

Effect of a Mindfulness-based Intervention to Reduce Levels of Depression, Anxiety and Perceived Stress in Physiotherapy Students

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1 Synopsis

Early detection and treatment of affective disorders (such as depression, anxiety and stress) in the population is extremely important and has become crucial since the COVID-19 pandemic. It is known that, due to the suspension of activities, isolation and restraints that limit the interaction with others, had cause to young people to be affected by depressive disorders and anxiety during the pandemic. The aim of this research is to determine the effect of a mindfulness-based intervention to reduce depression, anxiety, and perceived stress levels, in physical therapy students. It is intended to conduct a prospective quasi-experimental study, in physiotherapy undergraduate students of a public university in Mexico in the period of semester 2022-1. The following scales were applied: stress perception (EPP-10), Well-Being (WHO-5 Well-Being Index), DASS-21 and 5 Facets of Mindfulness Questionnaire (FFMQ-M) before and at the end of the intervention along with thermography. The data will be analyzed using inferential statistics with SPSS v.20 software.

The results of the application in the sample show that the higher the mindfulness, the lower the presence of stress, and the greater the well-being, the lower the levels of depression. The intervention is a program that's intended to be tested and improved so that it can be established periodically with students, seeking to improve their physical and mental health, as well as their academic achievements. This, in the long term, may have an impact on lag or dropout indicators. Bioethics Committee of the faculty, including informed consent with the participants.

2 Introduction

Early detection and treatment of mental health disorders are important and returned crucial from the declaration of the COVID-19 pandemic. Since we know that one of the most affected population groups were young people. Mindfulness programs are increasingly being implemented to address mental health, accessible and cost-effective intervention for stress and anxiety¹.

Since the 1980s, educational institutions have sought to improve their environment, higher education is a phase in which most students develop unhealthy lifestyles, leading to overweight, stress and anxiety, new risks, such as excessive consumption of alcohol and other substances². Therefore, it is important to develop healthy universities with actions that promote physical and mental health. One in three college students report experiencing depressive symptoms with maladaptive behavioral implications impeding everyday functioning. Of these students, 4% report having seriously considered suicide. Among people ages 18-24, half of all health concerns are related to mental health disorders³. Additionally, 75% of mental health disorders manifest before the age of 24³.

Research linking mindfulness to mental health and psychological well-being is on the rise, most of it in English. In Mexico, there is little evidence on the application of MF in university students.



3 Aim

The aim of this research is to determine the effect of a mindfulness-based intervention to reduce depression, anxiety, and perceived stress levels, in physical therapy students.

4 Methodology

Firstly, this research was registered with the bioethics and investigation committee of the University's Nursing Faculty. After that, the project was explained to the students, and they signed the informed consent form. The tests (EPP-10, WHO-5, DASS-21) were applied, and the thermographic study was applied.

The intervention was applied by the investigators online, the 8 sessions of mindfulness were done, and the tests and the thermography were applied again to make a comparison pre and post intervention.

5 Results

The N was 15 students, where 13 were females and 2 were males, median age 20 ± 1.5 .

Pre intervention, the 87% presented stress (Scale EPP), 86% presented medium level of mindfulness knowledge (FFMQ), 66% mild stress, 27 moderate stress and 7% severe stress (DASS 21 Stress), 100% presented mild depression (DASS 21 Depression), and 40% extremely severe anxiety, 33% moderate-severe anxiety, 27% mild anxiety (DASS21 Anxiety).

The results of the application in our sample show that the higher the mindfulness the lower the presence of stress, and the greater the well-being, the lower the levels of depression.

6 Conclusions

In other studies, found that 58.2% of the students suffered from both depression and anxiety. In another study, the mindfulness helped with reduction of distress and depression on college students.

The thermographical study show us that the higher the temperature in these zones, the greater the emotional stability.

The results show us a considerable increase of the student's temperature. That show us that the mindfulness intervention based in 8 weeks made significant changes in student's emotional stability.

7 Limitations of the Study

Not being able to carry out the intervention in a face-to-face manner, some students reported not performing daily tasks, sometimes the audio or the online modality made the intervention difficult.

Ethical Approval: Approved by the Bioethics Committee of the Nursing Faculty of the Universidad Autonoma de Queretaro. Reference number:008/FEN -INV-DIP-09.

Conflict of Interest: None