53 - THE EFFECTIVENESS OF THE PILATES METHOD LOW BACK PAIN TREATMENT

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INTRODUCTION

Lombalgy is considered one of the musculoskeletal disorders that most frequently affects society, it is also one of the main causes for absense from work, causing permanent disability in the active population (ZAVARIZE, WECHSLER, 2012).

The World Heatlth Association classifies lombalgy as a multifactorial commitment which is the loss or the abnormality of the low back spine, with psychological, physiological, or anatomic etiology, resulting in a disadvantage that figures as an impedment or limitation to physical activities. This perspective brings to evidence the excessive use, compressive or postural syndromes, related to muscular weakness, muscular disorders, fatigue and instability of the trunk (JUNIOR, GOLDENFUM and SIENA, 2010).

According to Zavarize and Wechsler(2012) lombalgy can be classified through many ways, among one of them is the one that considers its duration. The acute lombalgy has a subtle start and lasts up to six weeks, but the subacute lombalgy may last from six to twelve weeks, and the chronical lombalgy persists for more than twelve weeks. It is right to say that the lombalgy classified as chronical is characterized by an incapacitating syndrome and by pain, that persists for more than three months from its start, counting from the first episode of severe pain, and gradual disability, for which the begining cannot be precised and shows instable periods of aggravation and appeasement.

When an individual is affected by chronical pains, it is of high relevance to exercise, because the practice of physical exercises can decrease the appearing of muscular and musculoskeletal problems, such as shortening, joint mobility loss and weakness, resulting in an increase of pain. The treatment for this pain considers the source of the pain and any deficiencies or functional musculoskeletal limitations, as well as any problem or disorder that may be prevented or identified during the process of evaluation. It has been proven that stretch is very effective in the appeasement of pain and muscular tension (ALMEIDA e JABUR, 2006).

Rodrigues et al (2010) reports that the Pilates method was created in Germany by Joseph Pilates and became popular in New York, after the Second Wrold War. The technique consists in the practice of physical execises, for which the main characteristics are the resisted tension workout and dynamic stretching, along with the breath focusing on the following points: controlling, precision, centralization, and fluidity of moviment, concentration and breath. The most important benefits are improvement of the strenght, flexibility, posture and motor abilities. The gain of flexibility and strenght of the central muscles of the body, and deep stabilizers (multifide and transverse abdomen), that provide stability for the spine, guarantee static and dynamic body stability, besides favoring balance.

This technique is characterized by movements that keep the spine in neutral position, recruiting only the necessary musculature, avoind premature fatigue and decrease in body stability. The exercises include concentric, eccentric and isometric contractions, with emphasis in the Power House, denominated by Joseph Pilates as the center of strenght, composed by abdominal, gluteal, and low back paraspinal muscles, which main functions include to static and dynamically stabilize the body. The method prevents lesions and provides relief for chronical pains, and also stimulates blood ciculation, improves physical condition, flexibility and muscular amplitude, posture, motor coordination and levels of body consciousness (ARAÚJO et al, 2010).

Therefore, this study aimed to review the effectiveness of the Pilates method in the treatment of lombalgy.

METHOD

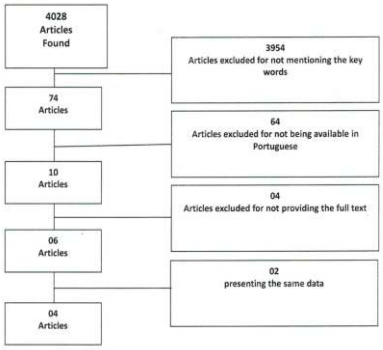
A systematic review on Scielo and Lilacs electronic databases was realized, with texts published in Portuguese, using the following key words: Pilates, lombalgy and effectiveness. Only publications released within the last five years and with full text availability were considered.

Initially every article containing the key words was considered, then the articles published without the period mentioned previously were excluded. Afterwards the articles were filtered by titles, and only those that mentioned the Pilates method as treatment of lombalgy were considered. The search in the database was realized from April to May of 2014, including scientific articles published between 2009 and 2014. After the systematic reading of the selected articles, all the material was compared based on a scientific reading. At last the data were analyzed descriptively by means of graphs and tables.

RESULTS

In this study 3032 articles were initially found in Scielo database and 996 articles were found in Lilacs database. From these, only those that mentioned the Pilates method were selected.

Figure 1 shows the flowchart for the researched articles.



Thus four (4) papers that met the inclusion criteria were evaluated effectively, and these are shown in Figure 2.

ATUHORS	OBJECTIVE	METHOD	RESULTS
Conceição, J. S.; Mergener, C. R. 2012	The objective of the study was to evaluate the effectiveness of the Pilates method in the treatment of chronical lombalgy	7 female patients diagnosed with lombalgy and ability to perform Pilates basic exercises were evaluated. Visual analogue scale for pain (VASP) and Oswertry survey were used.	There was significant appeasement of pain, shown by VASp, that initially showed 7 and after 3 months of treatment this number decreased to 1,7. There was improvement in the quality of life with reduction of the Oswestry from 36,8% to 8%.
Silva, A. C. L. G.; Mannrich, G. 2009	This study aims to evaluate the aspects related to the use of the Pilates method in rehabilitation.	A systematic review in MEDLINE and LILACS databases was realized, using as search therm the word Pilates.	The results showed that the Pilates method can be used in different people such as the elderly and pregnant women for different purposes, among them the treatment of lombalgy regardless of age.
Miyamoto, G. C.; Costa, L. O. P.; Cabral, C. M. N. 2013	Review random controlled studies on the effectiveness of the Pilates method in the treatment of non specific low back pain	Researches in MEDLINE, EMBASE, PEDRO, SCIELO, LILACS, CINAHL and CENTRAL databases were realized in March of 2013	In the metanalysis there was significant difference for pain and disability in the comparison to no other types of intervention or minimum intervention, the Pilates method was not superior to resolve the pain compared to other exercises in the short therm.
Marés, G.; Oliveira, K.; B.; Piazza, M.. C.; Preis, C.; Neto, L.; B.; 2012.	This study aims to analyze general aspects related to central stabilization on the Pilates method.	Systematic review on the library of the Catholic Pontifical University of Paraná, and also on BIREME, LILACS, PUBMED, CAPES and MEDLINE databases. The research covered publications released between 2000 and 2010.	Central stabilization helps the patient gain strenght, neuromuscular control, muscle strength and resistance, facilitating a balanced muscle function, resulting in an appropriate balance inside the spine and pelvis.

Based on these data, the lack of scientific study reporting the Pilates method as treatment of lombalgy is evident, as the method gains popularity in the treatment and prevention of musculoskeletal disorders, due to a large number of muscles and articulations exercised in the practice.

For Conceição and Mergener (2012), Pilates has provided stabilization of the low back spine, resulting in a significant appeasemnt of, improving the results, reducing costs, providing higher acchievments in the shorter therm when compared to other conventional methods.

According to Miyamoto, Costa e Cabral (2013), exercises of the Pilates method are more effective in reducing pain and disability in the short term, but no definitive conclusion can be made in the medium term interventions. In this study the Pilates method acchieved the best results than the other treatments, however difference was not significant, not representing thus a considerable clinical improvement.

Pilates exercises were mostly performed in supine or prone position, resulting in a decrease of the impact in the body sustaining joints, especially the spine. A program of exercises with emphasis in the strenghtening of the extensor muscles of the trunk has shown to be very effective, recovering spine function lombalgy and quality of life, because Pilates is a method that works with low-impact exercises, strengthening the abdominal muscles and trunk extensors, providing greater stability to the trunk, treating and preventing lower back pain conditions. This study has proven that within only three months of intervention there was a significant improvement in pain and control of lombalgy.

According to Silva e Mannrich (2009), Pilates has shown to be an effective tool for physiotherapists in rehabilitation, presenting several benefits, and can be applied from pregnant women to the elderly, in the treatment of orthopedic problems such as lombalgy. Considering that the incidence of lombalgy has increased in labor and also recreational activities, the Pilates method has proven to be effectiveand preventing the appearing of lombalgy, and also osteoarticular disorders. Pilates central stabilization program was created with the intent of helping individuals gain strenght, balance and muscular resistence, becoming essential for the appropriate load balance inside the spine, pelvis and kinetic chain (MARÉS et al, 2012).

CONCLUSION

Although more research is required, there are scientific evidences that show that the Pilates method has great effectiveness in the treatment and prevention of low back pains, providing improvement in the stabilization, strenght, balance and recovering of the function of lumbar spine.

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THE EFFECTIVENESS OF THE PILATES METHOD LOW BACK PAIN TREATMENT

ABSTRACT

Introduction: the Pilates Method is gaining more space in the treatment of musculoskeletal disorders, including changes in the lumbar spine that can cause back pain. Objective: literature review on the effectiveness of the Pilates method in the treatment of low back pain.Method: scientific articles were searched in electronic databases Lilacs and SciELO, published between 2009 and 2014, using as criteria for inclusion studies directed to the treatment of low back pain by Pilates. Results: four studies were selected for analysis, which demonstrates that Pilates can be practiced by different populations and with different purposes, restoring the function of the spine and preventing the rise of low back pain. Conclusion: although further studies are necessary, there is scientific evidence that the Pilates method is effective in the treatment and prevention of low back pain.

KEYWORDS: Pilates, Back Pain, Treatment.

L'EFFICACITÉ DE LA MÉTHODE PILATES LE TRAITEMENT DE LA DOULEUR LOMBAIRE

RÉSUMÉ

Introduction: la Méthode Pilates gagne plus d'espace dans le traitement des troubles musculo-squelettiques, y compris les altérations dans la colonne vertébrale lombaire qui peut causer des maux de dos. Objectif: examiner l'efficacité de la Méthode Pilates dans le traitement de la lombalgie. Méthode: articles scientifiques ont été recherchées dans les bases de données électroniques Lilas et SciELO, publiés entre 2009 et 2014, en utilisant comme critères pour les études d'inclusion portant sur le traitement de la lombalgie par Pilates. Résultats: quatre études ont été sélectionnées pour l'analyse, qui démontrent que la méthode Pilates peut être pratiqué par des populations différentes à des fins diverses, restauration de la fonction de la colonne vertébrale et prévenir l'apparition de lombalgies. Conclusion: bien que plus de recherche est peut-être nécessaire, il est scientifiquement prouvé que la Méthode Pilates est efficace dans le traitement et la prévention de la lombalgie.

MOTS-CLÉS: Pilates, Lombalgie, Traitement.

LA EFICACIA DEL MÉTODO PILATES EN EL TRATAMIENTO DEL DOLOR LUMBAR

RESUMEN

Introducción: el Método Pilates está ganando más espacio en el tratamiento de los trastornos musculoesqueléticos, incluyendo disfunciones en la columna lumbar que pueden causar dolor. Objetivo: revisar la eficacia del Método Pilates en el tratamiento del dolor lumbar. Método: realizaron búsquedas de artículos científicos en bases de datos electrónicos Lilacs y SciELO, publicados entre 2009 y 2014, utilizando como criterios de inclusión para los estudios dirigidos al tratamiento del dolor lumbar por Pilates. Resultados: se seleccionaron cuatro estudios para el análisis, lo que demuestra que Pilates puede ser practicado por diferentes poblaciones y con diferentes propósitos, la restauración de la función de la columna vertebral y la prevención de la aparición del dolor lumbar. Conclusión: apesar de ser necesario realizar más investigaciones, hay evidencia científica de que el Método Pilates es eficaz en el tratamiento y la prevención del dolor lumbar.

PALABRAS CLAVE: Pilates, Dolor Lumbar, Tratamiento.

A EFICÁCIA DO MÉTODO PILATES NO TRATAMENTO DA LOMBALGIA

RESUMO

Introdução: o Método Pilates vem ganhando mais espaço no tratamento das disfunções musculoesqueléticas, entre elas as alterações na coluna lombar, que podem ocasionar lombalgia. Objetivo: revisar na literatura a eficácia do Método Pilates no tratamento de lombalgia. Método: foram pesquisados artigos científicos nas bases de dados eletrônicas Scielo e Lilacs, publicados entre 2009 e 2014, utilizando como critérios de inclusão estudos direcionados ao tratamento da lombalgia pelo Método Pilates. Resultados: foram selecionados quatro estudos para análise, os quais demonstram que o Método Pilates pode ser praticado por diferentes populações e com diversas finalidades, restaurando a função da coluna vertebral e prevenindo o surgimento de lombalgias. Conclusão: embora se façam necessárias mais pesquisas, há evidencias científicas de que o Método Pilates é eficaz no tratamento e prevenção da lombalgia.

PALAVRAS-CHAVE: Pilates, Lombalgia, Tratamento