155 - EVALUATION THROUGHT THE USE OF A CHECK LIST OF THE ORGANIZATION AND ERGONOMIC CONDITION OF THE WORK STATIONS CHAIR, TABLE, KEYBOARD, COMPUTER TERMINAL LEVEL OF LOCALIZED PAIN LUMBAR RISCK OF THE ADMINISTRATIVE EMPLOYES OF UNIEVANGELICA.

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Introduction

Since the 18th and 19th centuries, there has been a consolidation of the industrial society and substantial changes were introduced to the work atmosphere: tools, machines and equipment, work hours, and the type and form of work organization. These changes impacted the lives and health of people, especially those of the employees. Bisso (1990)

Likewise, the transformations introduced into the work world with the development of the information network and micro-electronics in the 20th century, were accompanied by efforts and attitudes that altered procedures, instruments, and relations. The same work that granted human progress has produced new health challenges. The advances gained, and the new instruments of the work place, while having at the same time proportioned various advancements and benefits, have also brought health problems to the employee. One of which is the Repetitive Effort Lesion - REL, which can be considered as one of the most serious health problems for the employee in this field at the end of this century. Lima et. al. (1998)

The appearance of the first documented cases of REL goes back to the year 1700, registered by Ramazzini, who related the development of the process of the sickness of the worker to the work performed. Rio (1998). In 1800, others noted the common factors of repeated and frequent movements of isolated muscle groups while the rest of the body remained for hours in the same position as the causes of what we know as REL. Actually, REL is cited as one of the most frequent illnesses of the industrialized work world and the number of those affected has increased each year, including in Brazil, within the last five years a half a million have been registered with Communication of Labor Accidents of the National Institute of Social Safety. Department of Social Welfare (BR) (1997)

REL is the term used in Brazil to define the syndrome characterized by discomfort, disability or persistent pain in the joints, muscles, tendons e other soft tissue, with or without physical or clinical manifestations. Rio (1998). Meanwhile, this terminology is not accepted in a general way and was altered by Work Related Osteomuscular Disorders. Department of Social Welfare (BR) (1997)

According to the Norm Technique about lesions caused by repetitive labor, the Department of Social Welfare, the terminology REL should be used for conditions that attack "tendons, synapses, muscles, nerves, ligaments either isolated or associated, with or without degeneration of the tissues, principally reaching, but not exclusively, the superior members of the scapula and neck region, of a work-related origin." Department of Social Welfare (BR) (1997)

Objective

The objective of this project was to evaluate through the use of a check list, the organization and ergonomic condition of the work stations: chair, table, keyboard and monitor, the level of localized pain, and the lumbar risk of the administrative employees of UniEVANGÉLICA have the minimal condition to develop vocationally.

Methodology

Sample Characteristic

Thirty employees of UniEVANGÉLICA between the ages of 20 and 50 years of age, both men and women, from the administrative sector (sectors with computers) volunteered. Each participant signed an affidavit of consent.

Descriptive Research Type

Population: employees of UniEVANGÉLICA

Sample: 30 employees from the administrative sector - sectors with computers

Inclusion Criteria: To be employed at UniEVANGÉLICA and work in this same sector for at least 6 months.

Instruments: Questionnaires, interviews, and observations of the work stations were made by video camera model JVC, mini DV and by digital camera model Sony, cybershot 5.0 mega pixels.

Procedure:

A meeting was held with all those interested in participating in the research, where there was an opportunity to discuss and clarify all aspects of the research, and those interested in conforming to the study chose to participate of their own free will.

First: Film and photographs were taken of all the participants at the location of and in the moment of work (to observe the work stations and the assumed posture during work).

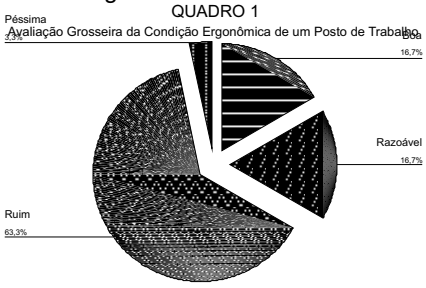
Second: A questionnaire in the form of a check list was used to verify the work stations ergonomic condition (COUTO, 1996). Likewise, structured interviews were done with the employees to know the level of pain and in what body region this pain was predominant (COUTO, 1996). Third: A cross-referencing of the data was made of the ergonomic nature of the work stations with the symptoms of the pain to establish a relationship of cause and effect between them.

Statistical Treatment

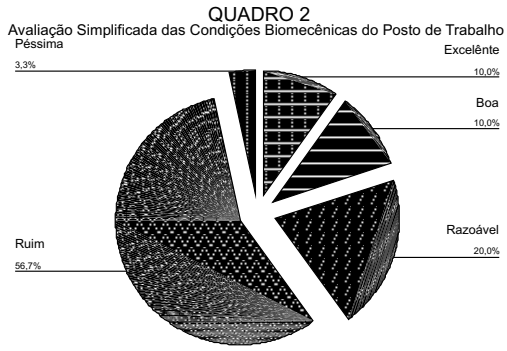
For the statistical treatment used descriptive frequency analysis with software SPSS 10.0.

Results and discussion

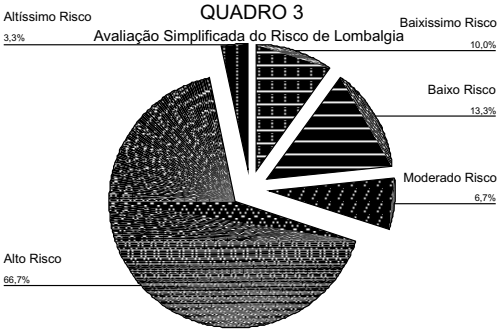
GRAPH 1 - Groos Evaluation of the Ergonomic Condition of the Work Station



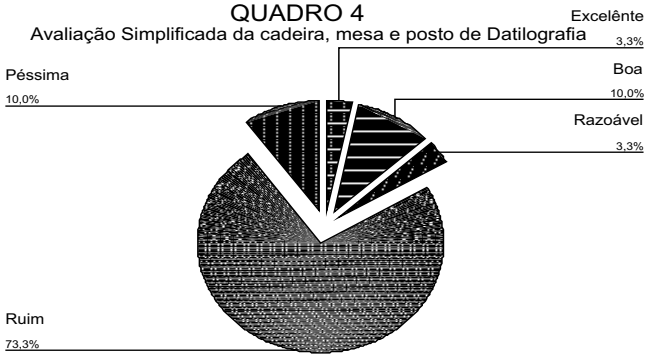
GRAPH 2 - Simplified Evaluation of the Biomechanical Conditions of the Work Station



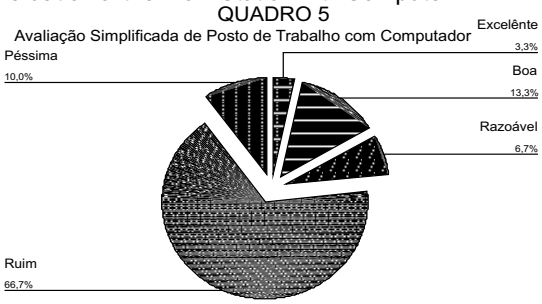
GRAPH 3 - Simplified Evaluation of Lumbar Risk



GRAPH 4 - Simplified Evaluation of chair table and work post



GRAPH 5 - Simplified Evaluation of the Work Station with Computer



In the results found, it was verified that the gross ergonomic conditions of the work station are: 16.7% good, 16.7% reasonable, 63.3% poor, and 3.3% unacceptable. Biomechanical conditions of the work station are: 16.7% good, 16.7% reasonable, 63.3% poor and 3.3% unacceptable. Simplified evaluation of lumbar risk: 10.0% very little risk, 13.3% little risk, 6.7% moderate risk, 66.7% high risk, and 3.3% very high risk. Evaluation of chair, table, and keyboard: 3.3% excellent, 10.0% good, 3.3% reasonable, 73.3% poor, and 10.0% unacceptable. Evaluation of the work station with computer: 3.3% excellent, 13.3% good, 6.7% reasonable, 66.7% poor, and 10.0% unacceptable. In productive organizations, there has been a search to study the well-being of humans. These studies have been done because of a disputed concept, much debated and referenced with the quality of life in the work place, being that each profession has its own aspect and ways to do these evaluations. One disputed aspect among them is the lack of application of the practical, comfortable, and secure ways of executing functions within the company. The more information and ergonomic studies, the lower the level of well-being and correct utilization of tables, chairs and keyboard, causing the employee to have a poor quality of life, demonstrating that these professionals are not benefiting from their own knowledge as we have verified with the data found at the work stations. (VIEIRA, 2000; TOLFO, 2001; LIMA, 2003; MACEDO, 2004).

Conclusion: From the results above, we verify that:

The work stations of the administrative employees are 'poor' in the whole random sample.

Ergonomic intervention in the utilization of chairs, tables and computer terminals does not exist.

Application and clarification of improving body posture in the work place do not exist.

We suggest that an evaluation be made of all the work station of the administrative area.

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ABSTRACT: Since the 18 and 19 centuries there has been a consolidation of the industrial society and substantial changes were introduced to the work atmosphere: tools, machines and equipment work hours and the type and form of work organization.These changes impacted the lives and health of people, especially those of the employees, Bisso (1990). The objective of this study was to evaluate, through the use of a check list, the organization and the ergometric, condition of the work stations of the administrative employees of UniEvangélica. Thirty employees of UniEvangélica between the ages of 20 and 50, men and women. From the administrative sector (sectors with computers) volunteered to participate in the study. The treatment of statistics used frequency analysis. The results indicated the ergometric condition in general of the work stations are as follows: 16,7% good, 16,7% reasonable, 63,3% poor and 3,3% unacceptable, biomechanical conditions of the work stations are as follows: 16,7% good, 16,7% reasonable, 63,3% poor and 3,3% unacceptable. Simplified evaluation of lumbar risk: 10,0% very little risk, 13,3% little risk, 6,7% moderate risk. Evaluation of chair, table and keyboard: 3,3% excellent, 10,0 % good, 3,3% reasonable, 73,3% poor and 10,0% unacceptable. Evaluation of the work stations: 3,3% excellent, 13,3% good, 6,6% reasonable, 66,7% poor and 10,0% unacceptable. We conclude, that as a randon sample, ergometric conditions of the work stations of the administrative employees of UniEvangélica are in poor condition, suggest that an evaluation be made of all administrative work stations. **Keywords:** check list, work station, ergometric condition, lumbar risk.

Résumé : À partir des XVIII^{e} et XIX^{e} siècles, a eu lieu une consolidation de la société industrielle et des changements importants ont été introduits dans l'environnement, les machines et les équipements, la durée, le type et la forme d'organisation du travail. Ces changements ont provoqué un impact sur la vie et sur la santé des gens, en particulier des travailleurs (Bisso, 1990). L'objectif de cette étude était d'évaluer, à l'aide d'une liste de vérification, l'organisation et les conditions ergonomiques des postes de travail des employés du secteur administratif de l'UniEVANGÉLICA. Ont pris part à cette étude 30 volontaires des deux sexes, ayant entre 20 et 50 ans, employés de l'UniEVANGÉLICA dans le secteur administratif, et travaillant à des postes où il existe des terminaux d'ordinateur. En ce qui concerne le traitement statistique, nous avons utilisé l'analyse descriptive de fréquence. Parmi les résultats obtenus, nous avons pu vérifier que, pour ce qui est des conditions ergonomiques élémentaires d'un poste de travail, 16,7% sont bonnes, 16,7% sont raisonnables, 63,3% sont mauvaises et 3,3% sont très mauvaises. En ce qui concerne les conditions biomécaniques du poste de travail, 16,7% sont bonnes, 16,7% raisonnables, 63,3% mauvaises et 3,3% très mauvaises. Une évaluation simplifiée du risque de lombalgie a produit les résultats suivants : pour 10,0%, le risque est très faible, pour 13,3%, il est faible, pour 6,7%, il est modéré, pour 66,7%, il est grand et pour 3,3%, le risque est très grand. Évaluation de la chaise, de la table et du poste de dactilographie : excellente pour 3,3%, bonne pour 10,0%, raisonnable pour 3,3%, mauvaise pour 73,3% et très mauvaise pour 10,0%. Évaluation du poste de travail avec ordinateur : excellente pour 3,3%, bonne pour 13,3%, raisonnable pour 6,7%, mauvaise pour 66,7% et très mauvaise pour 10,0%. Nous en avons conclu de cet échantillonnage randomisé, que les conditions ergonomiques du poste de travail des employés administratifs de l'UniEVANGÉLICA sont mauvaises. Notre suggestion est que l'on fasse une évaluation des postes de travail de tout l'effectif du secteur administratif.

Resumen: A partir de los siglos XVIII y XIX, hubo la consolidación de la sociedad industrial y fueron introducidos cambios substanciales en el ambiente, heraamentas, máquinas y equipamentos, jornada, tipo y forma de organización del trabajo. Esos cambios produjeron impactos sobre la vida y la salva de las personas y en especial de los trabajadores, BISSO (1990). El objetivo de este trabajo fue valorar la organización y la condición económica de los puestos de trabajo de los empleados administrativos de la UniEvangélica, através de chec-list. Partiparon del estudio 30 empleados de la UniEvangélica de 20 a 50 años de edad, voluntarios, de sexo masculino y femenino, del sector administrativo sectores donde habían terminales de ordenador. Para el tratamiento estadístico fue utilizado un análisis descriptivo de frecuencia. En los resultados encontrados se verificó para condiciones economicas gruesas. De un puesto de trabajo que : el 16,7% son buenas, 16,7% razonables, 63,3% son malas y el 3,3% son pésimas. Las condiciones biomecánicas del puesto de trabajo son : 16,7% son buenas, 16,7% son razonables 63,3% son malas y 3,3% son pésimas. Avaliación simplificada del riesgo, 13,3% bajo riesgo, 6,7% el riesgo es moderado 66,7% alto riesgo y 3,3% altísimo riesgo. Valoracíon de silla, mesa y puesto de dactilografía : 3,3% excelente, 10% buena, 3,3% razonable, 73,3% malo y 10% pésima. Valoracíon del puesto de trabajo con ordenador : 3,3% excelente, 13,3% buena, 6,7% razonable, 66,7% mala y 10% pésima. Concluimos que para la muestra rentabilizada, las condiciones económicas de los administrativos de la UniEvangélica son malas. Sugerimos que se haga la valoracíon de los puestos con todos los efectivos del área administrativa. **Palabras-claves**: chec-list, puestos de trabajo, condición económica, lumbago.

Resumo:A partir dos séculos XVIII e XIX, houve a consolidação da sociedade industrial e foram introduzidas mudanças substanciais no ambiente, ferramentas, máquinas e equipamentos, jornada, tipo e forma de organização do trabalho. Essas mudanças produziram impactos sobre a vida e a saúde das pessoas e em especial dos trabalhadores, Bisso (1990). O objetivo deste trabalho foi avaliar a organização e condição ergonômica dos postos de trabalho dos empregados administrativos da UniEVANGÉLICA, através de check list. Participaram do estudo 30 empregados da UniEVANGÉLICA com 20 a 50 anos de idade, voluntários, do sexo masculino e feminino, do setor administrativo - setores onde tinha terminais de computador. Para tratamento estatístico foi utilizada a análise descritiva de freqüência. Nos resultados encontrados se verificou para condições ergonômicas grosseira de um posto de trabalho que: 16,7% são boas, 16,7% Razoável, 63,3% são ruins e 3,3% são péssimas. Condições biomecânicas do posto de trabalho são: 16,7% são boas, 16,7% Razoável, 63,3% são ruins e 3,3% são péssimas. Avaliação simplificada do risco de lombalgia: 10,0% baixíssimo risco, 13,3% baixo risco, 6,7% moderado risco, 66,7% alto risco e 3,3% altíssimo risco. Avaliação da cadeira, mesa e posto de datilografia: 3,3% excelente, 10,0% boa, 3,3% razoável, 73,3% ruim e 10,0% péssima. Avaliação do posto de trabalho com computador: 3,3% excelente, 13,3% boa, 6,7% razoável, 66,7% ruim e 10,0% péssima. Concluímos que, para amostra randomizada, as condições ergonômicas do posto de trabalho dos administrativos da UniEVANGÉLICA estão condições ruins. Sugerimos que se faça a avaliação dos postos com todos os efetivos da área administrativa. **Palavras-chaves:** check list, postos de trabalho, condição ergonômica, lombalgia.