

## Organizational safety climate in relation to Standard Precautions according to nursing professionals

*Clima de segurança organizacional em relação às Precauções-Padrão segundo profissionais de enfermagem*

*Clima de seguridad organizacional en relación con las precauciones estándar según los profesionales de enfermería*

 Gabriela da Cunha Januário<sup>1</sup>,  Lucas Daniel Soares de Oliveira<sup>2</sup>,  Lucas Fernando Antunes Gomes<sup>3</sup>  
 Fernanda Daniela Dornelas Nunes<sup>1</sup>,  Letícia Pimenta Lopes<sup>3</sup>,  Silmara Elaine Malaguti Toffano<sup>3</sup>

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### Abstract:

**Objective:** to evaluate the safety climate in relation to Standard Precautions according to nursing professionals.

**Methods:** an inferential, cross-sectional study was conducted between August 2022 and September 2023 with nursing professionals from a hospital in the State of Minas Gerais, Brazil. Data collection involved a demographic questionnaire and the Safety Climate Scale. Descriptive and inferential statistics were used. All ethical aspects were considered.

**Results:** 381 professionals participated, of which 79.8% were female, with a mean age of 40.3 years (SD ±9.65). The nursing staff showed low average scores on all items of the scale, ranging from 1.66 (supervisor support) to 3.10 (senior management involvement in safety). In dimension 1: *Managerial actions to support safety* (t=0.752; p=0.452), and in dimension 2: *Feedback on safe practices* (t=0.153; p=0.071), there was no difference between the average score of nurses compared to other professional categories. **Conclusion:** the perception of the safety climate by nursing professionals showed a low average for both dimensions of the instrument, and measures should be promoted to establish a safer environment for both professionals and patients under their care.

**Descriptors:** Organizational culture; Universal precautions; Nursing; Change management; Health organizations.

### Resumo:

**Objetivo:** avaliar o clima de segurança em relação às Precauções-Padrão segundo profissionais de enfermagem.

**Método:** estudo inferencial, transversal, realizado entre agosto de 2022 e setembro de 2023, com profissionais de enfermagem de um hospital mineiro. Para a coleta de dados, foram utilizados um questionário demográfico e a Escala de Clima de Segurança. Foi utilizado estatística descritiva e inferencial. Todos os aspectos éticos foram contemplados.

**Resultados:** participaram 381 profissionais, dos quais 79,8% eram do sexo feminino, com média de idade de 40,3 anos, (DP ±9,65). Nos itens da escala, a equipe de enfermagem apresentou média baixa para todos os itens, uma vez que os valores variaram de 1,66 (apoio do supervisor) a 3,10 (envolvimento da alta gerencia em segurança). Na dimensão 1: *Ações gerenciais de apoio à segurança* (t=0,752; p=0,452), e pela dimensão 2: *Feedback das práticas seguras*, (t=0,153; p=0,071), não apresentando diferença entre a média do escore dos enfermeiros se comparado às demais categorias profissionais. **Conclusão:** a percepção do clima de segurança pelos profissionais de enfermagem apresentou média baixa para as duas dimensões do instrumento, devendo-se promover medidas que possam estabelecer um ambiente mais seguro tanto para os profissionais quanto para os pacientes sob seus cuidados.

**Descritores:** Cultura organizacional; Precauções universais; Enfermagem; Gestão de mudança; Organizações em saúde.

### Resumen:

**Objetivo:** evaluar el clima de seguridad en relación con las precauciones estándar según los profesionales de enfermería.

**Método:** estudio inferencial transversal, realizado entre agosto de 2022 y septiembre de 2023, con profesionales de enfermería de un hospital de Minas Gerais, Brasil. Para la recopilación de datos, se utilizó un cuestionario demográfico y la Escala de Clima de Seguridad. Se utilizaron estadísticas descriptivas e inferenciales. Se tuvieron en cuenta todos los aspectos éticos.

**Resultados:** participaron 381 profesionales, de los cuales el 79,8 % eran mujeres, con una edad media de 40,3 años (DP ±9,65). En los ítems de la escala, el equipo de enfermería presentó una media baja en todos los ítems, ya que los valores variaron de 1,66 (apoyo del supervisor) a 3,10 (implicación de la alta dirección en la seguridad). En la dimensión 1: *Acciones gerenciales de apoyo a la seguridad* (t=0,752; p=0,452), y en la dimensión 2: *Feedback de las prácticas seguras*, (t=0,153; p=0,071), no se observaron diferencias entre la media de la puntuación de los enfermeros en comparación con las demás categorías profesionales. **Conclusión:** la percepción del clima de seguridad por parte de los profesionales de enfermería presentó una media baja para las dos dimensiones del instrumento, por lo que se deben promover medidas que puedan establecer un entorno más seguro tanto para los profesionales como para los pacientes bajo su cuidado.

**Descriptores:** Cultura organizacional; Precauciones universales; Enfermería; Gestión del cambio; Organizaciones en salud.

**Corresponding Author:** Gabriela da Cunha Januário – gabriela\_cunha92@hotmail.com

1. Universidade do Estado de Minas Gerais, Passos/MG, Brazil

2. Fundação Hospital do Estado de Minas Gerais, Belo Horizonte/MG, Brazil

3. Universidade Federal do Triângulo Mineiro, Uberaba/MG, Brazil

**INTRODUCTION**

**S**tandard Precautions (SP) represent a set of measures that include the use of personal protective equipment (PPE), hand hygiene (HH), proper disposal of sharp objects, cough etiquette, surface cleaning and disinfection, and safe injection practices<sup>1-4</sup>, and should be adopted by all individuals, regardless of their serological status<sup>3,4</sup>.

Although widely publicized, the use of SP still lacks attention, as it has a low level of compliance by health professionals and, consequently, a higher risk of exposure to biological material<sup>5,6</sup>. In this context, the nursing team stands out for the highest number of occupational accidents, since it has a large contingent of professionals in health facilities and performs bedside care activities 24 hours a day, with contact with body fluids such as blood and other potentially contaminated secretions<sup>7</sup>.

Considering that adherence to PPE can be influenced by the safety climate, which is the shared perception of professionals regarding safety in the work environment<sup>8</sup>, it is necessary to develop strategies for analyzing the institutional culture and implementing management actions<sup>9</sup>.

The professionals' perception of the safety climate allows for the identification of risk situations, increased adherence to PPE, minimization of occupational exposures involving potentially contaminated biological material, identification of adverse events, and the interrelation between different professional categories and management, since everyone is jointly responsible for changes and improvements in the work<sup>10,11</sup>. Furthermore, for a favorable safety climate, investments are needed in systematic error approaches, team training, and management actions that favor both the safety of the professional and the patient under their care, thus promoting higher quality health services<sup>12,13</sup>.

To assess the safety climate, instruments are used that allow for understanding the actions carried out in institutions. Among these, the Safety Climate Questionnaire, adapted and validated<sup>14</sup>, stands out. This instrument is divided into two domains: "*Managerial actions to support safety*", related to management's commitment to safety in the workplace, through support policies and the definition of actions; and "*Feedback on safe practices*", which concerns policies for controlling safe practices, carried out by both supervisors and colleagues<sup>14</sup>. Although the validation of this instrument occurred more than a decade ago, its use is still limited.

Thus, it is necessary to understand the safety climate perceived by the nursing staff, in order to increase adherence to safety measures and minimize the exposure of nursing professionals to occupational accidents involving biological material.

In this sense, this investigation was guided by the following questions: *What is the perception of the safety climate among the nursing staff of a teaching hospital in the context of "Managerial actions to support safety" and "Feedback on safe practices" carried out by supervisors or colleagues? Are there significant associations between the demographic and occupational profile of these professionals?* Therefore, this study aims to evaluate the safety climate regarding standard precautions according to nursing professionals.

## METHODS

This is an inferential, cross-sectional study with a quantitative approach, conducted between August 2022 and September 2023 at a medium to high-complexity teaching hospital with a capacity of 306 beds, serving 27 municipalities in the State of Minas Gerais, Brazil. The institution offers outpatient, emergency, and urgent care services, inpatient care, diagnostic and therapeutic support, health surveillance, health regulation and evaluation, and mobile clinics, being the only hospital with outsourced high-complexity care in the Triângulo Sul macro-region.

Nursing assistants, nursing technicians, and nurses were invited to participate in the study. Inclusion criteria were: working in direct patient care during the data collection period. Those who performed management activities and those on indefinite sick leave were excluded.

To obtain a list of the professionals, the hospital's Nursing Division was requested to provide names and areas of activity. Next, the selected participants were approached individually at their workplace and invited to participate in the study. After clarification regarding the study's objectives, confidentiality, and anonymity, all professionals were invited to sign the Free and Informed Consent Form (FICF), the demographic questionnaire, and the Safety Climate Scale.

For the sample size calculation, five to ten respondents were used for each parameter of the instrument in its factor analysis<sup>15</sup>.

The Safety Climate Scale was validated by Brevidelli MM, Cianciarullo TI<sup>14</sup>, and is characterized as a 12-item Likert-type instrument, with scores ranging from 1 (strongly disagree) to 5 (strongly agree). Its items are distributed across two domains: "Managerial actions to support safety" (items 01 to 07) and "Feedback on safe practices" (items 08 to 12). The Safety Climate Scale classifies its scores as low when values are less than 3.5; Intermediate, between 3.5 and 4.49; and high, above 4.5<sup>14</sup>.

The data initially collected were double-entered into an Excel<sup>®</sup> spreadsheet (version 16.0, 2019, Microsoft Corporation, United States of America) and described using frequencies

and percentages. Descriptive statistics with measures of central tendency (mean) and dispersion (standard deviation) were used to characterize the sample. Student's t-test was used to compare means, considering  $p \leq 0.05$ .

Regarding ethical aspects, authorization was obtained for the adaptation and validation of the Safety Climate Scale for its use in this study. The research was approved by the Research Ethics Committee (CEP) on July 20, 2022, with the Certificate of Presentation for Ethical Review (CAAE: 32311220.7.0000.8667), opinion number: 5.536.112, and all ethical aspects were safeguarded, considering Resolution No. 466/2012.

## RESULTS

The study included 381 nursing professionals, of which 268 (70.3%) were nursing technicians and assistants, the majority being female (304 - 79.8%), aged between 22 and 71 years (mean = 40.3, SD  $\pm$ 9.65). Of this total, 181 (44.5%) worked in the hospital wards, as shown in Table 1.

**Table 1.** Characterization of nursing professionals (n=381), Uberaba, Minas Gerais, Brazil, 2022-2023.

Variables	n	%
<b>Sex</b>		
Female	304	79.8
Male	77	20.2
<b>Age</b>		
21 to 30	41	10.8
31 to 40	144	37.8
41 to 50	128	33.6
51 to 60	36	9.4
$\geq$ 61	21	5.5
Did not answer	11	2.9
<b>Marital status</b>		
Single	132	34.6
Married	173	45.4
Other	76	20.0
<b>Professional category</b>		
Nurse	113	29.7
Nursing technician or assistant	268	70.3
<b>Work sector</b>		
High complexity units	165	40.5
Infirmaries	181	44.5
Other	61	15.0

Table 2 describes the responses of nursing professionals according to the items on the Safety Climate scale, highlighting important findings such as the supervisor's lack of concern for the professional's safety 44 (11.6%), and the insecurity in reporting violations of conduct norms 105 (27.6%).

**Table 2.** Responses from nursing professionals according to items on the Safety Climate scale (n=381), Uberaba, Minas Gerais, Brazil, 2022-2023.

Scale items	Strongly agree		Agree		Undecided		Disagree		Strongly disagree	
	n	%	n	%	n	%	N	%	n	%
1. In this hospital, employees, supervisors, and managers work together to ensure safer working conditions	87	22.8	174	45.7	61	16.0	48	12.6	11	2.9
2. In this hospital, all possible measures are taken to reduce dangerous tasks and procedures	36	9.4	159	41.7	91	23.9	79	20.7	16	4.2
3. In this hospital, senior management is personally involved in safety activities	31	8.1	84	22.0	129	33.9	89	23.4	48	12.6
4. My supervisor cares about my safety at work	85	22.3	206	54.1	46	12.1	33	8.7	11	2.9
5. In this hospital, there is a safety committee	107	28.1	172	45.1	80	21.0	16	4.2	06	1.6
6. I feel comfortable reporting violations of safety standards in the hospital	52	13.6	126	33.1	98	25.7	80	21.0	25	6.6
7. Preventing occupational exposure to HIV* is a management priority in this hospital	37	9.7	110	28.9	120	31.5	92	24.1	22	5.8
8. In this hospital, unsafe work practices are corrected by supervisors	63	16.5	192	50.4	66	17.3	49	12.9	11	2.9
9. Employees are notified when they do not follow the SP	95	24.9	184	48.3	48	12.6	44	11.5	10	2.6
10. My supervisor supports me in using the SP	169	44.4	184	48.3	18	4.7	08	2.1	02	0.5
11. In my work unit, employee adherence to safety protocol recommendations is part of performance evaluation	158	41.5	166	43.6	24	6.3	24	6.3	09	2.4
12. In this hospital, unsafe practices are corrected by colleagues	38	10.0	169	44.4	81	21.3	85	22.3	08	2.1

Key: \*HIV = *Human Immunodeficiency Virus*; SP = Standard Precautions.

Regarding the participants' scores on the instrument, Table 3 presents the mean and standard deviation for each item on the Safety Climate scale, with values ranging from 1 to 5. The lowest mean score for the participants was 1.66, while the highest was 3.10.

**Table 3.** Scores for each item on the Safety Climate scale (n=381). Uberaba, Minas Gerais, Brazil, 2022-2023.

Items from the Safety Climate Scale	Mean	Standard Deviation
13. In this hospital, employees, supervisors, and managers work together to ensure safer working conditions	2,27	1,04
14. In this hospital, all possible measures are taken to reduce dangerous tasks and procedures	2,69	1,03
15. In this hospital, senior management is personally involved in safety activities	<b>3,10</b>	1,13
16. My supervisor cares about my safety at work	2,16	0,96
17. In this hospital, there is a safety committee	2,06	0,89
18. I feel comfortable reporting violations of safety standards in the hospital	2,74	<b>1,13</b>
19. Preventing occupational exposure to HIV is a management priority in this hospital	2,87	1,06
20. In this hospital, unsafe work practices are corrected by supervisors	2,35	0,99
21. Employees are notified when they do not follow the SP	2,19	1,02
22. My supervisor supports me in using the SP	<b>1,66</b>	0,71
23. In my work unit, employee adherence to safety protocol recommendations is part of performance evaluation	1,85	0,96
24. In this hospital, unsafe practices are corrected by colleagues	2,62	1,00

Regarding the data presented in Table 4, when comparing the variables sex, professional category, and work sector, none of them showed a statistically significant difference in the average scores of the Safety Climate scale for dimensions 1 and 2.

**Table 4.** Average score on the Safety Climate scale according to nursing professionals (n=381), Uberaba, Minas Gerais, Brazil, 2022-2023.

Variables	n	Dimension 1		Dimension 2	
		Average score	P-value	Average score	P-value
<b>Sex</b>					
Female	304	2.47	0.225	2.11	0.278
Male	77	2.56	(1.225)*	2.20	(-0.153)*
<b>Professional category</b>					
Nurse	113	2.59	0.452	2.23	0.071
Nursing technician or assistant	268	2.53	(0.752)*	2.09	(0.153)
<b>Work sector</b>					
High complexity	145	2.54	0.906	2.10	0.761
Infirmaries	179	2.55	(-0.118)	2.12	(-0.275)

Key: \*T; †n=324

## DISCUSSION

The perception of the safety climate by professionals is essentially felt, it cannot be seen or touched, but its existence is real. For each individual, their perspective corresponds to a set of actions and attitudes that reflect the organization, and may refer to the environment, behaviors, or autonomy of professionals. Thus, the safety climate maps the internal environment of the institution, highlighting satisfactions, uncertainties, tensions, and anxieties, being a portrait of the problems experienced in that place<sup>16</sup>.

The participants' responses to the Safety Climate Scale showed that, for all items of the instrument, the participants presented low averages, mainly related to supervisor support regarding adherence to safety protocols and their use as part of the performance evaluation of nursing staff in health services. This is worrying, since nursing professionals are the employees most exposed to occupational accidents involving biological material<sup>17</sup>, and their perception of the organizational safety climate shows a weakness in the support structure, in the incentive and support from management regarding adherence to compliance measures in the work environment, which makes it an unsafe place.

A study conducted at a university hospital in southern Brazil, with the nursing staff, demonstrated that the professionals' perception of the safety climate is related to management's commitment to occupational safety<sup>18</sup>. Corroborating this information, a study comparing institutions found a statistically significant difference between them regarding the professionals' perception of the safety climate. Participants highlighted that the institution with greater involvement of management with the team, with active and effective guidance, obtained a better score on the Safety Climate Scale<sup>19</sup>.

In an investigation of a municipality in northeastern Brazil, average scores below the recommended level were found regarding the safety climate in the occupational environment of Basic Health Units. These professionals reported a scarcity of clinical care protocols and a lack of discussion by management about safe practices, thus indicating an excess of quantitative actions with little focus on quality<sup>20</sup>.

Another study pointed out that there are weaknesses in the safety culture related to healthcare professionals, especially in support for safe work practices, which shows difficulties in communication and feedback, and the presence of obstacles to safety<sup>21</sup>.

Regarding Table 3, concerning the sex of the participants, the average scores of the instrument for dimensions 1 and 2 showed low values, following the classification of the explanatory model of adherence to PPE<sup>22</sup>, with results lower than 3.5. The difference between

men and women was also not statistically significant ( $t=1.225$ ;  $p=0.225$ ;  $t=-0.153$ ;  $p=0.278$ ), which suggests that sex does not interfere with the scale score in this sample.

Regarding professional category, scores were also classified as low, and there was no statistically significant difference between nurses, technicians, and nursing assistants in relation to dimension 1: "Managerial actions to support safety" ( $t=0.752$ ;  $p=0.452$ ), and related to dimension 2: "Feedback on safe practices" ( $t=0.153$ ;  $p=0.071$ ), showing no difference between the average score of nurses compared to other professional categories.

Regarding the work sector, the average scores of the Safety Climate Scale were low for both domains, and there was no statistically significant difference for professionals working in high-complexity sectors or wards ( $t=-0.118$ ;  $p=0.906$ ;  $t=-0.275$ ;  $p=0.761$ ). Research has shown that understanding the concept of safety culture should involve the entire healthcare team, whether they are management or care professionals, regardless of the work environment<sup>23</sup>.

According to another study<sup>25</sup>, in order to achieve better quality of life at work, professional motivation and patient safety, an organized environment is necessary. Therefore, it is essential that institutions seek a culture of participation and empowerment, involving both professionals and managers. This will allow leaders to maintain an open dialogue with their teams and be receptive to suggestions aimed at improving mutual work, driving changes and improvements in the work environment<sup>24-26</sup>.

## CONCLUSION

The study presented low averages for all items of the instrument, both for the dimension "Managerial actions to support safety" and for "Feedback on safe practices." Furthermore, when comparing the variables sex, professional category, and work sector in relation to the scale score, there was no statistically significant difference between the groups.

These results are important and concerning, since the perception of a safe environment is essential for promoting appropriate conduct, with adherence to safety protocols by healthcare professionals, consequently reducing accidents involving potentially contaminated biological material and improving care for the user under their care.

As a limitation, this research points out the fact that the instrument was applied in a single hospital setting in the municipality, and therefore, the responses may vary if other institutions are considered. It is also important to emphasize that cross-sectional studies do not allow the establishment of cause-and-effect relationships.



However, this study contributes relevant data to the research area, as it addresses failures in the safety climate, which can lead to harm to the health of nursing staff and patient safety.

Therefore, it is essential that managerial actions be implemented in health services, aiming to improve the perception of a safe work environment, and that feedback practices be carried out in order to encourage correct conduct by professionals.

## REFERENCES

1. Verbeek JH, Rajamaki B, Ijaz S, Tikka C, Ruotsalainen JH, Edmond MB, et al. Personal protective equipment for preventing highly infectious diseases due to exposure to contaminated body fluids in healthcare staff. *Cochrane Database Syst Rev.* [Internet]. 2019 [cited in 10 May 2024]; 4(4):CD011621. DOI: <http://dx.doi.org/10.1002/14651858.CD011621.pub3>
2. World Health Organization. Aide memoire. Standard precautions in health care [Internet]. Geneva, CH: WHO; 2007 [cited in 20 July 2024]. Available from: [https://cdn.who.int/media/docs/default-source/documents/health-topics/epr\\_am2\\_e77a9f9250-e9f7-4cc3-9e81-754f12b00c4d.pdf?sfvrsn=a568a3f9\\_1&download=true](https://cdn.who.int/media/docs/default-source/documents/health-topics/epr_am2_e77a9f9250-e9f7-4cc3-9e81-754f12b00c4d.pdf?sfvrsn=a568a3f9_1&download=true)
3. Dobrina R, Donati D, Giangreco M, Benedictis A, Schreiber S, Bicego L, et al. Nurses' compliance to standard precautions prior to and during COVID-19. *Int Nurs Rev.* [Internet]. 2023 [cited in 15 May 2024]; 71(1):20-7. DOI: <https://doi.org/10.1111/inr.12830>
4. Samur M, Intepeler SS, Lam SC. Adaptation and validation of the Compliance with Standard Precautions Scale amongst nurses in Turkey. *Int J Nurs Pract.* [Internet]. 2020 [cited in 11 June 2024]; 26(3):e12839. DOI: <https://doi.org/10.1111/ijn.12839>
5. Zeb S, Ali TS. Factors associated with the compliance of standard precaution; review article. *J Pak Med Assoc.* [Internet]. 2021 [cited in 7 May 2024]; 71(2(B)):713-7. DOI: <https://doi.org/10.47391/JPMA.416>
6. Pereira VH, Torres LN, Rodrigues NM, Monteiro DAT, Moraes JT, Pereira-Ávila FMV, et al. Cumprimento às precauções-padrão por profissionais de enfermagem e fatores associados. *Esc Anna Nery* [Internet]. 2021 [cited in 10 Apr 2024]; 25(3):e20200193. DOI: <https://doi.org/10.1590/2177-9465-EAN-2020-0193>
7. Lebni JY, Azar FE, Sharma M, Zangeneh A, Kianipour N, Azizi SA, et al. Factors affecting occupational hazards among operating room personnel at hospitals affiliated in Western Iran:

- a cross-sectional study. *J Public Health (Berl)* [Internet]. 2020 [cited in 14 May 2024]; 29:1225-32. DOI: <https://doi.org/10.1007/s10389-019-01169-y>
8. Magalhães FHL, Pereira ICA, Luiz RB, Barbosa MH, Ferreira MBG. Patient safety atmosphere in a teaching hospital. *Rev Gaúcha Enferm.* [Internet]. 2019 [cited in 17 July 2024]; 40(N Esp):e20180272. DOI: <https://doi.org/10.1590/1983-1447.2019.20180272>
9. Padilha RQ, Gomes R, Lima VV, Soeiro E, Oliveira JM, Schiesari LMC, et al. Principles of clinical management: connecting management, healthcare and education in health. *Ciênc Saúde Colet.* [Internet]. 2018 [cited in 5 May 2024]; 23(12):4249-57. DOI: <https://doi.org/10.1590/1413-812320182312.32262016>
10. Silva AEBC, Cavalcante RGF, Lima JC, Sousa MRG, Sousa TP, Nunes RLS. Evaluation of the patient safety climate in hospitalization units: a cross-sectional study. *Rev Esc Enferm USP* [Internet]. 2019 [cited in 16 May 2024]; 53:e03500. DOI: <https://doi.org/10.1590/S1980-220X2018027203500>
11. Heidmann A, Trindade LF, Schmidt CR, Loro MM, Fontana RT, Kolankiewicz ACB. Contributive factors for the consolidation of patient safety culture in the hospital environment. *Esc Anna Nery* [Internet]. 2019 [cited in 10 June 2024]; 24(1):e20190153. DOI: <https://doi.org/10.1590/2177-9465-EAN-2019-0153>
12. Galvão TF, Lopes MCC, Oliva CCC, Araújo MEA, Silva MT. Patient safety culture in a university hospital. *Rev Latinoam Enferm.* [Internet]. 2018 [cited in 20 May 2024]; (26):e3014. DOI: <https://doi.org/10.1590/1518-8345.2257.3014>
13. Pinto AAM, Santos FT. Segurança do paciente: concepção e implantação da cultura de qualidade. *Braz J Dev.* [Internet]. 2020 [cited in 23 May 2024]; 6(3):9796-809. DOI: <https://doi.org/10.34117/bjdv6n3-018>
14. Brevidelli MM, Cianciarullo TI. Psychosocial and organizational factors relating to adherence to standard precautions. *Rev Saúde Pública* [Internet]. 2009 [cited in 10 Jan 2024]; 43(6):907-16. DOI: <https://doi.org/10.1590/S0034-89102009005000065>
15. Kline RB. Principles and practice of structural equation modeling. 3. ed. New York: Guilford Press; 2010.
16. Keller E, Aguiar MAF. Análise crítica teórica da evolução do conceito de clima organizacional. *Terra Cult.* [Internet]. 2020 [cited in 26 July 2024]; 20(39):91-113. Available from: <http://periodicos.unifil.br/index.php/Revistateste/article/view/1314/1202>
17. Passos EAD, Marziale MHP. Conhecimento e atitudes de profissionais de enfermagem de um hospital paulista frente as precauções padrão. *Cogitare Enferm.* [Internet]. 2020 [cited in 26 Oct 2025]; 25:e66744. DOI: <http://dx.doi.org/10.5380/ce.v25i0.66744>

18. Cunha QB, Freitas EO, Magnano TSBS, Brevidelli MM, Cesar MP, Camponogara S. Association between individual, work-related and organizational factors and adherence to standard precautions. *Rev Gaúcha Enferm.* [Internet]. 2020 [cited in 10 Sep 2024]; 41:e20190258. DOI: <https://doi.org/10.1590/1983-1447.2020.20190258>
19. Cunha QB, Freitas EO, Dal Pai D, Santos JLG, Silva RM, Camponogara S. Adherence to standard precautions in university hospitals during the COVID-19 pandemic: a mixed study. *Rev Esc Enferm USP* [Internet]. 2024 [cited in 10 Aug 2024]; 58:e20230289. DOI: <https://doi.org/10.1590/1980-220X-REEUSP-2023-0289en>
20. Vasconcellos PF, Carvalho REFL, Souza Neto PH, Dutra FCS, Sousa VTS, Oliveira SKP, et al. Patient safety atmosphere in primary health care: root cause analysis. *REME Rev Min Enferm.* [Internet]. 2021 [cited in 26 July 2014]; 25:e-1371. DOI: <https://doi.org/10.5935/1415-2762-20210019>
21. Freitas EO, Flores AND, Antunes LD, Foggiato T, Cunha QB, Siqueira DF. Occupational safety climate in a psychosocial care unit: the perception of nursing workers. *Revista de Enfermagem Referência* [Internet]. 2021 [cited in 10 Oct 2024]; 5(Supl 8):e21009. DOI: <https://doi.org/10.12707/RV21009>
22. Brevidelli MM. Modelo explicativo da adesão às precauções-padrão: construção e aplicação [Internet]. [Tese]. São Paulo: Universidade de São Paulo; 2003 [cited in 25 Aug 2024]. Available from: <https://repositorio.usp.br/item/001317634>
23. Feitosa KMMMF, Braz AO, Reis LK, Paes GO. Cultura de segurança nos ambientes de cuidado à saúde: protocolo de revisão de escopo. *Contrib Cienc Soc.* [Internet]. 2024 [cited in 11 May 2024]; 17(1):3611-21. DOI: <https://doi.org/10.55905/revconv.17n.1-215>
24. Borges EMN, Queirós CML, Vieira MRFSP, Teixeira AAR. Perceptions and experiences of nurses about their performance in the COVID-19 pandemic. *Rev Rene* [Internet]. 2021 [cited in 10 May 2024]; 22:e60790. DOI: <http://dx.doi.org/10.15253/2175-6783.20212260790>
25. Rodrigues FMA, Pereira RPG, Martins MM. Organizational culture towards change in a hospital setting: a nursing perspective. *Acta Paul Enferm.* [Internet]. 2023 [cited in 10 Jan 2024]; 36:eAPE00551. DOI: <https://doi.org/10.37689/acta-ape/2023A0005511>
26. Carvalho EMP, Brito CLM, Villas MBP, Muniz GC, Gottens LBD, Baixinho CRSL. Difficulties and potentialities related to the organizational climate of nursing staff in a public hospital. In: Fornari L, Oliveira ESF, Oliveira C, Faria BM, Ribeiro J, editores. *Investigação qualitativa em saúde: avanços e desafios* [Internet]. 2022 [cited in 2 May 2024]; 13:e642. DOI: <https://doi.org/10.36367/ntqr.13.2022.e642>

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