140 - ASSESSMENT OF MENTAL LOAD OF TECHNICAL SECTOR OF NURSING CLINICAL MEDICAL AND SURGICAL HOSPITAL OF THE UNIVERSITY OF THE WEST PARANÁ – HUOP

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INTRODUCTION

With industrialization, mechanization and application of computer techniques, the work environment has undergone several modifications. Increasingly, there is a working environment with rapid pace in pursuit of productivity and quality, thus imposing extremely unhealthy conditions to human health as a whole.

These changes in the workplace have influenced the forms of organization of production and the work itself, which becomes content with more cognitive. In general, this impacts negatively the physical and mental health worker (FERNANDES, PACE and STEPS, 2000).

For Elias and Navarro (2006) the incorporation of new technologies does not mean, in the hospital, "relief of human toil" instead, the industry is essentially labor intensive.

So for now Barboza and Soler (2003), the hospital environment exposes the worker often poor working conditions, and exposure to risks of a biological, physical, chemical, ergonomic, mechanical, psychological and social. For hospitals are in local assemblage of patients suffering from different health problems, assisted by several workers in the health field.

Thus, despite being a promoter of health, the hospital may also be considered as a trigger health risks of their workers. Since generally, nursing workers have worse working conditions for other services (GONZALES and CARVALHO, 2003).

However, under the wrong hospital workers' health is not restricted only to the physical dimension, but also in the cognitive dimension. Among the agents that cause psychosocial harm to health are: frequent contact with suffering and death, the monotony of repetitive activities and parceled out and rotating shift work, and fatigue that leads to stress. In the same sense, and Elias Navarro (2006) indicated the growth of psychosocial factors in illness among workers, given the high social and psychological pressure they are subjected.

However, under the wrong hospital workers' health is not restricted then is understood by mental load, the union of mental and cognitive aspects: the first is related to affective factors at work (such as the relationship between the worker and the patient); while the second comes from the cognitive demands of the tasks, which are: memory usage, decisions and reasoning (ISO 10075).

Given the context of high demand, not only physical but also cognitive nursing technician, the present study aimed to verify the main cargo mental stressors and identify possible triggers of mental workload of the nursing staff who perform their duties in the sector of medicine and surgery at the Hospital Universitário do Oeste do Paraná - HUOP.

METHODOLOGY

The present work is a quantitative study conducted with nursing technicians who perform their duties in the field of medicine and surgery at the Hospital Universitário do Oeste do Paraná - HUOP. The study sample perfez a total of ten technicians.

This work has been submitted and approved by the Ethics Committee of the Hospital Universitário do Oeste do Paraná- HUOP and Ethics Committee of the Universidade Estadual do Oeste do Parana - UNIOESTE, number 131,768 of the opinion.

Firstly the staff were assessed by a single evaluator at the beginning of the working day, through a questionnaire to characterize the sample and to investigate the possible stressors that trigger mental overload (Annex I). This questionnaire includes questions on work and organizational factors related to the worker's own function.

And then the questionnaire NASA-TLX (Appendix A), which refers to the mental load. This instrument was translated and validated in Portuguese, and it is a methodological procedure rate that evaluates mental overload a multidimensional way, and this assessment based on the weighted average of six subscales: mental demand (or mental demand), demand physical (or physical demands), temporal demand (or temporal requirement), achievement level, stress level and frustration level (Correa, 2003).

Officials received information about the definitions of these six sub-scales and other information necessary for the proper completion of the questionnaire.

The Inclusion criteria were: technical nursing sector in medicine and surgery at the University Hospital of the West of Paraná - HUOP have availability to respond to the questionnaire, accepting and signing the compromise free and clear. While the exclusion criteria were: professional administrative, maintenance and / or support and cleaning, and professionals diagnosed with psychological disorders and psychiatric disorders.

The data for sample characterization were tabulated in the spreadsheet program and a descriptive analysis was performed using the SPSS 15.0. The questionnaire NASA-TLX has its own methodology, and then interpreted according to its methodology.

RESULTS

The sample consisted of 10 nursing technicians sector medical and surgical HUOP, 9 technicians females and only 1 male. The average age was 34.8, with a minimum of 21 and maximum of 43 years of age.

The journey of the technicians interviewed is 36 hours per week, all of which work in a fixed period of work.

Of the 10 nursing technicians interviewed, perform 5 hours of overtime per month. The average was 39 overtime overtime in the month, while the minimum was 5 hours and maximum 80 hours.

Regarding the double workday, only one of the technicians has another workplace, coach males, which develops due to physical educator, making a weekly workload of 18 hours, without doing overtime. While the 9 who responded techniques need to work at home, doing household chores, so consider this as another job.

The table below shows the results about the possible stressors that trigger mental overload, questioning the question

was "To you, what factors make your work under stressful?".

Table 01: Possible stressors that trigger mental overload

Item	Number of times chosen
Death of Patient	1
Patients undergoing mech anical ventilation in the ward	6
bedridden patients	2
Lack of official sector	9
Lack of Personal Protective Equipment	1
Dissatisfaction with salary and / or plan for jobs and careers	0
Other: -Lack of materials -Lack of team collaboration	 4 3
None	0

The subscales of the NASA-TLX questionnaire obtained the following average: 14 physical demand, mental demand 19, time pressure 17, 10 performance, frustration level 6 and effort 14. Thus, the average total subscales analyzed was 80, representing a high rate of mental overload.

DISCUSSION

According to Martins (2002), the nursing profession requires a state of constant alert, requiring professional a state of complete physical, mental and emotional, as it is directly linked with the care for human beings, with the healing process and rehabilitation patients where a small oversights and failures can result in serious complications.

By being in direct contact with patients and are responsible for the care they provided, nursing professionals routinely deal with many different situations involving not only patients but also their families (FARIAS et al., 2007).

Women constitute the majority in the nursing field, considering the emotional and physiological differences, as well as the need to reconcile professional activity and domestic work (featuring double shift), it is easy to see why the physical exhaustion, mental and emotional related to performance. These results follow the trend of the study area who claim that the nursing profession remains dominated by women at all levels (Magalhães et al 2007).

Likewise, the 9 techniques surveyed in this study, when asked if they had another workplace, responded domestic laborers in other expedient, running this way, double shifts, which is known factor of physical and cognitive overload. What can explain the high physical demand subscale means 14 and 19 mental demand.

The manipulation of the patient, aided by the same transport stretchers and wheelchairs, their shift examinations, routine cleaning of the patient, disinfection and sterilization of contaminated materials, handling, replacement materials, accelerated work pace and a range of other procedures characterize the day-to-day nursing causing her fatigue and body aches, which may favor the onset of occupational diseases and accidents at work (MILK; SILVA; Merighi, 2007). These factors may explain the high average time pressure and physical load found in technical respondents, since there are several tasks to be performed in a short period of time, as well as requiring great physical feature of the activity associated with less physical condition favored females and double shifts.

According Farias et al. (2007), often the physical structure of the hospital is inadequate and there is lack of material resources and essential equipment to perform the work. Factors that may cause frustration, irritation and fatigue employee who has to adapt the situation despite perform their job well, because we know that the environment affects the quality of life of human beings. Moreover, the lack of staff to compose the team becomes even more stressful. The reduced number of nursing staff and a large number of inpatients is reality in many hospitals.

In the same sense, Marziale (2004) states that inadequate working conditions offered to those who work in hospitals have been the subject of discussion since the 1940s by the International Labour Organization (ILO), which makes recommendations on health and safety at work .

The lack of materials and employees may be related to the high average mental load, physical load, time pressure and with the frustration level technicians, as these factors are part of the respondents report that poor conditions and are related to biological, physical, chemical, ergonomic and psychosocial, which can cause damage to health professionals who work there.

Another stress factor most often cited by experts interviewed was the presence of patients on mechanical ventilation (MV) in the ward.

To Cesarino et al (2005) and Almeida et al (2009), the Intensive Care Unit (ICU) is a set of functionally grouped, for the care of critically ill patients in need of medical and nursing uninterrupted, with specific equipment , skilled human resources, and access to other technologies for diagnosis and therapy. Therefore, the ICU is followed a basic protocol for all patients, because they require an assessment at regular intervals and a greater monitoring.

Despite all the inherent specificity and needs VM, the presence of these patients are routine in the industry studied, however, wards no materials available for such support, not enough staff to monitor the patient continuously in VM as well as in ICU. Thus, the admission of the patient to VM sector characterized an important factor in cognitive overload.

CONCLUSION

In the sample studied was found a high rate of mental overload, which can be related to some stress factors, the main being identified in the present study the lack of official sector and the presence of VM patients in the ward.

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ASSESSMENT OF MENTAL LOAD OF TECHNICAL SECTOR OF NURSING CLINICAL MEDICAL AND SURGICAL HOSPITAL OF THE UNIVERSITY OF THE WEST PARANÁ - HUOP

ABSTRACT

The labor sphere has been transformed with new technologies, generating a faster pace workers. Increasingly, the work is taking a more cognitive content, which imposes extremely unhealthy conditions to human health as a whole. In the hospital if anything differs, workers are also exposed to unsanitary conditions and inadequate work ergonomically, and are exposed to other risks of biological or psychosocial. Favoring thus the rise of the diseases related mental load of workers. Thus, the present study aimed to verify the main mental load and identify possible stressors that trigger mental overload of nursing technicians who perform their duties in the field of medicine and surgery at the University Hospital of the West of Paraná - HUOP. Questionnaires were used to characterize the sample and to investigate the possible stressors that trigger mental overload. This questionnaire includes questions on work and organizational factors related to the worker's own function. And then answered the questionnaire NASA-TLX regarding mental load. Regarding data, demand got greater mental subscale. Moreover, the lack of sector employees and the number of patients on MV stressors were more pointed by the study sample and appear to be involved with mental overload.

KEYWORDS: mental workload, nursing technicians, hospital.

ÉVALUATION DE LA CHARGE MENTALE DU SECTEUR TECHNIQUE of Clinical Nursing HOSPITAL MEDICAL ET CHIRURGICAL DE L'UNIVERSITÉ DE L'OUEST PARANÁ - HUOP

RÉSUMÉ

Le monde du travail a été transformé par les nouvelles technologies, générant un rythme plus rapide travailleurs. De plus en plus, le travail prend un contenu plus cognitive, qui impose des conditions extrêmement malsaines pour la santé humaine dans son ensemble. À l'hôpital, si quelque chose est différent, les travailleurs sont également exposés à des conditions insalubres et inadéquats de travail ergonomique, et sont exposés à d'autres risques biologiques ou psychosociaux. Favorisant ainsi l'augmentation des maladies liées charge mentale des travailleurs. Ainsi, la présente étude visait à vérifier la charge principale mentale et d'identifier les facteurs de stress possibles qui déclenchent la surcharge mentale des techniciens en soins infirmiers qui exercent leurs fonctions dans le domaine de la médecine et de la chirurgie à l'hôpital de l'Université de l'Ouest de Paraná - HUOP. Des questionnaires ont été utilisés pour caractériser l'échantillon et d'étudier les facteurs de stress possibles qui déclenchent la surcharge mentale. Ce questionnaire comporte des questions sur le travail et les facteurs organisationnels liés à la fonction propre du travailleur. Et puis répondu au questionnaire NASA-TLX concernant la charge mentale. En ce qui concerne les données, la demande a plus de sous-échelle mentale. En outre, le manque d'employés du secteur et le nombre de patients sur les facteurs de stress MV ont été plus pointé par l'échantillon d'étude et semblent être impliqués avec surcharge mentale.

EVALUACIÓN DE LA CARGA MENTAL DEL SECTOR TÉCNICO DE ENFERMERÍA HOSPITAL CLÍNICO MÉDICO Y QUIRÚRGICO DE LA UNIVERSIDAD DEL OESTE DEL PARANÁ - HUOP

RESUMEN

El ámbito de trabajo se ha transformado con las nuevas tecnologías, la generación de trabajadores ritmo más rápido. Cada vez más, el trabajo está teniendo un contenido más cognitivo, que impone condiciones extremadamente insalubres para la salud humana en su conjunto. En el hospital si algo es diferente, los trabajadores también están expuestos a condiciones insalubres y el trabajo ergonómicamente inadecuados, y están expuestos a otros riesgos de naturaleza biológica o psicosocial. Favoreciendo así el aumento de las enfermedades relacionadas con la carga mental de los trabajadores. Por lo tanto, el presente estudio tuvo como objetivo verificar la carga mental principal e identificar posibles factores de estrés que provocan sobrecarga mental de los técnicos de enfermería que ejercen sus funciones en el campo de la medicina y la cirugía en el Hospital de la Universidad del Oeste de Paraná - HUOP. Los cuestionarios se utilizaron para caracterizar la muestra y para investigar los posibles factores de estrés que provocan sobrecarga mental. Este cuestionario incluye preguntas sobre el trabajo y los factores organizativos relacionados con la función propia del trabajador. Entonces respondió el cuestionario NASA-TLX relacionada con la carga mental. Respecto a los datos, la demanda tiene mayor subescala mental. Además, la falta de empleados del sector y el número de pacientes que fueron más estresantes MV señalado por la muestra de estudio y parecen estar implicados con la sobrecarga mental.

AVALIAÇÃO DA CARGA MENTAL DE TÉCNICOS DE ENFERMAGEM DO SETOR DA CLÍNICA MÉDICA E CIRÚRGICA DO HOSPITAL UNIVERSITÁRIO DO OESTE DO PARANÁ – HUOP

RESUMO

A esfera do trabalho tem-se transformado juntamente com as novas tecnologias, gerando um ritmo mais acelerado aos trabalhadores. Cada vez mais, o trabalho está tomando um conteúdo mais cognitivo, o que impõe condições extremamente insalubres à saúde humana como um todo. No ambiente hospitalar nada se difere, os trabalhadores também são expostos a condições insalubres e ergonomicamente inadequadas de trabalho, além de serem expostos a outros riscos de origem biológica ou psicossociais. Favorecendo, desta forma, o surgimento das doenças ocupacionais relacionadas a carga mental dos trabalhadores. Sendo assim, o presente trabalho teve por objetivo principal verificar a carga mental e identificar os fatores estressores possíveis desencadeadores da sobrecarga mental dos técnicos de enfermagem que executam suas funções no setor de clínica médica e cirúrgica do Hospital Universitário do Oeste do Paraná – HUOP. Foram aplicados questionário para caracterização da amostra e para a investigação dos possíveis fatores estressores desencadeadores da sobrecarga mental. Este questionário inclui questões sobre: fatores organizacionais do trabalho e relacionados a própria função do trabalhador. E em seguida, responderam ao questionário NASA-TLX referente a carga mental. Em relação aos dados obtidos, a demanda mental obteve maior subescala. E quanto aos possíveis fatores estressores, a falta de funcionários do setor e o número de pacientes em VM parecem estar envolvidos.

PALAVRAS- CHAVES: carga mental, técnicos de enfermagem, hospital.