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# TREINAMENTO DE HIGIENE ORAL EM PACIENTE CRÍTICO ORAL HYGIENE TRAINING COURSE IN CRITICALLY ILL PATIENTS ENTRENAMIENTO EN HIGIENE BUCAL EN UN PACIENTE CRÍTICO

Lorena Morena Rosa Melchior<sup>1</sup>, Erika Rodrigues dos Santos<sup>2</sup>, Bárbara Dryelle Penha de Carvalho<sup>3</sup>, Mykaella Cristina Araújo Margarida<sup>4</sup>, Thainara Lorraine Costa e Silva Pereira<sup>5</sup>, Gabriela Maria Lara de Paulo<sup>6</sup>, Ana Caroliny da Silva<sup>7</sup>, Lais Lara Silva Xavier<sup>8</sup>

#### **RESUMO**

Objetivo: descrever a experiência de enfermeiros acerca de um treinamento em saúde realizado em um hospital de alta complexidade, na perspectiva da prática de higiene oral em pacientes críticos, utilizando, como ferramenta, o ciclo Plan, Do, Check, Act. Método: trata-se de estudo qualitativo, descritivo, tipo relato de experiência, cuja ação tornou possível capacitar os profissionais de Enfermagem visando à melhoria da qualidade da execução da higiene oral realizada, identificando os dificultadores da prática da higienização oral dos pacientes em ventilação mecânica. Resultados: realizou-se a capacitação dos profissionais de Enfermagem visando à melhoria da qualidade da execução da higiene oral realizada, ressaltando os aspectos inerentes à produção do conhecimento e identificando os dificultadores da prática da higienização oral dos pacientes em ventilação mecânica. Conclusão: observou-se a importância em se utilizar modernas metodologias administrativas para se alcançar novos padrões de qualidade, uma vez que, constantemente, são necessárias atualizações acerca das ações em serviços de saúde.

**Descritores:** Cuidados de Enfermagem; Cuidados Críticos; Higiene Bucal; Unidades de Terapia Intensiva; Saúde Bucal; Hospitalização.

### **ABSTRACT**

Objective: to describe the experience of nurses in a health training course in a high complexity hospital from the perspective of oral hygiene practice in critically ill patients by using the *Plan*, *Do*, *Check*, *Act* cycle as a tool. *Method*: it is a qualitative, descriptive, experience report type study, whose action made it possible to train Nursing professionals with the aim to improve the quality of oral hygiene practice performance and identify the difficulties in the practice of oral hygiene of patients under mechanical ventilation. *Results*: the training of Nursing professionals was carried out with a view to improving the quality of the oral hygiene performance, highlighting the aspects inherent to the production of knowledge and identifying the difficulties in the practice of oral hygi-

ene of patients under mechanical ventilation. *Conclusion:* the importance of using modern administrative methodologies to achieve new quality standards was observed, since updates on health service actions are constantly needed.

**Descriptors:** Nursing Care; Critical Care; Oral Hygiene; Intensive Care Units; Oral Health; Hospitalization.

# **RESUMEN**

Objetivo: describir la experiencia de los enfermeros sobre la formación en salud realizada en un hospital de alta complejidad, desde la perspectiva de la práctica de la higiene bucal en pacientes críticos, utilizando como herramienta el ciclo Planificar, Hacer, Controlar, Actuar. Método: se trata de un estudio cualitativo, descriptivo, tipo de relato de experiencia, cuya acción permitió formar profesionales de enfermería con el objetivo de mejorar la calidad de la higiene bucal realizada, identificando las dificultades en la práctica de la higiene bucal de los pacientes en ventilación mecánica. Resultados: se capacitó a profesionales de enfermería para mejorar la calidad de la higiene bucal realizada, enfatizando los aspectos inherentes a la producción de conocimiento e identificando las dificultades en la práctica de la higiene bucal de los pacientes en ventilación mecánica. Conclusión: se observó la importancia de utilizar metodologías administrativas modernas para lograr nuevos estándares de calidad, ya que constantemente se requieren actualizaciones sobre las acciones de los servicios de salud.

**Descriptores:** Atención de Enfermería; Cuidado crítico; Higiene bucal; Unidades de cuidados intensivos; Salud bucal; Hospitalización.

<sup>1</sup>Universidade Federal de Goiás/UFG. Goiânia (GO), Brazil. <sup>1</sup>©https://orcid.org/

# 0000-0002-8644-1784

<sup>2,3,4,5,6,7,8</sup>Hospital Estadual de Urgências da Região Noroeste de Goiânia Governador Otávio Lage/HUGOL. Goiânia (GO), Brazil.

- 4 https://orcid.org/0000-0002-4951-5246 https://orcid.org/0000-0002-3647-1678
- 60 https://orcid.org/0000-0002-6135-6858 70 https://orcid.org/0000-0002-7257-7699
- 80https://orcid.org/0000-0002-8015-2199

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#### INTRODUCTION

It is known that the mouth is of fundamental importance for human health because it is the place where several vital functions are performed. This body part is populated by a vast number of microorganisms that proliferate and can reach several organs of the body. As an explanation, when oral health is not in harmony, the mouth becomes a gateway to various pathologies. The oral cavity is considered an incubation medium for microorganisms due to the presence of teeth, gingival fluid and saliva, suffering continuous colonization of bacteria, fungi and viruses.

In the Intensive Care Unit (ICU), it is understood that oral hygiene is an indispensable, basic procedure among the Nursing team, where the main goal and objective is to keep the patient's oral cavity healthy.<sup>2</sup> It is understood that these procedures conducted by the team are of extreme necessity and importance for obtaining and maintaining the cleanliness of the mouth, preventing oral and systemic diseases and infections, as well as for maintaining the humidity of the oral mucous membrane, promoting comfort to the client.<sup>3-4</sup>

By promoting and carrying out the treatment with the patient's oral hygienization, a reduction in the colonization of pathogens in the oropharynx, the main responsible factors for nosocomial pneumonia, the Ventilator-associated Pneumonia (VAP) being the most frequent in ICU patients, is achieved.<sup>5</sup>

It is known that pneumonia and respiratory diseases are systemic pathologies that can be acquired from microorganisms in the oral cavity, being considered an incubation medium for microorganisms due to the presence of teeth, gingival fluid and saliva, suffering continuous colonization of bacteria, fungi and viruses.<sup>4-5</sup>

In this context, this study is justified by the constant need for health education in Nursing and in all areas of health care, with actions aimed at offering safe and quality assistance, always minimizing adverse events related to health.

#### **OBJECTIVE**

To describe the experience of nurses about a health training course held in a high complexity hospital, from the perspective of oral hygiene practice in critically ill patients, using the *Plan*, *Do*, *Check*, *Act* cycle as a tool.

## **METHOD**

This study consists of a report on the experience of residents in Nursing of a Multi-professional Health Residency Program in the area of Emergency and Trauma concentration, who delivered oral hygiene training to the Nursing teams of the ICUs of the hospital unit.

It is reported that more than 150 professionals from the Nursing team participated in the training, among Nursing technicians and nurses. A goal was established to train Nursing professionals to improve the quality of oral hygiene practice, identifying the difficulties in conducting oral hygiene in patients under mechanical ventilation.

Training was carried out following the PDCA cycle, also called *Deming* Cycle or *Shewhart* Cycle, which is a management tool whose objective is to promote the continuous improvement of processes through a circuit of four actions - *Plan* , *Do* , *Check* and *Act*.<sup>6</sup>

It is pointed out that since this is an experience report, the study was submitted and approved by the Research Ethics Committee of the institution where the training sessions took place, for the consent of the disclosure of the training course, being ruled by the guidelines and regulatory norms and obeying all the determinations (Resolution 466/2012 of the National Health Council) for this type of survey.

#### **RESULTS**

## Oral hygiene training course based on the PDCA cycle

The proposed training course took place according to the PDCA cycle approach as follows:

*P - Plan* - the location, schedules and material resources that would be necessary were defined, with a room being reserved with the Nursing coordination of the sector, at times previously defined and announced to the staff of the institution. All professionals from the Nursing teams of day and night shifts were reached, considering the current 12x36 work schedule of the institution.

The materials used were a led TV, a laptop, a mouth shaped mannequin with the teeth layout, the orotracheal tube fixed into the mannequin's oral cavity and materials needed for oral hygiene practice (cloak, procedure gloves, cap, surgical mask, soft-bristled toothbrush, spatula with "little doll" gauze pads, filtered water, mouth rinser made with 0.12% chlorhexidine, and oral sucker).





Figure 1 Materials and inputs needed for oral hygiene training

**D - Do** - the training sessions were carried out with the division of the professionals into small groups, the average length of each session being one hour and 30 minutes. Initially, a lecture-dialo-

gue on the subject was conducted, following the recommendations of the Brazilian Association of Intensive Care Medicine (AMIB),<sup>7</sup> using *Microsolft Power Point*. This lecture was held after the exhibition of a video produced by residents in Nursing in order to facilitate understanding, demonstrating how to perform oral hygiene on patients using an Orotracheal Tube (OTT). After the theoretical explanation, practical training of oral hygiene simulation in the manikin's oral cavity was performed by all professionals present. In those moments, doubts were also clarified in order to align the practice with the recommendations of AMIB.<sup>7</sup> Several doubts about oral hygiene procedures were raised by the collaborators, pointing out factors that interfere in the quality of the assistance, among which we highlight: time spent; availability of toothbrushes; patient under mechanical ventilation and with hemodynamic instability; face trauma; among others.

*C - Check* - during the training, it was perceived that there were many doubts from the Nursing team regarding evidence-based practices in line with the AMIB recommendations, most participants (nurses and Nursing technicians) being identified as interacting with the residents who delivered the training, thus making it possible to discuss problems/barriers, emphasizing the importance of oral hygiene and the goals to achieve quality. At this stage, it was possible, through the evaluation in the simulation of oral hygiene practice in the manikins and clarification of doubts, to see the good assimilation of the subject by the team and their interest in the search for knowledge.

**A - Act** - random rounds defined as oral hygiene *blitz* conducted by the institution's team of Nursing residents were instituted on alternate days in ICUs, aiming to evaluate the quality of oral hygiene offered to patients after the training and to monitor its conduction at some bedside moments, recalling the guidelines already given.

# **DISCUSSION**

It is important to emphasize that professional updates are recognized as opportunities for learning and technical improvement, aimed at enhancing the service and quality of assistance provided. It is observed that, in practice, oral hygiene is associated with hygiene care and comfort, being considered secondary, thus being able to be substituted by other needs.<sup>8-9</sup>

The authors propose, as inherent aspects of knowledge about oral hygiene practices, to identify the risk of the formation of dental plaques, to know the consequences and implications as well as the preventive measures and importance of the relationship between oral health and systemic health. In this context, it is outlined that the clinical practice of oral hygiene care is associated with the characteristics of the provider and the environment, highlighting the Nursing qualification, the access to oral hygiene kits and being trained in oral hygiene. 8-9

It is observed that Nursing professionals need to be aware and know the reasons that justify the need to perform oral hygiene on the critically ill patient according to what is recommended in the literature. The importance of training the Nursing team focusing on the generation and implementation of knowledge to ensure providing quality assistance is reported.

It turns out that although the team believes that good oral hygiene has a significant impact on patients' clinical outcomes, practices vary regarding the frequency, requirements and methods used for oral care. One aspects of beliefs and attitudes defined as factors are said to influence the development of oral hygiene practice, noting that the team needs to know the effectiveness, need and relevance of such care. Note that the team needs to know the effectiveness.

It is reported that there are statistically significant differences in relation to the Nursing team's knowledge from the perspective of oral hygiene practice when evaluating their knowledge and attitudes before and after training. Aspects inherent to prior assessment and implementation of oral hygiene that were not so relevant from the team's perspective in pre-training proved to be truly relevant after training.<sup>11</sup>

It is shown that periodontal disease increases the number of tooth decays and causes greater tooth loss, thus being a risk factor for the occurrence of VAP, as well as being associated with adverse cardiovascular events.<sup>12</sup> Some studies highlight the impact of oral hygiene practice on critically ill patients aiming at preventing complications, knowing the principles that ensure the quality of such practice.<sup>10-2</sup>

Thus, it is important to emphasize that oral hygiene should be part of the patient's routine care.

10 It is shown that this practice is still neglected in hospitals and Nursing homes. From this perspective, it is stated that the experience of applied training can be relevant in encouraging beliefs that support oral hygiene, as well as for teaching the Nursing team the appropriate skills as necessary prerequisites for implementing good practices.

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# **CONCLUSION**

This report made it possible to describe the experiences on training programs for Nursing teams focusing on oral hygiene quality in order to identify, based on reflections, how the exchanges of practical experiences in health training programs influence engagement, team adherence and decision- making in health quality processes.

As from this action, the results of the training course were presented to the supervision of the hospital unit, focusing on the opinions referred to by the Nursing professionals in order to achieve oral hygiene quality in critically ill patients, as well as on the so-called limiting factors regarding the availability of some material resources. The implementation and updating of the oral hygiene

protocol for critically ill patients in ICUs and the Standard Operating Procedure (SOP) for oral hygiene in critically ill patients were also proposed according to the new recommendations of AMIB from 2019.

By using the PDCA method in planning actions for quality improvement in health services, it was possible to monitor the development of teamwork from the perspective of oral hygiene practices, contributing to a new evolution in Nursing processes.

The importance of using modern administrative methodologies to achieve new quality standards was observed, since constant updates on health service actions are required. With the use of this tool, it was possible to establish an evaluation system of the care/assistance provided to the patient in all its complexity sphere.

# **CONTRIBUTIONS**

All authors are hereby reported to have contributed equally to the conception, collection, analysis and discussion of data of this research project, as well as to the writing and critical review of the contents with intellectual contribution and to the approval of the final version of this study.

#### **CONFLICT OF INTERESTS**

Nothing to declare.

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Correspondence

Mykaella Cristina Araújo Margarida

E-mail: mykaella.pucgoias@gmail.com

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