

40 - THE EFFECTIVENESS OF LABOR GYMNASTICS IN REDUCING THE PAIN AND IMPROVES LIFE'S QUALITY FOR SECRETARIES OF A COLLEGE IN VIÇOSA / MG

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INTRODUCTION:

The invented technology through the ages has brought much comfort and benefit for people's daily lives. However, those who do not control this technology are hampered and controlled by them. The natural consequences are stress, repetitive strain injuries / work-related musculoskeletal disorders (RSI), fatigue, backaches, headaches and others (MENDES and LEITE, 2008). With the rapid advancement of technology, the demand for labor secretaries, which is based on diversified economic activities in industry, commerce and services and public administration. They act individually or in teams, indoors and during the day, advise boss, serving more than a director or an area, staying in uncomfortable positions for long periods (MINISTRY OF LABOR AND EMPLOYMENT, 2008).

It's observed the appearance of various initiatives to promote a better health status and quality of life for employees of business institutions. These initiatives have involved a range of different strategies with the most diverse approaches, among which it's detached the program of labor gym (LIMA, 2007).

This program of labor gym has been detached by easy implementation, low cost and the positive results about the employees' health at work. It is a program of life's quality and leisure's promotion, even when performed by employees during the workday aims to improve posture, promote the general welfare of workers, decrease occupational stress, and try to reduce work's accidents, increase productivity, prevent occupational diseases and reduce the number of removals (MENDES and LEITE, 2008).

Therefore, this study analyzes the influence of the laboral gym program in the secretaries' pain in a college of Viçosa.

MATERIALS AND METHODS

This experimental study had its first sample consisted of 15 employees who worked as secretaries at a college in Viçosa-MG. All of them, 11 members keep until the end, being 9 females and two males, with aged between 22 and 55 years, all worked in the morning and in the afternoon and they were at least 3 hours straight in front of the computer. It was excluded the other employees, because they did not work full time or they were less than 3 hours at the computer, with severe pain and those who refused to sign the consent term to participate.

This study followed the guidelines for conducting research on humans, Resolution 196/96 of the Health National Council, 10/10/1996 (BRAZIL, 1996), being also submitted and approved by the Ethics in Research Involving Humans, in the UNIVIÇOSA.

Before starting with the labor gym, it was administered a surveying and pain intensity questionnaire. This assessed the presence of pain and its location by means of a schematic drawing of the human body in front and back views. The official was asked to identify in the design, the site of their symptom (MENDES and LEITE, 2008).

After seven weeks of intervention, the questionnaire was reapplied.

The type of gymnastics adopted has been compensatory or of pause, which basically uses relaxation exercises, stretching, breathing and massage, promoting physical and mental relaxation, as well as providing motivational benefits, and therefore productive. Exercises with light resistance were also used, increasing the metabolism of collagen, which promotes the repair of microdamage (RODRIGUES, 2009).

The labor gym was performed with 14 sessions, twice per week, lasting 15 minutes in the morning. The sessions began with warm-up that consists of stretching and mobilizing for all body. According to Santos (2007), the exercises were mobilizing and stretching the neck and shoulder, stretching the trunk, arms and legs, strengthening the biceps, pecs, quads, glutes, abductors, adductors, hamstring and calf. Later, it was realized breathing exercises, playful-recreational activities.

Once a week, it was held at the massage in the spine region once a week lasting 15 minutes on each employee. According to Marques (2008), the maneuvers were used to smooth the surface and deep, kneading, compression, and rolling friction. Massage therapy becomes an important tool to implement the labor gym because it is a prophylactic and therapeutic treatment, combat and prevent poor posture, fatigue and muscle pains, stress, anxiety, among others, because it releases sedative and calming substances in the body able to relax tired muscles (LIMA, 2007).

RESULTS AND DISCUSSION

The labor gym seeks to enable the worker to maintain a healthy body, promoting health and improving quality of life, through this action, aims to reduce and prevent pains (RODRIGUES, 2009), which agrees with this study because there was improvement in pains after seven weeks of completing the program GL, according to Figure 01.

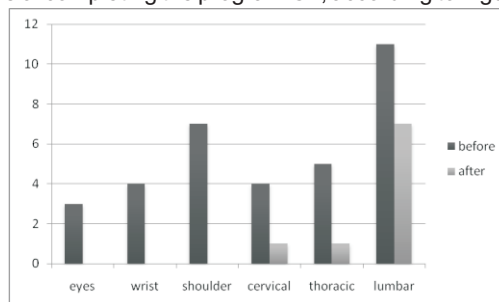


Figure - Relation of the reported pain local by secretaries (N = 11) before and after intervention with labor gym, Viçosa / MG.

In the vision, there is a muscle responsible for eyeball movements, the other to open and close the eyes and another to regulate the light's intensity, that reaches the retina, which is the most requested. When the man turns his attention to some activity, a decrease in blink frequency, burning and causing visual discomfort. This problem usually occurs after two hours of continuous use of the visual system. In general, the weariness of the vision is always related to overuse or improper use of the muscles responsible for a particular movement or exercise (BATISTA and ULBRICHT, 2002).

In the eye, it was found that the reduction in pain and fatigue visual attributed to breaks held in the middle of the workday, guided by physiotherapists, thus relaxing the eyes.

Much of the work assignments, as secretary, require the use of a computer keyboard. If pass more than two hours per day with a keyboard, without interruption, there is the risk of developing an injury to the musculoskeletal system, mainly by moving the hand in different angles. Typically, the stance on the keyboard is extension of the wrist. This posture is associated with reduced diameter of the carpal tunnel, which it will increase pressure on the median nerve, located within this tunnel (LOPES, 2008).

It can notice the reduction in pain symptoms in the employees' wrist, who participated in the labor gym. This may be associated with the implementation of exercises directly related to compensation or the strengthening of the structures required during the long journey.

According to Renner (2005), sitting for long hours working in an administrative job creates fatigue, stress and the overhead position, pain arising in the shoulder, spine, wrist and even the legs, may occur edema in some cases. This work corroborates the author because participants remained seated long periods, in which 9% were between 2 and 4 hours, 63% between 4 and 7 hours and 27% over 7 hours sitting per day, and sometimes moved explaining the emergence of the pain being questioned by officers.

For Turtelli (2001), the shoulder pain is the second leading cause of pain in the limbs, preceded only by pain at the spine. The causes of shoulder pain are numerous, but most of them are related to the structures located between the glenohumeral joint and the coracoacromial arch. Poor posture and prolonged sitting at a computer generates pressure in the glenohumeral joint, muscle tension associated mainly on the right side, which uses the mouse.

In this study, there was 100% reduction of shoulder pain, which reinforces the importance of labor gym, strengthening, stretching and relaxing the muscles of the shoulder.

In the cervical, it was observed that the pain reported by officials before and after the labor gym decreased. The cervical pain is related to long working hours in a seated position, with position of anterior neck and support the weight of the head, which causes muscle fatigue, spasms, tension and pain.

According to Renner (2005), the disruption of a posture in the neck tend to be related to the demands of work activity. Jobs that require high visual acuity and fine motor needs a good view, there is a tendency to pull the head and eyes to bring the object. Disturbances in emotional order are relevant factors to pain in the neck, because the emotional stress and muscular tension are closely related. When there is tension or worry, there is contraction of the muscles of the neck and cervical region. This muscular contraction is configured as static, thereby compromising the region in order to settle the pain and discomfort.

According to Zapater (2004), a sitting person in front of a computer for long hours without adequate postural support can develop an increased thoracic curvature. If these positions are maintained as usual too, the structure of tendon tissue, which often allow a high degree of motion, they adapt to poor sitting posture, stretching in terms of stress and shortens and prevents movement, thus causing pain and lose range of motion. In this work, massage therapy has proved effective to relax tension and reduce pain in the chest.

It is known that people with back pain have lower professional income when compared with asymptomatic individuals, because the pain limits the movement and, consequently, reduces productivity at work (LOPES, 2008).

Low back pain was reported in all subjects. Upon completion of the GL, symptoms improved, but still 63.63% of the sample reported LBP.

It has been considered one of the most common skeletal muscle changes in industrialized societies, which limits the work, especially in individuals under 45 years of age. It is believed that 80% of the world have had or will have an episode of low back pain at some time during their life (MENDES and LEITE, 2008).

The most part of this pain is caused by muscle problems, generally due to shrinkage of muscles due to poor posture, physical effort, repetitive movements done improperly and genetic predisposition. The sitting posture requires a lower energy expenditure when compared to standing posture, but if kept for long periods overcharges passive structures of the lumbar spine (ligaments, joint capsule, fascia, and intervertebral disc), which are rich in nociceptors, causing pain. Exercises passive or active in this segment stimulate mechanoreceptors to inhibit nociceptors, preventing and controlling the mechanical back pain (RODRIGUES, 2009).

CONCLUSIONS

The labor gym was effective in reducing pain in secretaries. This is a low-cost strategy, which improves the pain conditions and therefore the quality of life, which reduces the rate of absenteeism and increases productivity for the company.

However, we suggest an experimental study with more time to evaluate several other benefits that labor gym can provide the employee and the company.

REFERENCE:

- BATISTA, C. R.; ULBRICHT, V. R. **Sobrecarga do sistema visual em usuários de computador**. Recife: ABERGO, 2002.
- BRASIL. **Conselho Nacional de Saúde. Diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos**. Brasília: Ministério da Saúde, 1996.
- LIMA, V. **Ginástica Laboral: Atividade física no ambiente de trabalho**. 3ª. edição. São Paulo: PHORTE, 349 p., 2007.
- MARQUES, J. E. L. D. **Motivação no trabalho: a percepção dos colaboradores internos do Laboratório Marluce Vasconcelos**. 2008. Dissertação (Título de Bacharel em Administração). Centro Universitário de João Pessoa – UNIPÊ, João Pessoa.
- LOPES, E. C. T. et al. **Influência da ginástica laboral em funcionários que trabalham com telemarketing**. Revista Digital, v. 13, n. 124, 2008.
- MENDES, R. A.; LEITE, N. **Ginástica Laboral: Princípios e aplicações práticas**. 2ª. edição. São Paulo: MANOLE,

216 p.2008.

MINISTÉRIO DO TRABALHO E DO EMPREGO. **CBO – Classificação Brasileira de Ocupações**. Disponível em: <<http://www.mtecho.gov.br/busca/condicoes.asp?codigo=2523>> Acessado em: 23/08/08.

RENNER, J. S. **Prevenção de distúrbios osteomusculares relacionados ao trabalho**. Boletim Saúde. v. 19, n. 1, p. 73-80, 2005.

RODRIGUES, F. S. et al. **Análise da eficácia de um programa de cinesioterapia/ginástica laboral**. F@pciência, v. 3, n. 5, p. 53-64, 2009.

SANTOS, A. F. et al. **Benefícios da ginástica laboral na prevenção dos distúrbios osteomusculares relacionados ao trabalho**. Arq. Ciênc. Saúde Unipar, v. 11, n. 2, p. 99-113, 2007.

TURTELLI, C. M. **Avaliação do ombro doloroso pela radiologia convencional**. Radiol Bras, v. 34, n. 4, p. 241-245, 2001.

ZAPATER, A. R. et al. **Postura sentada: a eficácia de um programa de educação para escolares**. Ciência & Saúde Coletiva, v. 9, n. 1, p. 191-199, 2004

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THE EFFECTIVENESS OF THE DECLINE OF LABOR GYMNASTICS ALGIER OF SECRETARIES OF A COLLEGE IN VIÇOSA /MG

ABSTRACT

This study examined the influence of the Gymnastics program in pain, () the secretaries (them) a college in Viçosa, MG. We used a group of 11 employees, with ages ranging from 21 to 55 years, 9 women and 2 men, secretaries who work for this institution. To collect data we used the questionnaire Topography of Pain. There were two collections of the protocol, one before the implementation of Gymnastics and again after 7 weeks of intervention. From the data collected, there was 100% improvement in complaints of pain in the eye, shoulder, wrist, 75% reduction in the cervical, thoracic region in 80% and 36.37% in the lumbar region. We conclude that the Gymnastics was effective in reducing pain of secretaries, which is a low-cost strategy, which improves the pain conditions and therefore the quality of life, which reduces the rate of absenteeism and increases productivity for the company.

KEYWORDS: gymnastics Labor, Secretary, pain

L'EFFICACITÉ DE LA BAISSÉ DE LA GYMNASTIQUE DU TRAVAIL DES SECRÉTAIRES ALGER D'UN COLLEGE A VIÇOSA /MG

RÉSUMÉ

Cette étude a examiné l'influence du programme de gymnastique dans la douleur, () les secrétaires (eux) un collège de Viçosa, MG. Nous avons utilisé un groupe de 11 employés, avec des âges allant de 21 à 55 ans, 9 femmes et 2 hommes, des secrétaires qui travaillent pour cette institution. Pour recueillir des données, nous avons utilisé le questionnaire topographie de la douleur. Il y avait deux collections du protocole, l'une avant la mise en œuvre de la gymnastique et de nouveau après 7 semaines d'intervention. D'après les données recueillies, il était de 100% d'amélioration dans les plaintes de la douleur dans les yeux, épaule, poignet, 75% de réduction dans le col de l'utérus, la région thoracique dans 80% et 36,37% dans la région lombaire. Nous concluons que la gymnastique a été efficace pour réduire la douleur des secrétaires, qui est une stratégie à faible coût, ce qui améliore les conditions de la douleur et donc la qualité de vie, ce qui réduit le taux d'absentéisme et la productivité augmente pour la de l'entreprise.

MOTS-CLÉS: gymnastique du travail, Secrétaire, de la douleur

LA EFICACIA DE LA DECADENCIA DE GIMNASIA LABORAL ARGEL DE SECRETARIOS DE UN COLEGIO EN VIÇOSA /MG

RESUMEN

Este estudio examinó la influencia del programa de gimnasia en el dolor, () los secretarios (a) un colegio en Viçosa, MG. Se utilizó un grupo de 11 empleados, con edades comprendidas entre 21 y 55 años, 9 mujeres y 2 hombres, secretarias que trabajan para esta institución. Para recoger los datos se utilizó el cuestionario de Topografía del dolor. Había dos colecciones del protocolo, una antes de la puesta en práctica de la gimnasia y otra vez después de 7 semanas de intervención. De los datos recogidos, no fue del 100% de mejoría en las quejas de dolor en el ojo, el hombro, la muñeca, el 75% de reducción en la región cervical, torácica en el 80% y 36,37% en la región lumbar. Llegamos a la conclusión de que la Gimnasia fue efectivo para reducir el dolor de los secretarios, que es una estrategia de bajo costo, lo que mejora las condiciones de dolor y por lo tanto la calidad de vida, lo que reduce la tasa de ausentismo y aumenta la productividad de la de la empresa.

PALABRAS CLAVE: gimnasia Trabajo, Secretario, el dolor

A EFICÁCIA DA GINÁSTICA LABORAL NA DIMINUIÇÃO DAS ALGIAS DAS SECRETÁRIAS DE UMA FACULDADE EM VIÇOSA/MG

RESUMO

Este estudo analisou a influência do programa de Ginástica Laboral na dor, das (os) secretárias (os) de uma Faculdade em Viçosa/MG. Utilizou-se um grupo de 11 funcionários, com faixa etária variando entre 21 a 55 anos, sendo 9 mulheres e 2 homens, que trabalham de secretários desta instituição. Para a coleta de dados utilizou-se o questionário de Topografia da Dor. Foram realizadas duas coletas do protocolo, sendo uma antes da aplicação da Ginástica Laboral e outra após 7 semanas de intervenção. A partir dos dados coletados, houve melhora de 100% nas queixas de dores na região dos olhos, ombro, punho; redução de 75% na região cervical, 80% na região torácica e 36,37% na região lombar. Conclui-se que a Ginástica Laboral foi eficaz na redução da dor de secretários, sendo esta uma estratégia de baixo custo, no qual melhoram os quadros algícos e conseqüentemente a qualidade de vida, o que reduz a taxa de absenteísmo e aumenta a produtividade para a empresa.

PALAVRAS-CHAVES: ginástica Laboral, secretário, dor