Resumen

Actualmente, se conocen los grandes beneficios del ejercicio físico para la salud. Este hecho ha promovido que se realicen numerosos estudios con el fin de considerar la actividad física como un tratamiento para la depresión. El presente trabajo es una revisión bibliográfica cuyo objetivo principal es, por un lado, conocer el efecto de la actividad física como tratamiento en el trastorno de depresión mayor en comparación al tratamiento habitual, y por otro, comparar el efecto de las diferentes intensidades de ejercicio en el tratamiento de la depresión. Para ello se han seleccionado once artículos para esta revisión, los cuales muestran que el comportamiento sedentario inducido provoca un aumento en la sintomatología de la depresión. Además, se infiere que la actividad física reduce la sintomatología depresiva, aumenta el bienestar emocional y la calidad del sueño. Por otro lado, se observa que tanto el ejercicio ligero como vigoroso reducen de manera más efectiva la depresión que el ejercicio moderado, y que estas tres modalidades de deporte reducen de manera más significativa la depresión que la terapia habitual. También se observa que el ejercicio a altas dosis reduce la sintomatología depresiva en menor tiempo que el ejercicio a bajas dosis. Los beneficios de la actividad física para reducir la sintomatología depresiva se han visto también en pacientes hospitalizados con depresión grave. Por último, se ha demostrado que el ejercicio a intervalos de sprint es más eficiente en el tiempo que el ejercicio aeróbico continuo para disminuir la depresión. Sin embargo, se requieren estudios futuros de carácter longitudinal para verificar estos resultados a lo largo del tiempo.

***Palabras clave**: Physical activity, exercise, depression, major depressive disorder.*

Abstract

Currently, the great benefits of physical exercise for health are known. This fact has prompted numerous studies to consider physical activity as a treatment for depression. The present study is a bibliographic review whose main objective is, on the one hand, to know the effect of physical activity as a treatment in major depression disorder compared to usual treatment, and on the other, to compare the effect of different exercise intensities in the treatment of depression. For this review, eleven articles have been selected, which show that induced sedentary behavior causes an increase in the symptoms of depression. In addition, it is inferred that physical activity reduces depressive symptoms, increases emotional well-being and the quality of sleep. On the other hand, it is observed that both light and vigorous exercise reduce depression more effectively than moderate exercise, and that these three sports modalities reduce depression more significantly than usual therapy. It is also observed that exercise at high doses reduces depressive symptoms in less time than exercise at low doses. The benefits of physical activity to reduce depressive symptoms have also been seen in hospitalized patients with severe depression. Lastly, sprint interval exercise has been shown to be more time efficient than continuous aerobic exercise in reducing depression. However, future longitudinal studies are required to verify these results over time.

Keywords*: Physical activity, exercise, depression, major depressive disorder.*

Physical Activity as Complementary Therapy for the Treatment of Major Depression Disorder

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Introduction

Major depression is a mood disorder characterized by great sadness and a physical activity decrease, among other things, in the person who suffers from it. Physical activity is considered a good option of complementary treatment to the usual and pharmacological therapy, cheaper and more affordable.

Objective

Know the effect of physical activity as a treatment in major depression disorder compared to usual treatment and to compare the effect of different intensities of physical activity (mild, moderate and intense) in the treatment of depression.

Method

PubMed (n=705)

Google Academy (n=58)

Studies found in the research (n=763)

Excluded articles (n= 730) **by**:
-Other pathologies: 482
-Other treatments: 25
-Participants ages: 99
-Not being clinical studies: 11
-Studies related only to sport: 20
-Neuroscience specifics: 8
-Ii did not accomplish the objectives of the revision: 47
-Focused on a single sex: 18
-Pregnancy: 12
-Duplicates: 5
-Do not have access: 2
-Other language: 1

Excluded articles (n=22) **by**:
-Participants age: 2
-Focused in only one sex: 1
-Didn't accomplish the objectives of the revision: 19

Articles selected by title and summary (n=33)

Articles included in this revision (n=11)

Keywords: *Physical activity, exercise, depression, major depressive disorder*.

Results

Blough et al. (2018) and Edwards et al. (2016):
Induced sedentary behavior for one week has been found to increase the symptomatology of depression in active adults and to have a detrimental effect on mood, as reflected in both the study.
Doose et al. (2015):
In that study significant improvements in depressive symptoms for the exercise intervention group plus usual treatment. Although there were only significant changes in one of the tests that measured depression (HRSD-17).
Helgadóttir et al. (2016) and Helgadóttir et al. (2017):
-Helgadóttir et al. (2016)
Both the light and vigorous groups more significantly reduced the symptoms of depression compared to the moderate group. Although, there are not significant differences between these groups. The three groups had a significant difference with respect to the TAU group.
-Helgadóttir et al. (2017)
Both light and vigorous exercise are techniques that respond properly to treatment in a 12-month follow-up compared to usual treatment.
Gerber et al. (2019):
Improvements in VO2max, from the beginning and once the sport treatment was finished, were associated with a decrease in depressive symptoms, an increase in emotional well-being and sleep quality. Such improvements were seen in both groups.
Greer et al. (2016):
Exercise significantly reduces depressive symptoms and improves psychosocial functioning in people with major depression. However, It was observed that the high-dose exercise group (16-KKW) produces these effects in a shorter time than the low-dose exercise group (14-KKW).
Hallgren et al. (2015) and Hallgren et al. (2016):
-Hallgren et al. (2015)
Significant improvements in depression were shown to a greater extent in the physical exercise group, followed by the internet intervention group and therefore by the usual treatment group.
-Hallgren et al. (2016)
It was observed that the largest effect in the gravity reduction of depression was seen at 3 months for the physical exercise group and ICBT, in comparison with the usual treatment. However, differences between groups stopped being significant at 12 months.
Minghetti et al. (2018):
Both sprint intervals exercise (SIT) and continuous aerobic training (CAT) reduce depression levels, nevertheless, in comparison with CAT, SIT is considered a more tolerable, promising and efficient choice in physical training time, with less cardiovascular and psychological tension.
Schuch et al. (2014):
Exercise is a potential treatment for hospitalized patients with grave depression, since, as it is shown in the exercise group plus usual treatment, it reduces significantly the depressive symptomatology and improves the patients' life quality.

Discussion

All the studies that have been included in this review show an **improvement in depressive symptoms with the intervention of physical activity**.

- Induced sedentary lifestyle worsens depression symptoms.
- Physical activity reduces depressive symptoms. In addition, the symptoms improve with the various levels of intensity (light, moderate and vigorous). However, the light and vigorous levels maintain their effects at 12 months.
- Higher doses of exercise reduce depression earlier than lower doses.
- Sprint intervals are a more effective option than continuous aerobic training.
- Exercise as therapy reduces depressive symptoms faster than ICBT and TAU.

Limits

The common limitations in most of the articles are:

- The need for **more research** on the effectiveness of physical activity for the treatment of depression.
- **Longitudinal studies** investigating the effects of exercise on depression over time.
- **Future longitudinal research** is needed on the effectiveness of physical activity as a treatment to reduce symptoms of depression.

* Some of the articles in this review had subsequent studies with the same variables to verify the data over time.

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