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## EDUCATION AS A PATIENT SAFETY STRATEGY IN INTENSIVE CARE: PANDEMIC TIMES

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### ABSTRACT

In pandemic times, what can be said as a transpandemic period, continuing education does not serve to update existing knowledge, but to teach from scratch. The objective was to reflect on how continuing education acts as a patient safety strategy in intensive care in the transpandemic period. This is a bibliographic review of the literature, with a descriptive and critical-reflexive character and a qualitative approach. For discussion, the Thematic Content Analysis was used, which resulted in four categories, such as: Contextualization: a new world for Science and society, High Complexity in the pandemic, Patient Safety and Education saves lives. Excellent care means ensuring patient safety and it is through training, updating, all the mechanisms that education allows professionals to qualify that it is possible to reach the final objective, a positive prognosis, a quick recovery, a hospital discharge and quality of life.

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## INTRODUCTION

Patient Safety is one of the pillars of dignified, technical, scientific and quality health care, especially in the context of Intensive Care, where patients are undergoing highly complex therapy. For this, it is necessary that there is a cooperation of the multidisciplinary team, a teamwork of the Nursing team and, mainly, the individual delivery, that is, each professional keep in mind his/her function, carry out his/her activities, with collaboration, with empathy, carefully and, imperatively, perform the update constantly. Nursing care is guided by Science, by Evidence-Based Practice (EBP). In this way, as Science evolves, changes occur, actions/procedures fall into disuse and are replaced, as well as diseases and illnesses arise. It is undeniable to say that the content given to students during the Undergraduate Course is not enough for a quality care practice, therefore, continuing education enters the scene as a protagonist in the care scenario, ensuring patient safety and satisfactory and effective care.

The present study is based on the following problem: "How does continuing education act as a patient safety strategy in intensive care in the transpandemic period?". In pandemic times, what can be said as a transpandemic period, continuing education does not serve to update existing knowledge, but to teach from scratch. There were many biases verified in this aspect, because for protocols, manuals and guidelines to be established, it took years and years of study, attempts, research and, overnight, we had to face the unknown head on, dealing with hard positions regarding the research results, such as, at the beginning of the pandemic, it was recommended to sanitize objects with 70% alcohol, which today (March 2022) has already fallen into disuse, as new research has pointed to the factor of transmissibility by suspended droplets and aerosols, which the virus does not survive long on surfaces and that the mask of the PFF2 model along with social distancing and vaccine would be enough. And with each variant that appears or the profile of inmates changes, it is necessary for the professional to seek updating or even the institutions themselves to provide. Given the above, this research has the general objective of reflecting on how continuing education acts

as a patient safety strategy in intensive care in the transpandemic period. As a specific objective, it has the purpose of demystifying the theoretical abyss that exists between assistance and research. Amid the emphasis of Research and Science in the daily life of society, this study is relevant as it brings a look at continuing education as one of the vaccines to combat a pandemic, and that research and science are not only carried out in laboratories, but also in the day to day, in the care practice, in the management, through the audits for the elaboration of indicators, tests, in the classrooms and; that science done through research and published is applied in practice. That is, this study brings the reflection that education, science, research, patient safety and quality care go hand in hand and in a single direction. This is a bibliographic review of the literature, with a descriptive and critical-reflexive character and a qualitative approach, with a search carried out in indexing bases of high academic and scientific impact through the tools: Virtual Health Library (BVS), Health Sciences Descriptors (DeCS) and Boolean operator "AND". The study on screen is presented in sections, as follows: Introduction, with the object of study, a brief contextualization of what will be addressed, objectives, justification and hypotheses; Development, from the presentation of the scientific methodology chosen to develop the study and the synthesis of this review in four categories, such as: Contextualization: a new world for Science and society, which we will cover in order to contextualize how in fact everything has changed for civilians and researchers; then, the category High Complexity in the pandemic, which will discuss the aspects that the pandemic has brought to intensive care; the Patient Safety category will focus on the situational aspects and characteristics of the pandemic in health care; and, as the last category of discussion, Education saves lives, which we will bring to the crucial point of this research, bringing a critical-reflexive analysis that education really saves lives, for health professionals, especially nurses and other areas that work in therapy. intensive, education, updating, acquiring technical, scientific and practical knowledge must be constant, as is the definition of continuing education.

## METHODOLOGY

For the elaboration of this study, a bibliographic review of the literature was carried out, with a descriptive and critical-reflexive character and a qualitative approach. To search for studies, the Virtual Health Library (VHL) platform was used, which groups together several relevant and impacting indexing bases. As a search strategy, Descriptors in Health Sciences (DeCS) and the Boolean operator "AND" were used, being: "patient safety AND COVID-19 AND continuing education AND intensive care (fulltext:("1") AND la: ("en" OR "pt")) AND (year\_cluster: [2020 TO 2022])". For the selection of studies to compose this review, the inclusion criteria were established: studies in scientific article format, which addressed the theme proposed here, in Portuguese and English and available in full text. Studies published in editorial format and those that were not freely available were excluded. No intentional time cut was used, as the SARS-CoV-2 (new coronavirus) pandemic started in 2020; in this way, the cut was established by the history of the pandemic itself. The search and selection of studies was carried out in April 2022. Given the above, 11 published scientific articles were selected to compose this review, which will be presented from the Thematic Content Analysis, proposed by Bardin<sup>1</sup>, with the explanation of the following categories.

## RESULTS AND DISCUSSION

**Contextualization: a new world for science and society:** Overnight, society had to face a new world, a world that researchers already new would arrive sooner or later, as well as the difficulties imposed on this new reality. For society, the experience was fright, fear of the unknown, new patterns of behavior, social distancing, social isolation, quarantine, loss of loved ones and friends, job loss, political and economic crises, psychological distress, anxiety, depression etc. For

scientists/researchers, a race against time, which etiology, which virus, which disease, variants, vaccine, most affected populations, socioeconomic disparity and access to population health, medicines, tests for treatments, controlled studies in the midst of chaos, lack of investment for research, every day more and more research being published and the evidence-based practice sunk into a large commercial oligopoly of impact factor and revenue generation. For professionals at the bedside, especially for nurses working in intensive care, a mixture of dread, fear, new norms, last-minute training, changes in protocols every week, unpreparedness - not because they don't update themselves, but because it is a new virus -, changes in care profiles, changes in treatments/conducts/procedures, lack of supplies, physical and emotional exhaustion, immersed in losses<sup>2</sup>. In terms of training, speaking of education in general, this has its great supporting value in the spotlight of this pandemic. For society, from babies to the elderly they had their training, whether by a health professional, a friend, a neighbor, a social media or television from the speech and teaching of qualified professionals and competent bodies.

The children were taught at school about the importance of wearing the mask, as well as its correct handling, by their teachers, pedagogues. Wherever the person goes, there is a sign of a temperature measurement, checking the correct use of masks, hand hygiene, be it an elevator, market, malls, pharmacies, universities, colleges etc. In addition to courses available free by qualified professionals on virtual platforms<sup>3</sup>. Education for health professionals, on the other hand, was massified, evolved and, many would say, was controversial. The chasm between care and research was well impacted by these changes, which are part of science, new studies, new evidence, new knowledge. Science is not exact and changes, which creates some obstacles. It is noted that, at the beginning of the pandemic, with the publication of the first studies and the appearance of the first patients in the health units, there was a greater adherence of professionals to the training, however, there was a decline soon after, which can be justified from from the analysis of some variables, such as: health units and companies were not prepared for virtual life, this is an undoubted reality, in which training took place in person and, with the increase in cases, many professionals could not leave their due roles to go to training, as well as the large number of leaves due to burnout or positive test for COVID-19 - it was 14 days around April to June 2020 -; another factor that must be considered is the physical and mental exhaustion of professionals; changing protocols with recurrence; the deaths of teammates; the lack of inputs to provide dignified and adequate care, with the practice of daily life going against the reality passed in training - with intensive care professionals being the most affected<sup>4,5</sup>.

**High complexity in the pandemic:** It can be said that, among all areas of a health care unit, intensive care units and centers were the most affected in this pandemic, given their importance and purpose in highly complex treatments, cases in exorbitant volume in the first half of 2020. Due to the lack of knowledge of the virus, the lack of proven effective treatment, the absence of a vaccine, intensive care professionals experienced real chaos in the work environment. At the height of the beginning of the pandemic, there were no beds, no artificial respirators, no oxygen, and the professionals, without having a right protocol to follow in each case, with a constant change of routine, tried their best<sup>6</sup>. According to authors<sup>7,1</sup>, an efficient intensive care unit is:

*"[...] the one capable of providing care that results in a lower than estimated mortality rate (depending on the severity of the patients), which is associated with a lower use of resources (generally considering a lower use of resources as a marker of the costs). Thus, efficient, high-quality care must translate into as many survivors as possible with the highest possible quality of life. [...]. Recent and sudden changes in the status quo of ICUs, due to the current coronavirus disease 2019 (COVID-19) pandemic, pose a challenge to the usual way of evaluating the performance of ICUs and the ability to accurately*

*measure them. In this "new normal scenario", ensuring good ICU performance is essential for several reasons, especially in a resource-constrained scenario".*

It still appears that, in the midst of people fainting due to lack of oxygenation, professionals still had to worry about the question of the relationship between: shorter hospital stay, low cost and better outcome<sup>7</sup>. How to provide dignified and quality assistance? How to ensure patient safety? How can there be training without knowledge? The training carried out was day-to-day, routine, based on individual and collective cases, as well as changes in protocols, procedures and treatments based on the monitoring of new research and guidelines from Organs competent bodies, such as: Ministry of Health, World Organization of Health, Pan American Health Organization and other medical societies and associations. As a great example, with the pandemic, there has been a modification in the cardiopulmonary resuscitation protocol based on the guidelines of the American Heart Association and the Brazilian Society of Cardiology, in which, due to the release of large amounts of aerosols in the procedure, submitted to the patients with suspected or confirmed infection by SARS-CoV-2, for the protection of the patient, other patients in the surroundings of the sector and health professionals. In this way, it is verified that it is necessary to have a pillar, a link of actions, to guarantee the safety of all those involved<sup>8</sup>.

**Patient safety:** When it comes to patient safety in a transpandemic environment, goal number five of the international patient safety goals established by the Joint Commission International is emphasized, which provides for correct hand hygiene in five moments, such as: "[...] before contact with a patient, before performing aseptic procedures, after risk of exposure to body fluids, after contact with a patient and after contact with areas close to the patient"<sup>9,217</sup>. Added to this, there is a concern about the correct handling of personal protective equipment (PPE) by the assistant professionals, as well as its availability, considering that it is necessary to preserve the lives of patients and reduce to zero the possibility of cross-transmission within the hospital environment, especially when talking about intensive care units<sup>9</sup>. In an experience report, it was possible to verify that many actions were taken by the Patient Safety Center of a particular institution, such as increase in the number of isolation beds, units only for patients with suspected COVID-19, units for positivized patients. for COVID-19, differentiated service flow, exclusive area for welcoming patients with respiratory conditions, availability of more 70% alcohol gel dispensers, sinks, dispensers with liquid soap, paper towels, trash can with lid and pedal by the units and sectors, in addition to training on hand hygiene, correct form of dressing and undressing, disposal of PPE and infected materials, hand hygiene<sup>9</sup>. Undoubtedly, patient safety is one of the priorities when it comes to health care. Just as there is no way to talk about patient safety without connecting to the idea of safety and professional qualification<sup>10</sup>.

**Education saves lives:** In a new world of multidrug-resistant bacteria, new viruses, new variants, hundreds and thousands of research being carried out at the same time, much can still change. New guidelines can be released, new research published, effective treatments proven and made available to the population. In short, the race against the virus is not over yet, and it is precisely from this perspective that education should be reflected. The sharing of scientific knowledge must be carried out by a trained and qualified professional, duly updated, and in order to adapt to the reality of each receiver of this information, using light technologies. The nurse is a health educator, a function that is described in the Professional Practice of the Nurse, working in health promotion, disease and aggravation prevention and rehabilitation of the individual's health<sup>11</sup>. To educate, you have to be educated first. It is totally understandable the mental and physical exhaustion that plagues nursing professionals in this pandemic, little or no time available, the fear of a worse phase of the pandemic returning and hospitals going through the same situation experienced in mid-2020, even with the lack of essential inputs, such as Manaus, where patients died from lack of oxygen and health professionals had

to choose who had the best prognosis to make the rest of the oxygen available. There is also the political and economic crisis that Brazil and the world are experiencing, it is still not a world recovered from the pandemic shock, in this, there is an increase in inflation, the cost of living becomes more expensive, and professionals end up looking for seconds and third jobs, buying shifts and turning into a snowball with no more size. How to think about updating under these circumstances? How to do a graduate degree? How can I empower myself to protect myself and my patients? Most hospital institutions currently have constant training, especially with the issue of Hospital Accreditation, higher education institutions have offered and continue to offer discounts for professionals who work on the front line in the pandemic, in addition to the various refresher courses made available by official entities, such as the World Health Organization and Ministry of Health. In this way, it is necessary to keep in mind that the time of performing an update, training will not be an expense, it will be an investment, both for the professional and for the patient, allowing for safe, data-free care, a good prognosis and improved quality of life<sup>12</sup>.

## CONCLUSION

The objective proposed by this review was achieved, based on the exposure of the thematic categories: Contextualization: a new world for Science and society, High Complexity in the pandemic, Patient Safety and Education saves lives. Discussions about the 11 selected studies were exposed. Health care, especially in intensive care, which deals with patients in severe conditions and highly complex therapies, together with the transpandemic period, causes reflection on the quality of care provided. This quality must reach excellence, respect bioethical principles, Science and the Laws of Professional Practice - in the case of nurses. Excellent care means ensuring patient safety and it is through training, updating, all the mechanisms that education allows professionals to qualify that it is possible to reach the final objective, a positive prognosis, a quick recovery, a hospital discharge and quality of life. Health education and continuing education are synonymous with generating quality of life. Yes, education saves lives! It is hoped that this study awakens the critical-reflective look of professionals who are on the front line of intensive care units in order to seek a constant update, as well as the continuity of this study from new studies with different methodologies.

## REFERENCES

1. Bardin L. *Análise de Conteúdo*. Lisboa: Edições 70; 2011.
2. Bezerra CB, Saintrain MVL, Braga DRA, Santos FSS, Lima AOP, Brito EHS, Pontes CB. Impacto psicossocial do isolamento durante pandemia de COVID-19 na população brasileira: análise transversal preliminar. *Saúde e Sociedade*. 2020;29(4):11. <https://doi.org/10.1590/S0104-12902020200412>
3. Dias E. A educação, a pandemia e a sociedade do cansaço. *Ensaio: avaliação de políticas públicas educacionais*. 2021;29(112). <https://doi.org/10.1590/S0104-40362021002901120001>
4. Lima MF, Teixeira EMM, Barja PR. Metodologias de ensino-aprendizagem em instituição hospitalar: avaliação e propostas em cenário de pandemia. *Revista Unipav online*. 2021;27(55). <https://doi.org/10.18066/revistaunipav.v27i55.2586>
5. Nascimento DT, Koepe GBO, Oliveira PP, Valadao RR, Prado TSB, Santos NS, Cerqueira LCN. Estratégias de saúde para manutenção da qualidade da assistência na quimioterapia no contexto da pandemia da COVID-19. *Global Academic Nursing Journal*. 2021;2(Spe.2):e117. <https://doi.org/10.5935/2675-5602.20200117>
6. Carrasco OV. Ventilación mecánica no invasiva em la lesión pulmonar aguda hipoxémica. *Cuadernos Hospital de Clínicas [Internet]*. 2021 [cited jun 30 2022];62(1)1. Available from: [http://www.scielo.org/bo/scielo.php?pid=S1652-67762021000100011&script=sci\\_arttext](http://www.scielo.org/bo/scielo.php?pid=S1652-67762021000100011&script=sci_arttext)

7. Zampieri FG, Soares M, Salluh JIF. Avaliação do desempenho de unidades de terapia intensiva durante a pandemia da COVID-19. *Revista Brasileira de Terapia Intensiva*. 2020;32(2). <https://doi.org/10.5935/0103-507X.20200040>
8. Piacezzi LHV, Costa KAL, Mauricio LFS, Lopes MCBT, Okuno MFP, Miura CRM, Batista REA, Campanharo CRV. Pandemia da COVID-19: mudanças na ressuscitação cardiopulmonar. *Brazilian Journal of Development*. 2021;4(1):2930-2943. DOI:10.34119/bjhrv4n1-235
9. Cardoso LSP, Silva AA, Jardim MJA. Atuação no núcleo de segurança do paciente no enfrentamento da COVID-19 em uma unidade hospitalar. *Enfermagem em Foco* [Internet]. 2020 [cited jun 30 2022]; 11(1): 217-221. Available from: <http://revista.cofen.gov.br/index.php/enfermagem/article/view/3782/831>
10. Prado PR, Ventura CAA, Rigotti AR, Reis RK, Zamarioli CM, Souza FB, Gimenes FRE. Vinculando a segurança do profissional à segurança do paciente: recomendações e questões bioéticas para o cuidado de pacientes na pandemia da COVID-19. *Texto Contexto Enfermagem*. 2021;30(Especial COVID-19). <https://doi.org/10.1590/1980-265X-TCE-2020-0535>
11. Gusso AK, Castro BC, Souza TN. Education and communication Technologies in nursing teaching during the COVID-19 pandemic: integrative review. *Research, Society and Development*. 2021;10(6). <https://doi.org/10.33448/rsd-v10i6.15576>
12. Campos DB, Gomes ILV, Alves AR, Moreira TMM, Figueiredo SV. Reflexões sobre a pandemia COVID-19 e ações de educação permanente em enfermagem num hospital. *Global Academic Nursing Journal*. 2020;1(3):e50. <https://doi.org/10.5935/2675-5602.20200050>

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