

URGENCY/EMERGENCY COURSE CONTENT IN THE EDUCATION OF GENERALIST NURSES CONTEÚDOS DE URGÊNCIA/EMERGÊNCIA NA FORMAÇÃO DO ENFERMEIRO GENERALISTA CONTENIDO DE URGENCIAS/EMERGENCIAS EN LA FORMACIÓN DE ENFERMEROS GENERALISTAS

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ABSTRACT

This unique analytical, qualitative case study aimed to identify the urgency and emergency content taught in an undergraduate nursing curriculum. Data were collected between August and December, 2014. In this study, 13 professors were interviewed, 18 theoretical and practical laboratory classes were observed, and 13 subject syllabuses in addition to the pedagogical course project were analyzed. Content analysis identified three themes: 1.) criteria used for choosing the course content that should be taught; 2.) course content taught in theoretical/practical classes, in theoretical classes, and in practical laboratory classes and how they are allotted to semesters/phases; and 3.) course content taught in theoretical/practical activities performed at health services: dependence on demand. This study identified several needs: 1.) to deepen the discussion about which contents should be taught in undergraduate curricula and how priorities are and should be set in order to develop the proposed competence for graduate students and 2.) to avoid mere instrumentalization of students who do not have critical thinking skills that guide their learning processes.

Keywords: Teaching; Nursing; Curriculum; Emergencies; Professional Practice; Education Nursing.

RESUMO

Trata-se de estudo de caso único, analítico, com abordagem qualitativa, que objetivou conhecer os conteúdos de urgência e emergência ensinados em um curso de graduação em Enfermagem. A coleta de dados ocorreu de agosto a dezembro de 2014. Foram entrevistados 13 professores; observadas 18 aulas teórico-práticas de laboratório; e analisados 13 planos de ensino de disciplinas do curso, além do projeto pedagógico. A partir da análise de conteúdo, emergiram três categorias: critérios utilizados para a escolha dos conteúdos a serem trabalhados; conteúdos das aulas teóricas, aulas práticas de laboratório e aulas teórico-práticas: distribuição por período/fase; e conteúdos ministrados nas atividades teórico-práticas no serviço: dependência da demanda. Identificou-se a necessidade de aprofundar a discussão sobre os conteúdos a serem trabalhados, principalmente na definição daquilo que é prioritário, evitando a mera instrumentalização dos alunos alijada de raciocínio crítico, desenvolvendo as competências propostas para o perfil do egresso.

Palavras-chave: Ensino; Enfermagem; Currículo; Emergência; Prática Profissional; Educação em Enfermagem.

RESUMEN

Se trata de un estudio de caso único, analítico, de enfoque cualitativo, con el objeto de conocer el contenido de urgencias y emergencias que se enseña en el curso de grado en enfermería. La recogida de datos ocurrió entre agosto y diciembre de 2014. Se entrevistaron a 13 profesores; se observaron 18 clases teórico-prácticas de laboratorio y se analizaron 13 planes de estudio de materias del curso, además del proyecto pedagógico. A partir del contenido de los análisis se definieron tres categorías: criterios utilizados para seleccionar los contenidos por trabajar; contenido de las clases teóricas, prácticas de laboratorio y teórico-prácticas: distribución por año / etapa; y contenidos de las actividades teórico-prácticas en el servicio: dependencia de la demanda. Se identificó la necesidad de una mayor discusión sobre los contenidos por trabajar, sobre todo en la definición de aquello que es una prioridad, evitando la mera instrumentalización de los estudiantes sin formar pensamiento crítico, con miras a desarrollar las competencias propuestas para el perfil de salida.

Palabras clave: Enseñanza; Enfermería; Currículum; Urgencias Medicas; Práctica Profesional; Educación en Enfermería.

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INTRODUCTION

Among the different areas where nurses can play a role, urgent and emergency (U/E) care is a segment in health care in which nursing professionals are part of a health care provision team, acting in the delivery of direct care to patients, acting in management roles and being responsible for the implementation of continuing education activities.¹

The proposal to organize the Brazilian emergency care provision system has shown progresses regarding the definition of concepts and incorporation of new technologies aiming at organizing the healthcare delivery network. Thus, it is expected that health professionals' training and education are able to follow the pace of these changes and that the population affected by acute health problems can be properly treated at all health care levels. Both basic care and specialized services should be prepared to directly intervene and/or refer patients to other health care services when their care possibilities are exhausted.^{2,3}

Thus, health professionals' training and education should provide them with a solid academic knowledge and opportunities to reflect about the social reality. It should be care-centered and allow the perfecting of nursing activities and actions. This can be partly achieved by integrating theoretical and practical content (or knowledge), enabling experiences and making possible the creation of a specific professional identity.⁴

According to the National Curricular Guidelines (DCN) in Brazil, the basic content taught in nursing curricula have to be associated with the health/disease processes of the individual, the family and the community. They should make possible the provision of comprehensive nursing care and comprise biological and health sciences, human and social sciences, as well as Nursing sciences.⁵ Certainly, this does not imply that the intended content have to be the main issue of the teaching process, but they are an essential part of training and should be in line with new health care demands and training proposals.⁴

Thus, nurses' training and education should aim to create a professional profile that encompasses technical, ethical and political skills.⁶ Undergraduate nursing education should be targeted at solving the country's most relevant problems, based on nurses' different levels of action and subsidized by the progressive development of their skills and competencies.^{7,8}

Nurses training regarding the emergency and urgent care provision to critical patients, as well as content that cover organic imbalances that characterize critical health conditions should be part of the strategies used to facilitate the development of practical competencies. Hence, these strategies should allow for systematic, interpretive, evolutionary and articulated assessments, aiming at recognizing current and potential clinical deterioration situations, implementing early and effective interventions and assessing their effects, as well as identifying what resources are needed to handle a specific situation.^{9,10}

Therefore, given the need to define which contents should be taught in order to develop the core skills and knowledge for emergency and urgent care, we ask: what urgency / emergency content are taught in undergraduate nursing curricula? What criteria are used to choose the content that should be taught in urgent/emergency care education?

OBJECTIVE

To identify urgency/emergency content taught in an undergraduate nursing curriculum.

METHODS

This is a unique analytical, exploratory, qualitative case study. For this investigation, we selected an undergraduate nursing course from a public university in Northeastern Brazil. This specific course was chosen among the oldest universities in the country and was the course with the greatest number of graduated students and highest representativeness output.

The focus of this study was on urgency/emergency content taught to nursing students throughout their undergraduate course, in disciplines related to "Nursing Sciences". We analyzed both disciplines that taught the specific topic of urgency/emergency and disciplines that approached this topic as part of its own agenda. We approached the analysis from three different perspectives: documental analysis of the Pedagogic project and subject syllabuses of the course; observation of practical classes in skills/simulation laboratories; and interviews. The interviews were audio recorded and appropriate notes were made on a field journal.

We interviewed 13 professors who taught subjects related to urgency/emergency. These recordings totaled 208 minutes and 12 seconds of speech. Eighteen practical laboratory classes from three disciplines were observed. Classroom observation time totaled 40 hours and 10 minutes (an average of 2.2 hours per class). Thirteen subject syllabuses were analyzed in full length. Nevertheless, content explicitly covering urgency/emergency were only identified in the syllabuses of four disciplines. The course syllabuses were provided by the course coordinators and the professors of each discipline. The data were collected between August and December, 2014.

Data analysis was based on a case study structure. The complete data material was read in order to make successive approximations to the codifications and categorizations. Analysis was based on Bardin's content analysis.¹¹ The first step was the analysis of the interview data. Next, we analyzed the documents and observations, in order to identify new findings. Coding was performed using Atlas.ti software (version 7.5.4). Then, all data were organized into categories.

This research adhered to all principles, standards and ethical guidelines for research involving human beings, thus complying with Resolution 466 of December 12th, 2012, of the National Health Council. The study project was approved by the Research Ethics Committee of the Faculdade de Ciências da Saúde do Trairi (FACISA), Federal University of Rio Grande do Norte (UFRN), protocol numbers 764.031, of August 22nd, 2014 and CAAE: 31745514.5.0000.5568. All participants signed an Informed Consent Form and gave consent to the interview and the observation of the practical laboratory classes.

RESULTS

After analyzing the interviews, the pedagogical course project and the course syllabuses, as well as the observations made during the practical classes, we could identify which contents specific to urgent/emergency care are taught in the undergraduate nursing curriculum and are part of the current arrangements for the education and training of generalist nurses.

Content analysis identified three main themes, namely: criteria used for choosing what U/E-related content should be taught; course content taught in theoretical-practical classes, in theoretical classes and in practical laboratory classes: how they are allotted to semesters/phases; and content taught in theoretical-practical activities performed at Health Services: dependence on demand.

CRITERIA USED FOR CHOOSING WHAT U/E-RELATED CONTENT SHOULD BE TAUGHT

Based on the interviews, we identified three criteria used to choose which contents should be taught, namely: content considered basic or classic to the course; content chosen because they deal with common problems experienced in local U/E care services; and content defined based on the National Policy on Emergency Care (PNAU) and priority care pathways. It should be noted that over the years some content are removed, whereas others are added to the syllabus:

Basic topics, such as high blood pressure and bleeding are more common, so they are always present. But since the curriculum is large and time is short, sometimes we have to exclude some content to add others. I am aware that it is lacking in this discipline. We try to keep at least the basics. To make sure that the students are able to provide care to patients with eclampsia or to patients presenting with hypovolemic shock (P07).

The provision of nursing care in some cases, such as cardiorespiratory arrest, seizure, asthmatic crisis, intoxication and trauma cases can be taught and practiced dur-

ing laboratory classes. These are the main cases, because they are the most common in pediatric emergency (P01).

The content were defined based on the National Policy on Emergency Care. They are compulsory content that are used in prehospital care, acute coronary syndrome, stroke and characteristics of the care provided at the health care service. It includes psychiatric, pediatric, neonatal, gynecological, obstetric, trauma and clinical care (P02).

We found that students also suggest which contents should be taught, by requesting review classes and specifying which contents should be covered in them.

At the end, the professor asked the students if they had any questions. But nobody asked questions about the topic. They however asked the professor to make a review of two other topics: electrocardiogram and blood gas analysis. The professor scheduled the review to a different day (OBS. 12).

The Pedagogical course project does not specifies which contents will be taught, but rather describes what skills graduated students should poses, such as the development of continuing education. It also provides guidelines that can help in the selection of content. Another point that they try to cover is the facilitation of significant learning experiences, focused on real problems that are dealt with in theoretical-practical approaches together with other contents:

The pedagogical relationship between professors and students should be a participatory one, based on significant and problem-posing learning experiences that enable reflection and discussion about real problems experienced by health professionals, thus promoting the congruence between theory and practice (PPC 01).

It is important to emphasize that, during the observations, we could identify that professors used international protocols for some topics, but was also capable of contextualizing the content to the local reality of the state and of the municipality.

The cases presented by students and the theories presented by the professor were at the same based on international protocols and related to the local reality of the municipality, the state, the country and the world (OBS. 01).

The professor discussed a hypothetical case of 30 people hurt in a grandstand collapse. Given that all stu-

dents were present, the professor requested them to answer the following questions in writing: What are the initial steps? When and where should take this action? What are the priorities? They discussed the reality of the municipality and that of the state health care network regarding their readiness to provide care to multiple victims (OBS. 14).

It is important to highlight that, in some situations, students only discuss how to solve a problem by trying to think of possible solutions. Pedagogical practices rooted on traditionalist aspects are still very present and tend to approach the resolution of problems in a mechanical and procedural way. Solving cases is part of a nurse's everyday practice and require the use of several different coping strategies. This may help students in other areas of knowledge or nursing practice other than urgent/emergency care, since it enables the development of skills needed to solve challenging problems, interact in a transdisciplinary way, develop communication skills, creativity and critical thinking.

CONTENT TAUGHT IN THEORETICAL CLASSES, PRACTICAL LABORATORY CLASSES AND FIELD CLASSES: HOW THEY ARE ALLOTTED TO SEMESTERS/PHASES

U/E care is taught in the fifth semester of study. In this semester, internal medicine and surgery content with medium complexity level are taught in a discipline called "Atenção I". The focus of this discipline is not specifically U/E care and there are no practical classes in a specific U/E care service. The only content specific to U/E care in this discipline Basic life support (BLS). Although other contents that are common to U/E care services are taught in this discipline, it does not focus specifically on U/E care. BLS is taught as content in theoretical classes and practical laboratory classes. It is taught in the discipline due to the potential risk of students being faced with cardiorespiratory arrest cases during practical activities in the wards:

In this discipline ("Atenção I"), the only U/E care-related content that we teach is basic life support. After the theoretical part, there is the practical part in the laboratory. In this discipline, students don't go to the field. The content of acute myocardial infarction is taught in the context of clinical practice in cardiovascular care. But not in an emergency care service, only at hospital level, not characterized as urgent and emergency care (P10).

In the 5th semester, the topic PSYCHIATRY is taught, but psychiatric U/E content are not dealt with

The Psychiatry part is limited to basic care. Students are not taught anything related to psychiatric emergency or clinical psychiatry, neither in hospital nor in urgent and emergency care (P12).

The specific content of psychiatric emergency is not dealt with (P06).

In the sixth semester, students are taught the discipline "Atenção II". Although this discipline does not deal exclusively with U/E care, it is considered to be the discipline that teaches high-complexity U/E care. Thus, this discipline comprises several basic contents that are specific to and focus on E/U care. The following contents were taught in the theoretical classes: National Policy on Emergency Care; Urgent and Emergency Care Networks; structure and dynamics of an emergency room; risk classification; thoracic pain and AMI; electrocardiography and arrhythmias; shock; sepsis; cardiopulmonary resuscitation-advanced life support; oxygen therapy and noninvasive and invasive mechanical ventilation; digestive bleeding; kidney disorders; invasive and noninvasive hemodynamic monitoring; vasoactive drugs, sedation; acid-base disorder- arterial and venous blood gas analysis; diabetic ketoacidosis/electrolyte imbalance; acute lung edema, respiratory insufficiency; intracranial hypertension; donation of organs and tissues for transplantation; burns; drowning; chest trauma; abdominal trauma; traumatic brain injury; intoxication; poisonous animals; acute abdomen; and stroke. These contents are evidenced in the following reports:

The course content is divided by professor. Each professor is responsible for teaching a specific content (P05).

We teach U/E care-related content with a focus on the provision of care to adult patients. There is also a part where we teach provision of care to seriously ill patients. Related to ICU care and critical care in general. We deal with cardiovascular disorders with a focus on critical patients and urgent and emergency care. Then we study protocols on actions to take in case a patient arrives to the emergency room with thoracic pain. We deal with AMI and advanced life support, [...]. We also deal with neurological problems and stroke (P12).

The content taught in this discipline could also be identified in the course syllabuses, as shown below:

COURSE CONTENT: structure and dynamics of the intensive care unit and emergency room; [National Policy on Emergency Care and Risk Classification]; nursing care to patients with digestive bleeding; nursing care to patients

with kidney disorders; invasive and noninvasive hemodynamic monitoring. Vasoactive drugs; sedation and curare; acid-base disorder - arterial and venous blood gas analysis. Diabetic ketoacidosis / electrolyte disturbance. Nursing care to patients with acute respiratory distress syndrome, pulmonary thromboembolism, acute lung edema, respiratory insufficiency. Nursing care to patients with brain aneurysm. Intracranial hypertension and the provision of care to postoperative neurosurgery patients. Nursing care to patients with chest pain and AMI. EKG and cardiac arrhythmias; nursing care to patients with shock. Nursing care to patients with sepsis. Cardiopulmonary resuscitation-advanced life support. Oxygen therapy and noninvasive and invasive mechanical ventilation. Nursing care in the maintenance of potential donors of organs and tissues for transplantation. Course content taught in the form of seminars. Nursing care to burn injured patients; nursing care to drowning victims; nursing care to patients with thoracic trauma; nursing care to patients with abdominal trauma; nursing care to patients with traumatic brain injury; nursing care to intoxicated patients; nursing care to victims of poisonous animals; nursing care to patients with acute abdomen; nursing care to stroke patients (PD06).

Patient reception and ethics in prehospital care; PNAU / medical regulation / biosafety; trauma care – immobilization in prehospital care; BLS / ALS team work; ACS / stroke; pediatric emergencies; obstetric/neonatal emergency; eclampsia; psychiatric emergencies; thoracic and abdominal trauma; respiratory insufficiency; exogenous intoxications; brain injury /traumatic brain injury; care in incident with multiple victims / dangerous products (PD09).

In the sixth semester, only two topics were dealt with in the practical laboratory classes: advanced life support (ALS), and ventilatory support and oxygen therapy.

In the practical laboratory classes, only a few topics were taught, like cardiopulmonary resuscitation - the most advanced part. Of course that it was taught in conjunction with the basic support part. There was also a class on invasive ventilation and the mechanical ventilator (P05).

We also teach a laboratory class on invasive and noninvasive mechanical ventilation. Also in the lab, they are also taught classes on the theme of advanced life support (P12).

In the seventh semester, students are taught U/E content in a discipline called "Atenção III". In this curricular component stu-

dents learn about maternal and child care at all complexity levels. This discipline deals therefore with obstetric and pediatric U/E care in theoretical, laboratory and practical classes in health care services. The course content taught in the practical classes will be addressed in the next category. Themes of obstetric content focus on childbirth, pregnancy complications and ICU care. The following content are taught: delivery; puerperium; pregnancy complications: hypertension during pregnancy; eclampsia; bleeding; hypovolemic shock; thromboembolism.

As regards pregnancy complications, [the content taught are]: Complications associated with hypertension during pregnancy, bleeding, major infections, thromboembolism (P07).

Laboratory practical classes on Obstetrics cover topics such as delivery, neonate care and maternal ICU nursing care:

The topic of delivery is taught by two professors. In the same way, with theoretical and practical lessons in the lab. The topics dealt with were general care to ICU patients, including cardiac monitoring, collection of blood gas samples, aspirations techniques, provision of care to patients on artificial ventilation, vesical catheterization check (P07).

The following U/E content were taught in the theoretical classes: care to high-risk neonates; neonatal resuscitation; oxygen therapy; pediatric cardiopulmonary resuscitation; seizure; asthmatic crisis; preparation of medicines; preparation and placement of a peripheral venous access; trauma; vital signs monitoring.

Theoretical content comprised the following five themes: 1) risk classification; 2) systematization of nursing care (SNC) to patients with neurological and cardiac disorders; 3) SNC to pediatric patients with gastrointestinal and respiratory disorders; 4) surveillance of infectious contagious diseases; and 5) hospitalized children. I address topics such as cardiopulmonary arrest, care during seizures, and focus on asthma and asthmatic crisis, dehydration and water-electrolyte disorder. In this case, higher-risk children with such disorders who are seen at the health care service (P01).

The following U/E content are taught in the practical laboratory classes: risk classification in pediatric patients; seizures; CPR; asthma; dehydration and water-electrolyte disorder; trauma.

The provision of nursing care in some cases, such as cardiorespiratory arrest, seizure, asthmatic crisis, intoxication and trauma cases can be taught and practiced dur-

ing laboratory classes. These are the main cases, because they are the most common in pediatric emergency (P01).

Through this exercise, students are able to reflect about the meaning of their actions and how problems are structured. These aspects, if critically examined, may unfold into different courses of action by nurses. Dynamic thinking favors changes in care practice.

COURSE CONTENT TAUGHT IN PRACTICAL ACTIVITIES PERFORMED AT HEALTH SERVICES: DEPENDENCE ON DEMAND

Students have practical classes in U/E care services in the sixth, seventh and ninth semesters. In the sixth semester, students have classes in two U/E care services with similar care provision features. Part of the group performs theoretical and practical activities in an Emergency Care Unit and the other part (UPA) and the other part of students perform the aforementioned activities in the emergency room of a small-sized hospital. Practical pediatric U/E care activities are performed in a pediatric emergency room. Despite the fact that there is an obstetric emergency department in the maternity ward, there is no specific field for obstetric U/E care. Classes in obstetrics take place in the delivery room, in hospital wards and in the maternal ICU. In the ninth semester, students are taught two disciplines in which they have the opportunity to put their knowledge into practice in real-world settings, namely: supervised internship and U/E care. However, not all students can seize this opportunity. Not all hospitals where the supervised internship is served have U/E care services. Moreover, the number of students who can attend this discipline (whose practical classes are taught in an Emergency mobile care service) is limited to 15.

With regard to the course content taught in the theoretical-practical classes, students are able to experience the most common everyday "topics" in the health care services where they serve their internships. However, the topics/contents experienced by students vary from group to group, because they depend on the patient demand for services.

All students receive the same education, have the same amount of practical classes, but the opportunities they have depend on the health care services where they serve their internships. It also depends on the demand created by the professor in the practical field. Thus, some have a larger number of experiences than others, it depends on the everyday reality of each health care service (P04).

(One group) experiences an asthmatic crisis but not a CPR. Another group experiences a cardiorespiratory arrest but no trauma or intoxication (P01).

In an emergency room, the opportunities depend on what emergencies occur and on the health care service itself. For instance, in the small-size hospital where we teach, students will rarely experience a case of trauma. They could experience such cases in a state referral hospital. Local hospitals have different profiles, like more cases of acute myocardial infarction, hypertensive crisis, other types of care (P05).

Experiences that depend on patient demand for services may constitute a problem, as students see the need to learn contents based solely on the possibility of experiencing such cases at some time in the future or when they are serving their internships .

DISCUSSION

When investigating content specific to a certain area of expertise, and according to a logic approach that compares it to technical work, the term "generalist", as foreseen in the National Curricular Guidelines, may have different interpretations. This kind of content is related to current perceived needs in the nursing "work world", as well as an education that is based on scientific knowledge but also close to the reality of health care services and the Unified Health System (SUS). The intended type of professional that will be formed at the end of the education/training is close to the generalist logic, which may counteract with the specialization logic. Nevertheless, the perception that nursing undergraduates should be trained to work in all practical work environments should stress the need for an education that goes beyond technical training and thus achieves general competencies through the mastery of certain knowledge.^{12,13}

As for the criteria used to select which contents should be taught in the disciplines, we found that some content are considered as basic and classical and their presence in the curriculum is seen as imperative. According to the professors, the curriculum is dynamic, as its current content can always be replaced by new ones as needed. The offer of updated content, in line with current international guidelines, was an issue mentioned in the reports made by the professors and is echoed in the needs of students. As stated in the pedagogical course project, students contribute to the insertion or removal of content by identifying and verbalizing learning needs. There is also the perception that there is a large number of content and a short time for an in-depth approach.

Thus, we can infer that, due to a shallow or even absent critical and reflective pedagogical education, the selection of content by nursing professors may be done with little critical reflection, if interpreted from the perspective of references incorporated throughout professional practice as nurses or undergraduate students. The epistemology underlying the teaching design is considered empiricist, since, in the absence of ped-

agogical training, previous experiences are used as guides to project students' needs.¹⁴

With regard to the content taught in theoretical-practical, theoretical and practical classes and how they are allotted to semesters, there is no discipline that specifically teaches U/E content. These content are taught throughout three semesters in disciplines related to maternal and child care and high-complexity care. The content constitutes the themes or topics that will be taught in a certain discipline. They thus constitute a social, localized construct. The profile of students that the course intends to achieve, the way it is perceived by professors and the interpretation of teaching and nursing made by them, show values disseminated through the selected content.¹⁵

The separation between practical, theoretical and theoretical-practical content sometimes reinforces the idea of compartmentalized knowledge, focusing at times on technical skills and at times on their rationale. Fostering the idea that there is no actual division between theory and practice, even in nursing areas considered as highly specialized, may contribute to the appreciation of professionals who have know-how, i.e., who know how to put something into practice.¹⁶

The professors believed that the main content specific to U/E care were being addressed. Some topics may be prioritized based on the local and national reality, as well as on Ministry of Health policies. With regard to the demand of content in practical classes, it is inferred that students may experience different U/E care situations and thus the achievement of practical skills is prioritized. The experiences lived by undergraduate nursing students are of major importance in their training. Notwithstanding, there are other knowledge and skills, such as relational and managerial competencies, that are also fundamental for their training.

A study¹⁷ conducted with nurses who worked in a prehospital service investigated their opinion about what theoretical knowledge and practical skills needed by nurses who work in prehospital care. The most commonly cited basic knowledge and procedure were CPR and oxygen therapy, respectively. The topics considered as essential by the participants of the aforementioned study did not refer to the most frequent occurrences or procedures. The topics were related to situations that required decision-making, readiness and dexterity/skills in moments of great stress or when providing care to a specific population. This reinforces the need for programs aimed at developing competencies in this area.¹³

Additionally, with the changes experienced at national level, we realize the importance of adding new topics when teaching U/E care, such as topics related to the epidemiology of incidents with multiple victims and natural disasters, which have a significant impact on the SUS.¹⁸ There is also a need to bring theory and practice more close together. Hence, theoretical

content should receive a practical application, especially in the perspective of competence-based training. Some authors believe that training should be predominantly composed of practical classes in health care services, i.e., they claim that these services should also determine the content and competencies that should be taught.¹⁹

There is also a mixture between U/E care-related content and content that specific to intensive care. In general, it is common that these two areas are addressed in the same discipline, with the number of credit hours of the discipline divided between these two contents. These disciplines are complementary with regard to developing skills and competencies, but they are also distinct from one another. In this study, we found no clear distinction between these two areas, as both are included in the definition of "high complexity".

As for patient reception and risk classification, it is important to stress that the shallow teaching of these topics may lead to misleading impressions, because they should not be limited to the procedure of risk classification. Nevertheless, a really good understanding of content and their practical experimentation can make students understand their own importance as professionals and the real scope of tools, avoiding the identification with only a part of the process.²⁰ This experience is made possible by experienced professors who can guide learning towards exploring the complexity of the available tools. In the reality of this study, internships are served in small-sized emergency rooms and only for a reduced period (six days, in average), which probably does not allow the development of a full understanding about patient reception with risk classification. Among other skills, there is a lack of accurate clinical reasoning. The topic is present, but it is not addressed in depth nor is it part of clinical simulation scenarios, which may be due to difficulties in prioritizing which content should be taught or to little clinical experience. No emphasis is placed on this content by professors. Although they intend to develop other approaches in the area, they still follow the logic of content fragmentation, making it difficult for students to assess the global context of care. The use of scales and protocols that stratify risk levels is generally recommended. Some examples are the *Emergency Severity Index* (ESI), the *Australasian Triage Scale* (ATS), the *Canadian Triage Acuity Scale* (CTAS[®]) and the *Manchester Triage System*.²¹ In this study, no specific scales or protocols were mentioned as content to be taught in the classroom.

Of note, Ministry of Health Ordinance number 1600, which reformulated the National Policy on Emergency Care and instituted the Urgent Care Network in the Unified Health System, among others, aims at overcoming the fragmentation of care and management, in order to ensure patients the actions and services that they need. Thus, the division of content in isolated disciplines organized according to demand and with little or no

real connection with the content taught in the other semesters reinforces this fragmentary character. This could be overcome through a better understanding of the policy and the health care network.²² This study shows that the prioritization of the cardiovascular, cerebrovascular and trauma care pathways is partly echoed in the content addressed by professors.

Given the importance of the nursing education and training process, this study contributes to the understanding of pieces of knowledge that are prioritized or neglected in the curricula, and raises a discussion on what is essential for the training and education of generalist nurses when certain content are addressed (in the case of this study, content related to U/E care). It also contributes to the understanding of how professors and students can guide the discussions about nursing undergraduate curricula through pedagogical pluralism and learning demands.

One limitation of this study is the study design itself, because case studies do not allow generalization. The undergraduate nursing course investigated in this study may not represent the reality of other undergraduate nursing courses in Brazil. The present study is therefore an exploratory study. Another limitation of the study was the small sample size and the reduced number of observations of practical classes.

CONCLUSION

The findings of this study indicate that topics related to the major health problems in the field of U/E care and the organization of health care services were addressed in the curriculum. In addition to the content that should be taught, the subject syllabuses also propose the development of skills and competencies. Although they are shown in the results, all subject syllabuses addressed U/E content specifically.

This study identified the need to deepen the discussion about which contents should be taught in undergraduate curricula, interconnecting practical knowledge with those advocated by the academy and bringing classroom theory and practice-site training closer together. Thus, each course/field needs to discuss/analyze which contents have the highest priority, when developing the competencies proposed in the National Curricular Guidelines for the profile of graduate students, as well as how this curricular component is expected to contribute to the education and training of generalist nurses. This can be discussed in forums and collegial meetings, allowing for modifications in the curriculum if necessary.

Finally, the purpose of this study was not to determine which contents should be taught in undergraduate courses, but rather, based on the analysis of this case, to provide subsidies for other courses to discuss which contents are essential and need to be added to their curricula. In addition, it is essential to define what competencies these courses intend to de-

velop in students and pay attention to the need of providing pedagogical training to professors.

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