

Effectiveness of a Yoga program in improving self-esteem and self-image of the elderly

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ORIGINAL ARTICLE

ABSTRACT

This study aimed to evaluate the effectiveness of a Yoga program in improving the self-esteem and self-image of the elderly. Thirty-six elderly individuals were evaluated, divided into two groups. The program lasted 2 months and was practiced 3 times a week, with a duration of 60 minutes each class. A structured and validated questionnaire was used to assess self-esteem and self-image. The elderly had a mean age of 60.5 ± 2.86 years, height of 1.66 ± 0.03 meters, and body mass of 69 ± 5.17 kg. For self-image an $F = 52.36$ was verified; $p < 0.001$ and for self-esteem $F = 48.78$; $p < 0.001$. It can be concluded in this research that the practice of yoga is effective in improving the levels of self-esteem and self-image of the elderly, it can be used through the therapeutic effects of exercise in the non-pharmacological treatment and prophylaxis of some psychiatric illness such as depression.

Keywords: Exercise, Health of the Elderly, Healthy Aging.

INTRODUCTION

Current global data has shown that the population over 60 is growing faster than all other younger age groups, a phenomenon known as population aging. By 2017, it had been estimated that there were more than 962 million people aged 60 or older in the world, comprising 13% of the global population, with an average growth of 3% per year (United Nations, 2017).

In the elderly population, according to the report of the National Sports Diagnosis (DIESPORTE) Brasil (2016), the practice of sports and physical activity presents a lower percentage of adherence and may be due to the physical nature of access to activities, motivation, displacement, and economic factors. However, it seems that this sports practice decrease is compensated by an increase in physical activity, growing until 55 to 64 years (33.9%) and decreasing again from the age of 65 to 75 years (30.5%) (Brasil, 2016).

The yoga is an alternative type of physical exercise, capable of encompassing mental and

physical aspects of the same set of exercises, thus developing the flexibility and strength of the participants, toning the muscles, reducing stress and improving concentration (Sherman, Cherkin, Miglioretti, & Deyo, 2005).

The practice of yoga as an exercise option has been gradually studied in recent years due to the challenge imposed on the physical balance of the performer, his/her mobility, and the decrease in the number of falls (Tiedemann, O'Rourke, Sesto, & Sherrington, 2013). Besides improving mobility and decreasing falls, yoga seems to contribute positively to illnesses such as depression and sleep disorders, in addition to psychiatric illnesses, they are the main disability-adjusted living costs around the world, with recent figures indicating that 37% of the loss of healthy years are with mental illness (Balasubramaniam, Telles, & Doraiswamy, 2013). Among the psychological disorders that affect the elderly population, it seems that low self-esteem and self-image, due to dissatisfaction with the body itself, are closely related to the

Manuscript received at May 12th 2019; Accepted at August 5th 2019

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physical, emotional, and social losses acquired throughout life (Jimenez, Melendez, & Albers 2012).

The Yoga modality was able to improve the levels of anxiety and depression of the elderly, besides providing greater self-confidence and self-esteem, being a type of physical exercise promising to integrate future care behaviors of the elderly (Ramanathan, Bhavanani, & Trakroo 2017). The practice of yoga can be an effective intervention to improve physical and mental health conditions, favoring good self-esteem, and body self-image in healthy aging (Sivaramakrishnan et al., 2019).

Therefore, this study aimed to evaluate the effectiveness of a Yoga program in improving self-esteem and self-image of the elderly.

METHOD

This is an experimental quantitative study, carried out in a gymnasium, that offers a space for bodybuilding and gymnastics.

Ethics in research

This research complied with the norms established in declaration of Helsinki revised in 2008, regarding the conduct of research in human beings, being submitted to the research ethics committee and approved under protocol number 152/2009.

All the members of the study had the anonymity and confidentiality of their information and signed a free informed consent form (TCLE), which included aspects related to the study, such as the purpose, the voluntary nature of participation, to join and/or leave the study, benefits and possible risks, evaluation procedures, emergency procedures, among others.

Sample

A total of 36 elderly male and female participants were randomly divided into two groups until they formed 18 elderly individuals, who met all the inclusion criteria, where the sample selection process was randomly simple. No participant lacked training during the study,

and it is important to point out that the researcher entirely conducted the study.

The elderly were divided into two groups as follows: Group A (Control) and Group B (Experimental - Yoga practitioners), initially the elderly underwent a physical evaluation consisting of age, weight, height, body mass index (BMI), date of birth and current state of health: The inclusion criteria were: age from 50 to 70 years old; not having exercised during the past 3 months; no use of medicines that increase self-esteem and sign the informed consent form. In order to verify that this elderly person was sedentary, it was asked him/herself how to self-report how many minutes a week he/she practiced moderate to vigorous physical activity, considering the recommended parameters of 150 minutes per week (World Health Organization, 2010). All the elderly who did not fit the inclusion factors and were not available or did not agree to participate in the study even during or after the study were excluded.

Measurements

Data collection was initiated after approval by the ethics committee. To assess self-esteem and self-image, the Steglich questionnaire (1978), which was developed and validated for the elderly in Brazil, was used at pre and post-test to compare the interventions of yoga. The questionnaire presents 78 questions (41 referring to self-esteem and 37 referring to self-image), with five numerical alternatives in scales from 01 to 05 and subjective alternatives among which: yes; often; several times; sometimes; do not. The classification of the questionnaire related to self-esteem presented as a cut-off point: Low (41 and 163 points) and High (164 and 205 points). For self-image altered between (37 and 147 points) and accurate (148 and 185 points).

The interview was used to apply the questionnaires so that the evaluator verbally asked the question, and the respondent answered according to his or her knowledge. The questions were repeated and clarified whenever the elderly were in doubt or could not hear clearly, and such an attitude was adopted in order to avoid possible mistakes.

Yoga Program

Based on the techniques of yoga in the therapeutic field proposed by Malhotra et al. (2002), the intervention procedures of this research lasted 3 months and were practiced 3 (three) times per week, with a duration of 60 minutes each class. The initial 10 minutes were for respiratory techniques (Pranayamas), followed by 40 minutes of Yoga postures (Asanas), 5 minutes of relaxation (Shavásana), and 5 to 10 minutes of meditation (Dhyana).

The two groups studied participated in the interventions alternatively: (Group A - Control) sedentary population: Monday, Wednesday and Thursday (morning) at 8:30 to 9:30 a.m. (Began to performing the Yoga program only after the study ended, i.e., the experimental group finished the interventions); (Group B - Experimental - Yoga practitioners): Tuesday, Thursday and Friday (afternoon) at 3:00 to 4:00 p.m.

Data analysis

Data analysis was performed in a descriptive and inferential manner. Initially, the data were tested for normality with Shapiro-Wilk, who classified the data as parametric. To compare the means of self-esteem and self-image a two-way Anova was used to discern any doubt at a level of significance of $p \leq 0.05$.

RESULTS

The study included 36 elderly people with the following characteristics: mean age of 60.5 ± 2.86 years, height of 1.66 ± 0.03 meters, and body mass of 69 ± 5.17 kg. In the first assessment of self-esteem (Figure 1), the control group presented a mean of 107 points, and the experimental group 129 points. For the second evaluation, the control group presented a mean of 117 points against 157 points of the experimental group, showing the effectiveness of the interventions to improve the self-esteem of the elderly.

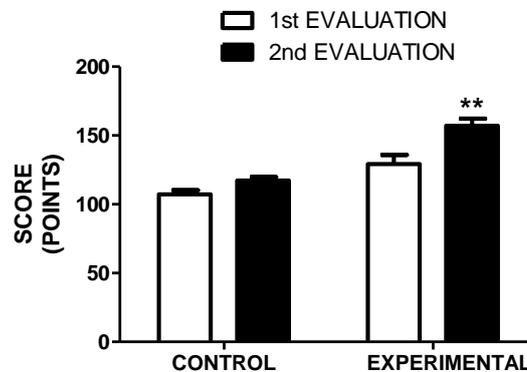


Figure 1. Assessment of pre and post-intervention self-esteem with Yoga in the elderly (legend: ** F = 48.78; $p < 0.001$)

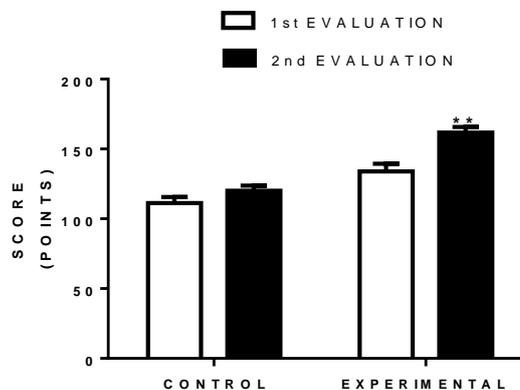


Figure 2. Assessment of pre and post-intervention auto imaging with yoga in the elderly (legend: ** F = 52.36; $p < 0.001$)

For the self-image (Figure 2), the elderly of the control group presented a mean of 111 points against 134 points of the experimental group in the first evaluation. In the second evaluation, the control group obtained a mean of 120 points against 162 points of the experimental group, identifying the effectiveness of the practice of yoga in the self-image of the elderly

DISCUSSION

From the results obtained in this study, it was evident the effectiveness of the Yoga program in improving the self-esteem and self-image of the elderly evaluated. These results were effective even in the control group, emphasizing the scientific relevance that this type of therapeutic exercise can generate in reducing stress and self-control in the elderly.

In agreement with this same line of reasoning, Guimarães, Lima, and Cardoso (2017), when analyzing a different intervention of the present study, through the practice of Tai Chi Chuan in the elderly, identified an increase in the self-image scores and self-esteem of the participants. It may be a form of alternative exercise, where its practicality is capable of increasing the degree of adherence of the elderly to a healthier lifestyle.

The result of the present study may have been achieved because the phases of Yoga practice bring a specific set of body movements and techniques of mental self-control that can provide the practitioner with alternative means of reducing their stress, reducing the deleterious effects of the process of aging that the excess of day-to-day tasks can generate in our body.

In an intervention program through yoga for middle-aged women evaluated by the EXSEM (model of physical exercise and self-esteem), it showed positive results not only in the participants' self-esteem but also in self-image, physical conditioning, and muscular strength, following the results obtained in the present study (Junkin, 2007).

The effectiveness of a Yoga program can be explained by its benefits in the mental sphere, being increasingly explored for therapeutic potentials among the elderly. A survey conducted in the American population indicated that about

15.8 million or 6.9% of its population practice some form of Yoga (Gooneratne, 2008).

According to Chen et al. (2009), favorable results to this point of view show that the ancient Yoga Indian philosophy was effective in generating greater physical and mental well-being in elderly sedentary and diligent practitioners. In this same perspective, the practice of yoga proved to be effective in the passive acceptance and without judgments of its own limitations, thus favoring the improvement of self-esteem. It is also important to emphasize that Yoga exercises generated a gradual mastery of one's own body and mind, a fact that, according to this study, impacted higher scores on self-esteem and self-image (Kovačič & Kovačič, 2011). The study by Prathikanti et al. (2017) identified that the practice of yoga performed in a period of 8 weeks was able to significantly reduce the depression scores of the evaluated individuals, as well as to improve their self-esteem and self-efficacy.

The practice of yoga can increase the self-esteem of different populations, contributing and playing a fundamental role in the improvement of the body image and the treatment of different health problems such as rheumatoid arthritis, hypertension, falls and breast cancer (Greysen et al., 2017; Hamrick, Mross, Christopher, & Smith, 2017; Koch et al., 2017; Wolff, Brorsson, Midlöv, Sundquist, & Strandberg, 2017).

Therefore, a Yoga program may be feasible and potentially beneficial in improving mental and social well-being, and aspects of physical function in the elderly, results of the randomized clinical trial with 52 elderlies, mean age 74.8 years, who practiced 12 weeks of yoga (Tew, Howsam, Hardy, & Bisell, 2017). These beneficial effects are evident in the systematic review with a meta-analysis that compared the effects of yoga with active and inactive controls in the elderly not characterized by specific clinical conditions. The results indicate that yoga interventions improve multiple physical functions and health-related quality of life in this population compared to both control conditions. This study provides robust evidence for the promotion of yoga in physical activity guidelines for older adults as a multimodal activity that improves aspects of

physical fitness and aspects of mental well-being, such as self-esteem and body self-image (Sivaramakrishnan et al., 2019).

It should be emphasized that this study presented some limitations such as the absence of a large number of participants, implying a relatively small sampling group, and the short time available for intervention, besides some elderly people being absent for some days the training due to health reasons.

CONCLUSION

It can be concluded in this research that the practice of yoga is effective in improving the levels of self-esteem and self-image of the elderly, it can be used through the therapeutic effects of exercise in the non-pharmacological treatment and prophylaxis of some psychiatric illness such as depression.

It is recommended that further research be done evaluating the effects of Yoga practice in different contexts, with different age groups of both sexes and with interventions of longitudinal character.

Acknowledgments:

Nothing to declare.

Conflict of interests:

Nothing to declare.

Funding:

Nothing to declare.

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