

Nurses' perceptions of the care-education process related to perioperative thirst in surgical inpatient units*

Concepções de enfermeiros sobre o processo cuidar-educar relacionado à sede perioperatória em unidades de internação cirúrgicas

How to cite this article:

Barakat SH, Oliveira KS, Conchon MF, Fonseca LF. Nurses' perceptions of the care-education process related to perioperative thirst in surgical inpatient units. Rev Rene. 2026;27:e96693. DOI: <https://doi.org/10.36517/2175-6783.20262796693>

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*Extracted from the dissertation "Desenvolvimento e avaliação de um *Serious Game* sobre sede perioperatória", Universidade Estadual de Londrina, 2025.

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Conflict of interest: the authors have declared that there is no conflict of interest.

EDITOR IN CHIEF: Ana Fatima Carvalho Fernandes 

ASSOCIATE EDITOR: Francisca Diana da Silva Negreiros 

ABSTRACT

Objective: to understand nurses' perceptions of the care-education process related to perioperative thirst in surgical inpatient units. **Methods:** qualitative study grounded in the framework of care-educational technology. Focus groups were conducted with 11 nurses with experience in the topic and more than two years of professional practice, selected by intentional sampling. The methodological approach was based on Content Analysis. **Results:** three main categories emerged: perioperative thirst as the target of educational strategies, emphasizing essential content and immersive, interactive, and sensory didactic-pedagogical resources; the leading role of nursing in thirst management and multiprofessional engagement, emphasizing nurses' leadership and humanization of care; and barriers in the care-education process, related to structural limitations and weaknesses in organizational culture. **Conclusion:** nurses' perceptions revealed fundamental elements for constructing an innovative and contextualized educational proposal, with potential to qualify perioperative thirst management in surgical inpatient units. **Contributions to practice:** the study supports the development of a care-educational technology aimed at raising awareness and qualifying the team, favoring continuing education and interprofessional integration for patient-centered perioperative thirst care.

Descriptors: Thirst; Perioperative Nursing; Hospital Care; Educational Technology; Qualitative Research.

RESUMO

Objetivo: compreender as concepções dos enfermeiros sobre o processo cuidar-educar relacionado à sede perioperatória em unidades de internação cirúrgicas. **Métodos:** estudo qualitativo fundamentado no referencial da tecnologia cuidadoso-educacional. Utilizou-se grupos focais com 11 enfermeiros com experiência na temática e atuação profissional superior a dois anos, selecionados por amostragem intencional. A abordagem metodológica baseou-se na Análise de Conteúdo. **Resultados:** emergiram três categorias principais: a sede perioperatória como alvo das estratégias educativas, com ênfase em conteúdos essenciais e recursos didático-pedagógicos imersivos, interativos e sensoriais; o protagonismo da enfermagem no manejo da sede e o engajamento multiprofissional, enfatizando a liderança do enfermeiro e humanização da assistência; e barreiras no processo de cuidar-educar, relacionadas a limitações estruturais e fragilidades na cultura organizacional. **Conclusão:** as concepções dos enfermeiros revelaram elementos fundamentais para a construção de proposta educativa inovadora e contextualizada, com potencial para qualificar o manejo da sede perioperatória em unidades de internação cirúrgicas. **Contribuições para a prática:** o estudo subsidia o desenvolvimento de uma tecnologia cuidadoso-educacional voltada à sensibilização e qualificação da equipe, favorecendo a educação permanente e a integração interprofissional para um cuidado em sede perioperatória centrado no paciente.

Descritores: Sede; Enfermagem Perioperatória; Assistência Hospitalar; Tecnologia Educacional; Pesquisa Qualitativa.

Introduction

Perioperative thirst is a significant physiological and emotional response during the surgical period, manifesting as a physical, sensory, and subjective sensation accompanied by an intense desire to ingest fluids to restore the body's homeostasis. It is a complex and multifaceted experience, characterized by an urgent desire for hydration and associated symptoms⁽¹⁾. A high prevalence is identified during this period, ranging from 83.7% to 97.5% in adults, and reaching up to 93.5% of children in the postoperative period⁽¹⁻³⁾.

Despite its high prevalence and impact, thirst remains undervalued in perioperative care and is rarely addressed in professional training^(1,4). Factors such as fasting, blood loss, use of anesthetics, and intubation favor its onset^(1-3,5).

In response to this scenario, the Study and Research Group on Thirst of the State University of Londrina (GPS/UEL) developed the Thirst Management Model (TMM)⁽⁶⁾. Although it has been implemented in surgical contexts, the Burn Treatment Center (BTC), and the Intensive Care Unit (ICU), its use and sustainability are challenged by high nursing staff turnover and the lack of specific training on a topic that has not yet been incorporated into institutional care protocols⁽⁷⁻⁸⁾.

Team awareness is a structuring condition for the TMM to be systematically incorporated into care, ensuring comprehensiveness, safety, and humanization of assistance⁽⁷⁾. In this context, Care-Educational Technologies (CET) are configured as strategic devices capable of articulating teaching and care from an innovative, integrated, and transformative perspective⁽⁹⁻¹⁰⁾.

Anchored in human praxis, CET integrate care and education by assigning meaning to scientific and experiential nursing knowledge, promoting the construction and application of knowledge in clinical practice. Through the development of evidence-guided pedagogical strategies and resources, they enhance meaningful learning and contribute to care qualification. Thus, CET have the potential to strengthen the incorporation of the TMM as a legitimate and inseparable dimension of perioperative practice⁽⁹⁻¹⁰⁾.

From this perspective, nurses play a strategic role in coordinating care and conducting educational actions throughout the perioperative period. Their leadership in promoting change makes them central agents for implementing the TMM⁽⁷⁾. Therefore, investigating their perceptions is justified in order to identify needs, potentialities, and barriers in the care-education process that can support the development of CET aligned with care practice⁽⁹⁻¹⁰⁾.

In view of the above, this study sought to understand nurses' perceptions of the care-education process related to perioperative thirst in surgical inpatient units.

Methods

Study type

Qualitative study grounded in the theoretical-conceptual framework of Care-Educational Technology⁽⁹⁻¹⁰⁾. The study was conducted and reported according to the recommendations of the Consolidated Criteria for Reporting Qualitative Studies (COREQ).

Study setting

The study was conducted in a tertiary public university hospital located in the northern region of Paraná. The institution is a consolidated setting for investigations on perioperative thirst, with implementation of the TMM in the operating suite since 2014 and in the BTC since 2019. It should be noted that although the TMM had been implemented in some sectors of the institution, factors such as high staff turnover and the scope of perioperative care beyond the operating room imply different levels of familiarity with and appropriation of the topic among team members, enabling the collection of perceptions from distinct care experiences. These initiatives are linked to studies developed by GPS/UEL beginning in 2010, which ensures institutional maturity, technical-scientific expertise, and a favorable environment for conducting this investigation.

Study population

Intentional sampling was adopted to recruit participants⁽¹¹⁾, based on the researchers' contact network between April and June 2022. Participants had to be nurses with at least two years of experience in the area (perioperative care) and previous familiarity with the topic of perioperative thirst. The inclusion of participants with experience in the topic was deliberate, since the study sought to understand perceptions capable of supporting the construction of a CET that would include important conceptual and operational bases for training professionals on perioperative thirst.

Invitations were made by email and in person in the surgical inpatient units, operating suite, BTC, and ICU, as well as during periodic meetings to provide information about the study and encourage nurses' participation. A total of 30 nurses (15 hospital nurses and 15 GPS/UEL nurses) were invited, and ultimately 11 agreed to participate in the study.

Before the focus groups were held, all eligible participants were contacted individually to define the most convenient date for their participation. On the same occasion, a structured form for sociodemographic and professional characterization was sent to be completed in advance. Confirmation of the meeting was sent by email one week beforehand, followed by a telephone reminder the day before, with the aim of optimizing adherence and ensuring the invitees' presence.

Finally, there were no withdrawals, and the sample consisted of 11 nurses distributed into two focus groups with distinct profiles. The first consisted of five clinical and managerial nurses working in surgical inpatient units, the BTC, ICU, and operating suite. The second group was composed of six nurse researchers affiliated with GPS/UEL. It should be emphasized that all participants had previously taken part in training sessions on thirst promoted by GPS/UEL and demonstrated experience in implementing scientific evidence into clinical practice.

Data collection

The focus group technique was used⁽¹²⁾, and the sessions began with clarification about the study. The Informed Consent Form was then signed, including authorization for audio recording. Anonymity and confidentiality were guaranteed through alphanumeric coding (p1 to p11).

Each session was conducted by a moderator, who was responsible for guiding the group dynamics, presenting the guiding questions previously formulated by the team, and facilitating dialogue among all participants. Three observers assisted in conducting the meeting, systematically recording contributions, interactions, and relevant observations, in addition to presenting, at the end of the session, a synthesis of the main topics discussed.

The moderator and observers were members of GPS/UEL and were qualified to conduct focus groups, with support from a specialist. Mediation was conducted by a nurse professor with a master's and doctoral degree in the topic of thirst. Two residents in perioperative nursing and one nurse professor served as observers.

The research team had a prior professional relationship with the participants, established in care and training contexts, including implementation of the TMM, delivery of training and educational activities on thirst, as well as activities developed by residents and tutors in practice settings. This institutional proximity favored familiarity with the investigated setting, while also requiring rigorous attention to ethical conduct and control of possible biases arising from this previous interaction.

The two sessions took place in June 2022 until thematic data saturation was reached, operationally defined in the preliminary analysis by recurrence of the content discussed and the absence of new information capable of broadening the understanding of the investigated phenomenon. The average duration of each session was approximately 74 minutes. The

environment was prepared with seats arranged in a circle to facilitate interaction among participants. The question guide, developed by the research team after prior consultation with a focus group specialist, inclu-

ded two guiding dimensions related to care practice and professional education in the context of perioperative thirst, focusing on the construction of a CET, as shown in Figure 1.

Nurses from surgical inpatient units and the operating suite	Nurse researchers in perioperative thirst
1. In your perception and experience, what does thirst represent for the patient?	1. If you were to structure an educational pathway on thirst management for the nursing team, what content and strategies should it include?
2. How can nursing professionals in surgical inpatient units be sensitized to perceive and value patients' thirst?	
3. What content is essential to teach and educate the nursing team on how to care for a thirsty patient?	
4. What interesting strategies would you recommend to educate nursing professionals working in surgical inpatient units about thirst?	
5. How can the nursing team in surgical inpatient units be engaged in valuing thirst in daily practice?	

Figure 1 – Guiding question script for the focus group sessions. Londrina, PR, Brazil, 2022

To stimulate participant engagement, icebreaker dynamics were carried out in both groups, respecting their characteristics and field of practice. In the first focus group, the Photovoice technique was used, which employs images as triggers for reflection and discussion about participants' experiences and perceptions⁽¹³⁾. For this activity, nurses were invited to bring an image that symbolized the thirst of surgical patients. In the second focus group, a guided reflection strategy was used, based on symbolic elements of the process of learning and teaching about perioperative thirst.

The focus groups were held in distinct settings, strategically selected to encourage participation and the quality of interactions. The first meeting took place in a study room at the Health Sciences Center on the university hospital premises, in a space deliberately disconnected from the care sectors, although located nearby, to facilitate availability and access during regular working hours. The second focus group was conducted in a reserved private environment, chosen for providing greater comfort and a welcoming atmosphere, with the purpose of encouraging interaction and, above all, enabling the icebreaker dynamic, which required a spacious setting appropriate for the proposed activities.

Data analysis

Content analysis was used for data analysis⁽¹⁴⁾, consisting of three stages: pre-analysis, exploration of the material, and data treatment/interpretation. The analytical stages were carried out by the first and second authors, followed by critical discussion and consensual validation by the other researchers on the team, in order to ensure methodological rigor and interpretive reliability. The transcripts and analyses of the results were not shared with the participants.

In total, two hours and 30 minutes of recordings were transcribed. Analysis of the focus group transcripts enabled the identification of three main categories: perioperative thirst as the target of educational strategies; nursing protagonism and multiprofessional engagement; and barriers faced in the care-education process.

Ethical aspects

This study was conducted in accordance with Resolution No. 466/2012, with approval from the Research Ethics Committee of the State University of Londrina under opinion number 5.344.860/2022 and Certificate of Presentation for Ethical Appraisal number 56898222.6.0000.5231.

Results

Participants were predominantly women (82%), with a mean age of 36 years (standard deviation [SD]=10.73) and a mean length of professional experience of 13 years (SD=10.83). All participants had previous experience conducting educational activities for nursing and multiprofessional teams. Regarding academic background, most had graduated from public education institutions (91%) and had at least one specialization, especially in perioperative nursing (27%) and intensive care (27%).

Regarding *stricto sensu* degrees, 36% of the nurses held doctoral degrees and 36% held master's degrees. Additionally, 18% were enrolled in a master's program and 18% in a doctoral program. All reported previous experience in inpatient units and involvement in care for surgical patients, as well as participation in educational activities aimed at the team, demonstrating familiarity with in-service training processes and strategies in the perioperative setting. This characterization reinforces the participants' technical-scientific qualifications and the relevance of their inclusion in the process of developing a technological proposition.

Perioperative thirst as the target of educational strategies

Participants pointed out the importance of diversified strategies to address perioperative thirst, highlighting patient testimonials, experiential narratives, and audiovisual resources. These tools were identified as effective in sensitizing teams because they allow visualization of the physiological and emotional effects associated with thirst: *The strategies that worked were bringing reports from patients who experienced fasting, images, audios and videos, even photos of dry cavities and mucosa, cracked lips and other signs of thirst. Showing the impact of these data makes them start to think: 'Wow, this really happens!' All of this draws attention, because it needs to be presented in an easy and playful way (p3). It would be very interesting to move through a story with content about thirst. Do you know what thirst is? Including physiology and anatomy and then moving forward to management (p1).*

Two subcategories emerged from this discussion: use of didactic-pedagogical resources and essential content for constructing a CET. These data are systematized in Figure 2.

Category	Subcategories	Recording units	Occurrence
Perioperative thirst as the target of educational strategies	Use of didactic-pedagogical resources	Immersive resources	14
		Audiovisual strategies	37
		Gamification	68
		Active methodologies	98
	Essential content	Nursing diagnostic proposition	2
		Benefits to the patient	5
		Role of nursing	5
		Cost-benefit	6
		Signs and symptoms	8
		Concept	10
		Incidence and prevalence of thirst	13
		Risks and possible complications	13
		Physiology	14
		Predisposing factors	27
		Pillars of thirst management	31

Figure 2 – Participants' suggestions regarding the use of didactic-pedagogical resources and essential concepts for producing a Care-Educational Technology. Londrina, PR, Brazil, 2022

Awareness, effective communication, and empathy were highlighted as essential elements for approaching the topic, with emphasis on the role of sensory experiences and emotional engagement in the educational process: *The golden key is to involve the professional so they can broaden their perspective, through communication and awareness (p6). The facilitator who experiences this in practice makes a difference for those receiving the information (p3). An attentive and humanized perspective is essential for building an effective care and education environment (p5). Things that make them experience it firsthand raise awareness in an emotional way (p2). Offering salty foods has an immediate impact and makes people think: 'I spent one minute with my mouth open and already felt thirsty... what about the patient who remains intubated for hours' (p8).*

Nursing protagonism in thirst management and multiprofessional engagement

Participants' conceptions indicated the centrality of nursing's role in thirst management, positioning it as primarily responsible for the systematic incorporation of this practice into care. The findings evidenced nurses' proactive role in educating and raising awareness among both patients and the multiprofessional team, giving greater clinical visibility to a symptom that is often undervalued: *We need to take ownership and not be afraid to talk about the subject in order to deconstruct paradigms (p3). A professional who feels confident about their practice is more likely to welcome the patient (p4). ...if I do not act to alleviate and improve the thirst I encounter, I see it as a failure in my care (p2). We also need to talk about our technical responsibility and the role of nursing in improving this condition (p10). Today GPS strategies already exist, and the patient is very happy; we see it, they see that there is a possibility of beginning to relieve their thirst in the recovery room. Of course, for that to happen, everyone needs to know the strategy that nursing applies and can apply without interference, because there is a well-defined protocol, so there is no reason for someone else to question it. This happens in the operating room; we do not ask the anesthesiologist whether we can apply the strategy, we assess and treat... (p8). The team belongs to the nurse; this would be the key point, developing motivation and commitment in the nurse (p4).*

Multiprofessional collaboration was emphasized

as a crucial factor for the effectiveness of perioperative thirst management. Among the attitudes and practices mentioned to strengthen this involvement, in addition to standardized awareness-raising, institutionalized communication through care protocols stood out, given that an intervention coordinated by the integration of diverse knowledge and experiences among different subjects produces synergistic effects in complex situations. In this regard, participants highlighted that engagement of the multiprofessional team is essential to ensure a safe, effective, and humanized approach: *Teamwork is fundamental to promoting humanized care (p3). When the team is aligned, the results are much better (p6). Perhaps, by encouraging the team, the day will come when thirst will be prescribed (p6). The nutrition lady who makes the ice told me: I will never stop making this ice, because I have been through a procedure and I know how hard it is to fast, be thirsty, and not be able to drink water. She told me this, and I thought it was very nice because she valued her work in making the popsicle, as it is fundamental for the patient going through this unpleasant experience (p8). The root of the problem is structural. A well-defined protocol is fundamental; without it, awareness loses strength. So there has to be something broader that involves not only nursing. The protocol may be aimed at nursing, but everyone has to know the process, because everything we start sometimes thinking only of ourselves, I have learned, later dies out and tends to disappear. Therefore, everyone must be sensitized; in inpatient care, the care process is very decentralized, and many people will pass through that patient's care (p10).*

Barriers in the care-education process

The reflections revealed professionals' feelings of helplessness in the face of the impossibility of relieving patients' thirst, especially among those with greater clinical severity and care complexity: *You feel bad because you cannot give water (p10). Dehydration leads to lethargy and anxiety. The extubated patient asks for water when waking up, but you cannot give it (p7). It is distressing for the professional and, for the patient, physical and emotional torture (p7). It seems like we are causing suffering on purpose. The simple fact of explaining does not mean the patient will understand, because the strength of thirst is much greater (p11).*

The statements revealed the need for leaders and managers engaged in valuing nursing and promoting collaborative environments favorable to innovation: *Leaders should encourage dialogue and the exchange of ideas among teams* (p4). *If higher-level supervision does not pay attention to thirst, why would the management of that single sector pay attention? I think bringing this to higher levels would also be a way to sensitize not only nursing, but hospital management* (p1). *I always see our difficulties involving senior management, to sensitize and carry out a comprehensive educational action. We need to sensitize the manager, the nurse, and the technician who will be executing it in daily practice* (p1).

Organizational culture was elucidated as a decisive factor for change: *Organizational culture is a point over which we have no governance and which makes all the difference in change; everything revolves around it, around having a receptive environment* (p3). *The culture of fasting is chronic and generates suffering. Hospitalization and fasting need to be demystified* (p10). *Changing habits is difficult, and many prefer to remain in their comfort zone* (p4). *Seeing patients using moistened gauze is a sign that we are far from the evidence* (p1).

Lack of time and limitations in structure and resources were also highlighted: *We need more resources to implement these educational strategies* (p6). *Lack of resources is a challenge, but we must create proposals that are integrated into hospital routine* (p5). *The engagement of key teams is crucial, since turnover and resistance hinder awareness-raising* (p9). *The professional will not go beyond working hours; interactive 30-minute activities are needed* (p2). *The rush of daily life ends up making it difficult to address the topic* (p5).

The multiplicity of interventions performed by different professionals involved in surgical patient care and medical resistance were also perceived as barriers: *Physical therapy, the medical team, and pharmacy create doubts for the patient. Inpatient care is a universe with many particularities, and the difficulty is greater* (p7). *Although nursing is present 24 hours a day, if one professional performs an action and another contradicts it, the patient loses credibility and trust in the team* (p11). *This topic is often set aside due to implications with the medical team, ignoring the patient's needs* (p1). *If a physician is not aware, they may question the patient, generating doubts that should be avoided. We face constant confrontations in this regard* (p10).

Discussion

This investigation contributes to understanding nursing practice in managing perioperative thirst and training the team to address it, a need that is frequently undervalued in clinical practice. The qualitative approach enabled an in-depth understanding of the care-education process regarding perioperative thirst from the perspective of nurses involved in care, management, and research.

Priority themes and relevant strategies emerged for an educational proposal. The theoretical-conceptual framework proved innovative by providing foundations for the development of interactive and dynamic educational strategies aimed at transforming practices and improving care qualification^(9,15).

The emerging categories reinforce the relevance of contexts sensitized to changes in clinical practice through the production of educational technologies aligned with the reality of health services. In this context, the lack of professional awareness and the challenges of translating and sustaining scientific evidence in everyday practice became evident.

The first category, "Perioperative thirst as the target of educational strategies," reinforces the need to integrate education and care linked to practical experiences. This approach indicates that understanding thirst goes beyond its physiological dimension, involving subjective and experiential aspects that can be explored through interactive educational resources such as serious games, videos, infographics, and podcasts. These mechanisms, associated with participatory methodologies, favor professional engagement, stimulate reflection on practice, and expand learning potential^(7,15-17).

The use of educational games and interactive challenges is contemplated in several educational technologies as innovative solutions to make the learning process more dynamic and improve nursing team practice^(9-10,17-18). Active methods such as realistic simulation favor learning by providing immersive experiences that stimulate the development of essential

competencies and promote more humanized and reflective training⁽¹⁹⁻²⁰⁾.

The use of sensory resources can enhance professionals' empathic understanding of patients' experiences^(16,19-20). Thus, communication and awareness are essential components for the development of educational strategies^(7,18,21).

In this direction, a study that analyzed the pedagogical and methodological assumptions of serious games in health showed that these tools innovate teaching by promoting greater interaction among participants, increasing knowledge retention, and stimulating meaningful learning⁽¹⁶⁾.

The second category, "Nursing protagonism in thirst management and multiprofessional engagement," evidenced the central role of nursing in care and education regarding thirst. Participants reported that nurses should assume an active position, promoting awareness among both patients and the team. This finding is consistent with the TMM and the nursing diagnostic proposition, conceived by nurses and intended for application by this same professional category in clinical practice^(1,6).

By assuming this leadership, nurses consolidate themselves as strategic agents of change in promoting, implementing, and sustaining the TMM. This articulation favors the construction of a supportive organizational environment capable of strengthening multiprofessional engagement and consistently and appropriately integrating the model into care routines⁽⁷⁾.

The scarce participation of the multiprofessional team was identified as a factor that compromises the effectiveness of educational strategies. These findings are linked to the persistence of reductionist conceptions, in which thirst is understood as a natural and inherent consequence of the surgical procedure, hindering its clinical recognition, prevention, and proper management^(4,7). Collaborative work among health professionals emerged as an essential element for humanizing care and improving clinical outcomes, reaffirming that qualified interprofessional communication contributes to safer, patient-centered care⁽²¹⁻²²⁾.

In this panorama, CET represents a powerful

strategy for training nurses as transforming agents, knowledge mediators, and articulators of collaborative practices with other professional categories^(9,15,18).

The third category, "Barriers in the care-education process," explains the obstacles that challenge the incorporation of the TMM into clinical practice, evidencing the complexity that permeates the articulation between care and education. The reports reveal technical, structural, cultural, and communication-related obstacles that limit nurses' practice, as well as recurrent feelings of frustration and distress when faced with the impossibility of relieving a basic human need^(5,7). Such experiences are intensified by restrictive institutional norms and the absence of formalized care protocols, characterizing a context that weakens professional autonomy and compromises the quality of care^(7,17).

At the organizational level, institutional rigidity, low management intentionality, and the absence of participatory leadership emerge as factors that inhibit innovative processes and reduce adherence to evidence-based practice. An organizational culture resistant to change, associated with insufficient human and material resources, constitutes a structural barrier to the implementation and sustainability of new practices⁽²³⁻²⁴⁾.

Consistent with these findings, similar situations have been observed in the perioperative context, particularly among burn patients, in which barriers, facilitators, and strategies that directly affect thirst management were identified⁽⁷⁾. Moreover, resistance to change both within nursing and among other members of the multiprofessional team is related to lack of training and limited knowledge about the benefits of updated, effective, and safe interventions to alleviate thirst, perpetuating conservative practices supported by empiricism and poorly responsive to patient demands⁽²³⁻²⁴⁾.

In view of this scenario, CET are potentially resolute strategies, as they enable short-duration, digital, evidence-based training processes that can be adapted to professionals' work pace^(15,18).

At the same time, discrepant perceptions be-

tween patients and health teams regarding the relevance of thirst are observed, highlighting the need for continuing education as a structuring axis for awareness, conceptual alignment, and qualification of clinical practice⁽⁷⁾. In this sense, overcoming the identified barriers requires not only technical resources, but also transformation of the organizational culture supported by engaged leadership, multiprofessional collaboration, participatory management, and systematic investment in professional training^(7,23-24).

Study limitations

The design focused exclusively on nurses' conceptions circumscribes the care-education process to a single professional category, restricting the analysis of interprofessional dynamics and organizational dimensions of thirst management, in addition to limiting the apprehension of perceptions among other actors in perioperative care.

The implementation of the TMM in specific sectors and participants' prior familiarity with the topic may have reduced the diversity of perspectives, favoring aligned conceptions. In addition, the previous professional relationship between researchers and participants may have induced confirmatory bias, social desirability bias, or conceptual alignment, limiting the transferability of the findings to contexts with lower institutional maturity. Therefore, future investigations should be expanded to include other professional categories and diverse settings for a more comprehensive and integrated analysis.

Contributions to practice

The main contribution is the theoretical-practical guidance for developing a care-educational technology aimed at raising awareness and qualifying the nursing team. The findings point to scientific evidence and systematized experiences that can support continuing education actions, protocol development, and sustainable implementation of the TMM, in addition

to strengthening interprofessionality and a patient-centered culture. Furthermore, the conceptions evidenced provide guiding elements for implementing the TMM, especially in institutional settings without prior experience in the topic that seek an initial approach to it. Thus, the study is expected to contribute to qualifying care, making it more responsive, humanized, and sensitive to thirst as a relevant clinical need in the perioperative period.

Conclusion

Essential aspects were evidenced that may guide the development of a care-educational technology. The findings emphasized the relevance of including perioperative thirst in innovative and sensitive educational strategies, fostering nursing protagonism and multiprofessional engagement. Active methodologies and playful and technological resources were portrayed as facilitators of more interactive and emotionally motivating learning. However, their effective incorporation depends on overcoming cultural and organizational barriers, as well as strengthening continuing education and evidence-based practice.

Acknowledgments

To the *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* (CAPES), for granting a scholarship to author Karine Silva de Oliveira through Funding Code 001.

Authors' contribution

Study conception and design or data analysis and interpretation; manuscript writing or relevant critical revision of intellectual content; final approval of the version to be published; agreement to be accountable for all aspects of the manuscript related to the accuracy or integrity of any part being appropriately investigated and resolved: **Barakat SH, Oliveira KS, Conchon MF, Fonseca LF.**

Data availability

The authors declare that all data are available only within the body of the article.

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