

EDUCATIONAL ACTION WITH PROFESSIONALS OF INTENSIVE THERAPY ON CORNEAL INJURY: EXPERIENCE REPORT

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ABSTRACT

Objective: to report the academic-assistance experience of a group of Nursing students, by promoting an educational action with Nursing professionals of two Intensive Care Units. **Methodology:** a descriptive, experience-based study on supervised clinical activities in a large hospital in the Metropolitan Region of Belém, Pará, Brazil, during the month of March 2017. It is anchored in the stages of the Problem-Solving Methodology with the Arch of Maguerez, resulting in a feasible intervention proposal in practice. **Results:** the percentage of participation of 85.7% of the nursing team was obtained. The other professionals were in a meeting, making it impossible to be present. The participants responded positively to the intervention, collaborating, discussing and valuing the knowledge built with the dialogic relationship, presenting deep reflections in the speeches to the intervener group. **Final considerations:** it was found that educational actions, based on the needs of the target audience, can cause significant changes through critical reflection and professional qualification. Nursing professionals offer important contributions to prevent and control corneal lesions, as well as to investigate and produce knowledge related to the subject.

Palavras-chave: Corneal diseases. Nursing care. Health education. Patient safety. Intensive care units.

INTRODUCTION

In an intensive care setting, the multiprofessional team dedicates much of the workload to attention to the vital organs of their patients, such as those of the cardiovascular and nervous systems. Thus, sometimes the eye care provided to these individuals is not given due attention, since other clinical needs require continuous observation⁽¹⁾. One of the factors that explain this care deficit is the lack of knowledge about the processes involved in evaluation and ocular care, a fact that increases the incidence of injury in these organs⁽²⁾.

Corneal lesion is inflammatory and has a multifactorial etiology, and may be related to infectious, traumatic, degenerative, several of these or keratoconus. Depending on the degree of evolution, it may reach superficial or deep layers of the corneal tissue. In the intensive environment, the causes of corneal injury tend to be superficial, due to trauma or infection⁽³⁾.

Patients undergoing intensive therapy usually

have the ocular defenses compromised due to coma, sedation, ventilatory support, loss of the flashing reflex and ineffective tear production, contributing to corneal lesions and other injuries⁽⁴⁾. These types of lesions occur more frequently between the second and seventh day of hospitalization in the Intensive Care Unit (ICU)⁽⁵⁾, with a variable incidence ranging from 3% to 60%, and an average time of 8 to 9 days⁽³⁾.

In order to minimize this problem, by applying the Systematization of Nursing Assistance (SAE), the nurse can map the nursing diagnosis "Risk of Corneal Injury"⁽⁶⁾, based on the obvious risk factors among critical patients. Once this is done, and guided by an up-to-date operating protocol, can be used as a preventive method the polyethylene film, which forms the wet chamber, Liposic[®] ophthalmic gel or eye drops. However, statistically proven, polyethylene film has been shown to be more effective than other methods in preventing corneal diseases⁽⁷⁾. The application of gauze moistened in 0.9% saline solution is not

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indicated, as a recent study shows that its use in the ocular region of critical patients increases the prevalence of corneal lesion⁽⁸⁾.

The present study was motivated by the experience of Nursing students, during supervised curricular practice, in which there was a lack of interventions of the Nursing team of an adult intensive care service, in relation to the ocular care of patients hospitalized: it was identified important risk to develop corneal injury, since the clinical methods indicated for prophylaxis of the disease were empirically applied, relying mostly on professional experience and not scientific data that support eye care.

Facing the experience, the students problematized the reality, anchoring itself in the Methodology of the Problematization with the Arch of Maguerez, which operationalizes the process of work in five stages: observation of the reality and identification of the problem, survey of key points, theorization, hypotheses of solution and application in reality. Thus, it allows an investigative look and attitude about a given scenario, demonstrating its scientific and social relevance to transform social contexts, at different levels⁽⁹⁾.

Health education strategies have been highlighted among the forms of intervention, such as educational actions directed at specific human groups, such as those applied to health professionals, to enable and/or sensitize them. In view of the above, the present study aims to report the academic-assistance experience of a group of Nursing students, by promoting an educational action with Nursing professionals of two Intensive Care Units.

METHODOLOGY

This is a descriptive study, based on results that cannot be quantified, but allows describing the experience based on its interpretation, based on scientific findings⁽¹⁰⁾. It was elaborated based on the experience of 4th grade students/block I (7th semester) of the Undergraduate Nursing Course of the "Magalhães Barata" Nursing School, Campus IV of the State University of Pará (UEPA), in the city of Belém, Pará, Brazil. The "Nursing in Adult Intensive Care" curriculum practical activities were supervised

by the professor in two adult ICUs of a large public hospital in the Metropolitan Region of Belém, during the month of March 2017, period in which the group carried out an educational action as part of the didactic-evaluative activities of the curricular component.

The target audience of the action was composed by professionals of the Nursing teams of the two ICUs, from the morning shift, in the referred hospital. This public was chosen because of its proximity to the students in the assistance/managerial processes experienced; and the morning shift because the clinicals took place exclusively in the morning.

Considering the work process, routines and the available time of the professionals, the action took place from 09:00 to 11:00 hours. Each ICU was composed of two nurses, five Nursing technicians, one physician and one physiotherapist, among a total of 14 Nursing professionals. Of these, five Nursing technicians and one nurse from each ICU participated, totaling 12 members of the Nursing teams, expressing the participation percentage of 85.7%. The other nurses were in a meeting, in another hospital department, during the activity.

As this is an experience report of the authors in curricular compliance with compulsory workload, the study project was not submitted to the Research Ethics Committee, although it strictly maintains the confidentiality of the participants' identity.

Stages of Problematization

Based on the assumptions of Charles Maguerez, the Problem-Solving Methodology was used as a structuring strategy of the group's activities, resulting in the elaboration of a feasible educational intervention proposal in a practice scenario. The Methodology consists of interdependent stages, being operationalized through the Problem or Maguerez Arch, according to the figure below^(11,12).

The first step corresponds to the observation of reality and definition of the problem. During the practical classes, the complexity of the patients' health status was observed. In both ICUs, there were 10 beds, occupied by male and female patients, and varied age groups, mostly

sedated and intubated, with mechanical ventilation by orotracheal tube or tracheostomy.

This information was recorded manually during the first week of practical classes, in order to subsidize the progress of the next steps, without a systematized instrument for data

collection. After considerations, the group defined as a problem to be worked: lack of ocular care provided by the Nursing teams and the susceptibility to corneal lesions to which patients are exposed in the ICUs.

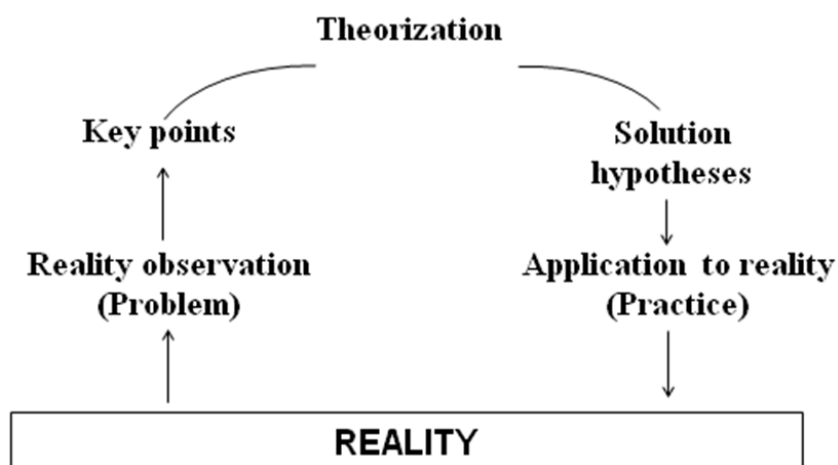


Figure 1. Arch Method of Charles Maguerez

Source: Adapted from Mitre *et al.*⁽¹¹⁾.

In the second stage, key points were collected, reflecting on the possible risk factors for corneal injury to which each patient was subjected. At this stage, the following were observed: length of hospitalization, sedation and intubation; administration medicinal products and respective periods of use; scores on the Ramsay Sedation Scale or Glasgow Coma Scale, and presence of periorbital edema.

Theorizing - third stage - moment for the search of more elaborated answers to the problem found, based on data from scientific studies, according to which individuals in ICU are more vulnerable to the development of morpho functional changes in the ocular surface, by the use of treatments (mechanical ventilation, lowering of consciousness level, prolonged hospitalization and use of specific medications), which cause failures in the ocular defense mechanism: ineffective eyelid closure, blink reflex deficit and reduction in tear production, resulting in greater degree of risk for corneal injury^(13,14).

During the fourth stage, we proceeded to survey and formulate solution hypotheses, based on the content researched. The hypothesis found as a solution was to develop an educational

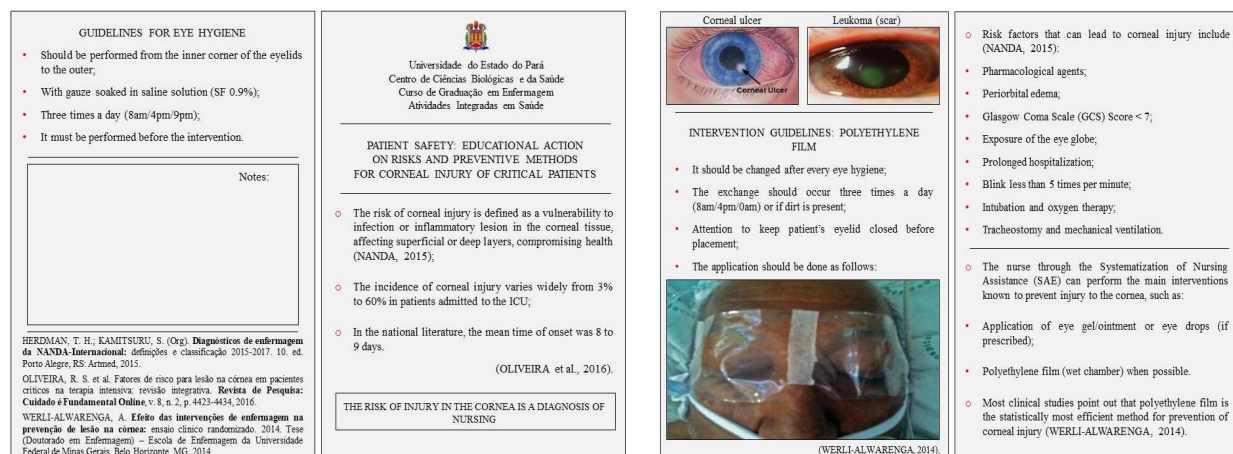
action with the Nursing teams, in order to share knowledge and experiences, sensitizing them in relation to the risks of injury to the cornea and the use of appropriate preventive interventions.

The fifth and final stage corresponds to intervention on reality, with the aim of transforming it to some degree and solving, totally or partially, the identified problem. Thus, the group produced an illustrated educational folder, distributed to each of the members of the Nursing teams in a room reserved by the health institution. The folder contemplated the concept of risk of cornea injury, its incidence, risk factors and Nursing interventions, highlighting the best preventive method according to the literature. The group divided to develop the activity with the professionals of the ICUs 1 and 2. Each student approached a professional and requested permission to talk about the subject in a reserved room, near the ICUs, and to deliver the educational material shown in figures 2 and 3.

From the acceptance of the professional and the contents discussed in the folder, a brief dialogue was developed, with a maximum duration of nine minutes per professional approached, in order not to harm the activities of

the teams, since the time of the family visit was approaching. After an initial approach, the participants were encouraged to express their knowledge, experiences, opinions, highlight methods of intervention used in corneal care of

inpatients, and clarify doubts and suggest possible changes in the daily practice of the teams in order to add to the assistance the knowledge shared.



Figures 2 and 3. Folder used in educational action (front and back)
Source: Own authorship.

RESULTS AND DISCUSSION

In environments where care requires continuous mindfulness to the patient's basic pathological condition and the consequences of therapeutic interventions, it is imperative that the team is prepared to provide intensive care and, at the same time, to prevent injuries, especially the most recurrent ones in such a scenario, like corneal lesions, potentially preventable events. However, studies have reported that due to the high complexity of procedures and technologies operating in intensive care settings, actions with a low degree of complexity, aimed at eye protection, have been underestimated, with risks of important ophthalmic changes, such as injuries on the cornea^(3,14).

Considering that health education strategies can contribute to mitigating these risks, the authors planned and carried out the action in order to reach the participants satisfactorily. In this perspective, their receptivity to the intervention was positive, evident through collaboration, discussion and valorization of knowledge constructed/dialogued, presenting deep reflections in the speeches to the intervenor group. It was found, therefore, that educational actions, based on the real needs of the target public, can cause significant changes through

critical reflection and professional training, promoting improvements in the ocular health care of critically ill individuals, as emphasized in other studies^(15,16).

Facing these data, it should be pointed out that, in the professional training scenarios, three guiding concepts need to be present: service education, continuing education and permanent education. The first one is defined as a process of education for work, applied in human relations, aiming at professional and institutional training and valorization; the second, as improvement and updating actions, sought or developed individually by the professional; the third refers to periodic actions that aim to transform or strengthen practices in the context of the work team, through pedagogy based on problem-solving⁽¹⁷⁾.

It should be pointed out that the organization, orientation and execution of activities that allowed identifying a real problem in the experience with reality were fundamental to subsidize the intervention: they marked the beginning of a problematizing, critical-reflexive process, predicted by the Problem-Solving Methodology with the Arch of Maguerez^(9,18), a guiding strategy of activities, inserting students in a continuous and active search for knowledge, instigated by the challenge of thinking and

listing feasible intervention strategies on reality, to transform it to some degree within their resolution and governance.

In order to provide the necessary tools for this investigative action, the student, in his/her training process, and every nursing professional, especially the intensivist, for dealing with critical patients, should actively seek new knowledge, exercise intellectual independence, not waiting passively to receive the necessary knowledge produced by others. In this sense, immersion in activities of appropriation and investigation of scientific literatures, participation in scientific events, formation of study groups and research, is essential, not only to consume - but, above all - to produce new knowledge.

It is worth noting that when the professional seeks to improve him/herself, he/she puts into practice the provisions of Articles 6th and 55th of the Code of Ethics of Nursing Professionals: workers have the right and duty to improve technical, scientific, ethical- political, socio-educational, historical and cultural, that sustain professional action, affecting benefits to the person, family, community and the development of the category⁽¹⁹⁾.

Regarding the prevention of ocular lesions, it is verified that the provision of care based on a trustworthy body of knowledge broadens the qualified view for the predisposing factors to the injury, especially in the context of intensive therapy, where such factors are surpass. This contributes to the clinical reasoning necessary for the elaboration and application of interventions with the purpose of preventing adverse events, based on the evidence in the scientific literature^(7,20). The role of intensive care nurses is therefore essential for the control of risk and monitoring factors to identify corneal lesions^(3,13).

Emphasis should be placed on the important role of this professional in the observation of the team under his/her supervision, enabling individual and collective strategies in the perspective of continuing education, in order to clarify doubts, management processes, norms and routines, solve technical inconsistencies, avoid procedural errors, strengthen technical-scientific knowledge of basic areas of science and specific to nursing practice, to increase the

quality of care and consolidate patient safety. By doing so, the professional can exercise their daily activities with autonomy, quality and safety.

FINAL CONSIDERATIONS

The present study highlighted the experience of Nursing students in the promotion of an educational action with Nursing professionals that work in the context of intensive care, where attention to ocular health is a substantial need, as well as an important challenge to the whole multiprofessional team, especially the Nursing workers who, through their daily and constant contact with the patient, can decisively contribute to reduce the risks of corneal injury.

The experience provided the practical and apparent perception of the importance of health education actions based on the observation of professional action and the elaboration of strategies that enable the qualification of the team, considering individual and collective needs. It is believed that such actions should be carried out in a wide range of settings, including in intensive care settings, despite their great limitations to the development of educational actions, due to intense routine and workload.

Facing the shared knowledge and experiences, significant public involvement is a relevant finding of this study, demonstrating that educational strategies can generate, to different degrees, transformations in a human scenario or reality, since the actions that guide them are anchored in the understanding of the singularities of such a scenario, so as to reflect, dialogue and propose viable and potentially emancipatory strategies. This inference highlights active learning methodologies as an alternative to the targeting of such interventions, such as the Problem-Solving Methodology, used in structuring the experience reported here.

Despite the majority participation of the team, the study presented as a limitation the relatively small number of participants and the impossibility of reaching the entire target audience. In order to strengthen the technical-scientific construct and the professional skills, it should be pointed out that the management of the health services must also take care of this purpose, in order to encourage the qualification of its workers, through continuing and

permanent education to such challenging topics as attention to eye health and the prevention of corneal lesions, taking into account the indispensable care of critically ill patients.

In view of this, and considering the important role of Nursing in the production and management of care, it is central that nurses conduct new studies, contributing to deepen and

elucidate the aspects still unknown, concerning risks, possibilities of intervention and educational, managerial and technological innovations for the prevention of eye injuries. This recommendation surpasses the others in the context of care in intensive care, where the user depends partially or totally on a team that must be multiprofessional and interdisciplinary.

AÇÃO EDUCATIVA COM PROFISSIONAIS DE TERAPIA INTENSIVA SOBRE LESÃO NA CÓRNEA: RELATO DE EXPERIÊNCIA

RESUMO

Objetivo: relatar a experiência acadêmico-assistencial de um grupo de estudantes de Enfermagem, ao promover uma ação educativa com profissionais de Enfermagem de duas Unidades de Terapia Intensiva. **Metodologia:** estudo descritivo, do tipo relato de experiência, desenvolvido com base em atividades práticas supervisionadas, em hospital de grande porte da Região Metropolitana de Belém, Pará, Brasil, durante o mês de março de 2017. Está ancorado nas etapas da Metodologia da Problemáticação com o Arco de Maguerez, resultando em proposta de intervenção exequível na prática. **Resultados:** obteve-se o percentual de participação de 85,7% da equipe de Enfermagem. Os demais profissionais estavam em reunião, inviabilizando sua presença na ação. Os participantes responderam de forma positiva à intervenção, colaborando, discutindo e valorizando o conhecimento construído com a relação dialógica, apresentando profundas reflexões nos discursos ao grupo interventor. **Considerações finais:** constatou-se que ações de cunho educativo, pautadas nas necessidades do público-alvo, podem provocar mudanças significativas por meio da reflexão crítica e da qualificação profissional. Os profissionais de Enfermagem oferecem importantes contribuições para prevenir e controlar lesões na córnea, bem como para investigar e produzir conhecimento relativo ao tema.

Palavras-chave: Doenças da córnea. Cuidados de enfermagem. Educação em saúde. Segurança do paciente. Unidade de terapia intensiva.

ACCIÓN EDUCATIVA CON PROFESIONALES DE CUIDADOS INTENSIVOS SOBRE LESIÓN EN LA CÓRNEA: RELATO DE EXPERIENCIA

RESUMEN

Objetivo: relatar la experiencia académico-asistencial de un grupo de estudiantes de Enfermería, al promover una acción educativa con profesionales de Enfermería de dos Unidades de Cuidados Intensivos. **Metodología:** estudio descriptivo, del tipo relato de experiencia, desarrollado con base en actividades prácticas supervisadas, en hospital de gran tamaño de la Región Metropolitana de Belém, Pará, Brasil, durante el mes de marzo de 2017. Está basado en las etapas de la Metodología de la Problemáticação con el Arco de Maguerez, resultando en propuesta de intervención viable en la práctica. **Resultados:** se obtuvo el porcentual de participación de 85,7% del equipo de Enfermería. Los demás profesionales estaban en reunión, imposibilitando su presencia en la acción. Los participantes contestaron de forma positiva a la intervención, colaborando, discutiendo y valorando el conocimiento construido con la relación dialógica, presentando profundas reflexiones en los discursos al grupo mediador. **Consideraciones finales:** se constató que acciones de carácter educativo, basadas en las necesidades del público blanco, pueden provocar cambios significativos por medio de la reflexión crítica y de la calificación profesional. Los profesionales de Enfermería ofrecen importantes aportes para prevenir y controlar lesiones en la córnea, así como para investigar y producir conocimiento relativo al tema.

Palabras clave: Enfermedades de la córnea. Atención de enfermería. Educación en salud. Seguridad del paciente. Unidad de cuidados intensivos.

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