

Research with Human Beings, Ministry of Health (COEP/MS No.: 3529376).

<https://doi.org/10.1016/j.bjpt.2024.100721>

125

TREATMENT FOR CHRONIC BACK PAIN AND MULTIMORBIDITY AMONG BRAZILIAN ADULTS: WHERE ARE WE IN RELATION TO THE RECOMMENDED GUIDELINES?

Érica de Matos Reis Ferreira¹, Thaís Cristina Marqueline Caldeira¹, Déborah Carvalho Malta¹, Edmar Geraldo Ribeiro¹, Rafael Zambelli Pinto¹

¹ Universidade Federal de Minas Gerais (UFMG), Escola de Fisioterapia e Terapia Ocupacional, Belo Horizonte, Minas Gerais, Brasil

Background: Chronic back pain (CBP) is a worldwide public health problem. CBP generates negative impacts on the lives of individuals and costly expenses for the health system, including those directed at treatments for CBP. However, the impact of multimorbidity on the treatment of CBP is still unclear.

Objectives: To identify the types of treatments commonly reported by adults with CBP with and without multimorbidity.

Methods: Cross-sectional study with data from Brazilian adults (≥ 18 year) who self-reported CBP ($n=18930$) in the National Health Survey 2019. Treatments for CBP were identified through the dichotomous yes/no answer: physical therapy; exercises regularly; uses medication or injections; makes use of acupuncture, medicinal plants and phytotherapy, homeopathy, meditation, yoga, tai chi chuan or some other integrative and complementary practice; and regular follow-up with a health professional. Descriptive statistics were reported and associations between the two groups were confirmed using adjusted logistic regression models and confidence intervals (95% CI). Sociodemographic variables such as age, sex, schooling, income and health insurance were used as covariates in the analysis.

Results: Adults with CBP and multimorbidity (69.4%) had higher prevalence and association for physical therapy (14.2% vs. 7.9%; adjusted OR (ORa)= 1.61, 95%CI: 1.33- 1.94), use of medication or injections (47.8% vs. 36.5%; ORa= 1.38, 95%CI: 1.22-1.56), and follow-up with a health professional (29% vs. 17.5%; ORa= 1.51, 95%CI: 1.29-1.78) compared with adults without multimorbidity. There was no difference between groups for use of acupuncture, medicinal plants and phytotherapy, homeopathy, meditation, yoga, tai chi chuan or some other integrative and complementary practice and regular exercise due to CBP.

Conclusion: The study revealed that most adults with CBP do not undergo physical therapy or regular exercise, with the use of medication or injections being the most used intervention, especially among adults with multimorbidity. Health education strategies, encouraging the practice of regular exercise and greater access to physiotherapy are fundamental for changing this scenario.

Implications: The study reinforces the need for health education strategies, encouraging the practice of regular exercise and greater access to physical therapy.

Keywords: Back pain, Treatment, Brazil

Conflict of interest: The authors declare no conflict of interest.

Acknowledgment: The study was supported by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES).

Ethics committee approval: Brazilian Committee on Ethics in Research with Human Beings, Ministry of Health (COEP/MS No.: 3529376).

<https://doi.org/10.1016/j.bjpt.2024.100722>

126

EFFECTS OF A MAT PILATES PROTOCOL ON THE POSTURAL BALANCE OF ELDERLY PEOPLE: A RANDOMIZED CLINICAL TRIAL

Érica Mercês Macêdo de Santana¹, Thaís da Silva Neri², Lídia Mara Aguiar Bezerra de Melo¹, Patrícia Azevedo Garcia², Fabiana Dias Marques³, Pedro Henrique de Almeida Oliveira²

¹ Faculdade de Educação Física, Universidade de Brasília (UnB), Brasília, Distrito Federal, Brasil

² Faculdade de Ceilândia, Universidade de Brasília (UnB), Brasília, Distrito Federal, Brasil

³ Centro Universitário Estácio, Brasília, Distrito Federal, Brasil

Background: The aging process is accompanied by a progressive loss of systems functioning that can lead to balance deficits. The Pilates method has been shown to be effective in improving balance in the elderly, as it promotes improved muscle strengthening in practitioners.

Objectives: To verify the effects of a 15-week Mat Pilates program on the postural balance of the elderly.

Methods: This is a randomized controlled clinical trial that evaluated the postural balance (Mini-BESTest) of 58 elderly people, randomized into two groups called Control Group/CG ($n=29$) and Pilates Group/GP ($n=29$), who performed an exercise program based on the Pilates method, consisting of thirty sessions.

Results: There was a significant improvement in the average Mini-BEST score in the Pilates Group (25.48 ± 1.90) after the intervention. The t-statistical analysis indicated a significant difference between the Pilates and Control groups after the intervention ($t = 4.58$) but not before the intervention ($t = -0.38$), suggesting that Pilates had a positive effect on functionality and balance compared to the control group.

Conclusion: A program composed of thirty sessions of Mat Pilates, spread over 15 weeks, was enough to demonstrate a significant improvement in the balance of the elderly.

Implications: This method proved to be safe and effective, with satisfactory results and low financial cost, requiring only the use of a mat for body practice.

Keywords: Pilates, Postural Balance, Elderly

Conflict of interest: The authors declare no conflict of interest.

Acknowledgment: We thank the support of the Faculty of Physical Education (UnB) and the volunteers who participated in this research.

Ethics committee approval: The research was approved by the Faculty of Health Sciences-UnB under opinion number: 5.287.203.

<https://doi.org/10.1016/j.bjpt.2024.100723>

127

PHYSIOTHERAPY CARE IN LABOR IN A USUAL RISK MATERNITY: A DESCRIPTIVE STUDY

Ester Pereira Dezan Martins Gonçalves¹, Caroline Baldini Prudencio², Alessandra Harumi Arakaki Carvalho³, Gesilani Júlia da Silva Honório¹, Angélica Mércia Pascon Barbosa³

¹ Programa de Pós-Graduação em Fisioterapia, Centro de Ciências da Saúde e do Esporte da Universidade do Estado de Santa Catarina (UDESC), Florianópolis, Santa Catarina, Brasil

² Universidade Júlio de Mesquita Filho (UNESP) – Campus de Botucatu, Botucatu, São Paulo, Brasil

³ Faculdade de Filosofia e Ciências – Universidade Júlio de Mesquita Filho (UNESP) – Campus de Marília, Marília, São Paulo, Brasil

Background: Labor provides several responses that result in the expulsion of the fetus and placenta. The role of the physiotherapist aims to rescue autonomy in the delivery process, providing comfort and self-confidence.

Objectives: To describe the evolution of physiotherapeutic care over 8 years in a maternity hospital with usual risk, as well as to identify the general obstetric characteristics of the women assisted in these years.

Methods: Descriptive study, consulting the database of maternity hospital with usual risk in Marília-SP, from January 2011 to December 2018. The data collected were physiotherapy care; resources used; way of delivery; labor induction; duration of labor; interventions during vaginal delivery. The analysis was descriptive, using mean, absolute and relative frequency.

Results: 9893 medical records of women hospitalized during the collection period were analyzed, totaling the number of research participants. The average number of physical therapy care per year was 4784. In 2011, a total of 5095 sessions were made, in 2012, 5451, in 2013, 4000, in 2014, 5555, in 2015, 5567, in 2016, 4362, in 2017, 4362, and in 2018, 3874 physiotherapeutic consultations. Of the resources used during physiotherapeutic care, those most frequently used were a shower, being used in 3296 (68.9%) cases, walking in 3157 (66%), therapeutic ball 3123 (65.3%) and breathing exercises 2521 (52.7%). Between 2011 and 2014, the most used resources were, on average: shower bath (77.6%), walking (69.4%), therapeutic ball (68.1%) and breathing exercises (21.8 %). Between 2015 and 2018, on average, they were: breathing exercises (87.3%), walking (64.2%), therapeutic ball (62.7%) and showering (58.6%). As for the total number of medical records evaluated, in relation to obstetric characteristics, it was observed that 6232 (63%) evolved to vaginal deliveries and 3660 (37%) evolved to cesarean deliveries. Regarding induction, 6430 (65%) received medication. The duration of labor prevailed from 1h to 6h in 64% of the total. Episiotomy was performed in 2866 (46%) of the vaginal deliveries, 1433 (23%) of the deliveries were without any intervention, and grade I lacerations accounted for 1308 (21%).

Conclusion: Physiotherapeutic care was not performed in most parturients, considering the average number of visits over the years. There was a variation in the number of physical therapy visits between years, with a gradual decrease from 2016 to 2018. The most used resources were showering, walking, therapeutic ball and breathing exercises, and over the years, there was a reversal in the frequency of use of these resources.

Implications: This descriptive study brought an exploratory overview of the physiotherapy service in a public maternity hospital at usual risk, demonstrating the number of consultations over the years and the most used practices. Complementary, in-depth, and analytical studies are suggested, so that more specific aspects can be verified, meeting the strengthening of physiotherapeutic practices in hospital obstetrics, as well as raising awareness of the importance of the physical therapist being inserted in the labor process in a way systematic.

Keywords: Physiotherapy, Maternity, Labor

Conflict of interest: The authors declare no conflict of interest.

Acknowledgment: Not applicable.

Ethics committee approval: Research Ethics Committee of the Faculty of Philosophy and Science (FFC) UNESP Campus Marília (Process Number: 1898/2010).

<https://doi.org/10.1016/j.bjpt.2024.100724>

128

FACTORS ASSOCIATED WITH RESPIRATORY MUSCLE STRENGTH AMONG COMMUNITY-DWELLING OLDER ADULTS IN THE AMAZON REGION: A CROSS-SECTIONAL STUDY

Esthefanny Karolinne Sanches Ribeiro¹, Areolino Pena Matos¹, Marilita Falângola Accioly², Maycon Sousa Pegorari², Daniela Gonçalves Ohara²

¹ Programa de Pós-Graduação em Ciências da Saúde, Universidade Federal do Amapá (UNIFAP), Macapá, Amapá, Brasil

² Programa de Pós-Graduação em Fisioterapia, Departamento de Fisioterapia Aplicada, Universidade Federal do Triângulo Mineiro (UFTM), Uberaba, Minas Gerais, Brasil

Background: The increase in life expectancy has exposed the population to greater intrinsic and extrinsic factors that affect the whole organism and that can influence the respiratory function of the elderly, which is already suffering from aging-related alterations. Changes such as replacement of muscle fibers by fat and increased rib cage rigidity affect the function of respiratory muscles, leading to strength deficit, represented by decreased values of maximal inspiratory pressure (MIP) and maximal expiratory pressure (MEP), which may reflect in dyspnea and fatigue.

Objective: To analyze the factors associated (sociodemographic characteristics, lifestyle habits, and health conditions) with respiratory muscle strength (RMS) among community-dwelling older adults.

Methods: Cross-sectional, population-based study conducted among community-dwelling elderly residents in the urban area in the municipality of Macapá-AP. The associated factors evaluated were sociodemographic characteristics (structured questionnaire with information about sex, age, education, individual income and housing), lifestyle habits (self-report of smoking; and level of physical activity - through the International Physical Activity Questionnaire-IPAQ) and health conditions (body mass index; self-report of hospital admissions and falls in the last 12 months; associated diseases; medication use; self-perception of health; depressive symptoms - measured by the Geriatric Depression Scale; functional capacity - using the Katz Scale and the Lawton and Brody instrument; and physical performance through the Short Physical Performance Battery). The MIP and MEP were evaluated by means of manovacuometry. Factors associated with RMS were identified by means of multivariable analysis in the multiple linear regression model, considering a significance level of 5%.

Results: A total of 383 elderly people with a mean age of 70.01 (SD±7.3) years participated in the study, 251 being female (65.5%) and 132 male (34.5%). The adjusted linear regression model analysis pointed out that being female and having advanced age were associated with lower values of both MIP ($\beta = -0.330$; $p = <0.001$ and $\beta = -0.150$; $p = 0.003$, respectively) and MEP ($\beta = -0.410$; $p = <0.001$ and $\beta = -0.190$; $p = <0.001$, respectively). Elderly insufficiently active ($\beta = -0.120$; $p = 0.008$), with lower BMI values ($\beta = 0.140$; $p = 0.002$) and worse physical performance ($\beta = 0.120$; $p = 0.020$) showed association with lower MIP values and those less independent were associated with lower MEP values ($\beta = -0.130$; $p = 0.005$).

Conclusion: Older age and being female, insufficiently active, poorer physical performance, having a lower BMI value, and being less independent were factors associated with RMS in community-dwelling elderly.

Implications: The identification of factors that are associated with RMS in the elderly population enables health professionals to promote actions to change lifestyle habits, such as physical exercise, as well as to improve health conditions during the aging process, because our results demonstrated that these factors could bring impairment to respiratory function in community-dwelling elderly.