Work Context Assessment in intensive therapy units from the perspective of work psychodynamics

ABSTRACT

In view of the reorganization of working processes and changes in the profile of occupational illness, this article discusses on the occupational risks of falling ill among nurses working in intensive care units (ICU). This exploratory, cross-sectional, descriptive study was developed with a convenience sample of 44 subjects, workers at a private hospital. The Work Context Assessment Scale was used, which is composed of three factors. The results regarding the factor work organization indicated severe risks to the workers’ health. Regarding the factor social-professional relationships the items showed moderate health risks. The assessment of the factor working conditions showed low risks to occupational health. The analysis was based on work psychodynamics, and on the criticism to the prevalence of the Taylor management model in nursing work. The study allowed for a better understanding of the subjectivity implied in nursing work and instigates to increase the focus of discussions on safety and occupational health to the context of the work organization.

RESUMO

Frente à reorganização dos processos de trabalho e mudanças no perfil de adoecimento dos trabalhadores, o artigo discute os riscos de adoecimento do enfermeiro trabalhador de Unidade de terapia intensiva (UTI). Desenvolveu-se estudo exploratório, transversal, descritivo, com amostra intencional de 44 sujeitos trabalhadores de um hospital privado. Utilizou-se a Escala de Avaliação do Contexto de trabalho (EACT), composta por 3 fatores. Os resultados quanto ao fator organização do trabalho indicou riscos severos à saúde dos profissionais. No fator Relações sócio-profissionais itens apresentaram risco moderado à saúde. A avaliação do fator condições de trabalho demonstrou baixo risco para o adoecimento profissional. A análise apoiou-se na psicodinâmica do trabalho, e na crítica à prevalência do modelo de gestão taylorista do trabalho de enfermagem. O estudo permitiu uma melhor compreensão da subjetividade impressa no trabalho de enfermagem e instiga à ampliação do enfoque das discussões sobre segurança e saúde no trabalho para o contexto da organização do trabalho.

RESUMEN

Frente a la reorganización de procesos laborales y cambios del perfil de padecimiento del trabajador labora el artículo discurre sobre riesgos de padecimiento del enfermero de Unidad de Terapia Intensiva (UTI). Estudio exploratorio, transversal, descriptivo, con muestra intencional de 44 sujetos empleados en hospital privado. Utilizó Escala de Evaluación de Contexto de Trabajo (EACT), compuesta por 3 factores. Los resultados referidos al factor organización del trabajo indicaron riesgos sanitarios severos para los profesionales. El factor Relaciones socio-profesionales marcó ítems de riesgo moderado. La evaluación de condiciones de trabajo demostró bajo riesgo para el padecimiento profesional. El análisis se apoyó en la psicodinámica laboral y en la crítica a la prevalencia del modelo de gestión taylorista del trabajo de enfermería. El estudio permitió una mejor comprensión de la subjetividad implícita en el trabajo y promueve la ampliación del enfoque de las discusiones sobre seguridad y salud en el trabajo en su marco organizativo.

DESCRIBUTORS

Intensive Care Units
Nursing
Working conditions
Occupational health
Occupational health nursing

DESCRITORES

Unidades de Terapia Intensiva
Enfermagem
Condições de trabalho
Saúde do trabalhador
Enfermagem do trabalho

DESCRIBIENDO

Unidades de Terapia Intensiva
Enfermería
Condiciones de trabajo
Salud laboral
Enfermería del trabajo
INTRODUCTION

Today, the labor world is marked by transformations, including globalization, technological modernization and new management models that imply changes in the contents, nature and meaning of work. The work process and organization is marked by excessive hour loads nowadays, besides intense work rhythms, strict activity control, time pressure, need for polyvalent professionals, among others(1).

Far beyond the production of goods and services, work is perceived as a means to gain identity and determine values. Thus, it is considered that work can affect workers’ lives in a positive or negative sense, with work organization and existing relations in the work context gaining special importance(2).

This new configuration of work entails changes in workers’ morbidity and mortality profile: mental disorders, stress and burnout appear as emerging and relevant illnesses with important prevalence levels for the next decades(3).

The nursing workforce also reflects transformations in work management. Research on the health of nursing professionals, however, mostly remain restricted to the occupational risks these workers are exposed to, without considering determinants related to the work process and the transformations in new paradigms in this sphere impose(4).

Workers do not remain passive in view of organizational injunctions and, therefore, attempt to protect themselves against harmful effects, using their intelligence, practice, personality and cooperation(5).

Work is acknowledged as a source of pleasure and suffering. It is experienced in a healthy way when the situations in which the confrontation with charges and pressure deriving from work, which cause psychological instability and indisposition, can be transformed(6). Disease comes up when balance is disrupted and workers can no longer escape from suffering, that is, when workers’ intellectual and psychoaffective investments are no longer sufficient to attend to the demands and tasks the organization imposes(7).

In view of this context, the study of nursing workers’ health, particularly at intensive care units (ICU), is of interest, as peculiarities in this sector’s physical structure and the dynamics of the care process can influence these professionals’ health-disease process.

This paper departs from an inquiry about elements that indicate risk for nursing workers’ health in ICU nursing work.

OBJECTIVES

In this paper, results are presented of a study based on the theoretical approach of the psychodynamics of work, aimed at analyzing, measuring and assessing risks of illness related to the work of ICU nurses, using the Work Context Assessment Scale from the perspective of occupational health and the health-disease process.

METHOD

This analysis presents an excerpt from an exploratory and cross-sectional research carried out between February and May 2008. The main goal was to measure and assess work-related risks of illness in an intentional sample of 44 ICU nurses at a private hospital in Rio de Janeiro, based on the Inventory of Work and Risks of Illness (ITRA)(8). The following inclusion criteria were used: working in Intensive Care for six months or more and signing the Informed Consent Term.

The questionnaire technique was used to apply the ITRA, which is a self-applied, created and validated instrument(9) that assesses some dimensions of the interrelation between work and subjectification process. It examines the context of work itself and the effects it can exert in the way the worker experiences it(10). The instrument contains four interdependent scales to assess four dimensions of the interrelation between work and risks of illness: Work context assessment scale (EACT), Human cost at work scale (ECHT), Indicators of pleasure and suffering at work scale (EIPST) and Work-related damage assessment scale (EADRT).

The results relate to the application of the Work Context Assessment Scale (EACT). Data treatment involved descriptive statistics with frequencies, means and standard deviations. This Likert scale offers the following response alternatives: 1 = never; 2 = rarely; 3 = sometimes; 4 = frequently; 5 = always. Upon the instrument author’s advice, as the scale contains negative items, its analysis was done per factor and based on three different levels, considering a standard deviation from the average. The following can be considered regarding the results:

Above 3.7 = Most negative, severe assessment. Indicates that the work context severely permits workers’ illness.

Between 2.3 and 3.69 = More moderate, critical assessment. Indicates that the work context moderately favors professional illness.

Below 2.29 = More positive, satisfactory assessment. Indicates that the work context favors professional health.

The results were discussed based on the theoretical framework of the psychodynamics of work, considering the inter-relation between work and health based on the analysis of the dynamics inherent in certain work contexts, which comprise objective and subjective, psychic, social, political and economic strengths that are visible or not and can influence this context in distinct ways, transforming them into a place of health and/or illness(10).
Ethical requirements were complied with in accordance with Resolution 196/96. Approval was obtained from the Institutional Review Board, under protocol number 247. Participants signed the informed Consent Term.

RESULTS AND DISCUSSION

The EACT contains three factors. The first is work organization, defined as the division and contents of work tasks, standards, controls and rhythms\(\text{\textsuperscript{6}}\). It comprises 11 items.

Table 1 - Descriptive statistics for EACT factors - Rio de Janeiro - 2008

| Factors                | Mean | Standard deviation | Cronbach’s alfa |
|------------------------|------|--------------------|-----------------|
| Work organization      | 3.74 | 0.68               | 0.66            |
| Socio-professional relations | 2.47 | 0.27               | 0.78            |
| Work conditions        | 2.04 | 0.54               | 0.84            |

Obs.: \(N=44\)

The results for this factor place it in the severe category, representing severe risks for ICU professionals’ health. Among these, items like the work rhythm is excessive, tasks are performed under pressure of a deadline, charges to achieve results are strong and task performance standards are strict scored the highest means (above 4), evidencing a predominance of the Taylorist work management model, characteristic in hospital institutions, mainly in the private sector\(\text{\textsuperscript{6}}\). The central focus is on task accomplishment, understood as actions defined in detail and necessary a priori, without considering the professionals’ actual activity, defined as the adjustment needed between task and activity, developed by the workers themselves, against prescribed operating modes\(\text{\textsuperscript{9}}\). Thus, the activity concept approximates that of actual work, defined as the adjustment needed between task and activity, which the workers themselves develop, going against prescribed operating modes\(\text{\textsuperscript{9}}\).

Some studies\(\text{\textsuperscript{9}}\) address the discrepancy between prescribed and actual work, as well as its implications and negative effects for workers’ wellbeing and the production process.

In general, these divergences impose greater difficulties on the workers, to the extent that they limit the satisfactory ways of reacting to the conditions imposed in the situations, which in turn result in increased work and human cost of the activity, involving physical, cognitive and psychic components. Some of the symptoms the workers present are: physical fatigues (leading to back, shoulder and neck pain); mental fatigue (taking the form of mental tiredness, feeling of exhaustion) and nervous fatigue (expressed as manifestations of anxiety, fear, frustration)\(\text{\textsuperscript{10}}\).

Understanding the importance of the negative effects the discrepancy between prescribed and actual work can generate permits helping professionals in the mission to turn the production contexts of goods and services more humane, and stimulates collective analysis of the work situations experienced in the broader context of social and economic determinations.

Another item in this factor which reflects the Taylorist management model is that a \textit{division exists between who plans and who performs the actions}, which showed a critical appreciation by nurses at the institution. The current forms of work organization preserve the strict Taylorist pattern, only inserting new power and control structure that disguise an ideology of flexibility, maintaining power strongly concentrated, without decentralization. These new structure impose different requirements that include cadence, speed, formation, information, learning, adaptation to the institution’s ideology and market demands\(\text{\textsuperscript{11}}\).

As the hospital is a private institution accredited at level 3 by the Brazilian National Accreditation Organization, i.e. an institution that systematically seeks to continuously improve its care and achieves standards of excellence in medical hospital care delivery, charges for results and quality are strict and can be remarkable in the employees’ perception and experience of strictness\(\text{\textsuperscript{11}}\). Therefore, different standards, routines and protocols are created, which at the same time standardize actions and restrict professional creativity.

Workers experience pleasure when they are also allowed to express their individuality and creativity. Despite discrepancies between prescribed and actual work, if freedom to negotiate exists between the subject and the work organization, the suffering produced in this situation is transformed and work is resignified through creativity. The stricter the work management model, however, the smaller the workers’ possibility will be to construct efficient and effective mediation strategies (like tricks and maneuvers for example) to adjust the prescribed to the action. Hence, this enhances suffering at work\(\text{\textsuperscript{9}}\).

This can be perceived in the items task performance standards are strict, with \(\mu = 4.34\) and tasks are repetitive, with \(\mu = 4.0\).

Besides, intensive care work intrinsically contains a time constraint, in which everything is urgent and high complexity and technology imply more specialized and trained professionals, sustaining a cycle of strictness, charges and rhythm. In addition, there is the fact that one person conceives the work but another performs it. The item “there is not enough time to take a break at work” (\(\mu =3.77\)) reflects the high rhythm characteristic of this sector. All of these characteristics can imprint work with physical, cognitive and affective costs, capable of producing suffering and even professional illness\(\text{\textsuperscript{12}}\).

The greater the strictness of work organization, the more evident its division becomes and the smaller the significant contents of the task, proportionally increasing the professional’s psychic suffering. According to the same authors, this suffering emerges from the \textit{shock and the impossibility of a rearrangement between the subject-bearer}...
of a singular and personal history and a depersonalizing work organization\(^{(12)}\).

Socio-professional relations are the second factor in this scale and can be conceived as the work, communication and professional interaction management modes. It includes 10 items.

This factors showed a moderate to critical assessment. Although its items revealed lower mean scores, they reflect the new characteristics and paradigms of the current work management models. The item employees are excluded from decisions, with \(\mu = 2.84\), confirms the existing discrepancy between prescribed and actual work, implying difficulties for workers and entailing an overload in terms of work and human costs.

Task is defined as [...] operationalization of prescribed work in terms of goal(s) Set in certain conditions, for one subject or a group of workers\(^{(13)}\). Actual work, in turn, comprises the subject’s activity, in which his/her experience, body, savoir-faire and affectivity are presented in a perspective of building operating modes with a view to developing a relation with the objective work conditions\(^{(13)}\).

Nursing work in hospital environments, especially ICUs, is characterized by variability, which means that the care delivered is not a plain and simple relation juxtaposed to technique. Professionals deal with several events, including breakdowns, lack of material, shortage in staff, instabilities in patient situations spanning the planning of initially considered activities. This variability constitutes actual work, and nursing professionals are responsible for managing this variability and enhancing care delivery.

Although the items difficulties exist in communication between head and subordinates, There is a lack of integration in the work environment and Communication among employees is unsatisfactory were assessed satisfactorily, the existence of professional dispute is observed at the research site, illustrated by the score for the item professional disputes exist in the workplace (\(\mu = 2.79\)).

Harmonious organizational environments, with satisfactory professional relations that permit cooperation between head and subordinates and among subordinates, favor the surpassing of the barriers work imposes and the construction of defense strategies to continue the production process\(^{(14)}\).

Discussions are held on the importance of collaborators and heads’ (socio-emotional and instrumental) social support in the work environment, asserting that it softens (in case of greater supply) or enhances (in case of lesser supply) the effect of demand and control on health\(^{(15)}\).

Some studies\(^{(16)}\) affirm that conflicting professional relations impede changes and improvements in the work organization structure and favor workers’ suffering. The collision climate instigates competitiveness and intolerance even further.

These items reinforce the Taylor-Fordist nature of the institution, where work planning and execution are separated and where workers are urged towards a professional dispute, due to individual confrontations with productivity charges\(^{(17)}\).

The third EACT factor, comprising 10 items, is Work conditions, which can be defined as the quality of the physical environment, workplace, equipment and material made available to perform the work. This was the factor intensive care nurses evaluated best, that is, according to the obtained results, the work conditions are satisfactory and offer low risk for professional illness. For this factor, \(\mu = 2.04, \sigma = 0.5\) and Cronbach’s \(\alpha = 0.84\).

This assessment is quite peculiar, characteristic of a private institution. Institutions’ great difficulty to adapt their physical and material structure is well known. The research institution showed a distinct reality, however, in which items like work conditions are precarious, the physical environment is uncomfortable, the work instruments are insufficient to do the work, the workplace is inadequate to perform the tasks, the equipment needed to perform the tasks is precarious, the physical space to perform the work is inadequate, the work conditions offer risks to people and the consumption material is insufficient were assessed satisfactorily. The difficulties and precariousness of work conditions in the Brazilian public and private health context is known, in which negligence and precarious structural and material conditions imply risks for clients and workers’ health\(^{(17)}\).

The institution where this research was carried out possesses quite an organized physical structure that complies with the standards of the Ministry of Health and Health Surveillance. It offers equipment and consumption material in adequate conditions and quantities. The institution also complies with a basic premise demanded in the accreditation process, which is basic structure resources), capable of guaranteeing assistance for coherent task performance. Nowadays, a mobilization movement is ongoing in the hospital to comply with the requirements imposed by Regulatory Standard 32 (NR 32).

The item with the highest mean score (\(\mu = 3.45\)), implying dissatisfaction and risks for workers’ health was a lot of noise exists in the hospital environment. According to NBR-10152, acceptable noise levels for hospital environments, including the ICU, range between 35 and 45 decibel (dB). Noise intensity levels exceeding established limits are considered sources of psychological discomfort; levels above 65 dB (A) can imply health damage risks in case of prolonged exposure times and when levels greatly exceed recommended levels, i.e. above 90 dB (A)\(^{(18)}\).

It is known that, in intensive care, which is a closed sector, local acoustics is disadvantageous, making the sector more sensitive to noise. Besides, different pieces of equipment common at the unit issue sound signals (alarms) that turn it more sensitive to noise. These alarms are essential for critical patient surveillance, facilitating the identification of situations outside normality parameters.
In addition, a large team is available in intensive care contexts, in view of the patients’ complexity and severity. The high activity level at the sector, case discussions and even communication among sector professionals contributed further to the high noise level at the unit.

Another item the professionals valued was related to the inadequacy of existing furniture at the sector ($\mu \approx 2.29$). An analysis of the work environment revealed the presence of cupboards at inappropriate heights, incompatible with most employees’ height or very low, so that the professionals have to adopt inadequate postures. Heavy equipment is frequently put in high places, demanding physical efforts from the workers.

**CONCLUSION**

This study permitted a better understanding of the subjectivity imprinted in nursing work and stimulates towards a broader focus in discussions and in the elaboration of public occupational safety and health policies, which remain limited to physical and ergonomic issues of work. This limitation evidences the need for nursing to broaden and deepen, based on critical reference frameworks, analyses on work management relations and models, so as to disclose workers’ subordination processes and conditions capable of leading to illness.

Although the ITRA, which the EACT is part of, was created for workers in general, it was observed that its use among nurses provided relevant results. The same instrument also showed internal consistency as measured with Cronbach’s Alfa, indicating that this instrument reaches its goals of measuring what it intends to.

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One limitation is considered for the instrument though, related to the in-depth assessment of how work influences occupational health, due to the subjectivity and complexity involved in these constructs (health, suffering, disease, pleasure, among others). The author of the instrument herself reports that this instrument does not permit assessing the mediation strategies the professionals use, but merely assesses the risks of illness related to the several dimensions of work. With a view to a more complete and reliable assessment, the association of qualitative methods is proposed, such as group discussions with the professionals, allowing them to talk about their work and experiences. Hence, she considers that the analysis based on the workers’ narratives goes deeper into the ways in which it contextualizes and resignifies their work subjectification process.

The recurrence of some themes during the results presentation and discussion evidences the role of the work organization in these workers’ health: charge, rhythm, pressure. This reveals the continuation of a Taylorist mark in the current work administration and management molds.

Coping with these determinations involves the need to expand the worker group’s participation, organized through their union and professional board, and also in the work environment itself through the development of debate processes and agreed negotiations between workers and managers, in favor of breaking with the authoritarian molds of work management.

Finally, it is highlighted, based on these study findings, how important it is to incorporate critical educative mediations that problematize the reality of the job world, in the context of occupational health actions, into permanent education processes for health workers.
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