

Physical exercise helps prevent depression

Meta-analysis study evaluates 49 studies that deal with the issue

Researchers from UFRGS, La Salle University, UERJ, UFRJ and seven foreign universities developed a study that evaluates the relationship between physical exercise and depression. The article, which analyzes data from 49 other studies, was published in April 2018 in *The American Journal of Psychiatry*. UniLaSalle professor Felipe Schuch explains: "We took all the data from studies that have already been published and we did a statistical analysis of these data. We did not collect individual data, we just wrote this meta-analysis, this review study."

According to Schuch, the aim of the study is to observe how people with a higher level of physical activity in the beginning of research, and who did not have depression, reduce the chance of developing depression throughout their life. Many studies have been conducted with such an aim, but with different results. "Several studies had the same objective and they evaluated the same points, but they had different results. This difference in results raises a question: which of results is closer to reality? When we do a meta-analysis, we try to answer that question, and that was our special motivation to do this research," says Schuch.

With data from more than 265,000 people from 20 different countries, the study concludes that regardless of age or geographical location, physical activity works as a prevention of depression. This study specifically refers to prevention, not treatment. There is much evidence in the literature that exercise can help to relieve symptoms of people with depression. But our study focuses instead on demonstrating that those who do not have depression today have a lower risk of developing depression in the future if they do physical activity," she explains.

As for the level of physical activity needed to prevent depression, the researchers have not reached an exact definition. "The major limitation of the study is that the 'high level of physical activity' is a concept that has varied a lot between studies. Thus, we do not know exactly what this high level of physical activity is. We know the more physical activity we do the better. All studies comparing 'doing more' and 'doing less' activity reached this conclusion, but we do not know how much more and how much less this is," explains Schuch. However, six of the studies analyzed indicate that, when completing the level of physical activity recommended by the World Health Organization (WHO) of 150 minutes of moderate exercise per week, the probability of developing depression is reduced by 32%.

Physical activity practice accelerates neuronal regeneration, and this is one of the ways in which it can help in the prevention of depressive disorder. "This process is reduced in people with depression. They lose more neurons than they can regenerate. We believe that regeneration accelerated through exercise can prevent or reduce the risk of developing depression," explains Schuch. In the long term, people with depression may be with parts of the brain atrophied, such as the hippocampus and the prefrontal cortex, but physical activity also reduces the risk of this to happen.

The group of researchers works with others meta-analysis projects. "The next study, which has been written, looks on how much physical activity reduces or prevents a person from developing anxiety disorders or symptoms. This is the next stage. We will reproduce this for alcohol and drug disorders and also consider reproducing it for schizophrenia," Schuch concludes.

Scientific Article

SCHUCH, Felipe B. et al. Physical activity and incident depression: a meta-analysis of prospective cohort studies. *American Journal of*



Data indicate that physical activities reduce the chance of developing depression throughout life - Photo: Rochele Zandavalli / Archive UFRGS

Psychiatry, April 25, 2018.

Text in Portuguese available at: <http://www.ufrgs.br/secom/ciencia/exercicio-fisico-ajuda-na-prevencao-a-depressao/>

Translated by Kelly Carrion. Revised by Prof. Márcia Moura da Silva (UFRGS)

Universidade Federal do Rio Grande do Sul

Av. Paulo Gama, 110 - Bairro Farroupilha - Porto Alegre - Rio Grande do Sul
CEP: 90040-060 - Fone: +55 51 33086000

Directions

