Treino II) para cada exercício.Durante todo experimento o grupo realizará 3 treinos I e II, sendo coletados os dados pré e pós teste, respondendo o POMS antes e imediatamente após o término de cada uma das intensidades. RESULTADOS: Para 55% os escores apresentaram um aumento significativo (p<0,05) para fadiga e diminuição dos escores de vigor. Para a intensidade de 80% os escores não apresentaram diferenças significativas (p<0,05) nos escores pré para pós treino para as variáveis do estudo. CONCLUSÃO: Os resultados sugerem que treinamentos de força que utilizem a intensidade de 55% da carga máxima podem ter efeito negativo sobre o perfil dos estados de humor.

Palavras Chaves: Treinamento, Musculação, estados de humor.