



Professional practice environment and burnout among nurses

Ambiente da prática profissional e *burnout* em enfermeiros

Ambiente de la práctica profesional y *burnout* en enfermeros

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Objective: to evaluate the professional practice environment of nurses, their relationship with burnout syndrome and the differences among three institutions. **Methods:** a cross-sectional study developed at one secondary and two tertiary hospitals, with 278 nurses, who filled the Nursing Work Index Revised – Brazilian Version and the Maslach Burnout Inventory. **Results:** most of these nurses showed job satisfaction and good quality of health care, while few informed intentions to leave their jobs. When comparing the institutions, the secondary level one had more autonomy in nursing practice, more control over the work environment, better relationship with physicians, and lower levels of emotional exhaustion. **Conclusion:** these findings contribute for the implementation of changes to improve the nursing professional practice, enabling to achieve the satisfaction of those involved in the process, such as patients, professionals, and institutions.

Descriptors: Working Environment; Burnout, Professional; Job Satisfaction.

Objetivo: avaliar o ambiente da prática profissional do enfermeiro, sua relação com a síndrome de *burnout* e diferenças entre três instituições. **Método:** estudo transversal, desenvolvido em hospitais (dois terciários e um de nível secundário), com 278 enfermeiros que responderam os instrumentos *Nursing Work Index Revised – Versão Brasileira* e o Inventário de *Burnout* de Maslach. **Resultados:** das instituições, a maioria dos enfermeiros demonstraram satisfação com o trabalho, boa qualidade da assistência e a minoria tinha intenção de deixar o emprego. Na comparação entre as instituições, a de nível secundário, apresentou uma prática de enfermagem com mais autonomia, maior controle sobre o ambiente e boas relações com a equipe médica e menores níveis de exaustão emocional. **Conclusão:** os achados contribuem na implementação de mudanças que favoreçam a prática profissional do enfermeiro, possibilitando alcançar a satisfação dos envolvidos no processo, como pacientes, profissionais e instituição.

Descritores: Ambiente de Trabalho; Esgotamento Profissional; Satisfação no Emprego.

Objetivo: evaluar el ambiente de la práctica profesional del enfermero, su relación con *burnout* y diferencias entre tres instituciones. **Método:** estudio transversal, desarrollado en hospitales (dos de tercer nivel y un secundario), con 278 enfermeros que respondieron a los instrumentos *Nursing Work Index Revised – Versión Brasileña* e Inventario de *Burnout* de Maslach. **Resultados:** de las instituciones, la mayoría de los enfermeros demostró satisfacción con el trabajo, buena calidad de la atención y, la minoría, intención de abandonar el trabajo. Comparándose las instituciones, la de nivel secundario presentó práctica de enfermería con más autonomía, control sobre el ambiente y buenas relaciones con el equipo médico y menores niveles de *burnout*. **Conclusión:** estos hallazgos podrán contribuir en la implementación de cambios que favorezcan la práctica profesional del enfermero, lo que permite lograr la satisfacción de implicados en el proceso, como pacientes, enfermeros e instituciones.

Descritores: Ambiente de Trabajo; Agotamiento Profesional; Satisfacción en el Trabajo.

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Introduction

The nursing professional practice model must be based on a structure that allows nurses to apply their knowledge in performing the care and management activities, making them more integrated in relationships with patients, other professionals, and the institution⁽¹⁾.

Research involving environmental characteristics that favor the nursing professional practice emerged in the early 70's, and since then, several studies have associated the presence of these characteristics with positive results, such as lower mortality rates⁽²⁾, lower employee turnover rates⁽³⁻⁶⁾, and lower rates of burnout with consequent job satisfaction⁽⁴⁻⁶⁾.

Burnout constitutes a psychological syndrome that occurs in individuals exposed to sources of chronic stress present in the workplace, with higher incidence among those who relate more closely to others. It consists of three components related but independent: emotional exhaustion, depersonalization, and reduced personal accomplishment⁽⁷⁾.

Emotional exhaustion is the key component to define this syndrome. It is the first reaction caused in response to work overload, social conflict, and stress due to constant demands, which may lead, as a coping strategy, to emotional and cognitive distancing of the professional in relation to their work⁽⁷⁾.

Depersonalization appears as an attempt to protect themselves from exhaustion and the individuals begins to distance themselves from work and other people. Additionally, the reduced personal accomplishment leads people to develop a sense of personal and professional inadequacy to work. Professionals lose confidence in themselves and in their ability to excel⁽⁷⁾.

Burnout syndrome, associated with work environments that hinder the professional practice of nurses, might contribute to significant negative outcomes for individuals, institutions, and society^(2,5,7).

Nursing, which by definition faces complex situations related to care management on a daily

basis, requires from nurses the constant search for knowledge, exercise of autonomy, and organizational support to ensure the quality of care. Nonetheless, sometimes these characteristics are not present in the workplace, which can have a negative effect for the care of patients, the professional, and the institution^(2,3).

Based on the above considerations, this study aimed to analyze and compare the professional practice environment of nurses and its relationship with burnout syndrome among three teaching institutions.

Method

This is a descriptive cross-sectional study conducted in three educational institutions in the state of São Paulo, Brazil, in 2007, referred to as institutions A, B and C. These institutions aim to assist the users of the Unified Health System, develop research and teach students from a state university. Institutions A and B are considered tertiary hospitals and provide a complex assistance. Institution C is certified and considered of secondary level.

The sample consisted of 278 nurses who met the following inclusion criteria: a) provide direct patient care; b) have a trial period in the unit equal to or greater than three months; and c) be present during the collection period, in other words, not be on vacation or leave. Exclusion criteria were nurses in management positions.

The instruments used for data collection were the personal and professional characterization record that contains three questions to evaluate the results related to work, the Nursing Work Index Revised – Brazilian Version (B-NWI-R)⁽⁸⁻⁹⁾ and the Maslach Burnout Inventory (MBI), validated for the Brazilian culture⁽¹⁰⁾.

The characterization record contains personal (age, gender, marital status) and professional variables (time of experience, working time in the institution and unit, hours worked per week) and three questions to assess the perception of nurses in relation to the

work results. The first two questions assessed the job satisfaction and the perception of nurses about the quality of care provided to patients, using a Likert-type scale with four points, where higher scores represented, respectively, greater job satisfaction and better perception of quality of care. The third question assessed the intention of the professional to leave their job next year through a visual analogue scale with two extremes, in which zero represented no intention and ten a strong intention to leave the job next year.

The B-NWI-R instrument⁽⁸⁻⁹⁾ aims to measure the presence of certain characteristics of the work environment that favor the nursing professional practice. For data collection, the 15 items comprising the four subscales were considered: autonomy (five items), control over the environment (seven items), nurse-physician relationship (three items), and organizational support (ten items derived from the first three subscales)⁽⁹⁾. It is a Likert-type scale ranging from one to four points. The participant tells whether they agree or disagree with the statement “this factor is present in my daily work” with the options: strongly agree (one point); partially agree (two points); partially disagree (three points); and strongly disagree (four points). The scores for the subscales are determined through the average scores of the individuals’ answers. The lower the score, the greater the number of attributes that favor nursing professional practice⁽⁹⁾.

The Maslach Burnout Inventory (MBI) measures the physical and emotional wear of professionals by assessing their feelings towards their work⁽¹⁰⁾. It comprises 22 items divided into three dimensions: emotional exhaustion (nine items), reduced personal accomplishment (eight items), and depersonalization (five items), in which the person has to answer how often they experience certain situations in their work environment.

A Likert-type scale with five points evaluates the items: one (never); two (rarely); three (sometimes); four (often); and five (always). In the subscales exhaustion and depersonalization, the higher the

score, the greater the feeling of emotional exhaustion and depersonalization perceived by nurses. In the subscale reduced personal accomplishment, which has reverse score to other subscales, higher scores represent a high personal achievement⁽¹⁰⁾.

To classify the burnout levels in high, moderate and low, one should obtain the minimum and maximum scores for each domain and then determine the percentiles 33 and 67 of the curve. Low scores on the subscales emotional exhaustion and depersonalization and high scores on the subscale reduced personal accomplishment portray a low level of burnout. Mean scores on the three subscales reveal a moderate level of burnout. While high scores on the subscales exhaustion and depersonalization and low scores on the subscale reduced personal accomplishment mean a high level of burnout⁽¹⁰⁾.

Data collection took place individually in the work units. Participants received an envelope containing the instruments of research and after filling, they returned it to the researcher at predetermined dates.

Data were tabulated in Excel – Windows/XP and analyzed by a statistician using the Statistical Analysis System software, version 9.1.3 – 2002/2003.

In order to describe the sample profile, descriptive analysis of categorical variables and position measures of the continuous variables were applied. For the subscales of the B-NWI-R and MBI, the scores were obtained through the average of subjects’ answers. The chi-square test or Fisher’s exact test was used to compare proportions when necessary. To compare continuous or sortable measures between two groups, we used the Mann-Whitney test, and between three or more groups, we applied ANOVA with changes by posts.

Instrument reliability was assessed through internal consistency by calculating the Cronbach’s alpha. The significance level for statistical tests was 5%.

The Research Ethics Committee approved the study under Protocol No. 796/2006.

Results

The study population comprised 278 nurses, with 181 (65%) from institution A, 53 (19%) from B, and 44 (16%) from C, with a mean age of 37.9 years (SD \pm 8.8), average time of experience in the profession of 12 years (SD \pm 7.9), and average working time in the institution of 11 years (SD \pm 7.9) and of 7.5 years (SD \pm 6.3) in the unit. Most had been admitted by public tender (73.4%), were female (87.8%), and had only one job (70.1%). As regards the working hours, they presented an average of 37.6 hours a week (SD \pm 15.2). Table 1 presents the other characteristics of the nurses in the three institutions.

Table 1 - Distribution of personal and professional variables of the 278 nurses from three hospitals (A, B, and C)

Variables	A (n=181)	B (n=53)	C (n=44)	Total
	n (%)	n (%)	n (%)	n (%)
Marital status				
Married	86(47.5)	33(62.3)	15(34.1)	134(48.2)
Single	67(37.0)	13(24.5)	22(50.0)	102(36.7)
Separated/Divorced	17(9.4)	6(11.3)	5(11.3)	28(10.0)
Widowed	2(1.1)	1(1.9)	1(2.3)	4(1.4)
Stable union	9(5.0)	0(0.0)	1(2.3)	10(3.6)
Professional formation				
Undergraduate	78(43.1)	17(32.1)	19(43.2)	114(41.0)
Specialization	87 (48.1)	31(58.5)	19(43.2)	137(49.3)
Improvement/ Residence	6(3.3)	1(1.9)	5(11.3)	12(4.3)
Master's Degree	10(5.5)	4(7.5)	1(2.3)	15(5.4)
Work area				
Medical/Surgical clinic	62(34.2)	19(35.9)	16(36.4)	97(34.9)
Adult Intensive Care Unit	43(23.8)	6(11.3)	5(11.3)	54(19.4)
Child and Neonatal Intensive Care Unit	9(5.0)	13(24.5)	11(25.0)	33(11.9)
Emergency	23(12.7)	5(9.4)	4(9.1)	32(11.5)
Surgery center	18(9.9)	4(7.6)	4(9.1)	26(9.4)
Outpatient/bed day	11(6.1)	6(11.3)	0(0.0)	17(6.1)
Pediatrics	11(6.1)	0(0.0)	4(9.1)	15(5.4)
Psychiatry	4(2.2)	0(0.0)	0(0.0)	4(1.4)

With regard to the intention to leave the job next year, average answers in institution A was 3.0 (SD \pm 3.3), while presenting 2.8 (SD \pm 3.4) in B, and 2.9 (SD \pm 3.5) in C. Table 2 shows the answers regarding the perceived quality of care and job satisfaction.

Table 2 - Distribution of items related to job satisfaction and perceived quality of care of the 278 nurses from three hospitals (A, B, and C)

Variables	A (n=181)	B (n=53)	C (n=44)	Total
	n (%)	n (%)	n (%)	n (%)
Job satisfaction				
Very unsatisfied	6 (3.3)	0 (0.0)	1 (2.3)	7 (2.5)
Unsatisfied	54 (29.9)	9 (17.3)	3 (6.8)	66 (23.8)
Satisfied	111 (61.3)	41 (78.9)	32 (72.7)	184 (66.4)
Very satisfied	10 (5.5)	2 (3.8)	8 (18.2)	20 (7.2)
Quality of care				
Very bad	4 (2.2)	0 (0.0)	0 (0.0)	4 (1.4)
Bad	22 (12.1)	2 (3.8)	2 (4.5)	26 (9.4)
Good	142 (78.5)	37 (69.8)	34 (77.3)	213 (76.6)
Very good	13 (7.2)	14 (26.4)	8 (18.2)	35 (12.6)

As regards the perception of nurses about the work environment and burnout levels, the averages found in the subscales of the B-NWI-R and MBI in different institutions are shown in Table 3.

Table 3 - Mean and standard deviation of the subscales of the B-NWI-R and MBI in the three institutions (A, B, and C)

Subscales	A(n=181)	B(n=53)	C(n=44)	p-value **
	Mean (SD*)	Mean (SD*)	Mean (SD*)	
Nursing Work Index Revised				
Autonomy	2.4(0.5)	2.1(0.5)	1.8(0.4)	<0.001
Control over the environment	2.7(0.6)	2.5(0.6)	2.1(0.5)	<0.001
Organizational support	2.5(0.5)	2.3(0.5)	2.0(0.4)	<0.001
Nurse-physician relationship	2.3(0.6)	2.2(0.8)	1.9(1.0)	0.0030
Maslach Burnout Inventory				
Emotional exhaustion	24.3(6.5)	23.3(5.0)	20.4(6.0)	0.0007
Depersonalization	8.8(2.9)	8.4(2.5)	7.4(2.4)	0.0082
Personal accomplishment	29.3(4.6)	29.9(3.6)	31.5(3.6)	0.0190

* Desvio Padrão ** ANOVA

When comparing the averages of the subscales of the B-NWI-R and MBI among the three institutions, institution C presents a significantly lower average than hospitals A and B in the subscales of the B-NWI-R and lower average on the MBI subscales, except for the subscale reduced personal accomplishment that has reverse score.

The reliability resulted in a Cronbach's alpha of 0.94 for the B-NWI-R and 0.88 for the MBI.

Discussion

The time of experience and age reported by nurses were higher than findings from national^(5,11) and international studies⁽¹²⁻¹³⁾ demonstrating that nurses of this research are more experienced than those from Asian countries⁽¹²⁻¹³⁾ but have less experience than the professionals in Europe and North America^(6,12-13).

Personal and professional maturity demonstrates greater stability and personal security, evidenced by the fact that most nurses have already started a family, are contracted by public tender, and remain in the same job or institution for about the same time of experience.

The predominance of females in nursing, in the sample, can be explained by the gender issue with most women, which is also demonstrated by national^(5,10-11) and international studies⁽¹²⁻¹³⁾.

Most nurses reported having only one job, as well as in other national studies^(5,10-11). On the other hand, they presented weekly working hours greater than the 36 hours employment contract, which may reflect a deficit in the institution's staff and the need for wage supplementation from them. Study highlights that Brazilian nursing is poorly paid and wage gains from overtime have been one of the ways found to complement the professionals' monthly income⁽⁷⁾.

As regards the level of training, most had some kind of post-graduation, as found in other studies^(5,11). This need to search for some kind of expertise leads to changes in national curricular guidelines for undergraduate nursing courses aimed at providing

nursing education adequate to the diversity, complexity, and competitiveness of the modern world⁽¹⁴⁾.

With regard to the work area, it was verified that the highest percentage of nurses is allocated in medical and surgical clinics, followed by intensive care units. These data are similar to those of another research⁽¹¹⁾, in which due to the greater number of beds and greater complexity of patients, it requires more professionals to meet the laws of staff dimensioning.

Among the teaching institutions, the nurses of institution B had better perceptions of the quality of nursing care and lower intention to leave the job, followed by the nurses from institution C. These two institutions also had lower levels of burnout compared with institution A, thus demonstrating once again that the presence of the syndrome may negatively compromise the quality of care⁽¹⁵⁾, regardless of the complexity of care of the service.

In the evaluation of work environment and burnout level, significant differences were found between hospitals, indicating that nurses from institution C reported performing a practice with more autonomy, greater control over the environment, and good relations with the medical team. In addition, they presented lower levels of emotional exhaustion, depersonalization, and reduced personal accomplishment when compared to participants of hospitals A and B. These findings confirm those in the literature, by stating that environments where nurses perceive the presence of favorable conditions for their professional practice have lower burnout levels^(4,6).

Nurses from hospital C are also more satisfied with the work, hence strengthening even more a differential of this institution, mainly because it is the only in the study that has recognition of excellence in the health services provision through the National Accreditation Organization, which seeks to recognize improvements regarding the quality of care, involvement, and responsibility of professionals in the integration of work processes⁽¹⁶⁾.

Conclusion

The results indicated that nurses from hospital C recognize the presence of favorable conditions for professional practice and present lower levels of burnout. These findings may also relate to the fact that institution C is of secondary level and therefore, given its lower complexity, it is easier to manage the work environment and consequently maintain the characteristics that favor the nursing professional practice.

It is worth highlighting the importance of developing other studies comparing same size institutions, so one can really conclude that environments unfavorable to nursing professional practice can result in the development of burnout syndrome, regardless of the complexity of patient care. Nursing managers might use these findings when implementing changes in the environment to ensure nurses an autonomous practice, control over the environment, and good relationships with physicians, thus contributing to achieve positive outcomes for patients, professionals, and institutions.

Collaborations

Gasparino RC participated from the work design, data collection, analysis and interpretation, to the final drafting of the article. Guirardello EB participated from the work design, data analysis and interpretation, to the final drafting of the article.

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