Experience Report

TEXTO & CONTEXTO ENFERMAGEM
TEXT & CONTEXT NURSING TEXTO & CONTEXTO ENFERMERÍA

PROCESS OF IMPLEMENTING THIRST MANAGEMENT IN SURGICAL BURNED PATIENTS, BASED ON KNOWLEDGE TRANSLATION

Aline Korki Arrabal Garcia[1]
Marilia Ferrari Conchon[1]
Isadora Pierotti[1]
Ligia Fahl Fonseca[1]

[1]Universidade Estadual de Londrina, Programa de Pós-graduação em Enfermagem. Londrina, Paraná, Brasil.

ABSTRACT

Objective: to report the path taken to implement the Thirst Management Model using the Knowledge Translation Evidence-based Practice for Improving Quality intervention in a Burn unit.
Method: an experience report on the implementation, which took place in two stages: Preparation; and Implementation/Change, both requiring a sequence of steps.
Results: the implementation was performed in four cycles of the PDSA improvement tool. All had the same indicator collected, with increasing goals to be attained. Considering the barriers identified, multiple combined Knowledge Translation strategies were used, namely: posters; theoretical and practical training sessions, individual or in group; videos; dynamics; music; logo development for implementation visibility; audit and feedback; and didactic and illustrated clinical protocols.
Conclusion: the report of the entire implementation process using the Evidence-based Practice for Improving Quality intervention, pointing out its weaknesses and strengths, proves to be useful, necessary and innovative. This study may assist in future evidence-based implementations that choose to use multifaceted interventions.

DESCRIPTORS: Evidence-based clinical practice. Thirst. Burns units. Translational medical research. Quality improvement.

HOW CITED: Garcia AKA, Conchon MF, Pierotti I, Fonseca LF. Process of implementing thirst management in surgical burned patients, based on Knowledge Translation. Texto Contexto Enferm [Internet]. 2023 [cited YEAR MONTH DAY]; 32:e20220032. Available from: https://doi.org/10.1590/1980-265X-TCE-2022-0032en

PROCESSO DE IMPLANTAÇÃO DO MANEJO DA SEDE NO PACIENTE QUEIMADO CIRÚRGICO EMBASADO NO *KNOWLEDGE TRANSLATION*

RESUMO

Objetivo: Relatar o caminho percorrido para a implantação do Modelo de Manejo da Sede com o uso da intervenção de *Knowledge Translation Evidence-based Practice for Improving Quality* (Prática Baseada em Evidência para a Melhoria do Processo de Qualidade) em uma unidade de queimados.
Método: Relato de experiência sobre a implantação que ocorreu em duas etapas: Preparação e Implantação/mudança, ambas obedecendo uma sequência de passos para sua realização.
Resultados: A implementação foi realizada em quatro ciclos da ferramenta de melhoria PDSA. Todos tiveram o mesmo indicador coletado, com metas crescentes a serem alcançadas. Considerando as barreiras identificadas, utilizaram-se múltiplas estratégias combinadas de *Knowledge Translation*: cartazes, capacitações teóricas e práticas, individuais ou em grupo, vídeos, dinâmicas, músicas, desenvolvimento de logo para visibilidade da implantação, auditoria e *feedback*, protocolos clínicos didáticos e ilustrados.
Conclusão: O relato de todo o processo de implantação com o uso da intervenção *Evidence-based Practice for Improving Quality*, apontando suas fragilidades e fortalezas, mostra-se útil, necessária e inovador. Este estudo pode auxiliar futuras implantações de evidências que escolham utilizar intervenções multifacetadas.

DESCRITORES: Prática clínica baseada em evidências. Sede. Unidades de queimados. Pesquisa médica translacional. Melhoria de qualidade.

PROCESO DE IMPLEMENTACIÓN DEL MANEJO DE LA SED EN PACIENTES QUIRÚRGICOS CON QUEMADURAS, SOBRE LA BASE DE *KNOWLEDGE TRANSLATION*

RESUMEN

Objetivo: informar el camino recorrido para implementar el Modelo de Manejo de la Sed recurriendo a la intervención *Knowledge Translation* llamada *Evidence-based Practice for Improving Quality* (Práctica Basada en Evidencia para Mejorar la Calidad) en una unidad especializada en Quemaduras.
Método: informe de experiencia sobre la implementación, que tuvo lugar en dos etapas: Preparación e Implantación/cambio, ambas obedeciendo una secuencia de pasos para su realización.
Resultados: la implementación se realizó en cuatro ciclos de la herramienta de mejoras PDSA. En todos los ciclos se recolectó el mismo indicador, con metas crecientes por alcanzar. Considerando las barreras identificadas, se utilizaron múltiples estrategias combinadas de *Knowledge Translation*, a saber: posters; sesiones de capacitación teóricas y prácticas, individuales o en grupo, videos, dinámicas, música, desarrollo de un logotipo para conferir visibilidad a la implementación; auditoría y *feedback*; y protocolos clínicos didácticos e ilustrados.
Conclusión: el informe de la totalidad del proceso de implementación recurriendo a la intervención *Evidence-based Practice for Improving Quality*, incluso señalando sus debilidades y puntos fuertes, demuestra que es útil, necesaria e innovadora. Este estudio pode auxiliar futuras implementaciones de evidencias que decidan utilizar intervenciones multifacéticas.

DESCRIPTORES: Práctica clínica basada en evidencias. Sed. Unidades especializadas en Quemaduras. Investigación médica traslacional. Mejora de la calidad.

INTRODUCTION

Although there is scarcity of scientific research on the discomforts experienced by burned patients and their impact on well-being during the pre-anesthetic period, patients perceive them intensely when undergoing procedures such as grafts or balneotherapies. Thirst is among the many discomforts identified during hospitalization[1].

It can be triggered by different factors found in the hospitalization of many burned patients. The pathophysiology of burns, for example, can lead to fluid and electrolyte imbalance, fluid loss due to the injuries, use of opioids and fear and anxiety due to anticipation of the painful experience after the procedure, in addition to long periods of pre-anesthetic fasting with water restriction[1]. These factors converge to intense and frequent thirst in the pre-anesthetic period.

To treat thirst in this period, a group of researchers developed the perioperative Thirst Management Model (TMM). Consisting of four pillars (identification, measurement, safety and strategy offering), this model can be used in the pre- and immediate postoperative period (IPO), allowing relief, comfort and satisfaction for surgical patients. Its development was based on solid scientific evidence, on the professionals' clinical experience, and on the perception of the surgical patients that suffer from this symptom[2].

Effectively implementation of new evidence in the clinical practice can be challenging. Strong evidence *per se* is not sufficient to change practice. However, the implementation science field provides a number of approaches, structures and theories that assist a successful implementation[3].

For evidence to become a routine in the health professionals' practice, it is recommended to incorporate multifaceted strategies (a set of strategies used to achieve knowledge translation and exchange in an implementation process) of Knowledge Translation (KT)[4], which can be translated as Knowledge Translation and Exchange.

The KT theoretical framework is a dynamic and interactive intervention that aims at bridging the gap between scientific evidence and clinical practice. Translation and exchange are necessary, as the mere dissemination of knowledge at the end of the research study does not ensure that the professionals will use it in their practice[5]. Consequently, such implementation should be guided by KT theoretical models.

Considering the effectiveness of multifaceted interventions for KT, the Evidence-based Practice for Improving Quality (EPIQ) intervention was developed in Canada. Its objective is to support implementation of evidence in the practice through a multidimensional approach aimed at quality care, organizational change and evidence support[6,7].

EPIQ was initially implemented in neonatal intensive care units and combines three points: use of the best published scientific evidence (to assert the efficacy of the evidence to be implemented); use of data from local audit results referring to the change to be made (to support the need for change); and sharing experiences related to practice change and to the results achieved (to stimulate change and support the evidence deployed)[6,8–9].

The choice of this intervention among many others was due to the professionals' involvement, encouraging them to take ownership of their local problems and solutions, facilitating acceptance and maximizing the impact of an implementation[7]. This occurs because the professional's experience and the local reality are valued as indispensable components for any implementation[9]. Additionally, EPIQ achievements are broad and continuous, representing the secret for success, even if applied for brief periods of time[10].

This report is justified by the importance of the EPIQ intervention in the implementation processes and by the non-existence of studies that detail its use to improve the quality process and generate changes in health care in developing countries, such as Brazil. The gap in terms of how

this structure can be used in practice causes researchers to find it difficult to apply. Furthermore, EPIQ has never been described in the burned patient or surgical burned patient settings, not even to implement the TMM in the perioperative period.

Thus, the study herein presented aims to report the path taken to implement the Thirst Management Model using the Knowledge Translation Evidence-based Practice for Improving Quality intervention in a Burn unit.

METHOD

This is an experience report on the process to implement the perioperative TMM in a Burn Treatment Center (BTC) that is a reference in northern Paraná. This unit has two operating rooms with a monthly mean of 69 surgeries, and a balneotherapy room, with a monthly mean of 122 procedures. It has 15 ward and 6 Intensive Care Unit (ICUs) beds. The team that performs all the activities of this sector consists of eight nurses and 33 nursing technicians, distributed across the morning, afternoon and night shifts.

The research met all the standards recommended by Resolution No. 466/2012 of the National Health Council, and was approved by the Human Subjects Research Committee. All professionals, patients and those responsible for minors involved in the implementation process signed the informed consent form; when the patients were minors, they signed the assent form. The researcher signed the Secrecy and Confidentiality Form for collecting data from medical charts.

In July 2019, before initiating the stages recommended by EPIQ, the main researcher and also an external facilitator for the implementation, prioritized establishing a relationship of trust and respect with the professionals, experiencing the BTC routine and participating in the care processes. The facilitator recorded her perceptions in a field diary about the leaders and the work process in the unit, which could provide support for the subsequent assembly of the Research and Practice Council (RPC).

RESULTS AND DISCUSSION

Multifaceted KT - EPIQ intervention

The implementation took place in two major stages, following the recommendations of the EPIQ intervention: Preparation; Implementation and change[6,9].

Within the preparation stage, pre-implementation data collection took place; as well as training, awareness increase regarding thirst as a theme and qualification of the RPC and the team; review of the available evidence; decision to change the practice; and identification of barriers and facilitating factors[6,9].

During the implementation and change stage, the steps were reinforcement of the content worked on in each of the four pillars individually with the team; as well as verification and implementation of practice change using the PDSA (Plan; Do; Study; Act) improvement tool; and post-implementation data collection[6,9].

Preparation stage

Pre-implementation data collection took place during two months (August and September 2019) with the objective of gathering data from the unit related to the thirst symptom in burned surgical patients, in the preoperative period. On that occasion, the clinical and demographic data were collected from the patients' medical charts. However, as there were no systematized records on thirst, it was necessary to approach the patients in the preoperative period to collect pre-implementation data.

The data collected both in the pre and post-implementation collection periods were the same. The difference was that the specific data referring to thirst in the post-implementation collection period could also be located in the patient's medical record since, during implementation, a specific instrument was developed to record the TMM.

In October 2019, the key professionals from the unit were formally invited to comprise the RPC. The purpose of the council was to promote the role of these professionals as internal facilitators and decision makers in the BTC during implementation. It was composed by a multiprofessional team: a nurse manager and na assistant nurse, two nursing technicians, the unit's chief surgeon, an anesthesiologist and two nursing professors with PhDs in the theme of thirst.

After assembling the RPC, its members were trained by the external facilitator for a month, in two training meetings lasting one and a half hours and one hour, respectively, and held in a reserved room inside the BTC. For this, didactic material was developed with different presentation strategies: slide presentation for dialogic oral exposition, focus groups to identify barriers and facilitators for the implementation[11], dynamics, awareness raising regarding the use of traditional (ineffective) strategies to relieve thirst and the evidence-based ones that would be implemented in the BTC.

The RPC members were aware of the implementation proposal, including the method, use of KT, EPIQ and PDSA. These meetings aimed to raise awareness concerning thirst as a symptom in addition to discussing strategies, deadlines and resources.

At the same time, in order to increase identification and visibility of the implementation, the authors and also members of the Study and Research Group on Thirst (SRGT) created the Patient Without Thirst (*Paciente Sem Sede*, PASS) project (Figure 1), with a logo for visual identity. PASS was presented to the RPC, to BTC professionals and to the institution's Nursing Director, with the objective of requesting support at the different management levels. For the initial action to confer visibility to the project, banners, posters and stickers were printed and distributed at the BTC, in adding the PASS logo to the unit's freezer.

Considering the KT premise of synthesizing the available evidence on the topic[5], the external facilitator carried out a literature review to locate relief strategies used to treat thirst in burned patients. However, the search was unsuccessful due to the absence of publications with this focus in the literature.

Therefore, the existing evidence regarding general surgical patients was added to the clinical experience of the professionals participating in the RPC and to that of the burned patients, whose data on thirst management had been collected at the pre-implementation moment.

Figure 1 – Logo of the project called *Paciente Sem Sede* – *PASS*. Londrina, PR, Brazil, 2020.

During the training of the RPC, the pre-implementation data were presented so that everyone could understand the unit's status regarding the implementation theme. The results revealed that there was no identification, measurement and safety assessment. Consequently, thirst was not treated in burned patients.

The next step was the identification of barriers and facilitating factors by the RPC for the implementation of TMM and strategies to face the critical nodes, that is, points of difficulties that would need to be resolved in order to carry out the process[11]. Scenario mapping is fundamental to be able to predict contextual factors that can positively or negatively influence the implementation, with organizational culture and receptivity to new ideas on previous experiences; how much authority leaders had concerning decision making and presenting ideas and wheather there would be available resources to uphold the introduction of proposed improvement. Based on this previous diagnosis, it is recommended that intervention strategies be planned to reduce their impact[12].

Although identifying barriers is an essential stage in this process, little is known about how to overcome them and which interventions are most effective[13]. In addition to that, each context offers its own set of factors that will hinder or promote implementation of new knowledge. They can be objective factors, such as lack of equipment, or subjective, such as the team's disbelief in certain evidence[14]. Disbelief and lack of appreciation of the thirst symptom in burned patients were identified in part of the members of the multidisciplinary team during the implementation. This behavior reinforces the importance of sensitizing the professionals about the evidence that will be implemented in the sector, even before training them[14].

Thus, it was important to present the pre-implementation data to the entire team, so that everyone could recognize the issue of thirst within their professional experiences. This allowed them to evaluate their own clinical setting and intentionally analyze the perspective of fasting patients that presented thirst.

Another barrier identified was the anesthesiologists' resistance to accept that patients receive clear liquids and without residues (ice popsicle) during the fasting period, contrary to the recommendations of their professional associations[15].

In an attempt to overcome this barrier, a meeting was held with the heads of the anesthesiology department at the institution to present the PASS project, in order to involve this professional category and request support to the project, with a consequent favorable statement. A facilitating factor for this attitude may have been the fact that they already know the utilization og the TMM in the IPO, in the institution's Operating Room Unit.

After the meeting, the external facilitator carried out several interactions with the anesthesiologists, addressing their restrictions and benefits of PASS for burned patients. With this strategy, better communication was established between the professionals and the researcher, reducing oppositions.

The next step consisted in the RPC defining the changes in the practice to be implemented in the sector. This occurred at the end of the last training meeting, after the group learned about the evidences pertaining to the treatment of preoperative thirst. It was decided to introduce TMM[2] specifically for fasting patients in the pre-anesthetic period, up to three hours before the procedure, and to restructure the perioperative recording instrument, incorporating the TMM.

In order to perform the TMM, the professional should follow all four pillars. In the identification pillar, ask the patient about the presence of thirst; in the intensity measurement pillar, use the Verbal-Numeric Scale (VNS) for adults and the Faces Scale (FS) for children; to assess management safety, use the Safety Protocol for Thirst Management (SPTM) for adults[16] and the Safety Protocol for Pediatric Thirst Management (SPPTM) for children[17]; and, for the thirst relief strategy pillar, ice popsicles[18–19] and menthol-free lip moisturizer were chosen[20].

The last step of this stage was to train the Nursing team to apply the TMM. The physical therapists who work at the BTC asked to participate in the training, which shows the interest in the topic by other professionals who work in the direct care provided to burned patients.

The training content for the team was divided into four training meetings, held in a reserved room at the BTC during working hours and lasting 30 minutes each, during morning, afternoon and evening shifts. The same didactic material presented to the RPC was used, exposed in dialogic oral presentations, with space for exchanging experiences. A total of 55 training meetings were necessary to allow socialization of the evidence to all the professionals. The presentations included the following: awareness raising towards the topic; exposure of the pre-implementation data; TMM application; barriers and facilitating factors identified by the RPC and presentation of the updated perioperative instrument.

During this stage, a positive element was the fact that the external facilitator was one of the authors of the robust and viable evidences on the topic of thirst. This aspect can contribute to improving credibility of the facilitator's role[21].

Assembly of the RPC was also presented as an essential element for the external facilitator to maintain a close working relationship with the BTC formal and informal leaders[12]. The group that acts as internal facilitators can exert a major impact on implementation results, including the sustainability of practices by the time the external facilitator's work is finished[22].

The researcher's lack of experience in the role of external facilitator in implementations can be cited as a limiting factor. Novel facilitators need the support of a more experienced peer to assess and negotiate some of the more challenging barriers or contextual factors they may encounter. A number of studies point to the importance of facilitators working together with a support network, ideally guided and supported by more experienced colleagues[23]. In the current study, the researcher's support network corresponded to the most experienced SRGT members.

However, there is still no consensus on which skills are most important for external facilitators in the real world, hampering the recruitment and training efforts in terms of this type of facilitator[22].

Another challenge is the facilitator's commitment to train the entire team at multiple times and repeatedly, proving the need for the presence of a facilitator with significant time availability. In addition, low- and middle-income countries like Brazil have limitations such as the professionals' lack of familiarity with the implementation process, in addition to the scarcity and high turnover of human resources[24].

Implementation and change stage

In the second stage, the evidences related to the four TMM pillars were intensively worked on with the help of varied KT strategies. For its systematization, PDSA was used, which allows for a quick and flexible evaluation to adapt the change according to the feedback, in addition to measuring the impact of an intervention on the result of interest[25].

It took four PDSA cycles, one for each TMM pillar and lasting three weeks each, in order to reinforce the content. At the end of each cycle, an audit was carried out to verify whether the goal had been attained. The audit was based on the perioperative record, which contained all the TMM data. It took place in the last week of each cycle and lasted three days, randomly chosen, considering the external facilitator's availability.

The audited indicator was the same for all cycles, that is, adoption of the four TMM pillars by the professionals in preoperatively burned patients. The goals were achieved in three of the four PDSA cycles run. Several multifaceted strategies were developed and implemented by the RPC and professionals in the sector during each of the cycles, aiming at fidelity of the implementation plan.

At the beginning of each cycle, there was a meeting with the RPC to establish the change plan and which strategies would engage the team, in addition to the goal to be achieved. All the strategies used to fix the evidence, in all four PDSA cycles, took place in the morning, afternoon and night shifts.

To choose the best strategies, the findings of a systematic review of evidence implementation strategies in low- and middle-income countries were considered. The following stood out: educational meetings; training of health professionals; educational outreach; facilitation of the practice: training of local opinion leaders; audits and feedback; personalized interventions; patient education; strategies to improve the organizational culture; and use of communication media for patient support and reminders[26].

Considering the use of communication media to support the implementation as a strategy, the external facilitator granted interviews to the university radio station and newspaper. The important role of communicators in decoding myths is highlighted, which in this case involved the experience of thirst in the preoperative period.

The dynamics performed and songs sung in the corridors of the BTC had the role of activators, drawing the attention of the team, patients and companions, breaking the routine and engaging the BTC in the implementation.

The third cycle, as it refers to the most complex pillar, focused on practical and individual training on the SPTM for the 33 nursing technicians and 8 nurses and on the SPPTM for the nurses, with the external facilitator as the trainer. Complexity of the evidence is a limiting factor for sustainability in the practice, mainly in low- and middle-income countries[24].

The goal not achieved in this cycle can be related to the fact that some RPC members were on vacation, reducing the motivation to apply the changes incorporated. This indicates the importance of the leaders' engagement for promotion and sustainability of the implementation process[27].

Another strategy developed was the creation of Standard Operating Protocols (SOPs) for application of the adult and pediatric TMM. However, it was observed that the team rarely consulted the SOP in case of doubts, as the format presents written content and is inserted in the institution's online system. As a solution to the barrier, a didactic SOP was developed with images and synthetic text, laminated and glued to strategic walls of the unit, facilitating its use and allowing knowledge to be more accessible.

The last cycle was initiated, with a need to continue the practical and individual training sessions. Knowledge reinforcement demanded investment in terms of time and effort from those involved, as some professionals showed resistance in participating, claiming to have already taken part in other initial training moments or even work overload. This is the most common barrier identified by the professionals for performing an effective KT, mainly in a unit with a high workload, such as the BTC[11,28].

Support from the leaders of the unit with fundamental in this phase. The managers' role as moderators or mediators between the professionals and the evidence to be implemented is important, thus being able to improve or preclude implementation[29]. The audits carried out during the PDSA cycles, for example, contributed both to identifying the professionals with difficulty carrying out TMM application and recording and provided feedback to these professionals, always supported by the management[26]. This collaborative effort can contribute to bridging the gap between knowing and doing. However, it is still discussed how organizational characteristics interact to influence efficacy of the implementation[29].

The team also tested strategies that they believed to alleviate thirst and that, at some point, they had already offered their patients, such as cotton soaked in water or gauze with saline solution. At a second moment, they tested the relief strategies that were implemented, such as the ice popsicle and the lip moisturizer. This experience exerted an impact on the team's valuing of new strategies for relieving thirst and the possibility of being able to offer something effective and pleasurable to the

patients. This intervention considered the premise of how important it is to sensitize the team towards the evidence to be incorporated[14].

In order to promote patient education in relation to thirst, informative pamphlets were distributed at the time of their hospitalization. Posters with TMM reminders for patients and professionals were posted in corridors and wards in order to improve patient-team communication (Figure 2).

With the objective of clarifying doubts and overcoming the barrier of high employee turnover in the unit[11], TMM videos were made, which were sent to the professionals via a cell phone app for consultation, whenever necessary. A copy was made available to the unit managers for them to use it in future training programs.

At the end of the cycles, the researcher intentionally distanced herself from the BTC for three weeks, so that she could assess the scenario after a period without interventions. At the end of the interval, in March 2020, post-implementation collection was initiated, lasting three weeks.

A limiting factor to be considered in the second stage of the EPIQ intervention was the early interruption of post-implementation collection due to the pandemic, causing the previously established pre- and post-implementation collection times to differ.

This research did not cover the scope of sustainability process in all the required depth[30]. Isolated strategies were developed aimed at an approximation to sustainability. It is argued that this is one of the essential KT elements and that it needs to be worked on in the future.

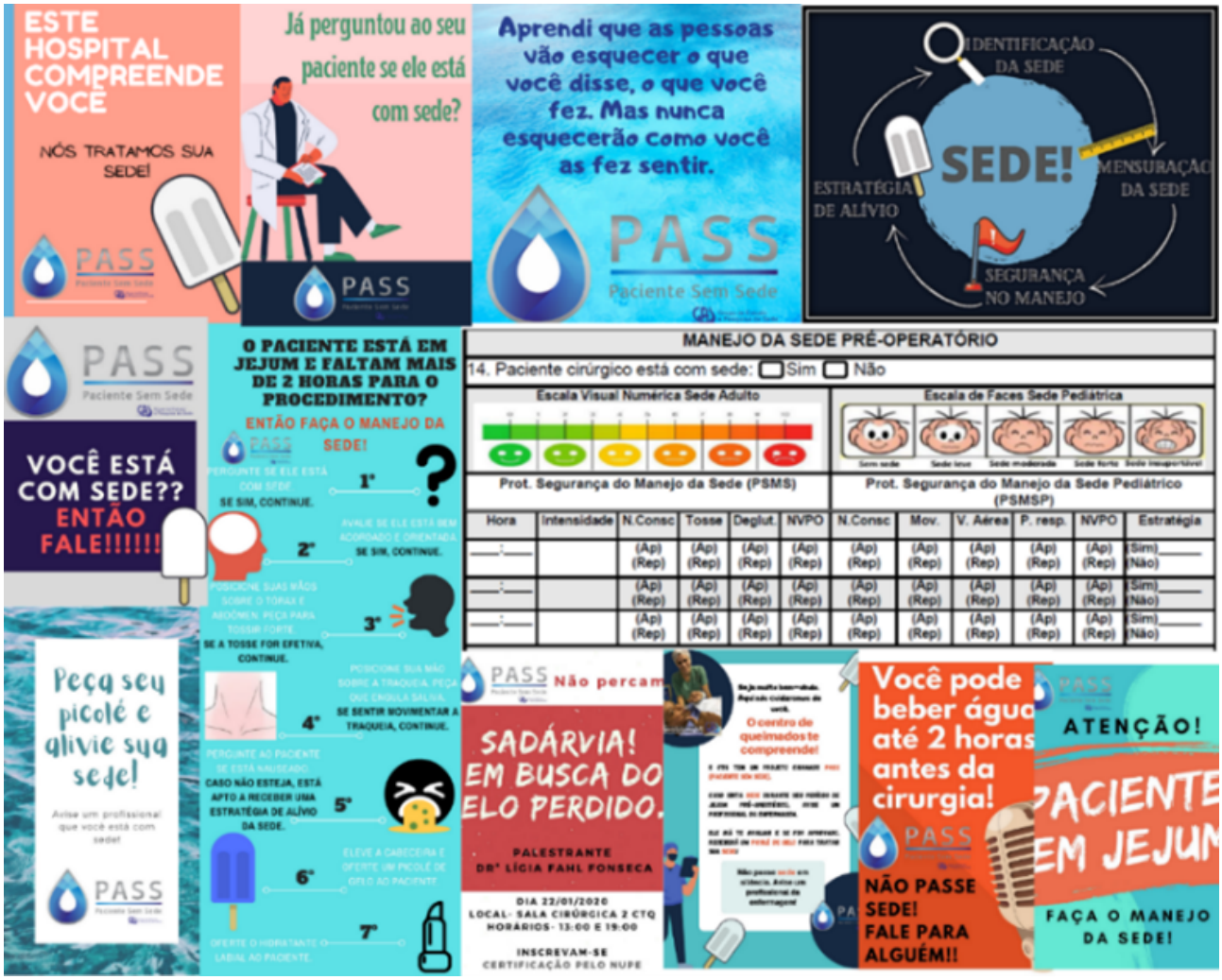

Figure 2 – Mosaic of the illustrations related to thirst management developed for professionals and patients. Londrina, PR, Brazil, 2020.

The absence of an institutional culture to encourage the adoption of evidence was a challenge, making the scenario and the actors involved less receptive to change. It is necessary to reflect on the need to encourage new research studies in the unit, in order to cover the pointed out challenges.

CONCLUSION

The importance of this study lies in reporting the details of the preoperative TMM implementation process in the BTC, describing the stages and phases of the multifaceted KT intervention called EPIQ, aiming to achieve a successful implementation.

A study that contributes by sharing the richness of details of its use, pointing out weaknesses and strengths, proves to be useful, necessary and innovative, as similar reports are not found in the national and international literature. Thus, this study may assist in future processes of evidence implementation in the clinical practice using the EPIQ intervention.

REFERENCES

1. Togo HYA, Lopes EC. Preoperative fasting reduction in burned patients: A systematic review. Burns Open [Internet]. 2020 [cited 2021 Jun 15];4(4):176-82. Available from: https://doi.org/10.1016/j.burnso.2020.06.004
2. Nascimento LA, Garcia AKA, Conhon MF, Aroni P, Pierotti I, Martins PR, et al. Advances in the Management of Perioperative Patients' Thirst. AORN Journal [Internet]. 2020 [cited 2021 Oct 18];111(2):165-79. Available from: https://doi.org/10.1002/aorn.12931
3. Hunter SC, Kim B, Mudge A, Hall L, Young A, McRae P, et al. Experiences of using the i-PARIHS framework: a co-designed case study of four multi-site implementation projects. BMC Health Serv Res [Internet]. 2020 [cited 2021 Jun 5];20(573). Available from: https://doi.org/10.1186/s12913-020-05354-8
4. Olson A, Oudshoorn A. Knowledge translation: A concept analysis. Nurs Forum [Internet]. 2019 [cited 2020 Jun 1];55(2):157-64. Available from: https://doi.org/10.1111/nuf.12410
5. Canadian Institutes of Health Research (CIHR). More about Knowledge Translation at CIHR – long descriptions [Internet]. 2016 [cited 2019 Aug 16]. Available from: https://cihr-irsc.gc.ca/e/46642.html
6. Lee SK, Aziz K, Singhal N, Cronin CM, James A, Lee DSC, et al. Improving the quality of care for infants: a cluster randomized controlled trial. CMAJ [Internet]. 2009 [cited 2019 Oct 1];181(8):469-76. Available from: https://doi.org/10.1503/cmaj.081727
7. Lee SK, Singhal N, Aziz K, Cronin CM. The EPIQ evidence reviews – practical tools for an integrated approach to Knowledge Translation. Paediatr Child Health [Internte]. 2011 [cited 2019 Nov 15];16(10):629-630. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3225472/pdf/pch16629.pdf
8. Cao Y, Jiang S, Zhou Q. Introducing evidence-based practice improvement in Chinese neonatal intensive care units. Transl Pediatr [Internet]. 2019 [cited 2020 Nov 3];8(3):257-261. Available from: https://doi.org/10.21037/tp.2019.07.07
9. Stevens BJ, Yamada J, Promislow S, Stinson J, Harrison D, Victor JC. Implementation of multidimensional knowledge translation strategies to improve procedural pain in hospitalized children. Implement Sci [Internet]. 2014 [cited 2021 Aug 4];9:120. Available from: https://doi.org/10.1186/s13012-014-0120-1
10. Brindle ME. The challenge of achieving continuous quality improvement in Canadian pediatric care. CMAJ [Internet]. 2020 [cited 2021 Jun 15];192(4):E79-80. Available from: https://doi.org/10.1503/cmaj.200008

11. Garcia AKA, Conchon MF, Pierotti I, Zampar EF, Fonseca LF. Barriers and facilitators in the management of preoperative thirst of the burned patient in the light of Knowledge Translation. Rev Esc Enferm USP [Internet]. 2021 [cited 2021 Dec 20];55:e03764. Available from: https://doi.org/10.1590/S1980-220X2020039803764

12. Harvey G, Lynch E. Enabling continuous Quality improvement in Practice: the role and contribution of Facilitation. Front Public Health [Internet]. 2017 [cited 2020 Jun 7];5:27. Available from: https://doi.org/10.3389/fpubh.2017.00027

13. Baker R, Camosso-Stefinovic J, Gillies C, Shaw EJ, Trapaceiro F, Flottorp S, et al. Tailored interventions to address determinants of practice. Cochrane Database Syst Rev [Internet]. 2015 [cited 2019 Aug 6]. Available from: https://doi.org/10.1002/14651858.CD005470.pub3

14. Légaré F, Zhang P. Barriers and facilitators: Strategies for identification and measurement. In: Strauss SE, Tetroe J, Graham ID. Knowledge Translation in Health Care Moving from Evidence to Practice. 2th ed. UK: BMJ Books; 2013. p. 121-37. Available from: https://ktru.iums.ac.ir/files/ktru/files/KT_in_HeaLth_Care-2013.pdf

15. Practice guidelines for preoperative fasting and the use of pharmacologic agents to reduce the risk of pulmonary aspiration: application to healthy patients under going elective procedures. Anesthesiology [Internet]. 2017 [cited 2020 Apr 15];126(3):376-393. Available from: https://doi.org/10.1097/ALN.0000000000001452

16. Nascimento LA, Fonseca LF, Santos CB. Inter-rater reliability testing of the safety protocol for thirst Management. J Perianesth Nurs [Internet]. 2018 [cited 2021 Mar 14];33(4):527-36. Available from: https://doi.org/10.1016/j.jopan.2016.07.008

17. Pierotti I, Nascimento LA, Rossetto EG, Furuya RK, Fonseca LF. Elaboration, validation and reliability of the safety protocol for pediatric thirst management. Rev Lat Am Enfermagem [Internet]. 2020 [cited 2021 Mar 7];28:e3321. Available from: http://doi.org/10.1590/1518-8345.3333.3321

18. Aroni P, Fonseca LF, Ciol MA, Margatho AS, Galvão CM. The use of mentholated popsicle to reduce thirst during preoperative fasting: a randomised controlled trial. J Clin Nurs [Internet]. 2020 [cited 2021 Oct 8];29(5-6)840-51. Available from: https://doi.org/10.1111/jocn.15138

19. Conchon MF, Fonseca LF. Efficacy of an Ice Popsicle on thirst management in the immediate postoperative period: a randomized clinical trial. J Perianesth Nurs [Internet]. 2018 [cited 2021 Jun 15];33(2):153–61. Available from: https://doi.org/10.1016/j.jopan.2016.03.009

20. Serato VM, Fonseca LF, Birolim MM, Rossetto EG, Mai LD, Garcia AKA. Package of menthol measures for thirst relief: a randomized clinical study. Rev Bras Enferm [Internet]. 2019 [cited 2020 Mar 17];72(3):600–8. Available from: https://doi.org/10.1590/0034-7167-2018-0057

21. Azimi A, Fattahi R, Asadi-Lari M. Knowledge translation status and barriers. J Med Libr Assoc [Internet]. 2015 [cited 2019 May 3];103(2):96-9. Available from: http://doi.org/10.3163/1536-5050.103.2.008

22. Connolly SL, Sullivan JL, Ritchie MJ, Kim B, Miller CJ, Bauer MS. External facilitators' perceptions of internal facilitation skills during implementation of collaborative care for mental health teams: a qualitative analysis informed by the i-PARIHS framework. BMC Health Serv Res [Internet]. 2020 [cited 2021 May 5];20:165. Available from: https://doi.org/10.1186/s12913-020-5011-3

23. Kitson A, Harvey G. Methods to succeed in effective knowledge translation in clinical practice. J Nurs Scholarsh [Internet] 2016 [cited 2019 Jun 29];48(3):294–302. Available from: https://doi.org/10.1111/jnu.12206

24. Hailemariam M, Bustos T, Montgomery B, Barajas R, Evans LB, Drahota A. Evidence-based intervention sustainability strategies: a systematic review. Implementation Sci [Internet]. 2019 [cited 2021 Aug 15];14:57. Available from: https://doi.org/10.1186/s13012-019-0910-6

25. Taylor MJ, McNicholas C, Nicolay C, Darzi A, Bell D, Reed JE. Systematic review of the application of the plan-do-study-act method to improve quality in healthcare. BMJ Qual Saf [Internet]. 2014 [cited 2021 Jul 7];23(4):290-8. Available from: https://doi.org/10.1136/bmjqs-2013-001862

26. Pantoja T, Opiyo N, Lewin S, Paulsen E, Ciapponi A, Wiysonge CS, et al. Implementation strategies for health systems in low-income countries: an overview of systematic reviews. Cochrane Database Syst Rev [Internet]. 2017 [cited 2021 Jun 15];9(9):CD011086. Available from: https://doi.org/10.1002/14651858.CD011086.pub2

27. Bianchi M, Bagnasco A, Bressan V, Barisone M, Timmins F, Rossi S, et al. A review of the role of nurse leadership in promoting and sustaining evidence-based practice. J Nurs Manag [Internet]. 2018 [cited 2020 Apr 28];26(8):918-32. Available from: https://doi.org/10.1111/jonm.12638

28. Harvey G, Kelly J, Kitson A, Thornton K, Owen V. Leadership for evidence-based practice – Enforcing or enabling implementation? Collegian [Internet]. 2019 [cited 2021 Oct 5];27(1):57-62. Available from: https://doi.org/10.1016/j.colegn.2019.04.004

29. Li SA, Jeffs L, Barwick M, Stevens B. Organizational contextual features that influence the implementation of evidence based practices across healthcare settings: a systematic integrative review. Syst Rev [Internet]. 2018 [cited 2020 Jun 1];7(1):72. Available from: https://doi.org/10.1186/s13643-018-0734-5

30. Tricco AC, Ashoor HA, Cardoso R, MacDonald H, Cogo E, Kastner M, et al. Sustainability of knowledge translation interventions in healthcare decision making: a scoping review. Implement Sci [Internet]. 2016 [cited 2019 May 4];11:55 Available from: https://doi.org/10.1186/s13012-016-0421-7

NOTES

ORIGIN OF THE ARTICLE

Article extracted from the thesis - Implementation of the Thirst Management Model in a Burns Unit: An intervention study guided by Knowledge Translation, presented at the Graduate Program in Nursing of *Universidade Estadual de Londrina*, in 2021.

CONTRIBUTION OF AUTHORITY

Study design: Garcia AKA, Conchon MF, Pierotti I, Fonseca LF.
Data collection: Garcia AKA, Conchon MF, Pierotti I, Fonseca LF.
Data analysis and interpretation: Garcia AKA, Conchon MF, Pierotti I, Fonseca LF.
Discussion of the results: Garcia AKA, Conchon MF, Pierotti I, Fonseca LF.
Writing and/or critical review of the content: Garcia AKA, Conchon MF, Pierotti I, Fonseca LF.
Review and final approval of the final version: Garcia AKA, Conchon MF, Pierotti I, Fonseca LF.

ACKNOWLEDGMENT

To *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* and to *Conselho Nacional de Desenvolvimento Científico e Tecnológico*.

FUNDING INFORMATION

PhD Scholarship granted by *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* (CAPES); *Conselho Nacional de Desenvolvimento Científico e Tecnológico* (CNPQ – Process No. 425262/2018-9).

APPROVAL OF ETHICS COMMITTEE IN RESEARCH

Approved by the Research Ethics Committee of *Universidade Estadual de Londrina*, under opinion No.3,476,724/2019 and Certificate of Presentation for Ethical Appraisal No. 13638519.1.0000.5231.

CONFLICT OF INTEREST

There is no conflict of interest.

HISTORICAL

Received: February 21, 2022.
Approved: July 27, 2022.

CORRESPONDING AUTHOR

Aline Korki Arrabal Garcia
alinekorki@yahoo.com.br