

EDUCATIONAL INTERVENTIONS WITH NURSING PROFESSIONALS AND ITS RELATIONSHIP WITH CULTURE OF SECURITY

INTERVENÇÕES EDUCATIVAS COM PROFISSIONAIS DE ENFERMAGEM E SUA RELAÇÃO COM A CULTURA DE SEGURANÇA

INTERVENCIONES EDUCATIVAS CON PROFESIONALES DE ENFERMERÍA Y SU RELACIÓN CON LA CULTURA DE SEGURIDAD

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ABSTRACT

Objective: to analyze the safety culture of nursing professionals from adult hospitalization units in a university hospital in southern Brazil before and after educational interventions on patient safety. **Method:** a quasi-experimental study, conducted from November / 2015 to February / 2016, using two educational interventions with 89 nursing professionals from five hospitalization units, with application of the Safety Attitudes Questionnaire in pre and post intervention. **Results:** the scores increased, with a greater emphasis on the Stress Perception domain, with averages from 74.7 to 79.6. The averages increased in the domains related to nursing technicians / assistants, and in two of the hospitalization units. However, most of the scores indicate fragilities in the safety culture, with lower averages related to Hospital Management Perception (44.5 and 44.3). **Conclusion:** educational interventions resulted in better scores in the areas of teamwork climate, safety climate, job satisfaction and stress perception.

Keywords: Patient Safety; Education Continuing; Culture; Education Nursing.

RESUMO

Objetivo: analisar a cultura de segurança dos profissionais de Enfermagem de unidades de internação adulto em hospital universitário do Sul do Brasil pré e pós-intervenções educativas sobre a segurança do paciente. **Método:** estudo quase-experimental, realizado de novembro/2015 a fevereiro/2016, utilizando duas intervenções educativas com 89 profissionais de Enfermagem de cinco unidades de internação, com aplicação do Safety Attitudes Questionnaire na pré e pós-intervenção. **Resultado:** os escores aumentaram, com mais destaque para o domínio percepção do estresse, com médias de 74,7 para 79,6. As médias aumentaram nos domínios relacionados aos técnicos/auxiliares de Enfermagem e em duas das unidades de internação. No entanto, a maioria dos escores indica fragilidades na cultura de segurança, com menores médias relacionadas à percepção da gerência do hospital (44,5 e 44,3). **Conclusão:** as intervenções educativas resultaram em melhores escores nos domínios clima de trabalho em equipe, clima de segurança, satisfação no trabalho e percepção do estresse.

Palavras-chave: Segurança do Paciente; Educação Continuada; Cultura; Educação em Enfermagem.

RESUMEN

Objetivo: analizar la cultura de seguridad de los profesionales de enfermería de unidades de internación adulta de un hospital universitario del sur de Brasil antes y después de intervenciones educativas sobre seguridad del paciente. **Método:** estudio cuasi experimental realizado de noviembre / 2015 a febrero / 2016, utilizando dos intervenciones educativas con 89 profesionales de enfermería de cinco unidades de internación, con aplicación del Safety Attitudes Questionnaire en ambos momentos. **Resultado:** las puntuaciones aumentaron, con más destaque para el dominio percepción del estrés, con promedios de 74,7 a 79,6. Los promedios subieron en los ámbitos sobre técnicos / auxiliares de enfermería en dos de las unidades de internación. Sin embargo, la mayoría del puntaje indica fragilidades en la cultura de seguridad, con promedios más bajos relacionados con percepción de la gerencia del hospital (44,5 y 44,3). **Conclusión:** las intervenciones educativas resultaron en mejores puntuaciones en los dominios ambiente de trabajo en equipo, ambiente de seguridad, satisfacción en el trabajo y percepción del estrés.

Palabras clave: Seguridad del Paciente; Educación Continua; Cultura; Educación em Enfermería.

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INTRODUCTION

Patient safety culture is conceptualized as the product of values, attitudes and perceptions, competencies and behavior patterns of the individual and group, which determine the commitment, style and proficiency regarding patient safety issues in a health organization. The culture of positive security in organizations is perceived by environments with communication based on mutual trust, shared perceptions about the importance of patient safety and effectiveness of preventive measures.¹

The reality of the organizational culture of some health institutions is still different from the precepts of the safety culture, because it is permeated by guilt, punishment and reprimand to the professional who has committed a flaw, labeling it.

Adoption of the safety culture may imply improvements for patient safety because when it is strengthened it provides an understanding of failure as something that happens through multiple causes, which must be identified to guide preventive measures to avoid failure occurring again, without intending to blame, expose or embarrass the professionals involved in the incident.

In Brazil, studies have been carried out with the objective of evaluating the safety culture of the patient in several care contexts, contributing to the awareness of health professionals regarding their importance and identifying the strengths and points that need to be improved in the organizations.²⁻⁴

However, results of studies carried out in the same institution of the present study showed fragility and concern, with scores lower than the minimum necessary for a positive safety culture. These scores are assessed using questionnaires with a Likert scale. At the end the sum of the answers is made and given an average, which must be equal to or greater than 75 points to be considered a positive safety culture.^{2,5,6}

The evaluation performed with the surgical center professionals by mean of scores presents the score 64.33 as the highest in relation to the team working climate domain, while the safety climate obtained a mean of 50.66, the lowest being that of the evaluation.⁶ In the surgical hospitalization units, the dimensions of management perception and working conditions presented the lowest scores, with averages of 39 and 40; and job satisfaction averaged 71.3.² The evaluation in the intensive care unit by means of percentages reveals that the dimensions of team work within the units (62%) and expectations and actions of promotion of patient safety of the supervisor / manager (51%) received the highest percentage score of positivity; the hospital management support dimensions for patient safety (13%) and overall patient safety perception (27%) had the lowest percentages.⁵

In view of these results, the need for changes and improvement strategies for patient safety and to reduce harm to patients in the institution object of this study is reinforced.

Thus, a program of educational activities on patient safety can be an important initiative to implement the process of change

in the development of a culture, allowing the professionals to be aware of necessary actions in the sense of reducing errors in daily practice, improving the care provided and especially regarding the personal commitment of each professional to a safe care.⁷

This study was developed considering this perspective and in line with the worldwide concern with patient safety and the importance of the safety culture to improve the care provided in health institutions. Thus, the guiding question was: "Does the implementation of educational interventions to nursing professionals alter the outcome of the patient safety culture evaluation?" The aim of this study was to analyze the safety culture of nursing professionals from adult hospitalization units in a university hospital in the South of Brazil, before and after educational interventions on patient safety.

METHOD

A quasi-experimental quantitative approach was carried out in five adult inpatient clinics: a gynecological clinic, two medical clinics and two surgical clinics of a public university hospital in southern Brazil.

The total population of the study was of 116 professionals working in the five sectors and the sample of the study was of the simple random type, without replacement, constituting the total of 89 nursing professionals, among nurses, technicians and nursing auxiliaries that met the criterion of minimum of four weeks in the industry. As an exclusion criterion, professionals with long-term leave of more than 29 days were established in the data collection period.

This study agrees with and respects the ethical precepts set forth in Resolution CNS 466, dated 12/12/12, through the protection of participants' rights, as evidenced using the *Termo de Consentimento Livre e Esclarecido (TCLE)*. And for the submission and approval of the study by the *Comitê de Ética em Pesquisa (CEP)* of the Universidade Federal de Santa Catarina received the consubstantiated opinion number 1.257.697, CAAE: 48915615.9.0000.0121.

Data collection was performed between November/2015 and February/2016, using the Safety Attitudes Questionnaire (SAQ) – Short Form 2006, validated and adapted culturally to the Brazilian reality, with author's permission.⁸

The SAQ is a psychometric research tool that assesses the attitudes of health professionals relevant to patient safety from 41 questions divided into six domains: management perceptions, teamwork climate, stress recognition, safety climate, satisfaction in work and working conditions, answered on a five-point Likert scale. The SAQ was applied twice, before the first educational intervention and after the second educational intervention.

The intervention of the study consisted of two dialogic expository classes, called educational interventions, carried out

in the work sector itself, in the shift room of each unit, lasting approximately 30 to 40 minutes each session, with a minimum interval of one month between meetings. The action was conducted until the sample number of 89 participants was reached for the first meeting, whose calculation was performed through the SEstatNET Program. And for the second meeting, the same selected professionals were invited to participate. The total of 67 professionals participated in the second meeting, totaling a sample loss of 22 participants, due to the several departures during the period of data collection.

The content, presented in the interventions, was produced in conjunction with the nurse of the Patient Safety Nucleus of the institution. In educational intervention 1 an introduction to patient safety, safety history, error approach and patient safety culture was presented 23 times to reach the required number of participants in the simple random sample. The educational intervention 2, carried out in 19 moments, contained information about the reality of patient safety in the institution under study, with emphasis on historical rescue, on the process of reporting errors and adverse events, and information on the activities of the Patient Safety Center, based on the six goals for security.

The data resulting from the implementation of the SAQ was organized through Software Microsoft Office Excel[®] 2003 and processed by the IBM Statistical Package for Social Science (SPSS) for Windows, version 20.0 (IBM Corp., Armonk, NY, USA). The quantitative variables related to the SAQ domains were described from the mean and standard deviation calculations and the sociodemographic variables by their absolute (n) and relative (%) frequencies. The normal distribution of domains was investigated using the Shapiro Wilk test. Differences between the domains according to the position variables were tested using the independent t test and Mann-Whitney U test; the Kruskal-Wallis test and the Anova One-Way test; and in relation to the time in the specialty, by the Kruskal-Wallis test. Comparisons between the domains before and after the intervention were evaluated using the Wilcoxon paired test. Differences were considered significant when $p \leq 0.05$.

The SAQ items were evaluated from scores for the safety culture of the patient in each domain, in which the score was considered positive when scored higher than 75 on a scale of 0-100 after conversion of the five points of the Likert scale: the item marked 1 - totally disagree, with the value of 0; 2 - partially disagree, with the value of 25; 3 - neutral, with a value of 50; 4 - partially agree, with the value of 75; and 5 - fully agree, with the value of 100. Thus, the "partially agree" and / or "totally agree" options, scored four and five, respectively, were considered positive responses, except for two questions of the instrument that are of reverse score.

Table 1 - Sociodemographic characteristics of the participants selected in the pre and post-intervention study sample. Florianópolis-SC, Brazil, 2016

Variables	Pre-Intervention n = 89	Post-Intervention n = 67
Gender		
Male	11 (12.9%)	06 (9.4%)
Female	74 (87.1%)	58 (90.6%)
Did not answer	4	3
Sectors		
Gynecological hospitalization	16 (18.0%)	11 (16.4%)
Medical Clinic 1	16 (18.0%)	11 (16.4%)
Medical Clinic 2	17 (19.0%)	09 (13.4%)
Surgical Clinic 1	20 (22.5%)	18 (26.9%)
Surgical Clinic 2	20 (22.5%)	18 (26.9%)
Positions		
Nurse	28 (32.6%)	20 (30.8%)
Nursing Assistant/Technician	58 (67.4%)	45 (69.2%)
Did not answer	3	2
Time in specialty		
Less than 6 months	02 (2.5%)	-
6 to 11 months	04 (4.9%)	04 (6.3%)
1 to 2 years	10 (12.3%)	05 (7.8%)
3 to 4 years	09 (11.1%)	09 (14.0%)
5 to 10 years	16 (19.8%)	09 (14.0%)
11 to 20 years	22 (27.2%)	20 (31.3%)
21 or more	18 (22.2%)	17 (26.6%)
Did not answer	8	3

Source: elaborated by the authors, 2016.

Table 1 corresponds to the sociodemographic characteristics of the sample, which were different in the pre- and post-intervention period, due to the sample loss of 22 participants (24.71%).

The safety culture evaluation was performed in two meetings, before and after the educational interventions, and the mean scores are presented in Table 2, according to each domain. In this study, we chose to present the results regarding the perception of management domain, subdivided into perception of the unit's management and perception of hospital management, given the variation of the results for both managements and by the presentation of a clearer form. This subdivision shows more clearly the professionals' assessment of the work performed by unit management and hospital management.

Table 3 refers to the professional category and the means of the scores.

Table 4 analyzed the scores related to hospitalization units in relation to pre and post-intervention educational actions.

Table 2 - Average safety culture scores and standard deviation per domain distributed in pre- and post-educational interventions based on the assessment of nursing professionals from a university hospital in the South of Brazil. Florianópolis-SC, Brazil. 2016

Domain	Pre-Intervention (Dp)	Post-Intervention (Dp)	P value*
Teamwork spirit	67.2 (15.6)	68.8 (14.1)	0.89
Security feel	59.0 (15.9)	62.0 (17.1)	0.18
Job satisfaction	78.1 (18.3)	80.8 (15.5)	0.6
Perception of stress	74.7 (24.7)	79.6 (22.1)	0.36
Perception of unit management	65.1 (21.9)	64.2 (21.7)	0.02
Perception of hospital management	44.5 (21.7)	44.3 (21.9)	0.32
Work conditions	54.9 (22.3)	54.9 (24.2)	0.67

Source: elaborated by the authors, 2016. * Wilcoxon test; sd - standard deviation.

Table 3 - Average of safety culture scores and standard deviation per domain distributed by professional category in pre and post-educational interventions based on the assessment of nursing professionals from a university hospital in the South of Brazil. Florianópolis-SC, Brazil. 2016

Domain	Nurse		Nursing Assistant/Technician		P value*	
	Pre (Dp)	Post (Dp)	Pre (Dp)	Post (Dp)	Pre	Post
Teamwork spirit	67.50 (13.47)	65.31 (13.51)	68.85 (16.01)	71.13 (13.00)	0.88*	0.35*
Security feel	59.09 (11.28)	59.38 (15.17)	58.35 (17.78)	65.57 (15.78)	0.39*	0.57
Job satisfaction	75.91 (13.06)	75.13 (14.33)	80.28 (17.17)	84.33 (11.57)	0.03+	0.17+
Perception of stress	82.91 (17.78)	87.94 (15.38)	76.75 (27.10)	82.33 (24.32)	0.14+	0.05+
Perception of unit management	67.36 (21.43)	65.31 (19.10)	63.75 (22.76)	65.73 (20.65)	0.43+	0.69+
Perception of hospital management	36.62 (17.89)	43.69 (16.64)	39.45 (21.05)	43.87 (19.24)	0.68*	0.76*
Work conditions	51.18 (19.46)	50.69 (18.44)	53.15 (24.22)	53.57 (24.44)	0.94*	0.59*

Source: elaborated by the authors, 2016. * Independent t test; + Mann-Whitney U test; sd - standard deviation.

Table 4 - Average of the safety culture scores and standard deviation per domain distributed by sector in pre- and post-educational interventions based on the assessment of nursing professionals from a university hospital in Southern Brazil. Florianópolis-SC, Brazil. 2016

Dimension	Sector 1		Sector 2		Sector 3		Sector 4		Sector 5		P value	
	Pre (Dp)	Post (Dp)	Pre (Dp)	Post (Dp)	Pre (Dp)	Post (Dp)	Pre (Dp)	Post (Dp)	Pre (Dp)	Post (Dp)	Pre	Post
Teamwork spirit	70.67 (13.32)	73 (19.40)	64.82 (14.37)	68.56 (15.19)	73.53 (13.13)	69.88 (18.86)	65.85 (15.15)	70.93 (12.99)	62.99 (16.21)	66.39 (11.21)	0.19*	0.89+
Security feel	63.56 (17.30)	72.25 (29.91)	56.82 (13.40)	63.33 (17.15)	58.73 (18.52)	58.88 (11.61)	54.35 (15.39)	60.06 (16.35)	59.20 (13.61)	63.67 (13.43)	0.60*	0.96+
Job satisfaction	76.67 (12.50)	86.25 (13.15)	78.64 (14.15)	85.56 (10.44)	87.67 (12.79)	80 (19.64)	80.30 (19.09)	83.06 (16.64)	66.65 (20.55)	76.22 (13.73)	0.04+	0.33+
Perception of stress	73 (31.13)	61 (42.82)	73.91 (17.47)	72.44 (23.29)	91.33 (7.82)	95.38 (8.66)	75.70 (28.04)	77.89 (21.54)	72.50 (26.35)	85.39 (17.98)	0.17+	0.03+
Perception of unit management	64.78 (26.46)	67.50 (27.23)	66.64 (26.78)	67.22 (28.18)	71.67 (16.65)	68.13 (28.15)	70.07 (22.48)	70.00 (18.09)	53.94 (17.22)	54.80 (12.95)	0.10+	0.17+
Perception of hospital management	47.11 (27.03)	52 (23.79)	43.45 (21.67)	40.11 (16.23)	42.47 (15.57)	35.13 (18.25)	41.65 (19.17)	53.94 (20.13)	32.15 (16.69)	33.61 (16.84)	0.02*	0.01+
Work conditions	63.22 (30.77)	46.75 (34.71)	48.45 (16.36)	64 (21.90)	54.93 (19.24)	46.13 (14.88)	53.30 (21.38)	54.89 (29.07)	48.00 (23.38)	53.83 (18.07)	0.35+	0.26+

Source: elaborated by the authors, 2016. * Anova One-Way Test; + Kruskal-Wallis test; sd - standard deviation.

Table 5 - Average of safety culture scores and standard deviation per domain distributed by time of professional performance in pre and post-educational interventions based on the evaluation of nursing professionals from a university hospital in the South of Brazil. Florianópolis-SC, Brazil. 2016

Category	Pre (Dp)	Post (Dp)	P value (pre) *	P value (post)
Teamwork spirit				
Less than 6 months	79.00 (-)	-	0.45	0.27
6 to 11 months	74.25 (16.00)	70.67 (11.15)		
1 to 2 years	72.57 (15.37)	57 (19.46)		
3 to 4 years	63 (13.02)	67.71 (14.51)		
5 to 10 years	68.40 (14.58)	69.44 (11.56)		
11 to 20 years	66.88 (16.66)	68.07 (13.52)		
21 years old or more	73.09 (12.91)	75.11 (12.74)		
Security feel				
Less than 6 months	78.00 (19.79)	-	0.13	0.50
6 to 11 months	67.50 (8.26)	69 (23.58)		
1 to 2 years	60.71 (15.28)	51 (11.35)		
3 to 4 years	60.25 (12.98)	65.29 (11.48)		
5 to 10 years	56.20 (19.21)	56.11 (10.11)		
11 to 20 years	55.59 (12.66)	63.53 (15.80)		
21 years old or more	65.82 (17.14)	71.33 (19.28)		
Job satisfaction				
Less than 6 months	80.00 (7.07)	-	0.45	0.06
6 to 11 months	76.25 (12.50)	75.67 (4.04)		
1 to 2 years	77.14 (17.52)	65 (13.22)		
3 to 4 years	76.25 (11.26)	75.71 (12.72)		
5 to 10 years	83.40 (13.16)	84.44 (11.02)		
11 to 20 years	77.94 (15.71)	82.67 (12.08)		
21 years old or more	80 (16.12)	86.67 (15.81)		
Perception of stress				
Less than 6 months	65.50 (13.43)	-	0.31	0.02
6 to 11 months	73.50 (15.80)	81.33 (16.44)		
1 to 2 years	81.14 (20.17)	91.67 (14.43)		
3 to 4 years	74.13 (25.39)	97.43 (4.72)		
5 to 10 years	83.87 (20.53)	94.56 (10.45)		
11 to 20 years	74.71 (29.27)	78.87 (21.34)		
21 years old or more	78.45 (27.56)	71.33 (32.38)		
Perception of unit management				
Less than 6 months	70.00 (-)	-	0.76	0.50
6 to 11 months	50.00 (-)	68.33 (5.77)		
1 to 2 years	57.86 (21.57)	51.67 (15.27)		
3 to 4 years	62.50 (19.82)	62.14 (20.38)		
5 to 10 years	67.67 (27.76)	71.11 (21.18)		
11 to 20 years	66.59 (19.72)	68.47 (18.13)		
21 years old or more	68.64 (23.67)	61.67 (25.98)		

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Table 5 - Average of safety culture scores and standard deviation per domain distributed by time of professional performance in pre and post-educational interventions based on the evaluation of nursing professionals from a university hospital in the South of Brazil. Florianópolis-SC, Brazil. 2016

Category	Pre (Dp)	Post (Dp)	P value (pre) *	P value (post)
Perception of hospital management				
Less than 6 months	55.00 (12.72)	-	0.11	0.01
6 to 11 months	58.25 (20.32)	52.33 (21.59)		
1 to 2 years	39.43 (20.99)	35.67 (20.20)		
3 to 4 years	36.13 (12.90)	43.43 (12.88)		
5 to 10 years	42.60 (15.26)	27.78 (7.62)		
11 to 20 years	33.29 (24.46)	49.60 (14.12)		
21 years old or more	43.91 (22.73)	50.33 (25.69)		
Work conditions				
Less than 6 months	65.50 (21.92)	-	0.22	0.06
6 to 11 months	75.00 (13.73)	62.33 (12.50)		
1 to 2 years	52.71 (18.54)	43.67 (27.30)		
3 to 4 years	54.00 (15.01)	56.14 (14.08)		
5 to 10 years	48.27 (20.58)	34.00 (19.44)		
11 to 20 years	48.94 (25.66)	56.27 (23.77)		
21 years old or more	62.82 (28.24)	61.89 (22.04)		

Source: elaborated by the authors, 2016. * Kruskal-Wallis test; sd - standard deviation.

The results regarding the time of professional performance in the specialty in which they work are presented in Table 5. The evaluations for the category less than six months were impaired due to the sample loss in the post-intervention period.

From this study, it was observed that the educational interventions through dialogic expository classes allowed to increase the knowledge about the patient's safety, leading the professionals to discuss the subject. The short duration of a training and the accomplishment in the work place, respecting the work dynamics, facilitated the participation of the professionals in this study.

The lack of professionals in Brazilian public hospitals is a reality and entails problems and difficulties for Nursing.⁹ Nursing absenteeism is a problem that requires special attention, as it interferes with the quality of care, represents disorders for the organization of work and also overwhelms the other members of the team, which can lead to the sickness of more professionals.¹⁰ In this way, exhaustion syndrome can occur, with physical and emotional exhaustion related to work, known as burnout.¹¹

The results, based on the educational interventions, show that these meetings made it possible to increase the scores, although not statistically significant, in the areas of team work climate, safety climate, work satisfaction and stress perception. It is emphasized that the management's perception of both the hospital and the unit decreased scores, the latter being statis-

tically significant (p-value: 0.02), reinforcing the previous negative assessment.

Similar results regarding the domain management perception were found in other studies. One of these studies obtained negative and decreased scores in the management perception after the application of training sessions in patient safety to health professionals. From these results, the researchers reinforce the importance and necessity of the improvement in the management work in health organizations.¹²⁻¹⁴

Similar results regarding the domain management perception were found in other surveys.^{3,14} One of them obtained negative and diminished scores in the perception of the management after the application of training sessions in patient safety to health professionals. Based on these results, researchers reinforce the importance and need for improvement in management work in health organizations.¹⁵

Another important role for nurses who perform a team management function, related to the form of support to the team member who has been involved in an error situation, is also important. Health professionals who are involved in an error often become "second victims" in the sense that they are traumatized after the event, with personal and professional distress in a significant way, being essential that in the occurrence of errors the nurses of the line aware of the importance of supporting them.^{14,16}

It is believed that half of health workers can experience being a "second victim" at some point in their professional life.

Given this situation, the best answer that the nurse manager can have is to support, listen, compassionate, understanding the difficulty of coping with this situation.¹⁶

The results also revealed that the mean scores associated with working conditions remained unchanged after the educational interventions, with the second lowest value of safety culture assessment. In this context, these values show that there was no influence of the meetings in relation to working conditions, since the perception of these nursing professionals regarding the work environment and logistical support (human resources, equipment) remained unchanged.

However, the mean scores increased in all domains in nursing technicians / assistants' evaluations. Thus, this kind of educational activity contributed to the knowledge about patient safety for these professionals, possibly since some participants stated that they did not know the subject during the meetings.

The perception of stress portrays that workers understand that working conditions can create stressors that make them unable to do their job properly and as expected, with increased likelihood of making mistakes, reflecting in a better understanding of the role that stress ability to exercise safe care.¹⁷

It is believed that efforts to increase a patient's safety culture are unlikely to bring immediate results to an institution, since a change from hospitals to safer organizations will require time to show positive, visible, and long-lasting effects.¹⁵

An integrative review carried out in Brazil on the production of patient safety culture at the national level highlights the results that resemble those found in the present study. There is a predominance of negative scores in surveys that measure the safety culture in Brazilian hospitals, indicating the existence of punitive culture in organizations and, therefore, the need for improvements and involvement of all to change this reality.¹⁸

In this context, emphasis is placed on the need for change planning in favor of strengthening a safety culture, which is a cornerstone of security issues, to enhance the accountability of each professionals to accept follow-up when their behavior is not consistent with safety principles.^{19,20}

In the university hospital, where this study was carried out, the actions of change planning can be implemented in a differentiated way for each sector, respecting the characteristics of each unit, its potentialities and its fragilities, using as reference the evaluations presented here. The overall mean score in all five sectors was below 75, but one of the sectors had an even more negative assessment after the intervention. On the other hand, sector 5, although with an increase in the scores in the evaluation after the educational interventions, remains with the evaluation of the most fragile security culture among all five sectors, reinforcing the need for actions, especially with nursing professionals, to ensure safe care.

CONCLUSION

Educational interventions regarding patient safety with nursing professionals from adult hospitalization units at a university hospital resulted in improved scores in four domains: team-work climate, safety climate, job satisfaction and stress perception, however without statistical significance. Although scores increased in these domains, the results of the evaluation emphasize that most scores indicate weaknesses in the safety culture, especially in the perception of hospital management, in which professionals reprove the work performed by hospital management in relation to patient safety. And this shows that there is a need for more involvement of this management regarding the active actions of positivation of the patient's safety culture.

Thus, improving and promoting a patient safety culture must be a concern of each health unit, each team and each individual professional, as everyone can and should contribute to this process. However, management responsibility is one of the major roles in the challenge of improving existing patient safety deficits. It is suggested to incorporate educational activities with regular frequency, of short duration, to be carried out in the workplace with the objective of discussing questions about patient safety with all professionals, especially with hospital managers and managers of units.

As a limitation of the study, the sample loss of 22 participants (health leave), the performance of two educational interventions and the difficulty to gather the professionals to participate in the interventions are indicated, compromising some evaluations and generalization of the results.

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