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The benefits of physiotherapy in patients with major depressive disorder (MDD)

Abstract

The major depressive disorder has become more and more severe, and it is the major cause of functional disability of the economically active population. In the area of mental health, most individuals with mental disorders can get benefits from the practice of physical exercise, since under the physiological point of view, They are usually individuals with reduced aerobic capacity and high propensity for metabolic syndrome. The objective of this article was to investigate the positive impacts of physiotherapy on the life of patients with Major Depressive Disorder. The study was characterized by an integrative review of the literature.

Keywords: depression, physical therapy, exercise, treatment

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Abbreviations: MDD, major depressive disorder; KKW, kilogram of body weight; CANMAT, canadian network for mood and anxiety treatments

Introduction

The major depressive disorder has become more and more severe, being considered the major cause of disability of the economically active population. Besides the direct damages, classically associated with depressive disorder, several studies indicate evidence that depressed individuals tend to present less interest in general medical treatments.[1]

In the area of mental health, most individuals with mental disorders can get benefits from the practice of physical exercise, since under the physiological point of view; they are usually individuals with reduced aerobic capacity and high propensity for metabolic syndrome.[2,3]

Physical exercise can also reduce the depressive symptoms common in some psychopathologies, such as mood affective disorders and schizophrenia.[4] Similarly, motor fitness is extremely associated with the physical, neurological, psychological and social aspects of the human being.[5]

According to Roeder,[6] physiotherapy aims to study the human movement in all its forms of expression and potentialities, both in its pathological alterations, as well as in its psychic and organic repercussions, with the aim of preserving, maintaining, developing or restoring organ, system or function integrity.

Methodology

The study is characterized by an integrative review of the literature on the benefits of physiotherapeutic treatment in patients with Major Depressive Disorder (MDD).

The search took place between August and November 2019 through the libraries: BVS, LILACS, MEDLINE, PUBMED and SciELO, using the descriptors: "Major effects depression", "Physical Exercises", "Mental Rehabilitation", "Major depression "Physiotherapy effects", "Physiotherapy Mental effects".

Results

Electronic research resulted in the location of two hundred eighty-two studies. Of these, ninety-five were initially excluded for not specifically addressing the subject; one hundred and seventy were excluded for the methodology used (did not involve practical application). Of the remaining seventeen, ten were excluded because they did not meet the other inclusion criteria. Leaving seven articles. Subsequently, the full reading of the seven articles was performed and four were selected with the characteristics necessary to compose the results and be discussed in this study.

The articles found were: Walk on the Bright side: Physical Activity and affect in major depressive Disorder;[7] Improvements in psychosocial functioning and health-Related quality of life following exercise augmentation in patients with treatment response but non-remitted major depressive disorder: Results from the TREAD Study[8] Clinical Guidelines for the Management of Adults with Major depressive Disorder: Section 5. Complementary and Alternative Medicine Treatments[9] and; Similar effects of low to moderate-Intensity exercise program vs moderate-intensity continuous exercise program on depressive disorder in heart failure patients.[10]

Discussion

Through an analysis of the four articles found, it can be noticed that all the authors, except Ravindran, Balneaves, Faulkner et al.[9] were focused on comparing the effects of physical activity differentiating the intensities of exercises.

And that although they used different audiences and different methodologies, the result was the same: there is no significant difference between low and high intensity exercises for patients with MDD.

Greer et al.[8] chose patients with an age range between 18-70 years, who did not have signs of psychosis, and did not have MDD in remission. They divided the patients into two groups: those who would do lighter exercises and those who would exercise more intensely. Being that, the group of intense exercises spent on average 16 calories per kilogram of body weight (KKW) and the group of light exercises spent on average 4 KKW.

As a result Greer et al.[8] obtained the conclusion that participants experienced significant improvements in operation in all domains tested and that no differences were found between exercise groups, improvements were observed in several psychosocial and quality of life domains, even in the low-dose exercise group.

Mata et al.[7] used a sample of 106 patients and then divided them into two groups of 53 people: those diagnosed with MDD, and a control group of healthy people. Individuals with some psychotic disorder, bipolar disorder, or dependence on some kind of substance in the last six months were excluded. Healthy patients could not have had MDD at any time in their lives, nor any other psychiatric disorder, besides being all English speakers.

Mata et al.[8] after the patients passed the tests, received a device called Palm Pilot Z22 that alerted them eight times a day, every day, from 10am to 10pm. In a total of seven or eight days. When the devices alarmed, the patients had a total of 3 minutes to answer the questions that appeared. The questions answered involved the emotional state of the patients, and next to them, questions like "Did you exercise since the last alarm?" If the answer was yes, there were questions about the duration of the exercise, the type, and the intensity. As a result, it can be observed that there were no differences between depressed participants and control participants in the frequency, intensity or duration of physical activity.

Abdelbasset et al.[10] performed the study in patients who besides MDD has heart problems. The sample consisted of 69 patients, with heart failure with a mild to moderate level of MDD and 40% ejection fraction, they were examined before and after the 12-week intervention. The patients age ranged from 40-60 years. The patients were randomly classified into 3 groups. Group I received a program of exercises of low to moderate intensity, group II received a program of exercises of moderate intensity and group III did not receive any program of exercises. All patients were advised to continue to perform the exercises at home. The level of depression was evaluated before and after 12 weeks during the intervention program.

It was concluded that both exercise programs had effects on reducing the severity of depression in patients with heart failure. Mild-to-moderate and moderate-intense exercise programs should be proposed for depression and especially patients with heart failure.[10]

In the last article Ravindran et al.[9] choose to compare the effects of different techniques in the treatment of MDD, such as conventional exercises, yoga, light therapy and sleep deprivation, in addition to a natural remedy called St. John Wort, Omega-3 fatty acids and SAM-e Using the question-answer format, a systematic search was conducted in the literature focusing on systematic literature reviews and meta-analyses. The evidence was classified using criteria defined by Canadian Network for Mood and Anxiety Treatments (CANMAT) for the level of evidence.[9]

As a result, it was observed that for mild to moderate severity MDD, exercise, light therapy, St. John's Wort, omega-3, fatty acids, SAM-e, and yoga are recommended as first or second line treatments. Exercise as adjuncts to St. John's Wort are second line recommendations for moderate to severe MDD. Other physical treatments and natural health products have less evidence.[9]

The study developed by Peluso,[11] previously read, demonstrated that there is no difference between aerobic and anaerobic exercises in patients with MDD, as well as the articles found in the results. They also mention the indifference of results between exercises of different intensities.

The study by Pulcinelli & Barros,[12] also found previously, cites that moderate to intense exercises bring significant effects. However, the results also cite the low intensity exercises as great allied to the treatment of MDD. Once there is this divergence, the studied population, in addition to their habits, where they live and other factors must be taken into account.

The biggest challenge in the execution of this study was the scarcity of research approaching the specific topic, since most of the articles brought associated cardiac or neurological pathologies. In addition, although several databases were used, the articles were found only in the English Language. This demonstrates the great need for new studies that address the performance of physiotherapy in mental health, mainly with emphasis on the Brazilian reality.

The insertion of physiotherapists in public and private health networks with care of patients in mental distress caused by MDD was shown to be important, mainly due to the ease in creating protocols for these patients, as demonstrated by Greer et al.[8] Mata et al.[7] & Abdelbasset et al.[10] who demonstrated through their experiments that aerobic exercises, anaerobic, low and high intensity help significantly in the improvement of these patients. In addition, it has also been demonstrated by Ravindran, Balneaves, Faulkner et al.[9] other therapeutic alternatives that can be performed along with conventional treatment.

The physiotherapist is a qualified professional to treat several conditions, and can assist these patients both in the mental picture, as well as in the motor picture, which is compromised by the symptoms caused by MDD, described by the American Psychiatric Association.[13]

The physiotherapist acting with the whole team responsible for that patient, together with the family members can intervene positively in the MDD framework, starting from health promotion actions to interventions. There is a great open field where the physiotherapist can be inserted, since that more awareness actions are carried out.

Physical therapy is always innovating and seeking ways to meet and reach all audiences, however, the lack of studies exploring intervention options in the various areas of mental health makes that this public is not treated correctly yet.

Conclusion

Physical exercises, be they of low or high intensity bring notorious effects to the MDD frames, however, there is a great need to further explore the theme so that studies with more methodological rigor can prove the effectiveness of these in this patients. There is also the need to do research with more diverse audiences, associate MDD with other pathologies, expand the age range of patients and explore new methodologies.

Since the disorder has become increasingly crippling and reaching more and more new people, preventive measures should also be taken into account, as awareness campaigns for the community and also

for health professionals. It is up to health professionals, regardless of their areas of activity, to seek ways to better serve this public, because the treatment occurs in a multidisciplinary way, for this reason, the inclusion of physiotherapy professionals in psychiatric and psychotherapeutic sectors should be emphasized.

Lack of knowledge and underestimation of the symptoms of the disease make the process of improving care increasingly slow. Therefore, this study sought to give greater visibility to the topic, denoting the possibility of including physiotherapists in the fields of mental health, showing new possibilities and treatment options. However, it is extremely important that new studies be done in order to expand the options described in the present study.

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Conflicts of interest

The authors declare that they have no conflict of interest.

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