Teaching critical/intensive care in nursing education: a moment of reflection

O ENSINO DE CUIDADOS CRÍTICOS/INTENSIVOS NA FORMAÇÃO DO ENFERMEIRO: MOMENTO PARA REFLEXÃO

LA EDUCACIÓN EN CUIDADOS CRÍTICOS/INTENSIVOS EN LA FORMACIÓN DE ENFERMEROS: CIRCUNSTANCIAS PARA LA REFLEXIÓN

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ABSTRACT
The aim of the present study was to rethink the Critical Care Course in the undergraduate nursing curriculum, analyzing relevant issues of its insertion, considering professional training and qualification, the demands of the job market and a critical reflection of the nurse's professional competences, according to a theoretical reference framework.

KEY WORDS
Education, nursing.
Education, nursing, diploma programs.
Critical care.
Intensive care.
Professional competence.

RESUMO
Este estudo teve como objetivo re(pensar) a disciplina de cuidados intensivos no currículo de graduação em enfermagem, pontuando aspectos relevantes de sua inserção, considerando a capacitação e a qualificação profissional, a necessidade do mercado de trabalho e uma formação reflexiva e crítica acerca das competências profissionais do enfermeiro, por meio de referencial teórico.

DESCRITORES
Educação em enfermagem.
Programas de graduação em enfermagem.
Cuidados críticos.
Cuidados intensivos.
Competência profissional.

RESUMEN
Estudio que tuvo por objetivo repensar sobre la asignatura de cuidados intensivos en el programa de post-grado en enfermería, indicando aspectos relevantes sobre su introducción, considerando la capacitación y la calificación profesional, la necesidad del mercado de trabajo y la formación reflexiva y crítica sobre las competencias profesionales del enfermero, a través de su fundamento teórico.

DESCRIPTORES
Educación en enfermería.
Programas de graduación en enfermería.
Cuidados críticos.
Cuidados intensivos.
Competencia profesional.

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INTRODUCING THE ISSUE

The process of producing healthcare services is characterized by activities that are eminently labor intensive, and the transformations that have occurred in the past decades, including those related to scientific and technological advances, and also to the expectancies of companies that have faced extremely competitive global markets, have caused profound changes in healthcare work[1]. These changes call for workers with increasing qualifications, and the development/improvement of competences for the new demands of their profession, directed to their realities.

Healthcare practice and education, as social realities, are related with economic, scientific, technological, political and social development processes[2]. Hence, a reflection about the essential qualities of workers for their insertion in the world of labor (competitive and demanding) is necessary and urgent, implying the re-conceptualization of the educational approach and the assessment of *adjustments* in educational institutions. Otherwise, students graduating from schools may not fit or may face unnecessary difficulties regarding the new demands generated by the strict dependence on the professional world.

Therefore, a discussion/reflection is proposed about the insertion of formal critical/intensive care education, as a course, in the undergraduate Nursing curricula, or about its exclusion by some educational institutions.

The interest in (re)thinking critical/intensive care education for the nurse came up when it was verified that some Nursing undergraduate courses in Brazil did not offer this course. The high demand for *lato sensu* (specialization) graduate courses, by recently-graduate nurses or by those already working in the area, but without the necessary theoretical-practical background; and especially the morbidity-mortality profile of the Brazilian population have consolidated this interest.

It is known that the undergraduate Nursing curricula have undergone several changes, in line with the context and the country's political and socioeconomic situation. The evolution process of nursing professionalization in Brazil has been directed and commanded according to the mandatory minimum curricula models, legally determined and not always in harmony with the reality of the nation.

The curricular reforms have come to meet the demands of the job market and compliance with National Curricular Guidelines[3], which set education parameters for the graduation of a generalist nurse, acquired through theoretical and practical content, favoring the developing of both general and specific competences and skills, aiming for a qualified graduate professional, reflective and ready to work with the social realities.

Since the Guidelines set parameters for the education of generalist Nurses, some education institutions, when *adjusting* their curricula to incorporate these principles, excluded the critical/intensive care course, understanding that this would be specific for *lato sensu* graduate (specialization) courses. They did not show pedagogic re-elaboration initiatives to imprint their institutional mark on the implantation of the guidelines and did not contextualize these in the population's health conditions, nor did they contextualize the profile of the newly-graduate student in relation to local and regional social and health needs[4].

Serious and deep divergences are seen among the faculty regarding the National Curricular Guidelines and the minimum curricula, as well as among the different groups battling over the power of defining the ways of education, guided by the logic derived from their cosmovision or myopia.

Not only the critical/intensive care course, but others as well were excluded from nursing education, such as Surgical Center and Emergency Services, supported by a minimum curriculum that does not meet the principle of healthcare integrality at all complexity levels of the healthcare system and in the different scenarios of professional practice, considering the assumptions of clinical and epidemiological models[3].

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Therefore, it is worth asking our fellow professors: Would the critical/intensive care course be necessary in the curriculum of the Nursing undergraduate course? Some relevant aspects about the theme will be exposed next.

CONTEXTUALING CRITICAL/INTENSIVE CARE

In view of the proposition of educating generalist Nurses, it is considered opportune to discuss the concepts implied in the healthcare level understood as critical/intensive Nursing Care.

Critical/intensive care is understood as service provided to critical and potentially critical patients, respectively assumed as: (1) severely ill patients, with one or more of the main physiological systems at risk, with loss of self-regulation, needing artificial replacement of functions and continuous care; and (2) severely ill patients with clinical stability, with a potential risk of aggravation of their situation and who need continuous care[5]. Patients demanding critical/intensive care are also recognized as severely ill *and able to recover, with an imminent risk of death, subject to instability of vital functions, requiring specialized and permanent nursing and medical care*[6]. Opposite to that, it is worth noting that the demand for critical/intensive Nursing care is not limited to physiopathological or prognostic references, comprehending the human nature in its evolutive dimensions, expressions and phases[3], including care for chronic

or terminal patients, who need healthcare interventions at high quantitative and qualitative levels, due to their total dependence on care to meet their healthcare necessities.

According to the Federal Medicine Council, all healthcare establishments structured to provide urgency and emergency services should guarantee all maneuvers for sustaining life and be able to offer care continuity at that place or at another care level through referral[7]. In hospital practice, this means sending a large share of the patients from the emergency room to the Intensive Care Unit (ICU) after the initial care procedures. It should be highlighted that these beds are often unavailable.

Regarding Nursing, the Federal Council (COFEN)[8] determines, on Brazilian territory, the mandatory presence of Nurses in all units where high complexity Nursing actions are developed, since these actions are common in healthcare for critical/potentially critical patients. Moreover, the exclusive responsibilities of the nurse include *direct nursing care for* severely ill *patients at risk of death* and *direct nursing care of greater technical complexity which demands adequate scientific knowledge and the capacity of making immediate decisions*; and, as a member of the healthcare team, the *participation in healthcare programs and integral healthcare activities for individuals and specific groups, especially priority and high-risk ones*[9].

It is up to the nurse: to organize and plan the care to be delivered; arrange human resources, materials and equipment; coordinate and assign the team members; guarantee the quality and safety of care to the team and patients; establish priorities; see to the goals of the institution regarding routines, flows and norms; interact with the multidisciplinary teams; among others.

Also, exclusive duties of the nurse cover directing, coordinating, planning, prescribing, delegating, supervising and evaluating Nursing actions according to the patients' level of dependence, when care can be delegated to a nursing auxiliary or technician or remains under the Nurse's own responsibility.

It is worth noting that, as regulated by the Ministry of Health[10], all pre-hospital mobile healthcare services should be performed by the Nurse, responsible for the Nursing care needed to reanimate and stabilize the patient, at the place of the event and during transportation. The basis of the aforementioned determinations[11] establishes that the nurse should implement and document the systematization of Nursing care through records with the collected technical information (healthcare protocol), containing the nursing history, prescription and evolution determined.

After reading the official norms, it is understood that the healthcare environments with critical/potentially critical patients demand high volumes, intensities and complexities of care, aiming at early detection of clinical deterioration and immediate therapeutic actions.

Broad possibilities of action are clearly observed for nurses in care for critical/potentially critical patients, not only in the technical aspect, but also considering the opportunities for action in extreme situations, with solidarity and ethical value.

Adequate care for people in critical/potentially critical health situations is within the context of the current healthcare policy in Brazil[12]. However, due to the insufficient structure of the healthcare service network (both primary and secondary), these services have become, in the past years, one of the most problematic areas of the healthcare system[13]. This deficiency results from the increasing demands for this type of care, whose central reason of existence is care for patients in extreme, critical and/or grave situations, actual or potential, demanding workers with specific professional qualification.

Considering this aspect, specialized care for critical/potentially critical patients increases the potential of healthcare results, since it assumes a higher uniformity in actions, better access and allocation of resources, favoring higher healthcare quality standards.

Traditionally, it is considered that healthcare for critical/potentially critical patients should be provided in specialized environments, such as intensive care (ICUs) and semi-intensive care units (SICUs). However, in the past years, demand for these services has increased, mainly due to increasing social, economic and cultural transformations in the life conditions of the Brazilian population, which are translated in changes in problems and healthcare necessities. In addition, the lack of a consolidated service network for this healthcare profile, the distortions and deficits observed in the offer of these services makes a significant share of critical/potentially critical patients to occupy other healthcare spaces, such as: clinical units, surgical units, diagnosis centers, emergency rooms, outpatient clinics, basic healthcare units and homes, among others. According to this view, it is acknowledged that the deficit or lack of professional qualification necessary for this population of patients represents a rupture in the standards of healthcare quality, potentially generating risks to the life of the patients receiving care and subjecting the professional to moral, ethical and legal risks.

Interestingly, when universities exclude (or choose not to include) critical/intensive care in their undergraduate Nursing curricula, they graduate professionals with deficiencies in knowledge and intervention capacity in problems and health-disease situations, prevalent and priority demands of the population, which makes care for actual health needs inadequate[3].

This reinforces the principle that nurses need to be qualified for care delivery to critical/potentially critical patients, so that they can receive the appropriate level of healthcare, regardless of the geography, i.e. where they are. Nowadays, it is recognized that a number of diagnoses and therapeutic procedures, which used to be exclusive of ICUs, are now found in other healthcare units – for instance, ventilation through positive pressure (with or without an artificial

airway), electrocardiographic monitoring, parenteral use of vasopressor drugs, among others. This article does not deal with discussions about the political-institutional reasons for these practices, but with the academic preparation of nurses for healthcare to this category or patients, who demand critical/intensive care, even if specialized beds are lacking. These data are corroborated by audit reports[14] that, when evaluating the quality and occupation rates of ICUs registered in the state of São Paulo, found that 18.9% did not have conditions to provide services and 29.1% had occupation rates higher than 80%. The same study showed that only 5.9% of the ICUs had adequate human resources and that 1.8% had adequate materials and equipment[14].

In order to avoid having critical/potentially critical patients being under-cared, nurses' education should include, besides concepts covering the imbalances of organic functions – which characterize critical health conditions –, strategies that facilitate the development of competences in the practical scope, allowing for the systematic, interpretative, evolutive and articulate evaluation, aiming at recognizing actual or potential situations of clinical deterioration, the early implementation of effective interventions and the evaluation of the responses to these interventions, as well as the identification of the resources needed to handle that specific situation correctly. In other words, the critical/potentially critical patients will not be adequately cared for if they are not assessed, recognized and prioritized.

Critical/intensive care urgently needs to be properly equipped, as a part of nurses' education for generalist work, as opposed to the vision that this is a professional specialization for the newly graduated nurse. Thus, *lato sensu* graduate courses should be understood as an advanced, specific level of professional qualification in the strict sense, including preparation for teaching in universities, and not merely the overcoming or filling of gaps in undergraduate Nursing education. This educational situation, associated to the expanding market, instead of strengthening undergraduate Nursing education, could weaken the conceptual identity of *lato sensu* intensive care graduate courses, jeopardizing advanced, in-depth education of the specialist nurse in this specific field of knowledge.

Therefore, undergraduate Nursing courses should be oriented to the most relevant problems of the socio-political environment where the nurse acts, supporting the application of the Nursing Process at the different healthcare levels and progressive competency development for care management and execution, in an interdisciplinary way.

CURRENT PARADOXES

With such considerations, it is necessary to discuss the chaotic situation of the ICUs, mainly a consequence of overcrowding.

There are several factors contributing to this situation. The life expectancy of the Brazilian population has been increasing in the past decades. Since the 1960s, fewer and fewer Brazilians are born, and the elderly population is increasingly larger. In addition, new therapeutic and diagnosis modalities and the improvement of existing modalities are also evident. As a consequence, health problems related to chronic-degenerative disease have increased, and the allocation of resources for healthcare actions has been modified, with ever-increasing concentrations of hospitalizations in this age range.

Moreover, the urbanization process and the haphazard growth of large centers also contribute to the change in the population's morbidity and mortality profile. External causes, i.e. health aggravations either directly or indirectly related to the increase of social violence, including accidents, structural and domestic violence, as well as the improvement in urgency and emergency services increased the population of critical and potentially critical patients in hospital institutions, making hospital beds even scarcer.

Critical/intensive care urgently needs to be properly equipped, as a part of nurses' education for generalist work, as opposed to the vision that this is a professional specialization for the newly graduated nurse.

In addition to the change in the epidemiologic profile of healthcare needs, tumors, infectious and parasitic diseases still persist. Despite the reduction of death rates, are still causes of morbidity and hospitalizations[15].

The decrease in the quantity and quality of healthcare service in the basic network is added to this panorama, with slow referrals and solutions; low governmental investment per capita in our country; a deficient healthcare network regarding preventive medical care; precariousness and absence of medication or pharmaceutical assistance; and the real absence of a hierarchy-based, regional medical care[16].

The most serious aggravating factor in this situation is that, at a national level, only 24.5% of the hospitals with inpatient service have ICUs. In public hospitals, this percentage is 15.8%, reaching 30% in private hospitals[17].

Either isolated or in combined factors, these reasons contribute for ICU services to be overcrowded with patients, who could often have their healthcare problems solved in other units if preventive and educational aspects were a priority for the government. This high demand needs time, human and financial resources, equipment and diagnosis, making potentially *usable* subsidies (expenses) available to those patients with a real need for services with high problem-solving capacity.

This chaotic situation in our country, denounced several times by the media, puts the healthcare professionals in conflicting situations, when the terrible choice of *who or which* patient will be taken to the ICU is necessary, when there are actually several patients in need of resources that are only available at that unit and that can be of benefit to

them, especially with enough human resources and equipment for controlling and assessing a more critical situation, which is often impossible in other sectors[18].

This reality provides an ample discussion for undergraduate and graduate students about the political competences, social transformations, historical-political processes and reflection about the professional and the citizen. It also proposes a reflective and critical discussion of nurses' role in this context and the possibilities and limits of conscious action, besides the aspects pertinent to healthcare itself.

CRITICAL/INTENSIVE UNITS AS PLACES OF TEACHING/LEARNING

In view of the complex variety of patients who enter the critical/intensive care units and the diversity of situations that happen there, these are rich contexts for learning, making it possible to perform effective actions in view of several situations, and bringing the academic work closer to the world of labor, guiding undergraduate students' competency development[19].

Hence, it is a paradox that the school, which organizes and selects the content to be taught, can forfeit the dissemination of a range of knowledge, values and attitudes that are so pertinent to the current age of the country.

National and international studies show that the utilization of service protocols and the standardization of language favor practice and regulate actions, minimizing errors and iatrogenic occurrences. Thes quality of healthcare is recognized as one of the main factors for the final result of the patient in terms of survival or death[20].

The beginning of higher education is therefore a challenge that cannot be postponed, due to the need to organize resources and invest in the education of nurses, favoring effective and safe actions, a more reflexive perspective in view of the possibilities of work and the reality of healthcare in our country.

Through a comprehensive bibliographic survey, the authors identified a large number of publications on critical/intensive care, which indicates interest in the area, as well as the constant need for updating and the relevance of the theme. Due to knowledge gaps in the area, however, it is seen as a great opportunity for further research, which is most necessary in our context.

Having worked in the critical/intensive care area for 20 years, we are saddened and perplexed to see that specialized care for critical/potentially critical patients (lack of beds) is a severely ill public health problem in Brazil, with constant governmental apathy, especially regarding preventive care and healthcare education, which are relegated to a secondary position.

The impacting and quick (harsh) type of learning that is acquired in critical/intensive care is the need to prioritize care, delegating functions and taking control of whatever is of higher complexity, which is really the characteristic of a differentiated professional, as the nurse should be. This experience propitiates, in the short term, an objective, quick, creative and sensitive look at the daily adversities and the cruelty of the human *being*.

In this perspective, formal and explicit education in the critical/intensive care area, covering aspects of the health-disease process, ethical, legal, social and humanitarian aspects, presents itself as a fundamental construct of the nurse's education. This educational process aims at building individuals that are more reflective, with better capacities of observation, critical analysis, autonomy, ingenuity, generating ideas, broadening their horizons, becoming active agents of society and aware of their role within the healthcare team.

In view of what was exposed, nurses' education in critical/intensive care is not intended to come up with magical formulas for the education of new professionals, solving the healthcare deficits, nor even cover all the necessities of such a competitive and wide-ranging job market. It does, however, encourage the reflection of important daily aspects in our reality, the articulation and furthering of discussions that will imply better healthcare for the population, fill knowledge gaps and the consideration of ways that will strengthen the profession in the scientific field and its social representation.

Rethinking the education, content, methods, evaluations and dialectic relations between education and healthcare is a duty of all professionals who are socio-politically knowledgeable. Therefore, nurses working in healthcare, management, research, and particularly teaching, are urged to reflect, highlighting the potential of collective initiatives to challenge the conformity of professional tendencies of globalization, focused on the economic model of efficiency and productivity, and transform the professional status of Nursing and the healthcare practices and health education in Brazil. It is not enough to enlarge the limits of undergraduate Nursing courses; evaluation needs to consider the socio-political-economic context and strive for quality.

FINAL REFLECTIONS

The discussion about formal and explicit teaching of critical/intensive care in undergraduate Nursing courses allows us to analyze relevant aspects about competences exclusive to nurses, as agents promoting the integration among information, actions and responses, by acknowledging the multiple dimensions involved in this interdisciplinary healthcare level and the comprehension of its inter-relations with a clientele that represents the Brazilian population more and more accurately. It contributes to the promotion of safe and qualified healthcare, strengthening the profession; and to humanistic education, favoring the discussion of ethical, legal and moral themes, so necessary in the national scenario. Therefore, the (re)insertion or maintenance of this course in undergraduate Nursing courses is strongly recommended.

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