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The benefits of aerobic training for improving quality of life: A Critical Review of Study

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Abstract

Aerobic exercise is currently the safest sport for both young and old people. This is because aerobic training provides tiered and targeted training and acts specifically on several muscles. The general purpose of aerobic exercise is to train the body to exercise without stress and excessive psychological disturbances. Then, aerobic exercise is also done in stages such as stretching, strength, and balance of various types of muscle and joint flexibility exercises. This is very useful for the elderly to avoid injury during aerobic training and is able to reduce the psychological disorders that are often experienced by the elderly. In this review, we conclude that aerobic exercise can have a good impact especially on stress levels on quality of life in the elderly.

Keyword: Aerobic activity, elderly, fitness exercise, psychical, quality of life

Abstrak

Latihan aerobik saat ini adalah olahraga paling aman untuk semua orang, baik orang muda maupun orang tua. Ini karena latihan aerobik memberikan pelatihan berjenjang dan terarah serta bertindak secara khusus pada beberapa otot. Tujuan umum latihan aerobik adalah untuk melatih tubuh untuk berolahraga tanpa stres dan gangguan psikologis yang berlebihan. Kemudian, latihan aerobik juga dilakukan secara bertahap seperti; peregangan, kekuatan, dan keseimbangan berbagai jenis latihan fleksibilitas otot dan sendi. Ini sangat berguna bagi lansia untuk menghindari cedera saat latihan aerobik dan mampu mengurangi gangguan psikologis yang sering dialami lansia. Dalam ulasan ini, kami menyimpulkan bahwa latihan aerobik dapat memiliki dampak yang baik terutama pada tingkat stres pada kualitas hidup pada orang tua.

Kata kunci: Aktivitas aerobik, lansia, latihan kebugaran, psikis, kualitas hidup

INTRODUCTION

Aerobic trainings define as physical exercise from low to high intensity that require aerobic energy-generating process¹. Aerobic training offers multiple benefits for human's body such as general toning of the body, correction of incorrect postures, muscular and bone flexibilities, benefits for the cardiac circulatory and respiratory systems, and other physical benefits^(2,3).

It is a versatile discipline since soft gymnastics can have various forms and various approaches depending on the type of exercises performed. Squats, sit-to-stand movement and abdominal leg raise are very useful if the goal is to regain physical fitness⁴. It is also possible to concentrate specifically on certain parts of the body, such as legs and buttocks, to strengthen the muscles and obtain an expression of muscular tone, thus increasing the mitochondrial density and consequently, breathing and

cellular consumption, so as to increase slightly organic metabolism⁵.

The gentle exercise is not to be carried out exclusively in the gym since the swimming pool and the rehabilitation gym classes in the water also have the characteristic of acting in the round on the body⁶. The main advantage, in this case, is linked to the fact that the weight load of the body does not go to stress the joints, thus facilitating some muscular movements that, otherwise, could be particularly heavy for a person who is not used to sports^(7,8).

The preventive approach to the gentle exercise is simple: keeping fit is possible, and this applies to everyone⁹. It is an activity without limitations and suitable for those who practice aerobic sports¹⁰. It is also particularly suitable for those with posture problems, for those who do not perform regular physical activity for a long time, for the elderly, as well as for pregnant women and sed-

entary people ¹¹.

GENERAL PROCEDURE OF AEROBIC TRAINING

Generally, participants plan to perform exercises that do not require to lie down or get up from the ground several times, movements that with age can become more risky⁵. Furthermore, there is the possibility to perform some series of movements in water or with the support of a chair, reducing the risk of falls³. No artificial loads or professional equipment are required either^(12,13).

In short, it is clearly unbalanced in favor of the latter, even it should be remembered that gentle exercise does not have an immediate impact on the body⁹. Those who practice it constantly and carefully will observe a slow and gradual change of their body and a general improvement of physical well-being¹⁴.

The psychological benefits that the regular practice of gentle gymnastics can introduce into the life of those who practice it should not be overlooked¹⁵. In general, the type of exercises proposed also promotes relaxation and the pleasant sensation of "emptying the mind" after training and it soon becomes a welcome habit¹⁶.

Contraindications: Being free-body exercises that are tendentially static, the gymnastics is not recommended for those who aim to act quickly on their physical fitness and those who have the goal of significantly strengthening their muscles^(17,18).

Among the advantages of the practice of gentle exercise is the possibility of simply repeating the exercises independently. To avoid risks and incorrect movements, it is good to start by attending a course in a gym or in a qualified fitness center¹⁹. Only later, once some exercises are learned, they can be replicated independently at home using exercise mat or outdoors during the summer²⁰. For the most demanding exercises, you can use exercise balls or foam rollers with the aim of facilitating the correct performance of some of the required movements^(11,21).

BENEFITS OF AEROBIC TRAINING

In the activity, aerobics are worth more than the warnings for the beginner if you are not trained²². The experienced aerobic man is more efficient, the 50 year old beginner man may be in progression for several years, the drop is due to age and with the aerobic sessions an optimization of all the factors contributing to the performance is sought strength, elasticity and flexibility drop much more than resistance, recovery gets worse, the anaerobic part gets worse than the aerobic one¹⁴. As a general principle, it is necessary to train the weak points, not those of force²¹.

Since recovery worsens with age, for those who have been running for more than ten years and are over 50, the risk of injury increases due to the

presence of chronic degenerative situations^(23,22). Those who make 5 or 6 weekly sessions should reduce them to 4 or 5 weekly sessions. Any session that was previously dedicated to running should be dedicated to a less traumatic activity (gentle exercise) or gym exercise. Heart and muscles that work efficiently does not make the running style keep you efficient^(11,16,24).

The fact that many exercises that are characterized as gentle exercises can be replicated independently must not indicate that this physical activity is without risk^(4,18). Even simple and slow movements, if they are done incorrectly or are not calibrated in conditions, can cause stiffness, muscle tension, or effects that are contrary to expectations, especially if the aim is to improve one's posture^(25,26).

Gentle training is a "soft" sport activity, but especially for those who choose to dedicate themselves to exercise independently, it is better to consult periodically with an expert, both before and during training, to monitor the possible damage associated with exercise. However, it is important to always inform the instructor about health condition, especially of the area of blood circulation and posture⁵. Assistance can come to the establishment of a physiotherapy insurance policy that includes free care if we get injured while doing sports in order to improve health behavior^(24,11).

In general, aerobic exercise is beneficial to body components, such as cardiovascular system, which has an impact on functional capacity (blood pressure, pulse, respiration, and temperature), and the musculoskeletal system, and is beneficial to joint flexibility^(16,27). The main benefits of aerobic training are that it is focused on endurance and maintenance of bodily functions in a comprehensive and complex manner^(23,21,18).

Physical activity involves psychological improvement in the short and long term and results in psychological well-being²⁸. Personal benefits derived from physical activity have been identified, among others, in: • increased self-confidence and awareness, • improved mood with a reduction in depression and anxiety, • positive changes in perceptions about self • increased energy and ability to cope with daily activities, • increased sports enjoyment and social contact, greater levels of preparedness, and mental clarity²⁹. Physical activity has a positive effect on self-esteem, which can echo in hypertension, osteoporosis, adult-onset diabetes, and some mood disorders³⁰. From leisure time, physical activity gives the best anti-depressive effect⁴.

Aerobic training involves psychological improvements in the short and long term and produces psychological well-being³¹. The personal benefits deriving from physical activity have been identified, among others, in: 1) an increase in confidence and awareness, 2) an improvement in mood with a reduction in depression and anxiety, 3) a positive

change in the perception of self, 4) an increase in energy and ability to cope with everyday activities, 4) an increase in the pleasure of exercise and social contacts, 5) a greater state of readiness and mental clarity. Physical activity has a positive effect on self-esteem that can reverberate on hypertension, osteoporosis, adult-onset diabetes, and some mood disorders. From leisure time activities, the physical one provides the best anti-depressive effect³².

Psychological factors have been taken into consideration as antecedents, concomitants and consequent physical activity³². With regard to the previous research the focus has been on the reasons that facilitate or hinder physical activity³³. Among these, the lack of time, is often the most cited barrier. Concerning psychological concomitants, studies have shown an improvement in well-being for medium-intensity and short-lived exercises, such as taking a fifteen-minute walk without stopping²⁵. With reference to the consequent or psychological effects, particular importance took on the feelings, positive or negative, that sport provokes in those who practice it, also in order to consider the impact that the exercise can have on strengthening the wellbeing of the population^(1,3). Particular evidence has taken on the effects of aerobic exercise in the regulation of emotional states^(23,12).

CONCLUSION

This review shows that aerobic trainings provide beneficial impacts to human's body by influencing human body systems mainly cardiovascular system, musculoskeletal system, and joint systems. A person who performs regular aerobic trainings will gain benefit both for psychological and physical aspects in short and long term. Overall, routine aerobic trainings can directly reduce stress levels and increase the quality of life.

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