

THE EVALUATION OF THE HEALTH ISSUES OF THE WOMEN WORKING IN A TEXTILE COMPANY-THE EVALUATION OF THE OCCUPATIONAL HEALTH INTERVENTION TARGETS

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Abstract: Objectives: To analyse the health status of a group of female workers, in a textile company, having as occupation the production of men suits, in order to establish the priorities of the occupational intervention. Methods: a group of 433 workers were examined and tested, during a 3 years period, and the results were correlated with the work places (quantified according to the professional exposure to hazards), with the working environment, and with the personal and genetic features, both physiological and pathological. The data obtained were analysed statistically and we obtained the overall image of the health status of the workers. Conclusions: the most frequent encountered pathology was the low back pain syndrome and the cervical spine arthroses, regardless of the age-group and workplace, except for the workers over 50 years old, where the high blood pressure prevailed and of the under 30 years old workers exposed to warm-humid and dusty workplaces, where the allergic pathology prevailed.

Rezumat: Obiective: analiza stării de sănătate a salariatelor confecționeri de produse textile de îmbrăcăminte, pentru stabilirea priorităților de intervenție preventivă ocupațională. Metode: au fost efectuate examinări clinice și paraclinice a 433 de salariate confecționeri, angajate ale aceleși firme, pe o perioadă de 3 ani, iar rezultatele au fost corelate cu locurile de muncă (cuantificate conform tipului de expunere profesională), cu condițiile de muncă și cu caracteristicile personale și / sau determinate genetic, caracteristicile fiziologice și patologice. Datele obținute au fost prelucrate statistic și a fost obținut tabloul general al stării de sănătate a persoanelor din lotul studiat. Concluzii: cele mai frecvente patologii care afectează starea de sănătate a femeilor din lotul studiat sunt sindromul de durere lombară joasă și cervicartroza, aproape indiferent de grupa de vârstă sau de locul de muncă, cu excepția salariatelor cu vârsta peste 50 ani, la care hipertensiunea arterială esențială este cea mai frecventă și a celor cu vârsta sub 30 ani expuse la microclimat cald-umed și pulberi textile, unde pe primul loc este patologia de cauză alergică.

INTRODUCTION

Professional activity: textile clothing by cutting and sewing, finishing the product by pressing hot - wet, labelling, packing, loading for shipment to customers. Organisational firm: managerial personnel, technical and production support and production personnel-executive (foremen, technicians, employees and workers standardised and non-standardised). Working conditions with significance in terms of the occupational exposure to risk factors:

- Production facilities: ventilation air intake and exhaust outside the building, but with the possibility of natural ventilation through windows, warm and humid microclimate all year round with temperatures exceeding 30 degrees Celsius occasionally during the summer, textile dust composed of textile cloth (cotton, linen, wool, polyester) with concentration / cubic meter below the maximum permissible noise (industrial and human) below 80 dB NAEC, continuous nature, natural lighting (large windows on both lengths of the sections) and artificial (suspended from the ceiling) supplemented by the local (included in body oriented sewing and working plan).
- Annexes and offices: Natural and artificial lighting, natural ventilation, no air conditioning, normal microclimate without chemical pollutants or dust / dirt.
- Assistance is provided by the employer occupational medicine at the office, where there is a medical dispensary in the field, which also provides emergency medical assistance, served by two doctors and a nurse
- Health and Work Safety is held in the company, with

qualified personnel as required by law.

THE PURPOSE OF THE STUDY

The objective of this study was to analyze the health of the female employees of the textile apparel makers to prioritize preventive occupational intervention.

MATERIAL AND METHODS

Health study of the employees to whom this article was conducted during three years 2008, 2009 and 2010, on a sample of 433 employees. Studied group included, in equal proportions, workers from three different types of professional and occupational exposure to different risk factors: electric automatic sewing machines (rated monotonous work, predominantly sitting position), iron (hot steam presses and steam iron) (standardized work, hot and humid microclimate, predominantly orthostatic position) and other jobs and related production facilities (warehouses, workshops and offices) (non-standardised work, alternate work location, increased responsibility). Age groups where the group was divided (20-29, 30-39, 40-49 and 50-59 years) and ranges: 20-34, 35-45 and over 45 years. The first shared by age group is to identify the time of appearance of data suffering diseases studied, the second shared group allows comparing the health of employees older than 45 years younger, both to identify when and to what extent the work conditions affects the workers with professional experience and also the optimal time of occupational health intervention, organizational, of health and safety in work, ergonomics and administrative for the prevention of the apparition of chronic diseases affecting the

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professional well-being. Because the share of female employees is over 85% the studied group was composed only by women, the reduced number of men not allowing to effectuate the study with a real statistical significance. The data taken into account for each employee in the study group such as: age, living environment (rural / urban), working place (sewing machine, ironing, etc.), educational level (8 classes, 10 classes, high school / professional school, university), the existence of specialized studies in the professional activity, previous occupational exposure to hazards, presence of pathological history, family history (father, mother, siblings) (conditions: hypertension, COPD, asthma, diabetes mellitus type 1 and 2, gastric and duodenal varices, hydrostatic and / or chronic venous insufficiency, thyroid dysfunction, CIC, stroke, lack of knowledge about diseases in the family), a medical physiological history, medicines allergy, environmental allergy, food and professional factors allergy, surgery and chronic conditions: hypertension, CIC and acute myocardial infarction, varicose veins / chronic venous insufficiency of the lower limbs, dyslipidemia, thyroid with eu / hypo / hyperfunction, asthma, COPD, allergic rhinoconjunctivitis, rash / eczema / allergic dermatitis, cataract, glaucoma, low back pain syndrome, lumbar disc herniation, cervicarthrosis, chronic shoulder pain, osteoarthritis, carpal radio arthrosis, osteoarthritis fingers, kyphosis, scoliosis, chronic anxio - depressive neurosis, personality disorders, deficit of intellect, duodenal ulcer, gastric ulcer, deaf dumbness, Type 1 diabetes, tip 2 noninsulino necessitating, type 2 insulino necessitating, osteoporosis. Investigations: radiological (neck pain and low back, shoulder, coxo-femoral joint and knee) and laboratory (hematocrite, hemoglobine, number of thrombi, fasting plasma glucose, SGPT, creatinine, total serum cholesterol, triglycerides and HDL cholesterol), lumbar spine osteodensitometry coxo-femoral joint and, electrocardiogram (heart rate, extrasystoles, tachyarrhythmias, blocks of RAM, ischemia), systolic and diastolic blood pressure, spirometry, vision changes, size and weight, mass index corporeal. Measurements were performed at the medical dispensary in accredited medical facilities, public or private, their quantification by the same criteria are carefully respected.

RESULTS AND DISCUSSION

After statistical processing of the data avanstă complex, we obtained a characterization of the study subjects which allowed us to conclude the following:

- 78% of the employees come from rural areas have an average level of education (10 grades and high school) (72%), 40% had a familiar history of positive pathology traced regarding the pathology of interest.
- Average length of working as a confectioner is almost equal to those working at the sewing machine and with those working in other jobs, but only 15.35 years at ironing.
- For an average height of 162.80 cm, there are oscillations between wide limits (145 cm / 182 cm), but with a reducing in the waist with the increasing of the age, concomitently with the increasing of the weight with the ageing, so that the female employees over 45 have the biggest bodymass index at the lowest height.
- The Systolic and diastolic blood pressure, and mean values of the laboratory measurements, are increased with the ageing, beginning with 45 years.
- The incidence of chronic diseases increases with age, except: thyroid hyperfunction, allergic rhinoconjunctivitis and skin manifestations of allergy, while problems such as low back pain (DLJ), chronic shoulder pain, kyphosis, anxio-depressive neurosis - gastric and duodenal ulcers, and detected new cases of type 2 diabetes have a maximum in the

age group 40-49 years, after which a decrease in those over 50 years.

- Reported to the whole studied group, the most common chronic diseases are, in descending order of frequency: DLJ, cervicarthrosis, hypertension, neuroses and chronic venous insufficiency in lower limbs (VCMI), dyslipidemia (DLP), hypothyroidism
- DLJ ranks first in the reported incidence in age groups, jobs, living environment and level of education, most often accompanied by cervicarthrosis second. Significant exceptions are: IVCMI the first at the sewing machine and under 30 years age, hypertension as the most common diagnosis in over 50 years at other jobs and allergic skin diseases, the most common diseases that account at ironing and under 30 years old.

CONCLUSIONS

- DLJ and cervical arthrosis are the main causes of presentation to the doctor, so are the diseases that cause suffering for the employees. Respecting the influence of the waist, weight and genetic component (low) on the incidence of the those diseases with chronic sufferings, the frequency of their occurrence in the life of employees, turn them into prime targets of medical, technical, organizational, ergonomic intervention
- AHT, IVCMI, PLD and thyroid dysfunction, they are highlighted as common problems, but also an assessment in terms of the genetic component is indicated, especially when they occur in the first two age groups and at least at one parent, the intervention is required from first sign of illness.
- The presence of neurosis at least on the 4-6 place most common for all age groups and jobs, is a consequence of the stress both professionally and socially, financially and familiar the same favourising factor can be considered for hypertension, hypercholesterolemia and thyroid dysfunction.
- rheumatic pathology of the spine, IVCMI, neuroses and allergic pathology make the object on which the occupational health intervention, the health and safety in work, technical and organizational play a key role both in early detection, and especially, in preventing the apparition of sufferings causing temporary or permanent work disability and reduced work capacity. The work position unchanged, warm and humid microclimate, chronic stress and the presence of ventilation causing drafts of air, accompanied by the overweight, sedentary lifestyle and smoking, transforms diseases with a reduced severity and a favorable medical prognosis, in the redoubtable enemies of the well-being at the workplace.

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