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ORIGINAL ARTICLE

SAFETY CLIMATE IN THE SURGICAL ENVIRONMENT: A QUALITATIVE STUDY[1]

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ABSTRACT

Objective: To understand the perception of multidisciplinary teams in university surgical centers regarding safety climate domains during the COVID-19 pandemic. **Method:** This is a qualitative, descriptive-exploratory study conducted in two university hospitals. We developed a semi-structured interview guide based on the domains of the Safety Attitudes Questionnaire/Operating Room. Data were collected between February and May 2021 and between June and July 2022, following participant consent and the signing of the Informed Consent Form. We analyzed the data using IRaMuTeQ. **Results:** Communication was perceived as challenging in both settings. Management was considered responsive to the challenges of the pandemic, particularly in providing personal protective equipment; however, the exchange of information between leadership and staff was deemed insufficient. Healthcare professionals experienced fear, anxiety, and physical and mental exhaustion. **Final considerations:** Management must advance by engaging collaboratively with professionals, listening to them, and moving away from a punitive culture. Promoting learning from errors and creating spaces that prioritize professionals' mental health are key strategies for improvement.

Keywords: Organizational culture. Surgicenters. Nursing. Patient safety. COVID-19.

INTRODUCTION

Safety culture encompasses the understanding of values, beliefs, attitudes, perceptions, competencies, and behavioral standards at both individual and collective levels. Healthcare managers adopt it as an essential tool for improving care quality by identifying the factors that strengthen safety attitudes within organizations[1].

Consequently, the patient safety climate is closely related to safety culture, as it represents individuals' perceptions and the practices that reflect habits and beliefs based on this culture. It is considered a critical aspect for improving patient safety and serves as the measurable component of safety culture[1].

Various factors influence the patient safety climate, significantly affecting the quality of healthcare services provided. Measuring the safety climate in healthcare institutions goes beyond providing a situational diagnosis; it also supports the planning of improvement strategies, focusing on domains that require enhancement and on the intrinsic and extrinsic factors affecting professionals that demand greater attention[2].

In healthcare facilities, the surgical center is recognized as a restricted unit, characterized by critical care and complex procedures performed under high-pressure and stressful conditions. It requires teamwork among professionals with distinct cultural identities, all working toward ensuring safe surgical care.

Assessing patient safety in the surgical environment involves considering aspects of organizational culture, the patient safety climate, and the specificities of work processes. To this end, a validated instrument, translated and

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adapted for Brazilian culture, is available—the Safety Attitudes Questionnaire/Operating Room (SAQ/OR)—which enables a situational diagnosis of the surgical environment's safety climate [2].

However, in atypical situations such as the COVID-19 pandemic, a qualitative approach is necessary to understand professionals' perceptions regarding safety attitudes. In 2020, the world faced the outbreak of COVID-19, an infectious disease caused by the SARS-CoV-2 coronavirus. The pandemic was considered an external shock to the system, affecting the planned volume of surgical procedures. During this period, scheduled surgeries were postponed, leading to changes in waiting lists and prioritization criteria for surgical interventions[3].

Understanding the patient safety climate in surgical settings across different institutions and contexts is valuable, as it helps to identify variations, illustrating both divergences and convergences and guiding effective approaches to safety attitudes within these organizations[4]. Patient safety is a critical and priority component of healthcare quality, so advancing research on this topic is essential[1].

Furthermore, studies on patient safety are part of the World Health Organization's (WHO) priority health agenda and align with Goal 3 of the 17 Sustainable Development Goals (SDGs) established by the United Nations (UN), which aims to "ensure healthy lives and promote well-being for all at all ages." Within this goal, Target 3.8 focuses on achieving universal health coverage by ensuring access to quality and safe essential health services for all[5].

As a complementary part of the priority health agenda, the Patient Safety Research initiative encourages studies that promote a safety culture in healthcare development and delivery and transform evidence into improved and measurable practices. These principles serve as guiding actions outlined in the Global Patient Safety Action Plan 2021–2030[6].

Based on the above, we formulated the following guiding question: "What are the perceptions of multidisciplinary teams in university hospital surgical centers regarding the domains of the safety climate during the COVID-19 pandemic?" This study aimed to understand the perceptions of multidisciplinary teams in university hospital surgical centers concerning the safety climate domains during the COVID-19 pandemic.

METHODOLOGY

Study design

This is a descriptive-exploratory study with a qualitative approach. For reporting this study, the *Consolidated Criteria for Reporting Qualitative Research (COREQ): a 32-item checklist for interviews and focus groups* was adopted.

Study setting

We conducted the study in two public university hospitals in the city of Rio de Janeiro. Both institutions provide healthcare services as well as undergraduate and graduate education, including professional residency programs and advanced research degrees. Hospital A has a patient safety unit, and its surgical center consists of six operating rooms and a post-anesthesia care unit (PACU). Hospital B is part of the Sentinel Network of the Brazilian Health Regulatory Agency (ANVISA). It has a patient safety unit, a surgical center with 20 operating rooms, a hybrid room dedicated to vascular surgery, a room exclusively for cardiac surgery and heart transplants, a robotic surgery room, and a post-anesthesia care unit.

Participants

The inclusion criteria were: professionals assigned to and working in the surgical center during the COVID-19 pandemic, with direct or indirect patient interaction, a minimum workload of 20 hours per week in the unit during data collection, and at least one month of experience in the study setting. The exclusion criteria were: professionals who were on leave during the pandemic due to vacation, medical leave, or classification as a high-risk group for COVID-19.

Convenience sampling was adopted to ensure the participation of all eligible professionals, including the nursing team (nurses and nursing technicians), the medical team (anesthesiologists and surgeons), and the support staff.

Data collection instrument

A semi-structured interview guide was used, containing six open-ended questions developed by the researchers at each hospital based on the domains of the Safety Attitudes Questionnaire/Operating Room (SAQ/OR)[4]. The questions included: *How do you assess the safety climate in the surgical environment during the COVID-19 pandemic?*; *How do you perceive*

the role of management?; *Regarding stress, how do you feel in your daily work during the COVID-19 pandemic?*; *How do you evaluate working conditions during the COVID-19 pandemic?*; *Regarding communication in the surgical environment, how do you assess information transmission and equipment availability during the COVID-19 pandemic?*; *How do you perceive and evaluate your professional performance during the COVID-19 pandemic?*

Data collection

Data collection at Hospital A took place between February and May 2021, while at Hospital B, it occurred between June and July 2022, following participant consent and the signing of the Informed Consent Form (ICF). We performed pilot interviews beforehand to ensure that the questions did not lead participants to specific answers and effectively addressed the study objectives.

We clarified all doubts in person beforehand, establishing rapport and explicitly stating the study's purpose. The interviews, lasting approximately 10 to 15 minutes, were conducted individually and in person by two of the study researchers at their respective sites and were recorded using digital devices with the participants' permission. The interviews were part of the researchers' Master's thesis project, both of whom had experience in the surgical field and research.

Considering the pandemic period, a physical distance of 1.5 meters was maintained between the researcher and participant, and both wore surgical face masks throughout the data collection process.

We determined the sample at Hospitals A and B based on data saturation, and no refusals or participant dropouts occurred in either setting. It is important to note that item 23 of the COREQ checklist, which addresses returning transcriptions to participants for comments and/or corrections, was not applied due to safety restrictions that prevented a return to the study site during the pandemic. However, to maintain the study's rigor and ensure no data loss, the recorded interviews were reviewed, and the transcriptions were double-checked by a third reviewer to confirm that no information was omitted.

Data analysis and processing

We analyzed the data using the software Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires (IRaMuTeQ)[8]. The texts were compiled into a single file and structured using command lines for corpus analysis. Each command line consisted of four asterisks, a blank space, an asterisk, the variable name, an underscore, and the participant number, followed by another blank space, an asterisk, the variable name, an underscore, and the code indicating the hospital where the participant worked. An example of a command line format is: **** *Enf_01 *Hosp_B.

The material was processed using Reinert's Method (Descending Hierarchical Classification), which segments the text through successive clustering based on the chi-square (χ^2) calculation of lexical occurrences related to the identified classes. This process generated a dendrogram, illustrating the hierarchical distribution of text segments. We then explored the text segments within each class to identify the thematic content, allowing us to name the classes, subcategories, and thematic axes in alignment with the software's segmentation.

Words with $\chi^2 < 3.80$ ($p < 0.05$) were excluded from the analysis, as they were not significantly associated with any specific class. To enhance the study's reliability and maintain consistency in the classification of thematic categories, three independent reviewers conducted the final analysis, ensuring agreement on the selection of class titles and the interpretation of text segments.

Aspectos éticos

The study was authorized by the hospital administration and the surgical center management of both hospitals and received approval from the Research Ethics Committees in 2021, under approval numbers 4.510.572 and 4.638.445. We ensured the anonymity and confidentiality of the collected data throughout the study.

To maintain participant confidentiality, we coded interviews according to professional categories as follows: *RN* for registered nurses and nursing technicians, *Sup* for support staff, *Anesth* for anesthesiologists, and *Sur* for surgeons. Each participant was identified with an Arabic numeral reflecting the order of their interview.

RESULTS

A total of 24 professionals participated in the study at Hospital A, including 10 nursing staff members, 7 anesthesiologists, 6 surgeons, and 1 support staff member. The interviewed participants were permanent employees with leadership roles in the operating room, surgical center management, and anesthesiology coordination. Regarding classical textual statistical analysis, the corpus consisted of 24 texts, divided into 667 text segments (TS), with 543 TS utilized (81.41%). We identified 23,613 word occurrences (words, forms, or vocabulary units), including 1,813 distinct words, of which 850 appeared only once.

At Hospital B, the participant group comprised 20 professionals, including 14 nursing staff members, 3 anesthesiologists, 2 surgeons, and 1 support staff member. The interviewed participants were also permanent employees with leadership roles in the operating room, surgical center management, and anesthesiology coordination. Regarding classical textual statistical analysis, the corpus consisted of 20 texts, divided into 494 text segments (TS), with 409 TS utilized (82.79%). We identified 17,409 word occurrences, including 2,256 distinct words, of which 1,181 appeared only once.

Descending Hierarchical Classification: Hospital A and Hospital B

Figures 1 and 2 present the descending hierarchical classification (DHC) dendrogram corresponding to the study settings. The DHC analysis consists of creating new sections by grouping similar texts into lexical classes[8]. The classes were generated based on associations determined through the chi-square test (χ^2), considering the relationship between text segments forming each subcorpus.

Since this study examines how participants related the patient safety climate in the operating room to the COVID-19 pandemic period, the terms adjacent to "patient" and "pandemic" emerged as keywords associated with safety climate and its domains, including stress, performance, communication, teamwork, and patient safety.

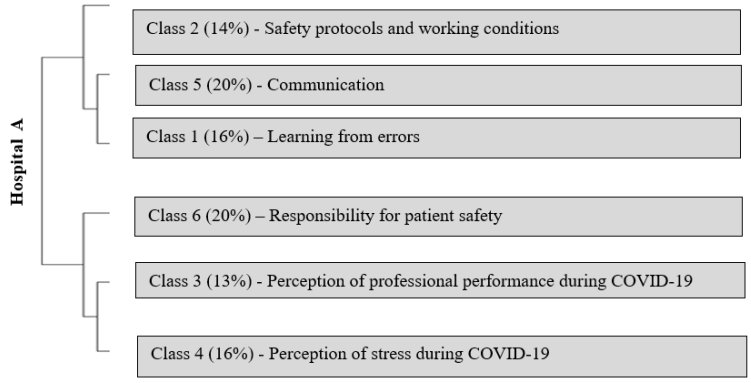

Figure 1. Dendrogram of the descending hierarchical classification of the corpus from Hospital A
Source: The authors, with the support of the Iramuteq software, version 0.7 alpha 2, 2024.

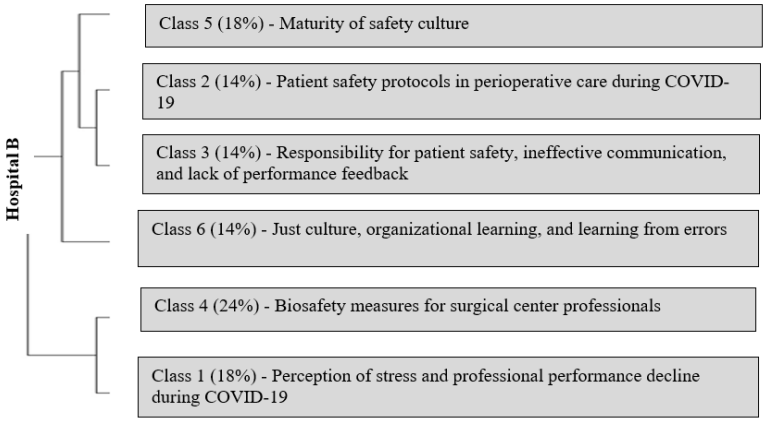

Figure 2. Dendrogram of the descending hierarchical classification of the corpus from Hospital B
Source: The authors, with the support of the IRaMuTeQ software, version 0.7 alpha 2, 2024.

Table 1 presents data from the corpus, aiming to understand the safety climate perception of the multidisciplinary surgical center team in two university hospitals during the COVID-19 pandemic, based on the domains of the SAQ/OR.

Table 1. Participants' Statements in Interviews

Hospital	Classes	Statements
Domain: Communication in the surgical environment		
Hospital A	Class 5 – Communication	I think our communication here is a bit clumsy. I believe it should be more straightforward. (RN_08)
Hospital B	Class 3 - Responsibility for patient safety, ineffective communication, and lack of performance feedback	Communication is still lacking a lot" (Sup_20)
Domain: Working conditions		
Hospital A	Class 1 – Learning from errors	People are afraid to admit when they make a mistake. They're scared of being judged, so they end up not learning from it. (RN_01)
Hospital B	Class 6 – Just culture, organizational learning, and learning from errors	Learning from mistakes is essential, but we don't really have a feedback culture. We don't sit down as a team to review protocols and talk about strategies to prevent the same mistake from happening again. (Anesth_13)
Domain: Perception of professional performance		
Hospital A	Class 3 – Perception of professional performance during COVID-19	I felt completely exhausted because we had fewer staff. Those of us who were left had to take on way more work. (RN_06)
Hospital B	Class 1 – Perception of stress and Professional performance during COVID-19	I think my performance is better now because I'm not as afraid anymore. But back then, I was really anxious and stressed. Now, things have improved. (RN_07)
Domain: Perception of stress		
Hospital A	Class 4 – Perception of stress due to COVID-19	It's not just physical exhaustion, no. It's emotional and mental too... Yeah, I'd say it definitely took a toll on me—on my work, on my health... Yeah, for sure. (Anesth_22)
Hospital B	Class 1 – Perception of stress and Professional performance during COVID-19	The stress levels skyrocketed, and there was no real way to cope. The only thing we could do was follow the protocols and use PPE* to feel somewhat safer. (Anesth_17)
Domain: Perception of management		
Hospital A	Class 2 – Safety protocols and working conditions	Management gave us information, the protocols were created throughout COVID-19 [...] We took the initiative ourselves, researching to figure out the best way to handle things, you know? Our own team developed the protocols. (Anesth_18)
Hospital B	Class 2 – Perioperative patient safety protocols during COVID-19 Class 4 – Biosafety in the surgical center	[...] Maybe there should have been better training on how to properly use PPE. [...] When it came to training, everything took longer than usual, and during the pandemic, it was even harder. But at least they made sure we had PPE* and training. (Anesth_17)
Domain: Safety climate		
Hospital A	Class 6 – Responsibility for patient safety	[...] From nurses to doctors and anesthesio**, everyone takes responsibility for safety. (Sur_19)
Hospital B	Class 5 – Maturity of safety culture	[...] I feel like we're finally moving in the right direction toward a real safety culture. But there's still a lack of adherence to safety measures. (RN_06)

Source: The authors, 2024.
Note: *PPE – Personal Protective Equipment **Anesthesiologist.

DISCUSSION

In both study settings, the nursing staff represented the largest proportion of

participants, a finding that aligns with other scientific studies[9,10]. This result is expected, as nursing professionals constitute the largest workforce in healthcare facilities[11]. International studies indicate that the patient safety climate perceived by these professionals is directly proportional to the quality of care provided[12,13].

This study aimed to understand the perception of multidisciplinary teams in the surgical centers of two university hospitals regarding the safety climate during the COVID-19 pandemic. Regarding the "Communication in the surgical environment" domain, the findings revealed that communication remained challenging in both surgical settings, and a punitive culture was still widely practiced. Communication is inherently complex in the operating room and is considered an essential tool for the effective functioning of the unit[14].

During the pandemic response, professionals reported difficulties in team communication, a challenge also identified in previous studies[14]. Communication barriers may be linked to a punitive error culture. A study conducted in a university hospital in Austria found that both nurses and physicians reported low confidence in openly discussing errors due to psychological pressure[15].

Transitioning to a non-punitive culture is imperative in healthcare services, as identifying individuals to blame does not contribute to error reduction. On the contrary, this practice promotes underreporting and recurrence of errors and hinders the implementation of protocols with preventive actions[16].

As a recommendation for both study settings, it is suggested that management increase its engagement with professionals, establish feedback mechanisms on surgical performance indicators, adopt debriefing sessions, and develop strategies collaboratively with healthcare teams[17-19].

Concerning the "Working conditions" domain, the findings highlight the urgent need to adopt a just culture that moves away from punitive approaches and focuses on developing interpersonal, professional, and institutional capacities[20]. In light of this, it is essential for management to actively support and foster a safety climate that identifies and analyzes errors, allowing for the development of prevention strategies and the implementation of actions that mitigate harm without penalizing professionals[21].

Thus, it is important to consider developing surgical case discussion meetings to ensure that all teams are informed about ongoing cases and to promote feedback on incidents reported by the Patient Safety Unit to the multidisciplinary surgical team[17].

Regarding the "Perception of professional performance" domain, we must highlight that, as observed in the study settings, many healthcare facilities faced staff shortages due to professionals being at risk for COVID-19, illness, or even death[21]. These circumstances contributed to a sense of work overload among those who remained on the front lines, leading to a negative impact on care quality and patient safety[17]. Performing work activities with insufficient staff, limited material resources, and an excessive workload may increase adverse events that compromise patient safety[22].

Nursing professionals, recognized as key figures in the patient care process[3], play a central role in bedside care and were essential in delivering care during the pandemic[16]. As professionals crucial to patient assistance, they require urgent interventions regarding staffing, recognition, and professional appreciation[23].

As for the "Perception of stress" domain, it is worth noting that the COVID-19 pandemic not only brought many uncertainties but also increased tension among the multidisciplinary surgical team due to their exposure to a new virus[5]. These professionals experienced a range of emotions, including fear of the unknown, concerns about becoming infected, transmitting the virus to family members, or exposing vulnerable individuals upon returning home[3].

The mental health burden among healthcare workers also resulted from the increasing number of professionals developing or experiencing exacerbations of mental health disorders due to the challenges posed by the COVID-19 crisis[24]. Healthcare administrators must implement psychological support services to care for these professionals, ensuring they are adequately supported to resume their work activities[22].

In terms of the "Perception of management" domain, the integration of leadership in promoting patient safety is critical not only through policy implementation but also through active, tangible engagement within healthcare organizations[11,15]. Effective leadership plays a key role in raising nurses' awareness of patient safety, particularly when professionals feel heard and solutions are developed collaboratively[9,25].

There is often a discrepancy in how management's involvement is perceived, which may reflect either the actual level of engagement in improving the safety climate or professionals' reluctance to express negative opinions about leadership and the institution[20]. Ultimately, effective leadership is fundamental to fostering a strong safety climate within an organization[25,26].

Healthcare professionals in the study settings felt supported due to the continuous availability of personal protective equipment (PPE). However, misinformation led to fear and uncertainty. During the pandemic, both settings implemented evidence-based protocols, which were regularly updated as research advanced to improve understanding of the novel virus. Spolverato et al.[27] highlight that adequate preparation and training of the entire multidisciplinary team were essential for elective surgeries to continue during the pandemic.

Additionally, this approach reduced the spread of the virus across hospital units. Implementing protocols enhances both safety and confidence while driving improvements in institutional safety culture[5]. Frequent meetings among healthcare teams provide valuable opportunities to improve communication, as they facilitate information sharing, clarification of doubts, and alignment of clinical practices[14].

Regarding the "Safety climate" domain, it is well established that a weakened safety climate is associated with an environment where adverse events, with or without harm, are prevalent[20]. Thus, healthcare professionals must carefully consider patient safety, as it directly impacts the quality of care[9]. Conversely, a positive safety climate contributes to improvements in processes and healthcare quality, strengthening patient safety culture and yielding better outcomes in clinical practice[20,21].

Nurses were consistently identified as key contributors to patient safety during the COVID-19 pandemic, a role widely supported in the literature[28]. Scientific studies emphasize the critical role of nurses in crisis scenarios, ensuring the availability of physical, human, material, and emotional resources to maintain safe and high-quality care[16,25,29]. As the largest workforce in healthcare institutions and the professionals with the closest contact with patients, nurses' adherence to safe care practices directly influences patient safety[11].

Some nurses reported low adherence from other professional categories to precautionary protocols, which compromises the safety and quality of care provided[28]. A study showed a direct correlation between the safety climate and adherence to patient safety measures[30]. Therefore, fostering reflections on the safety climate and just culture, as well as promoting a participatory and collaborative leadership model, is essential to advancing patient safety practices.

STUDY LIMITATIONS

Since this research involves participant statements, the risk of response bias must be considered. The interview transcripts could not be returned to participants for verification due to virus transmission concerns; however, extra precautions were taken during the transcription process and the review of recordings to prevent information loss and ensure data reliability.

Additionally, the study findings cannot be generalized, despite being conducted in two hospitals within the same region. However, the results provide insights into the surgical center environment, which serves as a training ground for specialized healthcare professionals.

The data collection timeline had to be adjusted due to the critical phase of the pandemic, which posed public health risks, biological vulnerability for students, and shortages of human and material resources in the study settings. Although these factors directly affected the data collection process, they did not compromise the scientific rigor or reliability of the study findings.

FINAL CONSIDERATIONS

This study provided insights into the perceptions of surgical center professionals

regarding the domains of the patient safety climate during the COVID-19 pandemic. The findings from both settings highlighted challenges in multidisciplinary team communication, the persistence of a punitive culture, and feelings of fear and exhaustion among healthcare professionals working throughout the pandemic.

The results contribute to advancing knowledge on safety culture and climate in the surgical environment, underscoring the need to transition toward a positive safety culture that fosters a participatory management approach and encourages horizontal interprofessional communication.

It is also essential to implement strategies that support mental health and well-being, helping to mitigate fear and anxiety, particularly in atypical situations such as a pandemic, which requires substantial physical and mental effort from frontline healthcare workers. Further studies are needed to develop protocols that address challenges during crises.

CLIMA DE SEGURANÇA NO AMBIENTE CIRÚRGICO: ESTUDO QUALITATIVO

RESUMO

Objetivo: compreender a percepção das equipes multiprofissionais em centros cirúrgicos universitários sobre os domínios de clima de segurança durante a pandemia da Covid-19. **Método:** estudo com abordagem qualitativa e delineamento descritivo-exploratório realizado em dois hospitais universitários. Utilizou-se um roteiro de entrevista semiestruturado criado a partir dos domínios do Questionário de Atitudes de Segurança/Centro Cirúrgico. A coleta dos dados ocorreu de fevereiro a maio de 2021 e de junho a julho de 2022, mediante aceite do profissional e a assinatura do Termo de Consentimento Livre e Esclarecido. Para análise de dados utilizou-se o IRaMuTeQ. **Resultados:** a comunicação em ambos os cenários foi considerada dificultosa. A percepção da gerência demonstrou-se considerável diante dos desafios do momento pandêmico, percepção trazida pelo fornecimento de equipamentos de proteção individual pelas unidades, porém com críticas a precária troca de informações entre gestão e equipe. Os profissionais sofreram com medo, ansiedade, além de cansaço físico e mental. **Considerações finais:** é necessário que a gestão avance construindo em conjunto com os profissionais, ouvindo-os e abandonando a cultura punitiva. É valioso adotar uma aprendizagem idealizada a partir dos erros e espaços onde a saúde mental dos profissionais possa ser valorizada.

Palavras-chave: Cultura organizacional. Centros cirúrgicos. Enfermagem. Segurança do paciente. COVID-19..

CLIMA DE SEGURIDAD EN EL AMBIENTE QUIRÚRGICO: ESTUDIO CUALITATIVO

RESUMEN

Objetivo: comprender la percepción de los equipos multiprofesionales en centros quirúrgicos universitarios sobre el dominio del clima de seguridad durante la pandemia de COVID-19. **Método**: estudio con enfoque cualitativo y diseño descriptivo-exploratorio realizado en dos hospitales universitarios. Se utilizó un guion de entrevista semiestructurado creado a partir de los dominios del Cuestionario de Actitudes de Seguridad/Centro Quirúrgico. La recolección de datos se realizó de febrero a mayo de 2021 y de junio a julio de 2022, tras aceptación del profesional y la firma del Formulario de Consentimiento Libre e Informado. Para el análisis de datos se utilizó IRaMuTeQ. **Resultados**: la comunicación en ambos escenarios fue considerada dificultosa. La percepción de la gerencia demostró ser considerable ante los desafíos del momento pandémico, percepción traída por el suministro de equipos de protección individual por las unidades, pero con críticas al precario intercambio de información entre gestión y equipo. Los profesionales sufrieron con miedo, ansiedad, además de cansancio físico y mental. **Consideraciones finales**: es necesario que la gestión avance construyendo junto a los profesionales, escuchándolos y abandonando la cultura punitiva. Es valioso adoptar un aprendizaje idealizado a partir de los errores y espacios donde la salud mental de los profesionales pueda ser valorada.

Palabras clave: Cultura organizacional. Centros quirúrgicos. Enfermería. Seguridad del paciente. COVID-19.

REFERENCES

1. Ferreira RA, Fassarella CS, Ribeiro OMPL, Cardoso RB, Henrique DM, Camerini FG, et al. Safety climate in the operating room in the pre-pandemic and pandemic period of COVID-19: A mixed method study. PLoS One. 2024; 19(7):e0305281. Doi: https://doi.org/10.1371/journal.pone.0305281

2. Lourenção DCA, Tronchin DMR. Safety climate in the surgical center: validation of a questionnaire for the Brazilian scenario. Rev. Eletr. Enf. 2018;20:1–11. Doi: https://doi.org/10.5216/ree.v20.47570

3. Souza SS, Farias MTD, Bandeira AKC, Magalhães MSSP, Sales MGS, Rodrigues AS, et al. Nurses conduct in the surgical center in the Covid-19 pandemic scenario. Nursing (Ed. brasileira. Online). 2022;25(291):8394-403. Doi: https://doi.org/10.36489/nursing.2022v25i291p8394-8403

4. Oliveira Junior NJ, Lourenção DCA, Poveda VB, Riboldi CO, Martins FZ, Magalhães AMM. Safety culture in surgical centers from the perspective of the multiprofessional team. Rev Rene. 2022;23:e78412. Doi: https://doi.org/10.15253/2175-6783.20222378412

5. United Nations. Transforming Our World: The 2030 Agenda for Sustainable Development [on-line]. 2015.[citado em 09 fev 2025].

Disponível em: URL: https://documents.un.org/doc/undoc/gen/n15/291/89/pdf/n1529189.pdf

6. World Health Organization. Global patient safety action plan 2021–2030: towards eliminating avoidable harm in health care [online]. 2021. [citado em 09 fev 2025]. Disponível em: URL: https://www.who.int/teams/integrated-health-services/patient-safety/policy/global-patient-safety-action-plan

7. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 2007;19(6):349–357. Doi: https://doi.org/10.1093/intqhc/mzm042

8. Souza MAR de, Wall ML, Thuler AC de MC, Lowen IMV, Peres AM. O uso do software IRAMUTEQ na análise de dados em pesquisas qualitativas. Rev Esc Enferm USP. 2018;52:e03353. Doi: https://doi.org/10.1590/S1980-220X2017015003353

9. Costa CJND, D'Artibale EF, Duarte ÊRM, Ribeiro MRR, Martins ETJ, Ferreira GE. Clima de segurança em saúde no contexto de pandemia da covid-19 em um hospital universitário. renome. 2022;10(2):47–56. Doi: https://doi.org/10.46551/rnm23173092202100206

10. Macedo LL, Silva AMR, Silva JFM, Haddad MCFL, Girotto E. A cultura em torno da segurança do paciente na atenção primária à saúde: distinções entre categorias profissionais. Trab educ saúde. 2020;18(1):e0023368. Doi: https://doi.org/10.1590/1981-7746-sol00233

11. Seo JK, Lee SE. Mediating roles of patient safety knowledge and motivation in the relationship between safety climate and nurses' patient safety behaviors: a structural equation modeling analysis. BMC Nurs. 2022;21(1):335. Doi: https://doi.org/10.1186/s12912-022-01123-6

12. Gurková E, Zeleníková R, Friganovic A, Uchmanowicz I, Jarošová D, Papastavrou E, et al. Hospital safety climate from nurses' perspective in four European countries. Int Nurs Ver. 2020;67(2):208-217. Doi: https://doi.org/10.1111/inr.12561

13. Burlakov N, Rozani V, Bluvstein I, Kagan I. The association between quality and safety climate of a hospital ward, family members' empowerment, and satisfaction with provided care. J Nurs Scholarsh. 2021;53:727-736. Doi: https://doi.org/https://doi.org/10.1111/jnu.12682

14. Martins KN, Bueno A de A, Mazoni SR, Machado VB, Evangelista RA, Bolina AF. Management process in surgicenters from the perspective of nurses. Acta Paul Enferm. 2021;34:eAPE00753. Doi: https://doi.org/10.37689/acta-ape/2021AO00753

15. Hoffmann M, Schwarz CM, Schwappach D, Banfi C, Palli C, Sendlhofer G. Speaking up about patient safety concerns: view of nursing students. BMC Health Serv Res. 2022;22:1547. Doi: https://doi.org/10.1186/s12913-022-08935-x

16. Ribeiro OMPL, Trindade LL, Fassarella CS, Pereira SCA, Teles PJFC, Rocha CG, et al. Impact of COVID-19 on professional nursing practice environments and patient safety culture J Nurs Manag. 2022;30(5):1105–1114. Doi: https://doi.org/10.1111/jonm.13617

17. Skegg E, McElroy C, Mudgway M, Hamill J. Debriefing to improve interprofessional teamwork in the operating room: A systematic review. J Nurs Scholarsh. 2023;55(6):1179–88. Doi: https://doi.org/10.1111/jnu.12924

18. Diaz-Navarro C, Enjo-Perez I, Leon-Castelao E, Hadfield A, Nicolas-Arfelis JM, Castro-Rebollo P. Implementation of the TALK© clinical self-debriefing tool in operating theatres: a single-centre interventional study. Br J Anaesth. 2024;133(4):853-861. Doi: https://doi.org/10.1016/j.bja.2024.05.044

19. Van Dalen ASH, Swinkels JA, Coolen S, Hackett R, Schijven MP. Improving teamwork and communication in the operating room by introducing the theatre cap challenge. J Perioper Pract. 2022;32(1–2):4–9. Doi: https://doi.org/10.1177/17504589211046723

20. Silva LC, Caldas CP, Fassarella CS, Souza PS. Effect of the organizational culture for patient safety in the hospital setting: A systematic review. Aquichan. 2021;21(2):e2123. Doi: https://doi.org/10.5294/aqui.2021.21.2.3

21. Nyberg A, Olofsson B, Fagerdahl A, Haney M, Otten V. Longer work experience and age associated with safety attitudes in operating room nurses: an online cross-sectional study. BMJ Open Qual. 2024;13(1):e002182. Doi: https://doi.org/10.1136/bmjoq-2022-002182

22. Ferreira JESM, Cavalcante TF, Jansen RC, Damasceno DFO, Oliveira LR, Silva MJN, et al. Challenges for maintaining surgical care practices in the COVID-19 pandemic: an integrative review. Invest Educ Enferm. 2023;40(1). Doi: https://doi.org/10.17533/udea.iee.v40n1e16

23. Ribeiro OMPL, Cardoso MF, Trindade LL, Rocha KG, Teles PJFC, Pereira S, et al. From the first to the fourth critical period of COVID-19: what has changed in nursing practice environments in hospital settings? BMC Nurs. 2023;22(1):1–12. Doi: https://doi.org/10.1186/s12912-023-01207-x

24. Dal'Bosco EB, Floriano LSM, Skupien SV, Arcaro G, Martins AR, Anselmo ACC. Mental health of nursing in coping with COVID-19 at a regional university hospital. Rev Bras Enferm. 2020;73:e20200434. Doi: https://doi.org/10.1590/0034-7167-2020-0434

25. Santos JLGD, Menegon FHA, Andrade GB, Freitas EO, Camponogara S, Balsanelli AP, et al. Changes implemented in the work environment of nurses in the COVID-19 pandemic. Rev Bras Enferm. 2022;75(suppl 1):1–6. Doi: https://doi.org/10.1590/0034-7167-2020-1381

26. Klemenc-Ketiš Z, Poplas SA. Safety culture at primary healthcare level: a cross-sectional study among employees with a leadership role. Zdr Varst. 2020;59(1):42-6. Doi: https://doi.org/10.2478/sjph-2020-0006

27. Spolverato G, Capelli G, Restivo A, Bao QC, Pucciarelli S, Pawlik TM, et al. The management of surgical patients during the coronavirus dieases 2019 (COVID-19) pandemic. Surgery. 2020;168(1):4-10. Doi: https://doi.org/10.1016/j.surg.2020.04.036

28. Berdida DJE, Grande RAN. Nurses' safety climate, quality of care, and standard precautions adherence and compliance: A cross-sectional study.

J Nurs Scholarsh. 2024;29. Doi: https://doi.org/10.1111/jnu.12960

29. Passos EM, Santos RB, Ribeiro R, Nogueira BVS. Teaching patient safety in undergraduate nursing in the state of Bahia. Ciênc. cuid. saúde. 2022;210. Doi: https://doi.org/10.4025/ciencuidsaude.v21i0.57704

30. Faridah I, Setyowati S, Lestari F, Hariyati RTS. The correlation between work environment and patient safety in a general hospital in Indonesia. Enferm Clin. 2021;31(2):S220–S224. Doi: https://doi.org/10.1016/j.enfcli.2020.12.026.

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