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DESCRIPTIVE OBSERVATIONAL STUDY

The influence of Pilates method in quality of life of practitioners

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Summary *Introduction:* The priority of Pilates is to obtain physical and mental health, including flexibility, in a secure and balanced way.
Aim: To verify the change in the quality of life of practitioners of the Pilates method.
Methodology: Descriptive observational study of 74 Pilates practitioners divided into 3 groups: practitioner for up to three months; practitioner for more than 1 year; and ex-practitioners. The quality of life analysis was performed using the self-administered questionnaire, SF-36. The comparison between groups was made by ANOVA one-way, then an analysis by *post-hoc* Scheffé, with a significance level of $p < 0.05$.
Result: The group of experienced practitioners showed better results in the dimensions of physical function (mean 86.37 points; $p < 0.01$), general health (mean 29.48 points; $p < 0.001$) and mental health (mean 43.59 points; $p < 0.02$) of quality of life.
Conclusion: Pilates was associated with the improvement of quality of life.

Introduction

Nowadays, people search for improvement in their quality of life. Exercises that work the body globally have been one of the preferences of individuals who search for more pleasant physical activity. Among the numerous techniques

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available, Pilates is highlighted. The Pilates method consists of philosophical concepts of welfare, with exercises to be performed using specific equipment, where the external load is carried by springs, and it can be used for fitness or rehabilitation programs (Latey, 2001; Silva and Mannrich, 2009).

The basic principles of Pilates are concentration, control, centering, diaphragmatic breathing, lightness, precision, strength and relaxation (Silva and Mannrich, 2009). The exercises are always adapted to the patient's condition, respecting the difficulties, characteristics and abilities of each individual (Silva and Mannrich, 2009). The method is designed for flexibility and range gain, muscle definition, health improvement, blood circulation stimulation, fitness improvement, body conscience and motor coordination (Silva and Mannrich, 2009). A Pilates program always aims to strengthen the abdominal and paraspinal muscles, strengthening the region which Joseph Pilates called THE CORE (Kolyniak et al., 2004). Joseph Pilates believed that the goal of a healthy person should be to attain a strong mind and use it to gain total control over one's physical body (Pilates and Miller, 1945). The method claims to perform body-mind conditioning and to bring a positive movement experience, which may reinforce the attraction of Pilates to clients seeking psychological wellbeing (Souza and Vieira, 2006). Studies also show that physical activity helps in promoting health and can bring positive feelings of pleasure and satisfaction, reducing anxiety and depression (Modolo et al., 2009).

A science of positive subjective experience, positive individual traits and positive institutions promises to improve quality of life and prevent the pathologies that arise when life is barren and meaningless (Seligman and Csikszentmihalyi, 2000). Quality of life is sought in all fields of life and is something every individual aims to obtain in order to live better. Therefore it was defined as an inner sense of comfort, welfare or happiness in the performance of several physical, intellectual and psychic functions within the reality of family, work and community values. According to World Health Organization (WHO), the definition of quality of life is "an individual's perception of their position in life, in the context of culture and value systems in which they live and in relation of their goals, expectations, standards and concerns." This includes physical health, psychological state, levels of independence, social relationships, environmental characteristics and spiritual standard (Dantas et al., 2003). Studies' findings lend support to the position that the effects of physical activity on quality of life are in part mediated by intermediate psychological outcomes and that physical activity can have long-term effects on well-being (Elavsky et al., 2005). Other studies indicated that over time, the experience of positive emotions functions to assist high-resilient individuals in their ability to recover effectively from daily stress (Ong et al., 2006). Positive feelings predict longevity and health beyond negative feelings (Diener and Chan, 2011).

The quality of life questionnaires provide a more complete evaluation of the impact of a disease and its treatment. They should identify problems and/or reflect the evolutionary changes, whether beneficial or not. The evaluation questionnaires apply to many different health conditions and reflect the different aspects of people's lives (Nobre, 1995). The aim of this study was to investigate the influence of the Pilates method in the quality of life of practitioners.

Methods

A descriptive observational study of Pilates practitioners in clinics in the south and west area of Rio de Janeiro was conducted by qualified physiotherapists. The study was carried out following the Human Research Ethics Committees of Brazilian National Health Council (resolution 196/96) and all subjects provided informed consent prior to their participation. All practitioners that agreed with the form were included, regardless of the number of weekly sessions, age and health condition.

The analyses of quality of life was made through the Medical Outcomes Study 36 – Item Short-Form Health Survey (SF-36), which was translated and validated into the Brazilian version by Ciconelli et al. (1999). It is a generic instrument to quantify the quality of life since it covers all important aspects related to health and reflects the impact of any intervention, in this case Pilates, on the individual (Nobre, 1995). SF-36 is a multidimensional questionnaire composed of 36 items which are divided in eight dimensions: Physical Functioning (PF), Role-Physical (RP), Bodily Pain (BP), General Health (GH), Vitality (VT), Social Functioning (SF), Role-Emotional (RE) and Mental Health (MH).

Subjects were separated into three groups. The first group was formed by beginners who had practiced for up to three months. The second group consisted of those experts who had been practicing the method for over a year. And the third group consisted of individuals who had previously practiced Pilates but did not practice at the time they answered the questionnaire.

The data was stored in electronic files using Microsoft Excel, and processed in the Statistical Package for Social Sciences (SPSS, version 14). The results were presented in proportion, in measures of central tendency such as mean, median and standard deviation. The comparison between groups' means was made by the analysis of variance test (ANOVA one-way). Subsequently, a post-hoc analysis was carried out by the Scheffé test to identify the means for which there was a difference. The significance level for hypothesis testing was considered less than 0.05 ($p < 0.05$).

Results

Group 1 (participants who had been practicing Pilates for no more than three months) comprised of 26 practitioners, while the second group (formed by expert practitioners) was composed of 29 and group 3 (ex-practitioners) by 19 practitioners. The participant's age ranged from 21 to 83 years, with a mean of 47.27 years for beginners, 51.24 for experts and 38.58 years for ex-practitioners.

The assessment of quality of life between groups showed statistically significant differences in Physical Functioning (PF), General Health (GH) and Mental Health (MH) domains, as well as age. The group of ex-practitioners was younger than the expert group. Physical functioning was better in the