Advanced nursing practice training: the reality of the United States and the first steps of Brazil

Enfermería de práctica avanzada: la realidad de los Estados Unidos y los primeros pasos de Brasil

Prática avançada em enfermagem: a realidade dos Estados Unidos e os primeiros passos do Brasil

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ABSTRACT

This is a reflective theoretical essay, with the objective of reporting the experience of the United States and the first steps of Brazil in the training process of advanced practice nurses. The historical trajectory of two traditional graduate programs in the professional modality is described, one from Brazil and one from the United States. Both curriculum models highlight specific training disciplines of nursing practice, the thesis and DNP project, consisting of implementation studies. We concluded that both countries are still making progress in nursing education and practice and are working to collaborate to form the highest level of nursing education and practice.

DESCRIPTORS

Advanced Practice Nursing; Education, Nursing, Graduate; Nursing.

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INTRODUCTION

Advanced nursing education and practice continue to progress both nationally and globally. The Universidade Federal Fluminense and the University of Florida College of Nursing have collaborated to promote and encourage advanced nursing education and practice globally for the last five years. As keynote speakers in a collaborative virtual presentation in May 2021, in Sao Paulo, during the *International Seminar on Adult Health-Advanced Nursing Practices: How are we and where we are going*, we highlighted the similarities and differences of advanced practice in the United States and Brazil. We will discuss the similarities and differences between the United States and the Brazilian experience.

UNITED STATES EXPERIENCE

The process leading to the Doctor of Nursing Practice (DNP) as the terminal degree for advanced practice has taken over 50 years. The first nurse practitioner education was a collaboration between Dr. Loretta Ford and Dr. Henry Silver in the 1960s, initially starting as a certificate program and not a degree. The master of science in nursing, for advanced practice nurses, then moved to a degree program in the 1970s. After which, the master of science then progressed to the practice doctorate in the early 2000s. The doctorate allowed graduates to develop advanced competencies in systems to enhance their leadership skills and address complex systems to improve patient outcomes. The enhanced knowledge also aligns with the number of credits required for a doctorate instead of a master's degree.

The American Association of Colleges of Nursing (AACN) endorsed the Position Statement on the Practice Doctorate in Nursing in 2004 as the first official step in moving the level of preparation for advanced practice nursing from a master's degree to a doctorate[1]. The Doctor of Nursing Practice (DNP) degree is a clinically focused advanced degree in nursing. Eight foundational concepts guide the education of DNP graduates: 1) scientific underpinnings of practice; 2) organizational and systems leadership for quality improvement and systems thinking; 3) clinical scholarship and analytical methods for evidence-based practice; 4) information systems/technology and patient care technology for the improvement and transformation of health care; 5) health care policy for advocacy in health care; 6) interprofessional collaboration for improving patient and population health outcomes; 7) clinical prevention and population health for improving the nation's health; and 8) advanced nursing practice[2]. In an increasingly complex clinical environment, healthcare can rely on DNP nurses for guidance in the essential areas mentioned above.

The DNP core curriculum is different from the Doctor of Philosophy (PhD) graduate. The DNP graduate nurse translates research and best practice into the clinical environment to improve the healthcare for a population of patients. In comparison, the PhD nurse is prepared to guide and conduct research to acquire new knowledge. The DNP cultivates practice expertise, whereas the PhD cultivates research expertise. The applicant for the DNP program is encouraged to apply at the bachelor of science in nursing (BSN) level for the BSN-DNP program, yet there are still numerous advanced practice nurses with a master's degree returning to school for their DNP. PhD programs accept students with master's degrees in nursing (MSN), while others accept BSN-PhD candidates. Credit hours for the BSN-DNP programs are between 70–95 credits, with an average of 80 credits for those entering the program with a bachelor's degree. Fewer credits are required for the MSN-DNP student, with an average of 35 credits. A PhD program has an average of 60 credit hours for those with a previous MSN degree, including the dissertation hours. Clinical Hours are generally up to 1000 hours in a DNP program, with PhD programs requiring minimal, if any, clinical hours. Currently, brick-and-mortar schools, hybrid programs, and online programs are available for DNP and PhD nursing students in the United States. The decision to attend a specific program is often based on personal limitations such as geographic relocation and family and professional obligations. The final product for the DNP students is a proposed change in practice that includes a project paper and dissemination. In contrast, the PhD student has to complete a dissertation that contributes substantively to the field of nursing plus a dissertation defense.

Sample curriculums typically include the DNP core course work the first year of school. These courses include topics such as quality improvement, informatics, health system administration, policy, and evidence-based practice. All students also take the three common courses among specialties, fondly referred to as the three "P's." These courses include advanced pathophysiology, physical health assessment, and pharmacology. After the common specialty courses are completed, the students move into population specific specialty courses such as health management, clinical nursing, and pharmacology. Nurse Practitioner specialties may focus on family practice, mental health, adult or pediatric primary care, and adult or pediatric acute care, among others.

Finally, DNP students must complete a DNP project. The project integrates the knowledge and skills obtained through their education curriculum. According to AACN[3], the DNP project should impact healthcare outcomes using a systemic approach. The project should focus on the student's specialty area – such as psychiatric-mental health, family, or pediatrics – and should be sustainable in the clinical site after the student graduates. The project will typically be completed in over 3–4 semesters. The DNP project is guided and conducted by the student with the support of a faculty mentor from the academic organization and a practice mentor from the clinical site. After the project is completed, it is expected for the student to disseminate the project. At a minimum, an executive summary is delivered to the clinical site of the project. Students, however, may also present at professional conferences and sometimes submit manuscripts for publication on the project topic. All nurse practitioner students must obtain a minimum of 500 direct patient care hours to sit for national certification exams. During the clinical experiences, students are expected to meet competencies on practice upon graduation. The nursing profession is still trying to determine how these competencies will be measured for each specialty. While there are ongoing discussions about increasing the minimum number of hours, there has not been a final decision yet. In order to meet these clinical expectations, students are placed in clinical sites with

licensed preceptors. These preceptors can be physicians, nurse practitioners, and other licensed providers depending on the specialty track. The direct clinical hours include time spent working with the patients or in patient care, such as rounding on an interprofessional team, reviewing labs, medication, charts, talking with family members or schools. The preceptors provide a standardized student evaluation to the faculty at the middle and end of the semester. Faculty meet with the preceptor either online or in-person in the middle of the semester to view the student within the clinic and gather information about student progress. Feedback is also obtained from the preceptor, guiding current and future clinical experiences to focus on specific skills and experience. Ultimately, faculty are responsible for the education, grade, and remediation of the student if needed.

Students are also assessed during their health management courses by faculty through simulated skill development and simulation on campus. Skills training would depend on the specialty; some examples of family nurse practitioners include suturing, punch biopsy, and joint injections. Acute care students might focus on airway placement and central line placements. While skill development and simulation cannot replace direct care with patients, it is an important tool to augment education. The simulation also allows faculty to evaluate student knowledge and competency. The utilized simulation should align with the International Nursing Association for Clinical Simulation and Learning[4]. High-stakes simulations are often used before graduation as a formative assessment to evaluate knowledge (cognitive), skills (psychomotor), and attitude (affective) of graduates[4]. These high-stakes evaluations have necessary criteria that must be met to be an authentic evaluation. These include determining the intent and design of the experience and the evaluation.

Another example is the Objective Structured Clinical Examination (OSCE), which assesses the students' competencies through simulations conducted in a particular scenario. There may be varying goals of the OSCE. Examples of an OSCE assessment and evaluation, in one or more clinical competencies, include history taking, communication, physical examination skills, differential diagnosis, and treatment recommendations.

The DNP program extends beyond attending classes and clinical duties. Therefore, indirect hours obtained in school are accounted for in the total number of hours. These hours are accumulated above and beyond the minimum of the 500 hours for certification and the school's requirement of clinical hours for graduation to meet the 1000 hours required for the DNP degree. Indirect hours include opportunities such as attending professional conferences, joining committees with a professional focus at local, state, or national levels; meeting with legislators for "Day on the Hill," where nurses advocate for policy efforts to focus on healthcare efforts; and collaborating with other professionals to address healthcare issues within the practice site.

In order for a nurse practitioner to sit for the certification exam, which allows the student to practice after graduation, the student must have graduated from an accredited nursing school, have a minimum of 500 direct care clinical hours, and completed advanced pathophysiology, pharmacology, and physical health assessment. Students then obtain a national certification but must adhere to each state's practice laws, which vary from state to state. The state practice acts are along a spectrum from collaborative practices with physicians to full practice authority.

At the University of Florida, the program is delivered mostly online with some requirements for students to come to campus. Campus attendance is typically for orientation, a head-to-toe health assessment check-off, skills development, and simulation experiences. They have some synchronous seminars with faculty that are recommended but not required, as most coursework is asynchronous. All clinical work is done in alignment with the clinical site, located within the student's geographic location. While clinical experiences have been conducted on-site, some clinicals have switched to telehealth experiences due to the restrictions related to the pandemic. Student characteristics for online or hybrid programs are independent learners, usually working as a Registered Nurse, and having family commitments. While most students still tend to be caucasian females, there is a movement to attract and incorporate a more inclusive, diverse population of students to more accurately reflect the general population.

The College of Nursing has six specialties in the DNP program[5]. They include Family Nurse Practitioner, Psychiatric Mental Health Nurse Practitioner, Adult-Gerontology Acute Care Nurse Practitioner, Pediatric Primary Care Nurse Practitioner, Pediatric Acute Care Nurse Practitioner, and a dual-track, which includes Pediatric Primary Care and Pediatric Acute Care Nurse Practitioner. The students in the dual-track have to meet requirements for both tracks, but upon graduation, they are allowed to sit for both certifications. The dual-track builds upon the foundational knowledge for the advanced pediatric nurse practitioner, allowing them to assess, diagnose, and treat common, chronic, and complex pediatric conditions across multiple settings.

All graduates are advanced practice nurses who provide care to different populations and complexity depending on the specialty. The Family Nurse Practitioner (FNP) provides primary health care for individuals, groups, and communities across all ages. The Psychiatric Mental Health Nurse Practitioner (PMHNP) focuses on individuals, families, or populations across the lifespan at varying levels of complexity who are at-risk of developing mental health problems or have a psychiatric diagnosis. The Adult-Gerontology Acute Care Nurse Practitioner (AGACNP) prepares graduates to provide independent and collaborative management of young, middle-aged, and older adults from diverse populations suffering from acute, critical, or chronic illness. The Pediatric Primary Care Nurse Practitioner (PNP-PC) provides primary care to children from birth through 21 years of age. The Pediatric Acute Care Nurse Practitioner (PNP-AC) provides care for acute, critical, and chronically ill children and their families in various practice settings.

There are multiple successes and barriers to the DNP program at this time. There is currently a national movement to address the shortage of providers, especially in the primary care setting. This became even clearer during the pandemic when nurse practitioners assisted in addressing the overwhelming needs in the primary care setting and hospitals. Over half of the states have now moved to full practice authority for nurse practitioners with ongoing advocacy. DNP graduates are also moving into leadership roles as they support the transformation of the

healthcare system and move policy forward, impacting healthcare policies. In general, the doctorate has elevated the image of nursing and allowed graduates to be involved in healthcare issues at the highest level. The DNP aligns nurse practitioners with other healthcare disciplines, which require a doctorate for entry to practice.

Nevertheless, barriers continue to be met. One struggle is the shortage of faculty in DNP programs. Another struggle is the shortage of preceptors to teach in clinical settings. Both of these factors limit the number of graduate student admissions. While the barriers continue to exist, the doctorate degree continues to be supported as the terminal degree for nurse practitioners.

BRAZIL EXPERIENCE

According to Ordinance No. 60 of March 20, 2019, which provides for professional master's and doctoral degrees, within the scope of the Coordination for the Improvement of Higher Education and Graduate Training (CAPES), defines in its Article 2 as the objectives of professional master's and doctoral courses "I – to train qualified professionals for advanced, innovative, and transforming practices of work processes, aiming to meet the social, economic and organizational demands of the various sectors of the economy" (free translation). It declares in its first objective the commitment to the formation of professional programs with advanced practice, that is, the professional programs in their curricula should train professionals capable of transforming their practice and innovate nursing care for the population, considering the context and consolidation of the expansion of autonomous nursing in the country, such as outpatient care, home care companies, wound care, and for the development of software for recording the nursing process in terms of number and quality[6].

The second objective details the social commitment of professional training in the development of the country "II – transfer knowledge to society in order to meet social and economic demands, regarding national, regional and local development." This second objective is one of the most important for the growth of nursing, since professional programs have mostly focused on product development. Despite the importance of the transfer and implementation of innovative practice, academic and applied programs have a history of developing products and technologies that lack practical testing and implementation. Furthermore, it is expected that, in the future of graduate studies, academics will be able to produce theoretical constructs and products to be transferred and implemented in practice by professional programs, thus advancing science for social development. Examples regarding this perspective include scales that are translated and validated in an academic program, they can have its practical implementation impact evaluated through managerial and care indicators; or a study that developed a technique for measuring the size and depth of wounds in bedridden patients in academics, it can have its applicability studies carried out by different professionals in professional settings, enabling the development of product transfer protocols for large-scale practice[6,7].

The objectives "III – contribute to the aggregation of knowledge in order to boost productivity in companies, public and private organizations"; and "IV – Be aware of innovation processes and procedures, whether in industrial activities that generate products or in the organization of public or private services" underpin a historical need for nursing entrepreneurship and health economics to know the value of the nursing work, of the added value and potential of each nursing activity/innovation and its impact on the market, in the design of care models supporting the cost-effectiveness analysis. Examples of professional study designs within the scope of these objectives would be that of the development of a plan to transfer a short and large-scale family nursing practice to become a franchise; Or the implementation in a municipality, where the public administrator attends the program and puts into practice the implementation of the immunization policy with case surveillance and home visits with active search, monitoring coverage indicators, with implemented improvement research data, proposing nursing innovations strategies for complete vaccination coverage in the municipality[6,8].

Currently, there is a distinction between a professional's master and doctoral level training. The latter, according to Ordinance objective V "graduate with a profile characterized by autonomy, the ability to generate and transfer innovative technologies and knowledge for unprecedented solutions to highly complex problems in their field of activity". Therefore, train autonomous professionals, able to generate and transfer innovative technologies and knowledge of solutions to problems in his field of action is complex. Soon, recommended the implementation science, surveys take time to be planned, require the participation of the stakeholders and the need to assess which are the best indicators to be monitored in the verification process. Therefore, the 24-month time of the master's course limits the execution of the proposal. Research that is still allied to training in advanced practice, that is, autonomy in a clinical and managerial area as expected in the professional doctorate, are needed to train political leaders and influencers to advance the professional role within the country[9].

The stricto sensu graduate course in nursing in Brazil began in 1972 with an academic master's course, and the first doctoral course was approved in 1981[7]. The first professional master's degree approved by CAPES was from the Universidade Fluminense Federal, called the Professional Master's Degree in Nursing Care in 2002, regiment and curriculum of which was approved by the collegiate in 2003. Its first-class was financed by private companies to their employees, since the professionals could not afford it themselves. The course was offered according to the exclusive dedication of the teacher during the week, due to the low investment in the professional training of workers in Brazil. Due to all the formalities and difficulties culturally imposed, this modality was challenged by the search for new forms of financing, which is still a challenge for Professional Master's courses in Brazil.

Notably, in its 2003 regulations, the Professional Master's in Nursing Care (*Mestrado Profissinal em Enfermagem Assistencial* – MPEA) curriculum, proposed with 960 hours at that time, can still be considered contemporary to the current context, with mandatory disciplines divided into three types of credits, which already considered training in advanced skills and the focus on professional practice: Selected readings in Nursing Care (15h) and Special Nursing Care Projects (15h), with complementary

theory according to the subject of study; Science and Technology in Nursing (45 hours); Research Methods in Nursing (45 hours) and Research Seminar on Nursing Care (45 hours), with theoretical and theoretical-practical hours in the laboratory. The disciplines with the highest workload that have theoretical credits (2 credits), theoretical-practical credits (1 credit), and Supervised Internship (2 credits) are Management of nursing and health care systems (75h), Work method and technology of the process of care (75h), and Seminar on advanced practices in nursing care (75h)[10]. These last three subjects contain practical hours of training in monitoring and management of quality indicators, in the nursing process and standardized language systems, and finally in the student's field of specialty.

The first class was started with seven students in 2004. The first student defended his dissertation on 26/04/2006 with the theme "Application of risk assessment scales for decubitus ulcers in intensive care patients: a quantitative prospective study,"[11] in line with the application in professional practice. In all, 161 students graduated from the MPEA. Despite the challenges posed by the pandemic, three public notices were opened for the master's course and one of them for outside of the main university campus as a result of CAPES/COFEN/PCI funding with ten practical nurses in partnership with the Federal University of Acre (UFAC); a class with five students financed by the CAPES/COFEN/PROENF project, and another with 23 students, 118 were enrolled in the last call for 38 vacancies, a growth that has been increasing with the consolidation and recognition of the professional modality in the country[12].

Corroborating the CAPES assessment of the nursing field that was described at the end of the 2013–2016 quadrennial assessment, the field had 76 Graduate Programs in operation, 53 academic programs, and 23 professional programs. In the 2017/2018 biennium, 28 proposals for new courses, 22 professional proposals (16 Professional Masters and 6 DNP), and 6 academic proposals (5 Science Masters and 1 PhD) were made. In 2019, 2 DNP programs were approved in Brazil, at Unesp-Paulista State University Júlio de Mesquita Filho and the other at the Federal University of Santa Catarina (UFSC)[12]. Both started classes in 2020, a step forward towards continuing professional training in the country.

According to the field's report, there was a greater submission of professional proposals when compared to academic proposals. This situation points to the expansion of professional nursing programs, following a national trend in which professionals are more interested in qualifing for career advancement and consolidation. There was also an increase in the demand of candidates with the induction represented by the CAPES/COFEN Agreement (Notice No. 27/2016: Support for Postgraduate Programs in the Field of Nursing – Professional Masters Modality), which allows for the financing of professional programs, a former claim of the field[12].

In 2019, the Program MPEA completed 15 years, and saw the need to reformulate its curriculum and strategic planning, clearly defining: Mission "Train nurses for quality professional practice, promoting technological development and innovation."; Vision "To be a national and international reference in the application of innovative management and care technologies."; and Values "Social commitment, Professional development, Emphasis on innovation, Excellence in nursing." Since then, the MPEA has been engaged in the training of faculty members with qualification workshops for professional training. Only two of the faculty members have a professional master's degree, and all the others have a PhD.

The characteristics of specialized training in nursing, the requirements of advanced nursing practice, its possibilities in Brazil, and the worldwide experience have been emphasized, such as product registration; product development methods; scientific methods implementation; entrepreneurship; seminary for the presentation of products by the master's students objectively and creatively; experience in optional subjects of Advanced Nursing Practice in gerontology, cardiology, dermatology, integrative, and complementary practices in health (PICS); and Design Thinking course. However, professor and students qualified in production are sought in national and international journals, such as those specialized in professional training, lattes curriculum, and scientific writing (https://www.youtube.com/c/EEAACUFF/playlists).

Thus, there was a restructuring of the lines of assistance to professional training: Line A – Nursing care for human groups: development of studies on the nursing process in practice for the care of individuals, families, and communities; and Line B – Technology, Innovation, and Management of the Health Care Process: development of studies on the creation and incorporation of products and processes in Nursing care. Management of health services and nursing care management. Core disciplines: Fundamentals of Nursing Practice (60 hours), Fundamentals of Nursing Research (60h), Nursing Care Projects and Practices (60h), Seminar on Nursing Practice and Research I (45h), Seminar on Nursing Practice and Research II (45h), Teaching Internship (30h). Optional: Biostatistics (30h), Seminar on Public Health Policies (30h), Scheduled Update Topics (30h), Advanced Nursing Practice (30h), Planning and Management of Health Care and Nursing (30h), Nursing Process and Standardized Language Systems (30h), Management and Quality in Health and Nursing Services (30h)[13].

A questionnaire was developed in google forms to evaluate the curriculum in 2020; 100% of the students responded anonymously. Among the questions, the following was included: Did the curricular contents help in your professional practice? 72% answered yes. Furthermore, when requested: What were the contributions of the curricular contents to your professional practice? They replied: "Be more sure that the protocol I will develop will be useful in the hospital unit," "The knowledge acquired in the discipline of advanced practices in gerontology nursing brought an expansion of fundamental knowledge for my practice," "The main contributions were the deepening of the methods that lead to the construction of instruments that help my practice," "Better systematization of nursing care," "Observe the weaknesses of my work environment and think from there on ways to improve them," "Clarity for the elaboration of protocols," "It encouraged me to plan more content for future training and articles on Science-Based Practice."

Furthermore, when asked: Were the innovative pedagogical practices used in the development of subjects? 68% answered yes. They cited some innovative pedagogical practices that were used in the subjects: "Development of a video in the Pitch model

to expose the research project," "Canvas and how to sell your product and develop it for the public," "Active methods as a room inverted classroom and problematization," "Seminars for technical productions," "Clinical care disciplines with specialized cases using the nursing process."

Despite the notable progress in the last decade, the Professional Programs still lack formal funding from the regulatory bodies; close relationship between university and company, which can be made possible by direct contracts between programs, innovation agency and company to reduce bureaucracy; the distinction of academic programs and, at the same time, the adoption of a complementary attitude towards each other, for the transposition of scientific knowledge into practice; advances in the regulation of advanced nursing practice in Brazil, so that the professional master's student has differentiated remuneration after completing the course, and a training process officially recognized in that field of specialty, promoting a trend of professional programs each specialized in an area of care, such as Gerontology, Management, Primary Health Care, Maternal and Child; the adoption of more robust methods of implementing improvements and transferring technologies/products into practice, advanced from product development to innovation at work, impact and viable models of translation. These are necessary learnings for the professional master's and doctoral programs in the coming years, associated with new drafting/writing of the dissertation/thesis formats, and another trend is specialized training in clinical practice, whether in the laboratory or the practical field.

FINAL CONSIDERATIONS

In conclusion, while both countries are progressing with nursing education and practice, there are still obstacles to overcome. Both countries are working toward the highest level of nursing training and practice. Both countries utilize clinical experiences in the clinical site to enhance knowledge and develop skills. They also utilize a project that is focused on transforming healthcare, thereby impacting patient outcomes. Despite these similarities, the countries utilize different systems for healthcare: while the geographic location regulates nursing practice in the United States, Brazil has a national system of healthcare and practice. The state regulations has been a limiting factor for nurse advanced practice registered nurses who may want to relocate to another geographic location. Both countries are limited by faculty in academia for these programs. As both countries continue to address these issues, we look forward to future collaborations to promote nursing education and practice globally.

RESUMEN

Este es un ensayo teórico y reflexivo que pretende reportar la experiencia de los Estados Unidos y los primeros pasos dados por Brasil en el proceso de formación de enfermeros de práctica avanzada. Se describió la trayectoria histórica de dos programas tradicionales de posgrado en la modalidad profesional, uno en Brasil y otro en Estados Unidos. Ambos modelos curriculares destacan las asignaturas de formación específicas de la práctica de enfermería, la tesis y el proyecto DNP, compuesto por estudios de implementación. Se concluyó que los dos países presentan avances y colaboraciones para ofertar un alto nivel de educación y práctica de enfermería.

DESCRIPTORES

Enfermería de Práctica Avanzada; Educación de Postgrado en Enfermería; Enfermería.

RESUMO

Trata-se de um ensaio teórico reflexivo que busca relatar a experiência dos Estados Unidos e os primeiros passos do Brasil no processo de formação de enfermeiros de prática avançada. Descreveu-se a trajetória histórica de dois programas tradicionais de pós-graduação na modalidade profissional, um do Brasil e outro dos Estados Unidos. Ambos os modelos curriculares destacam as disciplinas específicas de formação da prática de enfermagem, a tese e o projeto DNP, composto por estudos de implementação. Concluiu-se que os dois países ainda estão progredindo e colaborando para formar o mais alto nível na educação e na prática de enfermagem.

DESCRITORES

Prática Avançada de Enfermagem; Educação de Pós-Graduação em Enfermagem; Enfermagem.

REFERENCES

1. American Association of Colleges of Nursing. Position statement on the practice doctorate in nursing [Internet]. Washington: AACN; 2004. [cited 2021 Oct 18]. Available from: https://www.aacnnursing.org/Portals/42/News/Position-Statements/DNP.pdf

2. American Association of Colleges of Nursing. The essentials of doctoral education for advanced nursing practice [Internet]. Washington: AACN; 2006 [cited 2021 Oct 18]. Available from: https://www.aacnnursing.org/Portals/42/Publications/DNPEssentials.pdf

3. American Association of Colleges of Nursing. The doctor of nursing practice: current issues and clarifying recommendations [Internet]. Washington: AACN; 2015 [cited 2021 Oct 18]. https://www.aacnnursing.org/Portals/42/DNP/DNP-Implementation.pdf

4. INACSL Standards Committee. INACSL standards of best practice: simulation[SM] participant evaluation. Clin Simul Nurs. 2016;12(Spe):S26-29. DOI: http://dx.doi.org/10.1016/j.ecns.2016.09.009

5. University of Florida College of Nursing [Internet]. Gainesville: University of Florida; 2021 [cited 2021 Oct 18]. Available from: https://nursing.ufl.edu/programs/doctor-of-nursing-practice-dnp/

6. Brasil. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior. Portaria nº 60, de 20 de março de 2019. Dispõe sobre o mestrado e doutorado profissionais [Internet]. Brasília; 2019 [cited 2021 Oct 18]. Available from: http://cad.capes.gov.br/ato-administrativo-detalhar?idAtoAdmElastic=884

7. Carregal FAS, Santos BM, Souza HP, Santos FBO, Peres MAA, Padilha MICS. Historicity of nursing graduate studies in Brazil: an analysis of the Sociology of the Professions. Rev Bras Enferm. 2021;74(6):e20190827. DOI: https://doi.org/10.1590/0034-7167-2019-0827

8. Santos SF. Causas para baixa cobertura vacinal pneumocócica em diabéticos na rede pública e propostas para combater ineficiências [Dissertation]. Porto Alegre: Hospital de Clínicas de Porto Alegre; 2019.

9. American Association of Colleges of Nursing. The essentials: core competencies for professional nursing education [Internet]. Washington: AACN; 2021. [cited 2021 Oct 18]. Available from: https://www.aacnnursing.org/Store/product-info/productcd/PUB_NEWESSENTIALS

10. Brasil. Ministério da Educação. Boletim de Serviço Ano XXXIII, n° 080 23/05/2003, SEÇÃO IV [Internet]. Rio de Janeiro: Universidade Federal Fluminense; 2003 [cited 2021 Oct 20]. Available from: http://www.noticias.uff.br/bs/2020/08/144-20.pdf

11. Machado SP, Castilho SR, Oliveira BGRB. Evaluation of risk assessment scales for decubitus ulcer in intensive care patients. Brazilian Journal of Nursing. 2006;5(2):278-9. DOI: https://doi.org/10.5935/1676-4285.2006408

12. Brasil. Ministério da Educação. Documento de área 20: enfermagem [Internet]. Brasília; 2019 [cited 2021 Oct 18]. Available from: https://www.gov.br/capes/pt-br/centrais-de-conteudo/enfermagem-pdf

13. Brasil. Ministério da Educação. Boletim de Serviço Ano LIII, n° 163 27/08/2019, SEÇÃO IV [Internet]. Rio de Janeiro: Universidade Federal Fluminense; 2019 [cited 2021 Oct 18]. Available from: http://www.noticias.uff.br/bs/2019/08/163-19.pdf

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