

Relationship between physical exercise and anxiety symptoms

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ABSTRACT

The study looks at the effectiveness of physical exercise in reducing anxiety symptoms, based on reviewed clinical trials. The results show that both light and moderate to high intensity exercise decreases anxiety symptoms, with evidence of significant improvements in several groups of patients. In addition, aerobic and resistance exercise are both effective, but offer distinct benefits, such as improved overall psychological well-being and increased stress tolerance.

Keywords: Anxiety, Physical exercise, Psychiatry.

INTRODUCTION

The word anxiety derives from Latin, coming from the verb *ango* and the noun *angor*, which means to compress. The origin of the word certainly refers to the sensations of patients who are affected by such pathology, since the patient's feeling of anguish can end up culminating in the somatic symptoms of anxiety disorders, such as increased heart rate, increased respiratory rate, feeling faint and perception that something bad is about to happen. Given this scenario, it is of paramount importance to search for an effective approach to mitigate these symptoms. One of the possible ways to do it is through the practice of exercises. The present study aims to gather some clinical trials that aimed to analyze the response of anxiety symptoms and their pathologies in response to physical exercise.

MATERIALS AND METHODS

The present study was carried out based on a narrative review of the literature, and the articles were selected from the Scielo, PubMed and Google Scholar platforms. Studies containing the single words were included. Studies included: Clinical trials. Excluded studies: meta-analyses and animal studies.

RESULTS

In (Henriksson et al, 2022), it is found that anxiety symptoms can be controlled by light, moderate, and high intensity physical exercise. 365 individuals were invited to participate. Of these, 153 stayed until the end of the study, having disorders such as GAD, Panic Syndrome, among others. They were separated into three groups: control (with 52 individuals), intervention 1 (with 48 individuals performing light physical exercise three times a week) and intervention 2 (with 53 individuals performing moderate to high

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intensity physical exercise, three times a week). Using the BAI score, there was a significant decline in both intervention group 1 and intervention group 2 after the 12-week period. In group 1, there was a decrease from 25 to 15 points, which indicates a drop from moderate to mild.

The author proposes that this change may result both from the participation of a group with the presence of a psychotherapist and from the changes caused by the greater production of IGF-1, associated with a reduction in anxiety symptoms and neuroplasticity in studies with rodents.

Another study (GORDON et al, 2020) shows a similar finding, but among individuals without anxiety disorders. In total, 28 participants were analyzed over 4 weeks, and resistance exercise training was carried out. A significant decrease in anxiety was observed by the STAI-Y2, PSWQ and their variants, especially in the first week, which indicates an immediate effect of the therapy, and after 4 weeks, indicating a lasting effect, despite a relative stabilization between weeks 1 and 4.

In (LEBOUTHILLIER, D. M.; ASMUNDSON, G. J. G., 2017) compared the effectiveness of both aerobic and resistance exercises and both proved effective in reducing anxiety symptoms. It was specified, however, that aerobic stimulation improved the general psychological condition of the individuals, while resistance exercise improved sensitivity to symptoms and improved stress tolerance.

One of the processes associated with this decrease in anxiety is the production of endocannabinoids, responsible for generating a feeling of greater relaxation and tranquility for the patient. In addition, there is an improvement in the patient's self-perception.

FINAL CONSIDERATIONS

Therefore, reflecting on these biopsychic and neurological processes, it is seen that physical exercise is an important ally in combating the processes that culminate in anxiety disorders, both in their prevention and in non-pharmacological treatment, as they allow the individual an approach that can lead to a stability of pharmacological treatment, if he does so, and a way to, if you no longer need to use it, helping to balance mental health, reducing anxiety symptoms. In addition, the clinical trials pointed out reveal a significant improvement in the anxiety disorders of individuals.



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