93 - CHARACTERIZATION OF A PROGRAM OF LABOR GYMNASTIC AS PREVENTION AND REDUCTION OF RSI / WMSD

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Introduction

Labor gymnastic (LG) is growing in our country as an important tool that measures aimed at preventing the emergence of musculoskeletal lesions linked to activities within the work environment (RSI / WMSD). According to Mendes, Leite (2004) the LG is designed and applied in the workplace during working hours.

The fact that the great rise of work-related musculoskeletal disorders (MSDs), and confirming the poor performance of employees during work activities problems arise due to complications postural and ergonomic. The LG promoted within the company benefits related quality of life, better work productivity and growth for the company with the highest performance. The aim of this study was to develop practical actions using LG for prevention and reduction of repetitive strain injuries (RSI) / work-related musculoskeletal disorders (MSDs) and improving the quality of life of employees of the company.

It is of great importance to the company through the LG promote awareness of improvements in the aspects of health and prevention worker, and these activities both in relation to LG or Active Leisure for the same.

In the opinion of Martins (2001) the GL can be performed in three stages: before (preparatory), during or after (compensatory) the workday. According to the need and the activities performed by the company, must choose which one best fits for the sector which seeks to deploy.

The LG is important for worker health both physical and mental. According to Lima (2007), she also works as a means of appreciation and encouragement for employees with respect to physical activity, being used as a tool to promote the health and work performance

Nowadays most professions is affected by MSDs, which are called Work-Related Musculoskeletal Diseases. According to Oliveira (2003) the term most commonly used in Brazil, the RSI (Repetitive Strain Injury), has been gradually replaced by WMSD, because it highlights the term disorders rather than injuries, because this is really what happens in practice with workers, they first have disorders such as fatigue, pain in the limbs and occur only after the injuries.

A very important issue is still on the occupational aspect to miss work because of illness or "disease absenteeism," which has been increasingly recognized as a measure of poor health (VAHTERA, 2004; Ferrie, 2005, apud SANTOS, 2008). The vast majority of studies suggest that the increased participation in exercise programs tends to be associated with decreased absenteeism over a year.

Presenteeism may now be defined according to Santos (2008) as the propensity to remain worker working a patient, having a relationship with the organization and working conditions, and as the extent measurable symptoms, conditions and diseases negatively affect work productivity of people who decide to remain in his post.

Benefits for employees include: relaxation, improved posture, improved health status in general, prevention of WMSD or RSI, the improvement in the relationship and communication between employees, and increased concentration. As for how the company can cite benefits: improved production and results, increased integration among employees with activities, reduction of employee absences, reduce accidents and work for the same clearance, disease prevention work, as READ or WMSD, contributing to lack of physical fatigue, mental and psychic. It is also possible to relate the effects that these diseases bring to the employee and mainly with the process triggered in your body and its relationship to pain.

Methods

The population universe existing in Enterprises; MT Accounting Services LTD, META FOLPAG S / S LTDA - EPP, located in Joinville, Santa Catarina, containing 130 employees, the space was used and where it developed the study. The sample group was left with almost the entire population investigated corresponding to 120, this number is justified because some individuals did not meet the working day in the environment where the study was performed.

All volunteers received information for the study, read and signed a consent form, according to Resolution 196/96 of the National Health. The study was approved by the ethics committee and research at the University of Joinville Region - Univille.

Identified sectors of businesses, individuals that composed the sample were assessed from the use of two survey instruments: 1 - Questionnaire Research to Subjective Evaluation of Sorrows Located to Oliveira (2002) and 2 - Profile Lifestyle Single (Pentacle Welfare) Nahas (2010).

The first questionnaire seeks to identify the region of the body that presents more pain or tension. This identification will allow better targeting of prevention in exercises more efficiently (OLIVEIRA, 2002).

The second questionnaire was the Pentacle Welfare (NAHAS, 2010 pg. 32,33), which is a simple, self-administered, which includes five key aspects of the lifestyle of the people and which is known to affect health general and is associated with psychological well-being and several chronic degenerative diseases, such as myocardial infarction, stroke, diabetes, hypertension, obesity and osteoporosis. This questionnaire is that the respondent may, after making the answers, coloring bands representing each item self-rated on a scale ranging from zero (total absence of such a feature in lifestyle) to three points (complete realization behavior considered). The protocol suggests that the figure is more colorful, more suitable is the lifestyle of the person, considering the five individual factors related to quality of life.

We performed a diagnostic assessment, followed by an identification of the major problems with affected sectors being analyzed possible limitations of employees to occur proper prescription of future LG employees.

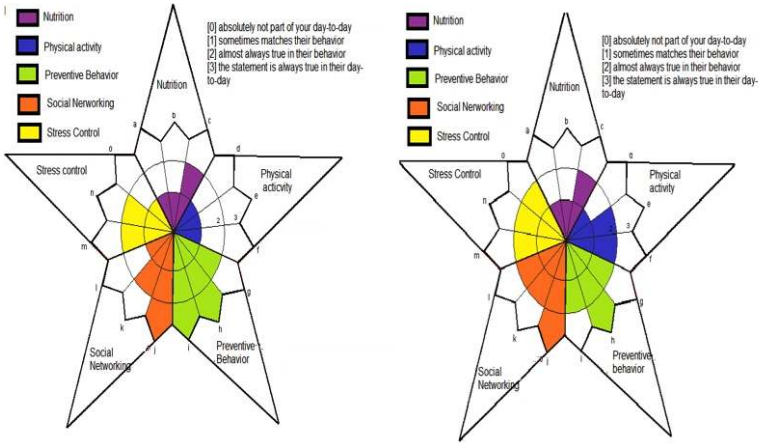
Analysis of Results

The data collected and analyzed by descriptive statistics, obtained the following results: characterization of target as found in 120 individuals of 102 (85%) were female with a mean age of 27.8 (± 7.918) years and 18 (15 %) were male with a mean age of 27 (± 9.88) years.

Referencing the analysis of the profile of Lifestyle proposed by Nahas (2010) where the negative profile (0-1) and

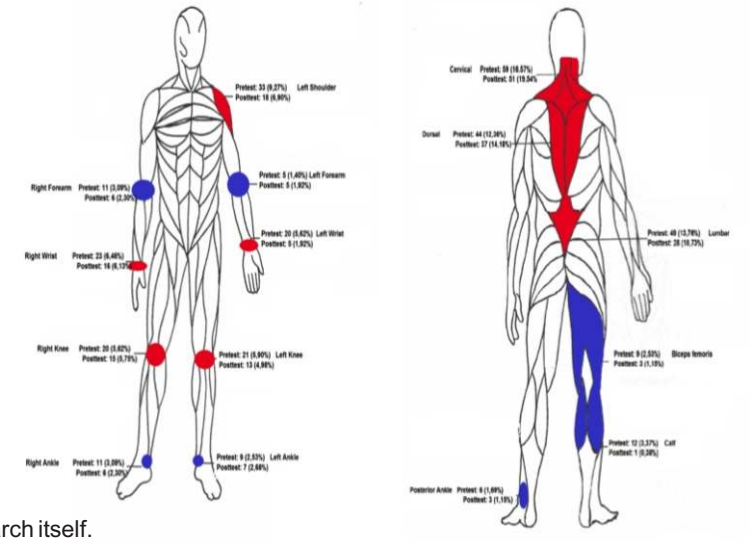
positive profile (2-3). The lifestyle of officials of Companies: MT Accounting Service LTD, META FOLPAG S / S LTDA - EPP, observing table 1 below in reference to the Pentacle wellness, we can analyze the behavior of variables nutrition: A question pretest (1 ± 0.7) and post-test (1 ± 0.8) and remained this same result; question pretest B (1 ± 0.9) and post-test (1 ± 0.7) There were no differences; question pretest C (2 ± 1.1) and post-test (2 ± 0.9) and this result is the same; physical activity: D question pretest (1 ± 1.0) and posttest (1 ± 1.0), whereas no difference; question pretest E (1 ± 1.2) and post-test (2 ± 1.0), thus occurring difference in the post test 1 for 2 on that issue held at least twice a week exercises involving strength and muscle stretching; question pretest F (1 ± 1.1) and post-test (2 ± 1.0), a significant difference, because the average was 1 for 2 on the issue of walking or cycling as a means of travel and use stairs instead of elevator; preventive behavior: G question pretest (2 ± 1.2) and post-test (2 ± 1 2), with no difference; question pretest H (3 ± 0.9) and post-test (3 ± 0.9), the result remained the same, I question pretest (3 ± 0.5) and posttest (3 ± 08) no difference; relationships: J question pretest (3 ± 0.7) and post-test (3 ± 0.6), no increase or decrease; question pretest K (2 ± 0.9) and post-test (2 ± 0.9), no difference; question pretest L (1 ± 1.1) and post-test (2 ± 1.1), and difference occurred because the average was 1 for 2 on the question where the individual seeks to be active in your community, control of stress: question pretest M (2 ± 1.1) and post-test (2 ± 1 0), no difference; question pretest N (2 ± 0.9) and post-test (2 ± 0.8), also with no increase or decrease; question Pretesting (1 ± 1.0) and posttest (2 ± 0.9), thus occurring difference, where the average was 1 for 2 on the question of balancing the time devoted to work with the time devoted to leisure.

Figure 1 - Pentacle pretest and posttest.



Source: the search itself.

Figure 2 - Points of pain pretest and posttest.



Source: the search itself.

The most affected areas were as follows: pre-test 33 people reported pain in his left shoulder, which equates to 9.27% of the employees, and the post-test 18 people reported pain in limb, equivalent to 6.90 % of the sample, with a difference of -2.37%, while there was a decrease, 23 people reported pain in the right wrist in the pre-test, equivalent to 6.46% of the employees, and the post-test 16 people reported pain this member, equivalent to 6.13% of the sample, with a difference of -0.33%, while there was a decrease, in left wrist 20 people reported pain in the pretest, which corresponds to 5.62% of employees and posttest 5 people reported pain in limb, which equates to 1.92% of the sample, with a difference of -3.70%, with a decrease, 20 people reported right knee pain on pretest being equivalent to 5.62% of the sample, and the post-test 15 people reported pain in limb, equivalent to 5.75% of the sample, with a difference of 0.13%, with a slight difference; 21 people reported pain left knee in the pre-test, equivalent to 90% of employees, and the post-test 13 people reported pain in limb, equivalent to 4.98% of the sample, with a difference of -0.92%, and there was a difference ; in cervical pre-test 59 people reported pain, equivalent to 16.57% of the sample, and the post-test 51 people reported pain in limb, which equates to 19.54% of the sample, with a difference of 2, 97%, and there was a difference; 44 people reported pain in the dorsal pre-test, equivalent to 12.36% of the sample, and 37 people reported pain in the dorsal post-test, equivalent to 14.18% of employees, with a difference of 1.82%, while there was a difference; 49 people reported low back pain in the pre-test, equivalent to 13.76% of the sample, and 28 people reported low back

pain in the post-test, equating to 10.73%, with a difference of -3.04%, with one difference.

The regions of the body where there were lower incidences were 11 people showed pain in the right forearm, equivalent to 3.09% of employees and post-test 6 people reported pain in limb, which equates to 2.30% of the sample, with a difference of -0.79%, while there was a decrease; 5 people reported pain in the left forearm in the pretest equivalent to 1.40% of the sample, and 5 people reported pain in limb post-test equivalent to 1 92% of employees, with a difference of 0.51%, with no increase or decrease, in the right ankle 11 people reported pain in the pretest, equivalent to 3.09% of the sample, and post-test 6 people reported pain, equivalent to 2.30% of the sample, with a difference of -0.79%, a difference occurring; 9 people reported pain in his left ankle in the pre-test, equivalent to 2.53% of the employees, and posttest 7 people reported pain in limb, equivalent to 2.68%, with a difference of 0.15%, with a slight difference: in the biceps femoris 9 people reported pain in the pretest, equaling 2.53% of employees , and at posttest 3 people reported pain at the site, equivalent to 1.15% of the sample, with a difference of -1.38; calf 12 people reported pain in pre-test, equivalent to 3.37% of sample, and at posttest 1 person reported feeling pain at the site, equivalent to 0.38%, with a difference of -2.99, and there was a difference; posterior ankle 6 people reported pain in pretest, equating to 1.69% of the sample, and at posttest 3 people reported pain, equivalent to 1.15% of the sample, with a difference of -0.54, causing a slight difference.

Conclusion

That study was based on the implementation of a program of gymnastics, and its goal to develop practical actions using Gymnastics for prevention and reduction of repetitive strain injuries (RSI) / work-related musculoskeletal disorders (MSDs) and improved quality of life of employees of the company.

According to the data obtained in the Pentacle welfare, there was a difference between the results of pre-test and post-test, profile changes occurring negative to positive. On the question of the “Physical Activity”, there was a positive increase, as more people reported physical exercises involving strength and muscle stretching; probably because of the encouragement they received lessons in gymnastics. There was also a positive increase in the issue of active commuting, because it increased the number of people in the sample who walked or cycled as a means of displacement and used stairs instead of elevator, due to increased incentive to a life with more physical activity. Regarding the “Relationship” issue, there was also a positive increase, as people sought to be more active in the community as a result of greater socialization and motivation among employees. In variable “Control of stress”, there was a positive increase in the issue of balancing the time devoted to work with the time devoted to leisure, thus causing a decrease in the stress level of the employees.

Regarding to the obtained data on the prevalence of pain, it may be noted that the proposed activities of gymnastics contributed to an improvement in the aforementioned regions (left shoulder, left wrist, cervical, dorsal region) occurs a major difference between the pre and post -test.

In the lumbar region, the femoral biceps and calf showed lower responses than the previous ones, this pain also decreased as a result of the lessons of gymnastics with the stretches and activities that help relax the tensed muscles due to lack of use or excess the same due to repetitive activities within the company.

Returning to the research problem, we can conclude that yes gymnastics can help in better performance of the employees and contribute to the prevention and reduction of repetitive stress injury (RSI) / work-related musculoskeletal disorders (MSDs), and consequently bring better quality of life for employees.

These objectives were achieved, because there was a big project acceptance by the company and employees, as 120 employees, or more than 90% of employees participated in the project.

The project implementation was also well regarded by the company; with the same interest shown by the results that were obtained and getting at its discretion verify that the project is within budget issues them to implement it definitely within the company.

It is important to note that the project took more conscious of healthy living for employees, since most of them did not perform physical exercise, and during classes in gymnastics were noting the importance of not lead a sedentary life, thus encouraging them to Start practicing a sport or exercise that benefits them up and leave them more healthy and well prepared in their daily lives.

Within the company there was also a change, as a nutritionist was hired to give tips on healthy eating for employees.

Another aspect of the group in which there was the behavioral change (communication) because employees previously almost no dealings or were too introverted, and during the proposed activities were improving communication between themselves and promoting better interaction and fellowship, thus making the group more motivating and more united promoting more results for the company.

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CHARACTERIZATION OF A PROGRAM OF LABOR GYMNASTIC AS PREVENTION AND REDUCTION OF RSI / WMSD

ABSTRACT

Labor gymnastic is based on the valuation of the practice of specific activities as a means of further improving the quality of life of its employees, as well as promote integration, socialization and ultimately improve productivity. The aim of this study was to develop practical actions using gymnastics for prevention and reduction of repetitive strain injuries (RSI) / work-related musculoskeletal disorders (MSDs) and improving the quality of life of employees of the company. This study evaluated 120 individuals who were part of the sample group and the population equaled up to 130 individuals of both sexes, and these same represented as follows, n = 102 (85%) female subjects with mean age (27.8 ± 7.9) years, n = 18 (15%) male subjects with mean age (27 ± 9.8) years. In order to seek or obtain the data necessary to achieve the proposed goals made use of the following research instruments: questionnaire investigation called "Subjective Evaluation of Localized Pain" as (OLIVEIRA, 2002), the investigative questionnaire "Profile of Individual Lifestyle (Pentacle Welfare)" as (NAHAS, 2010). According to the data obtained in the Pentacle welfare, there was a difference between the results of pre-test and post-test, profile changes occurring negative to positive. We obtained data on the prevalence of pain, it may be noted that the proposed activities of gymnastics contributed to an improvement in the aforementioned regions (left shoulder, left wrist, cervical, dorsal region) occurs a major difference between the pre and post -test.

KEYWORDS: Labor gymnastic, Prevention, RSI / WMSD.

CARACTERISATION D'UN TRAVAIL GYM EN PRÉVENTION ET LA RÉDUCTION DE RSI / TMS

RÉSUMÉ

La gymnastique est basée sur l'évaluation de la pratique d'activités spécifiques comme un moyen d'améliorer encore la qualité de vie de ses employés, ainsi que de promouvoir l'intégration, la socialisation et, finalement, d'améliorer la productivité. Le but de cette étude était de développer des actions concrètes à l'aide de Gymnastique pour la prévention et la réduction des troubles musculo-squelettiques (TMS) liés au travail / troubles musculo-squelettiques (TMS) et l'amélioration de la qualité de vie des salariés de l'entreprise. Cette étude a évalué 120 personnes qui faisaient partie du groupe de l'échantillon et la population égalé jusqu'à 130 personnes des deux sexes, et ces mêmes représentés comme suit, n = 102 (85%) des sujets féminins d'âge moyen (27,8 ± 7,9) ans, n = 18 (15%) des sujets masculins d'âge moyen (27 ± 9,8) ans. Afin de demander ou d'obtenir les données nécessaires pour atteindre les objectifs proposés ont utilisé des instruments de recherche suivants: enquête questionnaire intitulé «Évaluation subjective de la douleur localisée», comme (OLIVEIRA, 2002), le questionnaire d'enquête »Profil de style de vie individuel (pentacle bien-être) "en tant que (NAHAS, 2010). Selon les données obtenues dans le bien-être Pentacle, il y avait une différence entre les résultats des modifications de profil pré-test et post-test, qui se produisent négatif au positif. Nous avons obtenu des données sur la prévalence de la douleur, il convient de noter que les activités proposées de la gymnastique contribué à une amélioration dans les régions mentionnées ci-dessus (épaule gauche, poignet gauche, la région cervicale, dorsale) se produit une différence majeure entre le pré et post--test.

MOTS-CLÉS: Gymnastique, la prévention, le RSI / TMS.

CARACTERIZACIÓN DE UNA OBRA GYM COMO PREVENCIÓN Y REDUCCIÓN DE LA RSI

RESUMEN

Gimnasia se basa en la valoración de la práctica de actividades específicas, como medio de mejorar aún más la calidad de vida de sus empleados, así como promover la integración, socialización y en definitiva, mejorar la productividad. El objetivo de este estudio fue desarrollar acciones prácticas que utilizan Gimnasia para la prevención y reducción de las lesiones por esfuerzo repetitivo (RSI) / laborales trastornos musculoesqueléticos (TME) y la mejora de la calidad de vida de los empleados de la empresa. Este estudio evaluó a 120 personas que formaban parte del grupo de la muestra y la población igualado hasta 130 individuos de ambos sexos, y estos mismos representados de la siguiente, n = 102 (85%) mujeres con una edad media (27,8 ± 7,9) años, n = 18 (15%) sujetos varones con una edad media (27 ± 9,8) años. Con el fin de obtener o no solicitar los datos necesarios para la consecución de los objetivos propuestos hecho uso de los instrumentos de investigación: investigación cuestionario denominado "Evaluación Subjetiva del Dolor localizado" como (Oliveira, 2002), el cuestionario de investigación "Perfil de Estilo de Vida Individual (Pentáculo Bienestar) "como (Nahas, 2010). De acuerdo con los datos obtenidos en el bienestar Pentáculo, había una diferencia entre los resultados de los cambios de perfil de prueba pre-y post-test, que ocurren de negativo a positivo. Se obtuvieron datos sobre la prevalencia de dolor, se puede señalar que las actividades propuestas de gimnasia contribuido a una mejora en las regiones antes mencionadas (hombro izquierdo, muñeca izquierda, región cervical, dorsal) se produce una mayor diferencia entre el pre y post -test.

PALABRAS CLAVE: Gimnasia, Prevención, RSI / trastornos musculoesqueléticos.

CARACTERIZAÇAO DE UM PROGRAMA DE GINÁSTICA LABORAL COMO PREVENÇÃO E REDUÇÃO DA LER/DORT

RESUMO

A Ginástica Laboral fundamenta-se na valorização da prática de atividades específicas como instrumento de promoção da melhoria da qualidade de vida de seus colaboradores, assim como promovem a integração, socialização e por fim, melhoram a produtividade. O objetivo deste trabalho foi desenvolver ações práticas usando a Ginástica Laboral para prevenção e redução das lesões por esforços repetitivos (LER)/distúrbios osteomusculares relacionados ao trabalho (DORT) e melhoria da qualidade de vida dos colaboradores da empresa. O presente estudo avaliou 120 indivíduos que fizeram parte do grupo amostral sendo que a população perfazia-se de 130 indivíduos de ambos os sexos, sendo estes mesmos representados da seguinte forma, n=102 (85%) indivíduos do gênero feminino com media de idade (27,8±7,9) anos e n=18 (15%) indivíduos do gênero masculino com media de idade (27±9,8) anos. Para podermos obter ou buscar os dados necessários para atingir os objetivos propostos fizemos uso dos seguintes instrumentos de pesquisa: questionário de investigação denominado “Avaliação Subjetiva de Dores Localizadas” conforme (OLIVEIRA, 2002), questionário investigativo do “Perfil do Estilo de Vida Individual (Pentáculo do Bem Estar)” conforme (NAHAS, 2010). Conforme os dados obtidos no Pentáculo do bem-estar, houve diferença entre os dados obtidos de pré-teste e no pós-teste, ocorrendo mudanças do perfil negativo para o positivo. Nos dados obtidos de prevalência de dores, pode-se notar que as atividades propostas de ginástica laboral contribuíram para uma melhora nas regiões citadas (ombro esquerdo, punho esquerdo, na região cervical, na região dorsal) ocorrendo uma maior diferença entre o pré e o pós-teste.

PALAVRAS-CHAVE: Ginástica Laboral, Prevenção, LER/DORT.