

Perception of nursing regarding patient safety climate in public and private institutions



Percepção da enfermagem frente ao clima de segurança do paciente em instituições públicas e privadas

Percepción de la enfermería frente al clima de seguridad del paciente en instituciones públicas y privadas

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ABSTRACT

Objective: To evaluate the perception of nursing staff regarding the safety climate among healthcare professionals from public and private institutions.

Method: This is a cross-sectional, quantitative study conducted with 235 nursing professionals from a private hospital and a public hospital in Campinas, between October 2014 and October 2015. The Safety Attitudes Questionnaire – Short Form was used to collect data. Descriptive and inferential statistics were used for analysis, and the Mann-Whitney test was used to compare the institutions.

Results: The private institution had higher averages than the public institution, and significant differences in the areas of safety climate ($p=0.00$), unit management ($p<0.0001$), hospital management ($p=<0.0001$), working conditions ($p=<0.0001$), and teamwork ($p=0.00$).

Conclusion: Although the private institution performed better, the professionals perceived the safety climate as unsatisfactory in both institutions.

Keywords: Patient safety. Nursing. Public hospitals. Private hospitals.

RESUMO

Objetivo: Avaliar a percepção da equipe de enfermagem frente ao clima de segurança que permeia a assistência entre profissionais de instituições públicas e privadas.

Método: Estudo quantitativo, transversal, desenvolvido com 235 profissionais de enfermagem de um hospital privado e um público, da região de Campinas, entre outubro de 2014 e outubro de 2015. Para a coleta foi utilizado o Questionário Atitudes de Segurança – Short Form. Na análise, foram utilizadas estatísticas descritivas e inferenciais, com realização do teste de Mann Whitney, para comparar as instituições.

Resultados: A instituição privada apresentou médias superiores às da pública, com diferenças significantes nos domínios clima de segurança ($p=0,00$), gestão da unidade ($p<0,0001$), gestão do hospital ($p<0,0001$), condições de trabalho ($p<0,0001$) e trabalho em equipe ($p=0,00$).

Conclusão: Apesar da instituição privada ter demonstrado melhor desempenho, o clima de segurança percebido pelos profissionais foi considerado insatisfatório em ambas as instituições.

Palavras-chave: Segurança do paciente. Enfermagem. Hospitais públicos. Hospitais privados.

RESUMEN

Objetivo: Evaluar la percepción del equipo de enfermería sobre el clima de seguridad que permea la asistencia entre los profesionales de instituciones públicas y privadas.

Método: Estudio cuantitativo, transversal, desarrollado con 235 profesionales de enfermería de un hospital privado y uno público en la región de Campinas entre octubre de 2014 y octubre de 2015. Para la recolección se utilizó el Cuestionario Actitudes de Seguridad – Short Form. En el análisis, se utilizaron estadísticas descriptivas y inferenciales, con realización de la prueba de Mann Whitney para comparar las instituciones.

Resultados: La institución privada presentó promedios superiores a los de la pública, con diferencias significativas en las áreas de seguridad ($p=0,00$), gestión de la unidad ($p<0,0001$), gestión del hospital ($p<0,0001$), condiciones de trabajo ($p<0,0001$) y trabajo en equipo ($p=0,00$).

Conclusión: Aunque la institución privada mostró un mejor desempeño, el clima de seguridad percibido por los profesionales fue considerado insatisfactorio en ambas instituciones.

Palabras clave: Seguridad del paciente. Enfermería. Hospitales públicos. Hospitales privados.

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■ INTRODUCTION

Safety in the healthcare setting has become a priority in recent decades⁽¹⁾, and despite the undeniable benefits of care, patients can suffer undesirable damage. Patient safety is the reduction of risk of unnecessary care-related damage to a minimum acceptable level⁽²⁾.

In Brazil, the subject gained the spotlight in 2013 with the creation of the patient safety programme. This programme establishes that the quality of care is only achieved when safety is the fundamental principle managed by institutions⁽³⁾.

In the care practice, the safety culture is the result of a complex system of policies, programmes, and management support for the workers directly involved with patients to ensure they have the conditions to provide safe care at all stages. Institutions with a well-established safety culture manage to reduce iatrogenic risks related to therapy⁽⁴⁾.

The safety climate is considered the measurable part of the safety culture, and it reflects the perception of professionals on the safety of their workplace⁽⁵⁾. Although the safety climate has been the focus of several studies, it appears that most published papers on patient safety stress the use of safe care protocols; the occurrence and notification of adverse events; and the need to establish a non-punitive culture for these events⁽⁶⁾.

The use of validated scales to assess the perception of a safety climate can be subjective; however, it is critical to estimate the effects of managerial interventions such as training or measures to minimise professional stress^(4,7). Studies conducted in different Brazilian states using validated instruments revealed weaknesses in assessing the perception of nursing staff of the safety climate⁽⁸⁻¹⁰⁾. A review of papers on this subject found safety climate assessments in public hospitals⁽³⁾, in a private hospital⁽¹¹⁾ and in public and private hospitals⁽¹²⁾, without correlating the outcomes of these institutions. Therefore, the following question arises: is there a significant difference between the perception of health workers of private and public institutions in relation to the safety climate?

Considering the lack of studies comparing the perception of the safety climate by the nursing staff of public and private institutions, and the fact that assessing the safety climate can provide direct and indirect patient safety indicators to help management improve the quality of care, the aim of this paper was to assess the perception of nursing staff regarding the safety climate among professionals of public and private healthcare institutions.

■ METHOD

This is a cross-sectional, quantitative study with a convenience sample of 235 nursing professionals, conducted in a private hospital and a public hospital in the state of São Paulo, Brazil. The private hospital (A) is a mid-sized institution with 120 nursing workers that attends patients from supplementary care and other users. The public hospital (B) is also mid-sized and mostly attends patients from the Unified Health System (SUS) of eight regional municipalities. It is a reference institution for women and children's healthcare and has around 220 nursing workers.

To calculate the sample, a sampling error of 5% and a confidence level of 95% were considered over the total number of nursing workers of each institution, resulting in a minimum sample of 233 workers. For sample composition, the inclusion criteria were nurses, nursing technicians or nursing assistants; directly providing care to patients; who were present during data collection, that is, not on leave or holidays. Workers with administrative positions were excluded.

Data were collected between October 2014 and October 2015. The nursing workers who met the inclusion criteria were approached and given a form for personal and professional characterisation, and the Safety Attitudes Questionnaire – Short Form (SAQ). The first form was created by the researchers to record personal characteristics (age, sex, and marital status) and professional characteristics (position in the institution, professional training, and other employment) of the participants.

The SAQ was adapted and validated to the Brazilian culture to assess the perceptions of workers in relation to patient safety. It is a self-applicable instrument with items grouped into eight domains: Teamwork Climate (items 1 to 6) reflecting the quality of the relationship and collaboration between team members; Safety Climate (items 7 to 13) to measure the perception of workers regarding the organisation's commitment to patient safety; Job Satisfaction (items 15 to 19) to detect the positive view of the workplace; Stress Recognition (items 20 to 23) to detect how stress factors influence the execution of work; Perception of Management Unit (items 24 to 29) and Perception of Management Hospital (items 14, 24 to 28) to assess administration of the unit and the institution as a whole; Work Conditions (items 30 to 32) to detect perception of quality of the working environment; and Safe Conduct (items 33 to 36) to assess the need for effective communication between members of the health team⁽¹³⁾.

The responses are evaluated using a five-point Likert scale: A – disagree strongly (zero points), B -disagree slightly (25 points), C – neutral (50 points), D – agree slightly (75 points), E – agree strongly (100 points), and X – not applicable, that is, the higher the score, the better the perception of the worker of the safety attitudes in patient care. The score of each domain is obtained by adding all the scores and dividing them by the number of questions, except those responded with “not applicable” and after recoding items 2, 11, and 36 that are measured in reverse order. Values above 75 are considered satisfactory for patient safety⁽¹³⁾.

The professionals were recruited at each of the institutions using work schedules provided by the nursing managers from November 2014 to January 2015. They were approached individually at the units where they work. After learning about the research objective, the workers who agreed to participate signed an informed consent statement. Once they had signed the statement, they were given an envelope containing the sample characterisation form and the SAQ. At the discretion of the professionals, the envelopes were returned personally to the researcher or sealed to ensure confidentiality and handed to the supervisor to forward to the researchers.

The data were tabulated in Excel – Windows/XP® and analysed by an expert using Statistical Package for the Social Sciences (SPSS) version 20.0. To describe the sample profile according to the studied variables, we considered absolute and relative frequencies of the categorical variables and measures of position and dispersion of the continuous variables (average and standard deviation).

To compare the qualitative variables with two categories and the scores of the SAQ domains, we applied the Mann-Whitney non-parametric test or the unpaired Student t-test, according to data distribution. For the comparisons involving the qualitative variables with more than two categories and the scores of the SAQ domains, we applied the Kruskal-Wallis non-parametric test or ANOVA, also according to data distribution. The correlations between the scores of the SAQ domains and the quantitative variables were evaluated using Spearman's rank correlation coefficient.

The internal consistency was analysed using Cronbach's alpha coefficient, in which the acceptable lower limit was 0.60⁽¹⁴⁾. For the statistical tests, the significance level was 5%, that is p-value <0.05.

Data were collected only after obtaining the authorisation of the responsible institutions and the favour-

able opinion of the research ethics committee (opinion 609.396/2014), in accordance with all the national and international standards established for research with human beings.

■ RESULTS

With a return rate of 54.9%, the sample was composed of 235 professionals (90 of institution A and 145 of institution B), with an average age of 32.8 (SD ± 8.3). Of the sample, 208 (88.5%) were female, 130 (55.3%) were nursing assistants, 174 (74.7%) had no other employment, and 129 (54.9%) worked during the day. As for the variables marital status and vocational training, higher frequencies were found among the married workers, 112 (47.7%) and nursing technicians, 109 (46.4%), respectively. The average number of patients attended by the workers was 8.7 (SD ± 11.6).

The average and standard deviation of the SAQ domains, the comparison between the institutions, and Cronbach's alpha are shown in Table 1.

In the comparison of the variables position in the institution and professional training with the SAQ domains, no statistically significant differences were found regarding the perception of the safety climate between the nurses and nurse technicians.

The assessment of the relationship between age and the SAQ domains using the Spearman rank correlation coefficient revealed positive and significant correlations with the domains “Stress” (p = 0.0003), “Perception of Management Hospital” (p = 0.0072), and “Working Conditions” (p = 0.0155). A significant and negative correlation was found between the number of patients attended per shift and the domain “Perception of Management Unit” (p = 0.0143).

Table 2 shows the items of each domain with an average of less than 75.

■ DISCUSSION

The results obtained in this study indicate that there is great fragility in climate-related aspects of patient safety. In the private institution, higher averages than recommended for a safe climate were detected in only four of the eight domains, namely “Teamwork”, “Job Satisfaction”, “Working Conditions”, and “Safe Conduct”. In the public institution, the situation was even more worrisome since only the domain “Job Satisfaction” reached an acceptable average for a safe climate.

The fact that the private institution obtained higher scores than the public institutions for the domains “Safe-

Table 1 – Average and standard deviation of the Safety Attitudes Questionnaire domains, a comparison of the domains between the institutions, and Cronbach’s alpha. São Paulo – Brazil. 2015

Variable	Institution	n	Average	SD*	p-value**	Cronbach’s Alpha
Stress Perception	A	84	58.6	27.2	0.05	0.76
	B	138	65.4	26.4		
Safety Climate	A	89	74.2	16.4	0.00	0.68
	B	143	68.1	17.6		
Unit Management	A	88	71.9	18.6	< 0.0001	0.74
	B	139	56.0	21.4		
Hospital Management	A	89	74.6	17.2	< 0.0001	0.72
	B	139	58.8	20.4		
Working Conditions	A	81	75.3	19.8	< 0.0001	0.72
	B	135	59.5	28.6		
Teamwork Climate	A	90	76.6	16.4	0.00	0.67
	B	145	70.1	17.1		
Safe Conduct	A	87	77.9	21.3	0.31	0.74
	B	144	74.7	22.5		
Job Satisfaction	A	90	80.9	13.6	0.43	0.69
	B	144	80.8	17.7		

Source: Research data, 2015.

*Standard deviation. ** p-value obtained using the Mann-Whitney test.

ty Climate”, “Unit Management”, “Hospital Management”, “Working Conditions”, and “Teamwork”, which reflect a safer climate, can be justified by the pursuit of quality in a competitive market that values service excellence. The optimisation of resources, humanised care, and the guarantee of better services can enhance the climate of safety⁽¹⁵⁾.

In the public institution, the fact that most domains did not have an acceptable score in the SAQ indicates some disagreement of the participants with the management model and the work conditions, despite their satisfaction. Professionals who like their work have greater protection against stress and feel satisfied even in the inappropriate working conditions since they consider performing their activities in these conditions a challenge⁽¹⁶⁾.

Other studies conducted in hospitals and basic health units show similar results to those of this study^(4,17-19), with low scores in the SAQ domains, reflecting the perceptions of professionals regarding the fragilities of a safety climate in patient care. This minimally explored subject has fundamental repercussions, and managers must prioritise the

continued development and support of a safety culture in the institutions in which they work⁽¹⁷⁻¹⁹⁾.

The absence of significant differences between the perception of the safety climate and professional category can be attributed to the more qualified training of nurses and their duty to articulate, integrate, and coordinate the team, organize work, promote quality care, and minimise risk⁽¹⁹⁻²⁰⁾, all of which require a more critical view of the processes.

Attempts to introduce and unify content on patient safety are still recent in Brazilian schools at technical and higher education level, thus demanding a review of curricula to discuss an interdisciplinary approach in the development of the subject of safety⁽²⁰⁾. The inclusion of this topic in the curricula can reinforce a safety culture in institutions and how it is perceived, which is evaluated through the security climate.

It is also necessary to the coordinate efforts of institutions directly and indirectly linked to healthcare and the education of health workers to strengthen safer and quality nursing care. Consequently, greater engagement is required of healthcare, education, and research institutions in the system.

Table 2 – Average and standard deviation of the items of the Safety Attitudes Questionnaire domains with an average below satisfactory. São Paulo – Brazil. 2015

Domain	Items	Average	SD*
Teamwork Climate	In this clinical area, it is difficult to speak up if I perceive a problem with patient care	50.8	34.9
	The physicians and nurses here work together as a well-coordinated team	65.8	31.2
Safety Climate	In this clinical area, it is difficult to discuss errors.	47.5	34.3
	The culture in this clinical area makes it easy to learn from the errors of others	65.2	32.7
	I receive appropriate feedback about my performance	65.4	33.0
	Medical errors are handled appropriately in this clinical area	73.5	29.9
Job Satisfaction	Morale in this clinical area is high.	59.5	34.4
Stress Perception	I am more likely to make errors in tense or hostile situations	56.8	37.3
	Fatigue impairs my performance during emergency situations (e.g. emergency resuscitation, seizure).	58.2	35.5
	I am less effective at work when fatigued	64.9	35.5
	When my workload becomes excessive, my performance is impaired	69.3	33.0
Unit Management	Management supports my daily efforts	54.6	32.6
	The levels of staffing in this clinical area are sufficient to handle the number of patients	55.1	38.6
	Management doesn't knowingly compromise patient safety	63.3	34.6
	Problem personnel are dealt with constructively by our management	64.6	31.5
	Management is doing a good job	65.8	29.5
	I get adequate, timely info about events that might affect my work	68.6	30.5
Hospital Management	Management doesn't knowingly compromise patient safety	50.6	35.1
	Problem personnel are dealt with constructively by our management	60.0	31.7
	Management supports my daily efforts	60.4	31.7
	I get adequate, timely info about events that might affect my work	71.5	29.3
	Management is doing a good job	72.2	29.7
	My suggestions about safety would be acted upon if I expressed them to management	73.2	32.2
Working Conditions	Trainees in my discipline are adequately supervised	61.1	33.5
	This hospital does a good job of training new personnel	64.9	35.1
	All necessary information for diagnostic and therapeutic decisions is available routinely to me	70.7	31.5
Safe Conduct	Communication breakdowns that lead to delays in delivery of care are common	46.0	34.4
	I experience good collaboration with staff physicians in this clinical area	73.8	28.5
	I experience good collaboration with pharmacists in this clinical area	74.4	26.3

Source: Research data, 2015.

*SD = standard deviation

The positive and significant correlation between age and the domain "Stress" diverges from the results found by other researchers, who claim that the longer the experience, the lesser the chances of stress among professionals, as they tend to use control as a coping strategy control⁽¹⁶⁾. Older people tend to assess problems as less stressful because they feel less responsible for them. Despite the age-related problems and losses, they learn to differentiate situations that may or may not be controlled, which is beneficial to their mental health⁽²¹⁾. The sample of this study was young adults who have not yet reached full professional maturity and still feel responsible for all the problems that arise, without clearly differentiating the situations that they may or may not control themselves.

In contrast, the positive perception of the older workers with respect to the domains "Hospital Management" and "Working Conditions" can be associated with the feeling of self-efficacy, acquired through experience, that involves the ability to make choices and plans, appropriately follow up an action, and motivate and regulate execution⁽²¹⁾.

The negative and significant correlation between the number of patients attended per shift and the domain "Perception of Management Unit" can be attributed to burnout caused by the insufficient number and/or qualification of the workers. A high number of patients per professional increases the incidence of events with a negative impact on patient care. Managers experience a daily paradox between the lack of resources, forcing them to adapt and improvise, and the urgent need for more workers to consolidate a culture of safety within the institutions⁽²²⁻²³⁾.

The inappropriate sizing of personnel for care activities causes an overload of work and, according to scholars, the inadequate allocation of nursing workers increases the occurrence of adverse events and/or incidents⁽²²⁾. Other authors suggest that to build safe organisations, it is also necessary to restructure the characteristics of the work environment and the qualification of professionals⁽¹⁹⁾. The number of nursing professionals and the quality of their training directly affect safety and the quality of care provided to patients⁽²⁴⁾.

The items shown in Table 2, that demonstrate the perceptions considered unsatisfactory by the team, are excellent opportunities for management professionals to improve the quality of care and patient safety. Some items deserve to be highlighted, such as lack of recognition on the part of management, the fact that workers do not free

to discuss openly the care-related issues, difficulty in discussing mistakes, and the recognition that burnout and miscommunication undermine work performance, quality care, and patient safety.

Although this study did not analyse the reasons participants do not feel free to discuss errors, other researchers found that they fear the punitive measures triggered after the notification of an event. Openness and transparency in the notification of events and a non-punitive and supportive environment are essential for organisational learning^(19,25). Moreover, all the members of the team must understand that the detection and analysis of events support decision-making and patient safety planning⁽²⁵⁾. Once notified, the investigation of events must be based on the failures of processes and not on individual human error⁽²⁾.

Another critical point to ensure patient safety is communication. For patients to receive 24-hour uninterrupted care, they must be attended by different workers in different therapeutic or diagnostic procedures, which requires effective communication to make sure the message was correctly understood by everyone involved in the process^(4,22,25), and this includes patient-related events.

Participatory management strategies, promoting teamwork, improving the quality of communication between professionals, continuing education programs with priority on patient safety and error handling with a systemic non-punitive approach⁽⁴⁾ are some of the interventions needed to respond to the low scores of the participants of this study and to ensure better outcomes related to the quality of care and, consequently, to patient safety.

■ CONCLUSIONS

The perception of nursing professionals regarding the security climate was considered satisfactory only in the domain "Job Satisfaction" at the public hospital. In the private hospital, the professionals considered four of the eight domains of the instrument as being satisfactory, namely "Teamwork", "Job Satisfaction", "Working Conditions", and "Safe Conduct". The private institution scored higher in most SAQ domains than the public institution, indicating a better safety climate in the former institution.

With regard to care, the use of instruments to assess the patient safety climate can strengthen the culture of safety in the institution and make workers more receptive to

strategies that improve the quality of care. They also provide managers with the political capital to create patient safety strategies within the institutions.

In terms of education, the introduction of disciplines and/or content for patient safety should be a priority in the training of nursing professionals to improve the quality of care.

Since this study was conducted in a public hospital and a private hospital, further research should be conducted to verify whether these findings are repeated in other public and private institutions. This research did not identify how a private institution, even without accreditation, achieved a better performance in the safety climate than a public institution, indicating the importance of studies with this scope.

We also stress the importance of studies involving the topic of safety climate since most items of the SAQ do not require large investments, but rather changes in the conduct of the management and care teams. It is possible to maximise patient safety and ensure better quality care by revealing the fragilities in the safety attitudes of health workers and, thus supporting and innovating the management of human resource in nursing.

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