

NURSES' ATTENTION DEMANDS IN THE WORK SETTING¹

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This descriptive study aimed to identify attention demand situations experienced by nurses in their workplace and to verify if these demands were judged differently depending on socio-demographic variables. Data were collected through the "Directed Attention Demands" instrument, translated and validated in Brazil. SAS statistics software was used for data analysis. The following demand situations scored higher: "watching a patient suffer", "a number of rapid decisions had to be made", "caring for families with emotional needs", "not enough time to provide emotional support to a patient", and "family teaching required". There were statistical differences for variables such as: age, marital status, professional qualification, work shift and number of hours worked weekly. The importance of these findings should be pointed out to managers and administrators in the adoption of strategies that can minimize these sources of demand for nurses.

DESCRIPTORS: nursing; attention; health facility environment

DEMANDAS DE ATENCIÓN DEL ENFERMERO EN EL AMBIENTE LABORAL

Este estudio descriptivo busca identificar las situaciones de demanda vivenciadas por enfermeros en su ambiente laboral y verificar si hay diferencias en el juicio de las demandas en relación a las variables sociodemográficas. Para coleccionar datos, se utilizó el Instrumento Demandas de Atención Dirigida, traducido y validado en Brasil. En el análisis de los datos, se utilizó el programa estadístico SAS. Las situaciones de demandas de atención con mayores medias aritméticas fueron: observar el sufrimiento del paciente, tomar muchas decisiones rápidas, cuidar de familias con necesidades emocionales, tiempo insuficiente para apoyar emocionalmente al paciente y necesidad de orientar a la familia. Los datos mostraron diferencias estadísticamente significantes para las variables: edad, estado civil, calificación profesional, turno del trabajo y carga horaria semanal. Se resalta la importancia de los hallazgos para gerentes y administradores en el sentido de adoptar estrategias para minimizar esas fuentes de demanda para los enfermeros.

DESCRIPTORES: enfermería; atención; ambiente de instituciones de salud

DEMANDAS DE ATENÇÃO DO ENFERMEIRO NO AMBIENTE DE TRABALHO

Trata-se de estudo descritivo que visa identificar as situações de demanda de atenção, vivenciadas por enfermeiros em seu ambiente de trabalho, e verificar se existem diferenças no julgamento dessas demandas em função das variáveis sociodemográficas. Para a coleta de dados, utilizou-se o instrumento Demandas de Atenção Dirigida, traduzido e validado no Brasil. Na análise dos dados, utilizou-se o programa estatístico SAS. Dentre as situações de maior demanda destacam-se: "observar o sofrimento de um paciente", "muitas decisões rápidas tiveram que ser tomadas", "cuidar de famílias com necessidades emocionais", "tempo insuficiente para dar apoio emocional a um paciente" e "necessidade de dar orientação à família". Os dados mostraram que há diferenças estatisticamente significativas para variáveis como: idade, estado civil, qualificação profissional, turno de trabalho e carga horária semanal. Ressalta-se a importância dos achados para gerentes e administradores na adoção de estratégias que minimizem essas fontes de demandas para os enfermeiros.

DESCRIPTORES: enfermagem; atenção; ambiente de instituições de saúde

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INTRODUCTION

The nature of nursing work itself requires multiple attention demands. These demands derive from the complexity of the delivered care, from the work environment itself and from the requirements posed by patient care delivery as well as by the health institution itself. Thus, nurses need increased focusing capacity in dealing with crucial situations that involve agility and precision. However, this varies among different work units⁽¹⁾.

Nurses have characterized the nature of their work as a source of suffering and exhaustion, both physically and emotionally⁽²⁾. Other authors⁽³⁾ present it as a potential cause of care quality decrease, associated with professionals' exposure to inadequate work situations, low wages and social discredit, making it a source of excessive mental burden⁽⁴⁾. Nurses have also indicated professional exhaustion, depersonalization and reduced personal satisfaction, because these are related to the nature of their work⁽⁵⁾. This source of suffering can be due to frequent contact with death and pain situations⁽¹⁾, which can generate feelings of tension and fear of the unknown, mainly for professionals working in highly complex care delivery. Another feeling refers to isolation, when professionals need to make decisions at the most conflicting moments⁽⁶⁾.

Nurses acknowledge the hospital environment as a place where fragile lives are alertly observed, cared for and preserved, which require knowledge, ability and technical competence. Moreover, emotional control is needed in view of this practice, comforting measures to patients need to be promoted and self-help relations need to be established between nurses and patients⁽⁶⁾.

Noise levels have been appointed because they interfere in people's attention level, mainly at critical care units, where these noises are constant and often unpredictable and uncontrollable⁽⁷⁻⁸⁾. They are permanently present in the nursing work environment and are already part of their daily work reality⁽⁹⁾.

For critical care nurses, the most bothering noises are: equipment alarms, loud talks in the corridors, violent opening and closing of doors and falling objects, besides an excessive number of people passing through the unit⁽⁸⁾. These factors, in combination with inadequate knowledge and skills to perform tasks, exhaustion due to high work load and

professional frustration can result in ethical and personal problems with the work team⁽⁷⁻⁸⁾.

Attention is essential in nursing work to perform daily activities, such as care planning and delivery to all kinds of patients, including those requiring highly complex care and in risk of imminent death; coordinating other activities inherent in their role at the unit, even when factors like excessive noise, intense illumination 24 hours/day, work overload and conflicts are present⁽¹⁰⁾. Consequently, these professionals need increased focusing capacity, even when these factors are present. Their constant exposure to these sources of attention demands can result in fatigue, characterized by reduced focusing capacity, which can directly affect patient care planning and delivery.

Hence, due to the nature of nursing work, these professionals can be exposed to multiple care demands that can interfere with their capacity to focus on important aspects in their work practice.

OBJECTIVE

This study aims to: a) identify attention demand situations experienced by nurses and b) verify whether demand situations are judged differently depending on sociodemographic variables.

METHODOLOGY

Place of study

This study was carried out at two hospitals called A and B. Both are located in the central area of São Paulo City. A is a general and private hospital and can attend 220 adult patients. B is a philanthropic, large-sized institution that can attend 1,750 adult and pediatric patients.

Population and sample

The study population consisted of all nurses active in care delivery at institutions A and B. At A, these nurses worked at hospitalization units, emergency care and ICU. At B, only ICU professionals were considered, because they mainly carry out care activities.

However, the sample only included nurses complying with the following criteria: mainly

performing care activities, professional experience of six months or more, three months or more of experience at the unit and agreeing to participate in the study.

Instrument

The Directed Attention Demands instrument was developed and later translated to Portuguese, and aims to identify different sources of attention demands nurses are exposed to in their work environment^(1,10). It consists of two parts. The first contains 39 situations, grouped in three domains: Psychological, Behavioral and Physical Environment. It has two types of measures: frequency and intensity. Nurses mark the frequency at which they experience a certain situation on a Likert-type scale, choosing one out of five alternatives, ranging from "never" to "often/all the time".

The second part measures intensity, that is, how much mental effort that specific situation required, and used a visual analogue scale ranging from zero to 100 millimeters. This instrument has good internal consistency, with a Cronbach's alpha of 0.91.

Data collection procedure

Initially, the project was approved by the Research Ethics Committee at the UNICAMP Faculty of Medical Sciences and by the Research Ethics Committee of both participant institutions.

At both institutions, all nurses who attended to the inclusion criteria were invited to participate. Nurses who agreed to participate were asked to sign the Free and Informed Consent Term. Next, they received advice about how to fill out the instrument and the identification form.

These professionals personally received the instrument in an envelope and a time was set to return it. Completion time varied between 15 and 25 minutes. Data were collected between February and May 2004.

Data treatment and statistical analysis

SAS System for Windows (Statistical Analysis System) software, version 6.12, was used for statistical data analysis.

To describe the sample profile according to the study variables, a frequency table was elaborated for categorical variables like gender, marital status

and professional qualification; and for continuous variables like age, professional experience, number of employment relationships and number of hours worked weekly. Chi-square and Mann-Whitney were used to compare more than one variable with the attention demand situations. A five percent significance level, that is, $p < 0.05$ was adopted.

RESULTS

Characterization of nurses

At hospital A, 127 instruments were distributed, 96 of which were returned (75%). At B, 80 instruments were distributed and 62 returned (77.5%). Study participants were 158 nurses, 96 (60.8%) from institution A and 62 (39.2%) from B. These data are presented in Table 1.

Table 1 - Frequency and percentage distribution according to nurses' sociodemographic characteristics. São Paulo, 2004 (n=158)

Características	Distribución de la muestra	
	(n)	(%)
Gender		
Female	140	88.6
Male	18	11.4
Age (years)		
20-29	54	34.2
30-39	67	42.4
>40	37	23.4
Marital status		
Single	81	51.3
Married	60	38.0
Others*	17	10.7
Graduation		
1975-1979	8	5.1
1980-1989	32	20.3
1990-1999	78	49.4
>2000	40	25.3
Professional Qualification		
Undergraduate	38	24.1
Specialization	114	72.2
Master's	4	2.5
Doctoral	2	1.38
Employment relationship		
1	126	79.7
2	32	20.3
Number of hours worked weekly		
<40	57	36.1
=40	35	22.2
>40	66	41.7
Work shift		
Morning	64	40.6
Afternoon	41	25.9
Night	53	33.5

* Widowed/divorced/fixed partner

According to Table 1, most nurses were women (88.6%), single (51.3%) and between 30 and 39 years old (42.4%). A majority had graduated at least ten years ago (49.4%) and possessed a specialist degree (72.2%). Most participants (79.7%) had only one employment relationship. As to the number of hours worked per week, a majority of nurses indicated an hour load of more than 40 hours (41.7%). Most nurses worked morning shifts (40.6%), followed by 25.9% in the afternoon and 33.5% at night.

Nurses' attention demands

According to Table 2, the five attention demand situation with the highest arithmetic means were: "watching a patient suffer", "a number of rapid decisions had to be made", "caring for families with emotional needs", "not enough time to provide emotional support to a patient" and "family teaching requirement", which are related to the psychological and behavioral domain.

Table 2 - Distribution of mean score and standard deviation nurses attributes to attention demand situations. São Paulo, 2004 (n=158)

Attention Demand Situations	AM*	SD**
Watching a patient suffer	51,6	31,7
A number of rapid decisions had to be made	39,6	25,6
Caring for families with emotional needs	39,6	29,7
Not enough time to provide emotional support to a patient	39,4	30,3
Family teaching required	39,1	27,7
Non nursing tasks required, such as clerical work	38,9	30,6
Caring for patients who require intense emotional support	38,6	29,2
Multiple nursing tasks had to be completed	35,9	26,1
Not enough staff to adequately cover the unit	35,7	30,8
Patient teaching required	35,1	27,3
Not enough time to complete all of your nursing tasks	34,8	26,2
High noise level at the unit	33,9	29,0
Feeling helpless in the case of a patient who fails to get better	33,5	25,1
Unpredictable staffing and scheduling	31,8	28,7
Performing procedures that patients experience as painful	31,2	24,0
Fear of making a mistake in treating a patient	27,4	30,9
Lack of an opportunity to talk openly with other unit personnel about problems at the unit	25,1	30,0
Crowded work space	23,2	26,7
Lack of an opportunity to share experiences and feelings with other personnel at the unit	23,1	27,6
Confusing or disorganized area	19,7	23,3
Lack of an opportunity to express feelings toward patients	19,7	26,8
Floating to other units which are short-staffed	19,5	25,4
Inadequate information from a physician about a patient's medical condition	19,0	24,8
Not knowing what a patient/patient's family ought to be told about the patient's condition	18,5	21,9
Disagreement about a patient's treatment	17,7	20,3
Death of a patient	17,6	20,6
Too many people in your work area	16,9	24,4
Criticism by a physician	16,2	24,1
Making a difficult management decision concerning a patient when the physician is unavailable	15,6	19,1
Patient experiencing cardiac arrest	15,3	19,2
A physician not being present at the start of a medical emergency	15,1	24,4
Criticism by a supervisor	15,0	24,3
Uncertainty about the operation and functioning of specialized equipment	14,2	15,9
Difficulty to work with a particular nurse at the unit	14,0	21,3
Death of a patient with whom you developed a very close relationship	13,7	18,9
Conflict with a supervisor	12,5	23,3
Conflict with a physician	9,4	15,1
Physician not being present when a patient dies	8,4	21,3
Talking with a patient about his/her approaching death	6,3	12,6

* AM - Arithmetic Mean **SD - Standard Deviation

The analysis of differences of how nurses judged these demand situations depending on sociodemographic variables showed statistically significant differences in terms of: age, professional qualification, marital status, work shift and number of hours worked weekly.

Nurses between 20 and 29 and between 30 and 39 reported greater attention demands for

"Non-nursing tasks required, such as clerical work" (p= 0.045, Kruskal-Wallis) and "Lack of an opportunity to talk openly with other unit personnel about problems at the unit" (p=0.024, Kruskal-Wallis), in comparison with nurses older than 40.

With respect to professional qualification, only two categories were used: undergraduate and graduate (specialization, master and doctoral). Nurses

with a graduate degree judged that "patient experiencing cardiac arrest" demanded greater attention ($p=0.012$; Mann-Whitney), while nurses with an undergraduate degree considered that "lack of an opportunity to express feelings toward patients" required greater attention in comparison with the group who possessed a graduate degree ($p=0.027$; Mann-Whitney).

As to marital status and the situations "multiple nursing tasks had to be completed" ($p=0.030$) and "patient experiencing cardiac arrest" ($p=0.015$), these were indicated by single professionals as the situations with the highest attention demands in comparison with other categories.

The group of nurses with a weekly hour load of 40 hours on more appointed higher attention demands for 17 situations. Some examples are: "watching a patient suffer" ($p=0.001$), "not enough time to provide emotional support to a patient" ($p=0.049$), "a number of rapid decisions had to be made" ($p=0.001$), "non-nursing tasks were required, such as clerical work" ($p=0.021$), "not enough staff to adequately cover the unit" ($p=0.045$).

The study data also indicated that these nurses perceived attention demands differently depending on their work shift. Nurses working in the afternoon considered "too many people in your work area" as the most attention-demanding situation, in comparison with other work shifts ($p= 0.028$).

DISCUSSION

Characterization of nurses

Professionals were mainly women. According to the São Paulo State Regional Nursing Council, 92.5% of nurses working in hospitals in São Paulo City are women⁽¹¹⁾.

Participants' mean age indicates a young adult group, whose graduation time gives a perfect view of the needs and demands this profession requires in their daily work. Another important aspect was that most nurses reported they had a specialist degree (72.2%), which suggests a search for professional qualification in function of labor market demands. Studies emphasize the relevance of constant professional qualification and recycling in view of patient complexity and technological and therapeutic advances in the health area.

Although most participants reported only one employment relationship, data suggest that, due to the need for their services or the chances of getting a better salary, these nurses preferred to work more hours than the journey established in their job contract.

As to the number of hours worked per week, findings demonstrated that professionals work more than 40 hours per week (41.7%). These data are in line with recent studies that describe the excessive hour load, in addition to other daily nursing activities, as potential mediators of physical and mental health disequilibria, besides problems in these professionals' social and family life⁽¹²⁾.

An excessive hour load without a break can create difficulties for nurses to deal with daily situations in their work environment, as it may demand an increased capacity to focus, with a view to decision making and problem solving while realizing nursing functions.

With respect to work shift, data showed that scores for nursing working morning and night shifts were similar in comparison with the afternoon group. This information highlights that work demands and dynamics vary across shifts, exposing professionals to different sources of attention demands. To give one example, attending to certain medical requests to support the patient's diagnosis and treatment and attending to relatives' needs during visiting hours can vary between shifts and units.

Shifts are considered to exert a negative influence on nursing work, directly affecting physiological aspects, family and social relations and leisure, which can favor fatigue and professional dissatisfaction⁽³⁾.

Thus, nurses in this study show homogeneous characteristics, with some aspects that are similar to recent nursing studies described above.

Nurses' attention demands

This study allowed us to identify attention demand situations among nurses. Situations requiring greater attention were related to the psychological and behavioral domain.

When comparing attention demand situations with sociodemographic variables, results demonstrated statistically significant differences in terms of the nurses' age range in relation to some demands they experience in their work environment.

These findings suggest that attention demand situations for nurses differ according to age range, with younger and little experienced professionals reporting difficulties to deal with situations directly related to direct patient care, as these require decision making and priority setting. Nurses in a higher age range perceive patients' care needs better, becoming more critical and demanding. This can be explained by their professional experience, which results in a more objective visualization of their work dynamics.

Another interesting aspect was related to the professional qualification of nurses with a graduate degree (specialization, master or doctoral) and can derive from an increasingly demanding labor market in the recruitment of these professionals. The search for care specialization and knowledge acquisition can affect the form and quality of care delivery, besides reassessing emergency care criteria more strictly in function of this improved nursing practice.

Participants with an undergraduate degree only, on the other hand, judged the lack of an opportunity to express feelings towards the patients as the greatest demand. This makes us reflect about the bond between nurses and patients, which can be strengthened by the search for new knowledge or professional recycling, this promoting the opening of new horizons in care practice.

These data put a stronger emphasis on the institution's need to identify maneuvers or instruments that allow nurses to seek individual improvements in the institutions they are affiliated with, directly influencing their work and the team as a whole.

Results also point towards statistically significant differences for the weekly hour load variable, with attention demands for nurses working more than 40 hours per week. These professionals considered 17 situations as sources of higher demands, related to the psychological domain and physical environment.

An excessive hour load can cause mental fatigue in professionals, entailing altered concentration, sleep disorders, physical discomfort, increased sensitivity to light and noise. These symptoms are more common among nurses working night shifts, followed by those working morning and afternoon shifts⁽³⁾.

These findings can reflect these professionals' lack of preparation to cope with situations of death or worsening among patients under their care, affecting their relations with patients and relatives.

Administrative issues also demand more attention from professionals working more than 40 hours per week, mainly issues related to human resources and the work space itself. Although with different foci, these demands can negatively affect the way they perceive their work context, mainly when associated with insufficient human resources in the team⁽¹²⁾.

Some authors emphasize that the excessive hour load and nursing work itself are considered as alarming and can be an important cause of deteriorating nursing care quality⁽⁴⁾, producing anxiety⁽¹³⁾, mental suffering, occupational stress⁽¹⁴⁾, exhaustion and professional dissatisfaction⁽⁵⁾. We found that the belief that professional stress is experienced more intensely among critical care nurses in comparison with professionals from other units does not correspond to reality. Nurses from open units report high stress levels due to their relation with other units and supervisors, patient care delivery, coordination of unit activities and work conditions to develop their activities⁽¹⁵⁾.

In view of these findings, we emphasize the importance of identifying the sources of nurses' attention demands in their work environment, with a view to minimizing the negative consequences of this excessive exposure, which can affect their daily practice and, thus, impair the planning and execution of new care activities.

CONCLUSION

In view of the proposed study objectives, these results allow for the following conclusions:

Administrators and nurse managers should value the way nurses' perceive their work environment, mainly because of the negative reflexes this entails in daily nursing practice.

Nurses considered the following situations as representing the highest attention demands: "watching a patient suffer", "a number of rapid decisions had to be made", "caring for families with emotional needs", "not enough time to provide emotional support to a patient", and "family teaching required". This allows us to infer about the fact that we are constantly exposed to multiple and different attention demand situations in our daily practice, making us alter our capacity to focus on situations that require ability and agility.

This study also showed that some situations presented statistically significant differences as to how

nurses judged them depending on sociodemographic variables. Conclusions can make health services

rethink the work environment itself, with a view to minimizing these sources of demands.

REFERENCES

1. Guirardello EB. Factors in the critical care and medical surgical environments that increase requirements for directed attention. [dissertation]. Madison (WI): School of Nursing; 1993.
2. Padilha KG. Dês-cuidar: as representações sociais dos enfermeiros de UTI sobre as iatrogenias de enfermagem. São Paulo. [tese] São Paulo (SP): Escola de Enfermagem da USP; 1994.
3. Marziale MHP, Rozestraten RJA. Turnos alternantes: fadiga mental de enfermagem. *Rev Latino-am Enfermagem* 1995; 3(1):59-78.
4. Marziale MHP. Enfermeiros apontam as inadequadas condições de trabalho como responsáveis pela deterioração da qualidade da assistência de enfermagem. *Rev Latino-am Enfermagem* 2001; 9(3):1.
5. Lautert L. O desgaste profissional: estudo empírico com enfermeiras que trabalham em hospitais. *Rev Gauch Enfermagem* 1997; 18(2):133-44.
6. Hopkinson JB, Hallett CE, Luker KA. Caring for dying people in hospital. *J Adv Nurs* 2003; 44(5):525-33.
7. Topf M, Dillon E. Noise - induced stress as a predictor for burnout in critical care nurses. *Heart & Lung* 1988; 17(5):567-73.
8. Topf M. Hospital noise pollution: an environmental stress model to guide research and clinical interventions. *J Adv Nurs* 2000; 31(3):520-8.
9. Topf M. Effects of personal control over hospital noise on sleep. *Res Nurs & Health* 1992; 15:19-28.
10. Guirardello EB. Adaptação cultural e validação do instrumento demandas de atenção dirigida. *Rev Esc Enfermagem USP* 2005; 39(1):77-84.
11. Conselho Regional de Enfermagem de São Paulo [homepage na Internet]. São Paulo; [Acesso em 2004 agosto 01]. Disponível em: www.corensp.org.br
12. Lino MM. Qualidade de vida e satisfação profissional de enfermeiras de Unidades de Terapia Intensiva. São Paulo. [tese] São Paulo (SP): Escola de Enfermagem da USP; 2004.
13. Barros ALBL, Humerez DC, Fakh FT, Michel JLM. Situações geradoras de ansiedade e estratégias para seu controle entre enfermeiras: estudo preliminar. *Rev Latino-am Enfermagem* 2003; 11(5):585-92.
14. Barstow J. Stress variance in hospice nursing. *Nurs Outlook* 1980; 28(12):751-4.
15. Bianchi ERF. Enfermeiro hospitalar e o stress. *Rev Esc Enfermagem USP* 2000; 34(4):390-4.