189 - THE IMPORTANCE OF PHYSICAL ACTIVITY AEROBICS AS A MEANS OF PREVENTION OF CARDIOVASCULAR DISEASE AND PROMOTION OF QUALITY OF LIFE IN YOUNG ADULTS

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Introduction

Cardiovascular diseases are responsible for more than 1 / 3 of deaths in Brazil. The vascular lesions that accompany these diseases are associated with atherosclerosis. Within its multicausality, many risk factors for this disease such as obesity, sedentary lifestyle, hypertension and smoking have their roots in childhood and have additive effects in adulthood (ALVES, 1998). In Brazil, excess weight and obesity have hit more than 30% of the adult population (SILVA, 2005). Obesity is accompanied with increased morbidity and a shorter lifespan and are strongly associated with diseases such as hypertension, diabetes, orthopedic problems, psychosocial dysfunction, among others (SILVA, 2005). Despite high investments for the control of cardiovascular diseases, the rates of morbidity and mortality have been few changes in recent decades. The best results were with programs targeted to changing habits of evil to human health, such as: combating the diets rich in cholesterol, the sedentary lifestyle, obesity and smoking (MENDES, 2006).

Healthy habits may be the key to controlling these diseases. However, changing the habits of ill health, already installed in adulthood, are difficult goals to be achieved due to poor adhesion of the target population. Moreover, healthy habits acquired in childhood that is perpetuated in adult life may contribute to primary prevention of cardiovascular diseases.

In Brazil still are few studies that accompany the involvement of the population with regular physical activity, making it difficult inferences consistent about it. Meanwhile, the number of people interested or taken by some kind of need to do physical exercises regularly appears to be increasing. The literature shows that this proportion is still low compared to those not practicing, and that few remain motivated and engaged in a program of physical exercise for a long period of time. Some individuals interrupt for a certain period and then return, while others leave for good.

This scenario has encouraged studies to identify the barriers faced by people not to practice physical exercises as well as the main factors that influence them to start, to stay or to leave the practice of physical exercises. In Brazil, studies of this nature is new and few refer specifically to swimming.

It is believed that one of the main reasons for joining the practice of swimming are those related to health. However, the literature is devoid of studies that confront the impact of health with other reasons that can justify joining the practice of swimming (CASTRO,2006).

It is interesting how the heart rate (HR) influences our lives, probably because, well, their relationship with adrenergic stimulation, to the point of being an independent factor chance of death in humans (MACHADO, 2007).

In preparing an exercise program, the essential components of prescription include the selection of mode, the intensity of the effort, duration of activity and weekly frequency on which it is conducted (CRUEL, 2006). These components are applied to develop requirements for individuals of different ages and functional abilities, regardless of the existence or absence of risk factors and disease. Thus, the proper sizing of the intensity of effort is a very important point in organizing a session of exercises. Several physiological indicators can be used to quantify the intensity of effort on activities both inside and outside the aquatic environment (CRUEL, 2006). Among them one can cite the heart rate (HR). This is essential for professionals who work with the prescription of exercises in the water, because these differences influence in determining the intensity of the effort, which in turn affects all other components of the prescription.

Due to the high degree of specificity of the activities conducted in the aquatic environment, control the intensity of effort by simple extrapolations of physiological indicators obtained on the ground for aquatic condition can lead to gross errors in prescribing (COERTJENS, 2000).

The HR is one of more variables used to control the intensity of the effort. But the behavior of HR presents itself differently depending on the type or intensity of exercise performed in the middle land or water. In a state of rest or exercise on aquatic life, the changes found in HR are influenced by factors like the position of the body, the depth of immersion, water temperature, the HR at rest, the hydrostatic reduction of the weight. The largest portion of the studies in the literature points to the existence of a decrease in CF during the immersion. As state and Paulev Hansen, bradycardia caused by the immersion is widely accepted, even if there is disagreement about the origin, consistency and degree of reduction of physiological change.

Exercise systematized, according to the American Sleep Disorders Association, is considered a non-pharmacological intervention to improve the quality of life of sleep. The individual characteristics and type of exercise may influence the pattern of sleep. As the level of conditioning, it is known that physically active people in good physical shape and have benefits in efficiency, the pattern of sleep and reduction in the frequency of complaints relating to sleep, while inactive people complain of poor sleep, low efficiency and are more stressed (BUCKWORTH, 2002).

Despite recent studies recommend the prescription of physical exercises based on the activity energy expenditure (200 kcal), despite the type of exercise (strength, aerobic) metabolism and energy involved, of the American College of Sports Medicine suggests, for development - the cardiovascular system, the practice of aerobic exercises involving large muscle groups, achieved a rate of 3 to 5 days a week in intensity from 40-50 to 85% VO2R (the difference between VO2max and VO2repouso) with a duration of 30 to 60 minutes.

The effects of aerobic exercise are so effective that only in 3 weeks of daily activity associated with a diet low percentage of fat and high in fiber, promoted a significant reduction of body mass, blood pressure (BP) and total cholesterol, while the release of nitrogen dioxide in urine and the reason total cholesterol / HDL showed a significant increase in a group of sedentary men (ROBERTS, 2002).

When done, 2 to 3 times a week for a period of 6 months, regardless of the age of the individual, the moderate aerobic exercise is able to increase the oxygen consumption (VO2), time to exhaustion, decrease the heart rate (HR) in intensity and sub PA mode, impacting positively on the quality of life for a sedentary population of young adults (VAITKEVICIUS, 2002).

Several studies have shown that regular aerobic physical activity contributes to the improvement of cognitive functions. Work reported a strong correlation between the increase in aerobic capacity and improvement in cognitive functions.

(DUSTMAN, 1984 cited in LAURIN, 2001).

According McAuley & Rudolph, the aerobic exercise contributes to the integrity stroke, increases the transport of oxygen to the brain, helps the synthesis and degradation of neurotransmitters, and the lowering of blood pressure, levels of cholesterol and triglycerides, inhibition of aggregation platelet, increased functional capacity and therefore improves the quality of life.

There are a number of written literature demonstrating the positive relationship between aerobic exercise and depression, showing that states of depression ranging from mild to moderate can be minimized with the practice of aerobic physical activity (Sami, 1996; MILANI, 1996; MORGAN, 1970)

A good quality of life is, as far as organic, the condition to achieve the efforts of everyday life and not make big fall in homeostasis during the activities. The prolonged inactivity that occurs in many young adults leads to a gradual reduction of all the qualities of physical fitness, compromising the quality of life. From a psychological, physical activity can help in combating depression, acting as a catalyst for interpersonal relationships, producing pleasant feeling of wellness, encouraging self-esteem by overcoming small challenges (SALGUEIRO, 2000).

Benefits of physical activity are associated with health and welfare, as well as to decrease the risk predisposing to the emergence and development of organ dysfunction related to inactivity. Inactivity during leisure time can be identified as the non-participation in physical activities in moments of leisure, considering physical activity as any bodily movement produced by skeletal muscles that results in energy expenditure, and components and determinants of a bio-psychosocial, cultural and behavioral, may be exemplified by games, fights, dances, sports, physical exercise and displacements.

It is known that physical activity plays an important role in the quality of life, contributing to the control of anxiety, depression, asthma, and provide better self-esteem and help the well being and socialization of the individual. The sedentary lifestyle is present in much of the Brazilian population, highlighting in this study, young adults enrolled in higher education. It is believed that one of the main reasons for joining the practice of swimming (aerobic physical activity) are those related to health. Faced with the demands of routine university, the practice of physical activity is, in most cases, placed in the background.

Purpose

The project extramural "Forum for Sports and Leisure in FAEFID / UFJF" in the form swimming, aims at promoting the leisure and health through the practice of university sports. This study sought to determine the influence that the aerobic physical activity (swimming) is the prevention of chronic diseases later and in promoting quality of life of graduate students in various courses of the UFJF and raise statistical data on the level of activity this group physically searched. Moreover, trying to detect whether the swimming lessons reduced the heart rate at rest of the academics.

Methodology

It was used as a tool to search a questionnaire prepared by researchers aiming to raise data on the level of physical activity, understanding the issues "leisure" and "university sport" and aim for membership of the sport among university students. The implementation of the questionnaire was conducted in oral form with the academics participating in the project.

We used a heart monitor (Polar RS200) to measure the heart rate at rest in a closed room in the position of supine position for 5 minutes at the time of enrollment in the project and other scouting at the end of the period (4 months) of the practical activities of research .

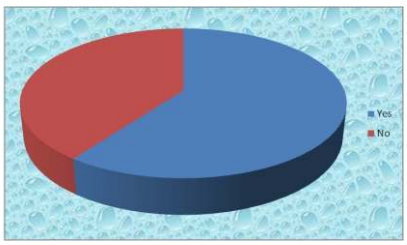
The subjects were 30 students of various courses of UFJF. The activities developed with the participants were brought in line with the level of individual performance in water and purpose of each of the search project. These activities lasted four months including the initiation and improvement of swimming as well as physical conditioning. These were held in the pool of sports complex, the Faculty of Physical Education and Sport of UFJF through three to four weekly meetings lasting an hour each session.

All scholars submitted to signed the search for compromise and clarification on what would be done during the four months. The search after subjected to the ethics committee was approved without any complication.

.**Results**

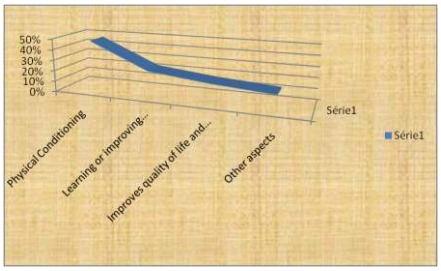
The results of this study were statistically analyzed and showed that 40% of university students not practiced any physical activity and these, 75% were students of current health-care professionals and Dentistry, Medicine and Fitness.

Table 1 - Level of physical activity before joining the project



For 47% of the participants, the aim of the sport by the search was to obtain a good physical condition, to 23% this goal is related to learning or improving swimming, 17% showed interest in improving the quality of life and health, and to the remaining 13%, the goal is linked to other issues such as loss of fear of water, recreation, loss of weight and appearance.

Table 2 - Goal for the pursuit of sport



The sense of leisure to 20% is the meaning of welfare, 16% believe the leisure as a means of entertainment and for the other 64%, leisure is related to escape from the routine, enjoyable moments, pleasurable activity, relaxation and time rest.

Regarding the sports university, 26% of understanding as a form of health, 13% understand the meaning and as competition for the remaining 61%, include the university sport as leisure, sport, education, interaction, pleasure and discipline.

On the heart rate at rest, 47% had a large decline (between 10 and 15 bpm), 23% showed a considerable decrease (between 1 and 9 bpm) and the other 17% showed no improvement.

T**able 3** - Decline in $FC_{repouso}$



People who showed a decrease in heart rate at rest showed improvement in physical activity at work. All participants showed great improvement in quality of life and well-being physical and psychological after the four-month of practical activities.

Conclusion

With the search results, we can highlight in this study that many of these university is concerned more with the physical condition linked to aesthetics, often influenced by television media, than with the cardiovascular health of your body. The most aggravating to see is that most of these young adults is health care. We conclude that the decrease in heart rate at rest through the practice of swimming is directly related to the improvement of quality of life of citizens. We've noticed that physical activity for the group has not been a habit from day to day, which directly influences the quality of life present and future of these individuals. Through the Extension Project of "Forum for Sports and Leisure in FAEFID / UFJF", the university can meet the needs of the practice of physical activity.

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THE IMPORTANCE OF PHYSICAL ACTIVITY AEROBICS AS A MEANS OF PREVENTION OF CARDIOVASCULAR DISEASE AND PROMOTION OF QUALITY OF LIFE IN YOUNG ADULTS

Benefits of aerobic physical activity are associated with health and welfare, as well as to decrease the risk predisposing to the emergence and development of organ dysfunction related to inactivity, highlighting in this study, young adults enrolled in higher education. The extension project "Forum for Sports and Leisure in FAEFID / UFJF" in the form swimming, aims

at promoting the leisure and health through the practice of university sports. It was used as an instrument of a questionnaire survey aiming to raise data on physical activity. The subjects were 30 students of various courses of UFJF. The activities developed with the participants were brought in line with the level of individual performance in the water, including the initiation and improvement of swimming as well as physical conditioning. These were held in the pool of FAEFID by 3 to 4 meetings per week for 4 months. The results of this study were statistically analyzed and showed that 40% of university students not practiced any physical activity. For 47% of the participants, the aim of the sport by the search was to obtain a good physical condition, to 23% this goal is related to learning or improving swimming, 17% showed interest in improving the quality of life and health, and to the remaining 13%, the goal is associated with other aspects. All participants showed improvement in quality of life and well-being physical and psychological noticed that physical activity for the group has not been a habit from day to day, which directly influences the present and future health of these individuals.

Key words: quality of life, sedentary lifestyle and swimming.

L'IMPORTANCE DE L'ACTIVITÉ PHYSIQUE AÉROBIC COMME MOYEN DE PRÉVENTION DES MALADIES CARDIO-VASCULAIRES ET DE LA PROMOTION DE LA QUALITÉ DE VIE CHEZ LES JEUNES ADULTES

Les avantages de l'activité physique aérobie sont associés à la santé et le bien-être, ainsi que pour réduire le risque prédisposant à l'apparition et le développement d'organes dysfonctionnement liés à l'inactivité, mettant en évidence dans cette étude, les jeunes adultes inscrits dans l'enseignement supérieur. Le projet d'extension «Forum des Sports et Loisirs à FAEFID / UFJF" sous la forme de natation, vise à promouvoir les loisirs et la santé par la pratique du sport universitaire. Il a été utilisé comme un instrument d'une enquête par questionnaire visant à recueillir des données sur l'activité physique. Les sujets étaient 30 étudiants de différents cours de UFJF. Les activités développées avec les participants ont été mis en conformité avec le niveau de la performance individuelle dans l'eau, y compris l'ouverture et l'amélioration de la natation ainsi que le conditionnement physique. Ces ont eu lieu dans la piscine de FAEFID de 3 à 4 séances par semaine pendant 4 mois. Les résultats de cette étude ont été analysées statistiquement et ont révélé que 40% des étudiants de l'université ne pratique aucune activité physique. Pour 47% des participants, l'objectif du sport par la recherche était d'obtenir une bonne condition physique, à 23% de cet objectif est lié à l'apprentissage ou l'amélioration de la natation, 17% ont montré leur intérêt dans l'amélioration de la qualité de vie et de la santé, et à les 13% restants, l'objectif est associée à d'autres aspects. Tous les participants ont montré l'amélioration de la qualité de vie et le bien-être physique et psychologique constaté que l'activité physique pour le groupe n'a pas été une habitude de jour en jour, ce qui influe directement sur le présent et l'avenir santé de ces personnes.

Mots clés: qualité de vie, mode de vie sédentaire et de la natation.

LA IMPORTANCIA DE LA ACTIVIDAD FISICA DE AERÓBIC COMO UM MEDIO DE LA PREVENCIÓN DE LAS ENFERMEDADES CARDIOVASCULARES Y LA PROMOCIÓN DE LA CALIDAD DE VIDA EM LOS ADULTOS JÓVENES

Beneficios de la actividad física aeróbica se asocian con la salud y el bienestar, así como a disminuir el riesgo que predisponen a la aparición y el desarrollo de disfunción de órganos relacionados con la inactividad, destacando en este estudio, los adultos jóvenes matriculados en la enseñanza superior. El proyecto de extensión "Foro de Deportes y Ocio en FAEFID / UFJF" en la forma de natación, tiene por objeto promover el ocio y la salud a través de la práctica de los deportes universitarios. Se utilizó como instrumento un cuestionario de una encuesta con el objetivo de aumentar los datos sobre la actividad física. Los sujetos fueron 30 estudiantes de diversos cursos de UFJF. Las actividades desarrolladas con los participantes fueron llevados en línea con el nivel de rendimiento individual en el agua, incluida la iniciación y la mejora de la natación, así como acondicionamiento físico. Estas se celebraron en la piscina de FAEFID por 3 a 4 sesiones por semana durante 4 meses. Los resultados de este estudio fueron analizados estadísticamente y mostraron que el 40% de los estudiantes universitarios no practica ninguna actividad física. Para el 47% de los participantes, el objetivo del deporte por la búsqueda era para obtener una buena condición física, al 23% de este objetivo está relacionado con el aprendizaje o la mejora de la natación, el 17% mostró interés en la mejora de la calidad de vida y la salud, y el 13% restante, el objetivo está relacionado con otros aspectos. Todos los participantes mostraron mejoría en la calidad de vida y el bienestar físico y psicológico observado que la actividad física para el grupo no ha sido una costumbre día a día, lo que influye directamente en el presente y el futuro de salud de estas personas.

Palabras clave: calidad de vida, estilo de vida sedentario y la natación.

A IMPORTÂNCIA DA ATIVIDADE FÍSICA AERÓBICA COMO MEIO DE PREVENÇÃO DE DOENÇAS CARDIOVASCULARES E PROMOÇÃO DA QUALIDADE DE VIDA EM JOVENS ADULTOS

Benefícios da prática de atividade física aeróbica estão associados à saúde e ao bem-estar, assim como à diminuição dos riscos predisponentes ao aparecimento e ao desenvolvimento de disfunções orgânicas relacionadas ao sedentarismo, destacando neste estudo os jovens adultos matriculados no ensino superior. O projeto de extensão “Espaço de Lazer e Esporte na FAEFID/UFJF”, na modalidade natação, tem por objetivo promover o lazer e a saúde de universitários através desta prática esportiva. Utilizou-se como instrumento de pesquisa um questionário com objetivo de levantar dados relativos à prática de atividade física. Os sujeitos foram 30 estudantes de diversos cursos da UFJF. As atividades desenvolvidas com os participantes foram adaptadas de acordo com o nível de desempenho individual na água, incluindo a iniciação e o aperfeiçoamento à natação bem como o condicionamento físico. Estas foram realizadas na piscina da FAEFID através de 3 a 4 encontros semanais durante 4 meses. Os resultados obtidos com este estudo foram analisados estatisticamente e mostraram que 40% dos universitários não praticavam nenhuma atividade física. Para 47% dos participantes, o objetivo pela busca do esporte foi a obtenção de um bom condicionamento físico, para 23% este objetivo está relacionado ao aprendizado ou aperfeiçoamento da natação, 17% mostrou interesse na melhora da qualidade de vida e saúde e, para os 13% restantes, o objetivo associava-se a outros aspectos. Todos os participantes manifestaram melhora na qualidade de vida e no bem-estar físico-psicológico Observamos que a atividade física para o grupo estudado não tem sido um hábito no dia-a-dia, o que influencia diretamente na saúde presente e futura destes indivíduos.

Palavras-chaves: qualidade de vida, sedentarismo e natação.