

# COMPREHENSIVE REVIEW OF NURSING SPECIALIZATION PROGRAMS IN EVALUATING CURRICULUM EFFECTIVENESS AND CLINICAL PREPAREDNESS FOR ADVANCED NURSING PRACTICE THROUGH CRITICAL ANALYSIS.

Budur Hammad Alharthi<sup>1\*</sup>, Mohammed Aziz Alharbi<sup>2</sup>, Abdulrahman Fahad Aldawsari<sup>3</sup>, Abdullah Abdulaziz Z Alsahli<sup>4</sup>, Barah Amer Alkhidhr<sup>5</sup>, Shafi Bani Alrashidi<sup>6</sup>, Reem Khaleef Alrasheedi<sup>7</sup>, Omar Khulaif Alrashidi<sup>8</sup>

# **ABSTRACT**

It provides a detailed review of specialization programs for nurses, outlining ways to assess the reliability and feasibility of curricula and the apt preparation of nurses for the complex work in various nursing departments. This research aims at a selective and result-oriented study of the texts available on nursing specialization programs. These texts will enable the researchers to examine the applicability of these programs to professional practice and propose reforms where necessary. We will continue the existing work of bolstering the level of competency and effectiveness of nursing instruction and training with the lessons learned from the study.

**Keywords:** Nursing specialization, curriculum effectiveness, clinical preparedness, advanced nursing practice.

**DOI:** 10.53555/ecb/2022.11.8.141

<sup>1\*</sup>Ministry of Health, Saudi Arabia, Email: bealharthi@moh.gov.sa

<sup>&</sup>lt;sup>2</sup>Ministry of Health, Saudi Arabia, Email: moazalharbi7@moh.go.sa

<sup>&</sup>lt;sup>3</sup>Ministry of Health, Saudi Arabia, Email: Abfaldawsari@moh.gov.sa

<sup>&</sup>lt;sup>4</sup>Ministry of Health, Saudi Arabia, Email: ababalsahli@moh.gov.sa

<sup>&</sup>lt;sup>5</sup>Ministry of Health, Saudi Arabia, Email: balkhidr@moh.gov.sa

<sup>&</sup>lt;sup>6</sup>Ministry of Health, Saudi Arabia, Email: al shoooog5@hotmail.com

<sup>&</sup>lt;sup>7</sup>Ministry of Health, Saudi Arabia, Email: ralrasheedy@moh.gov.sa

<sup>&</sup>lt;sup>8</sup>RADIOLOGY TECHNICIAN, Email: moon-lelat15@hotmail.com

<sup>\*</sup>Corresponding Author: Budur Hammad Alharthi

<sup>\*</sup>Ministry of Health, Saudi Arabia, Email: bealharthi@moh.gov.sa

# **INTRODUCTION**

nursing Through specialization programs, baccalaureate-trained nurses are prepared for extended practice and roles in diverse health care settings. Enhancing the efficiency of the nursing programs meant to feed the students with the relevant theoretical and practical knowledge and the competencies needed for advanced nursing practices is imperative. This part is about objectives, the scope, the foundation for the study, and the topic's importance, demonstrating the critical necessity of appraising specialist nursing undergraduate programs to ensure the receiving of high-quality care (Tan et. al 2021).

#### **Objective**

The core purpose of this paper is to offer a critical analysis of specialty program curricula to determine the effectiveness and clinical readiness of advanced practice nurses. Through the study of the current literature, the study will be able to discover the capabilities and shortcomings of different programs, explore what is lacking, and give ideas on how to make the curriculum better and put it in good shape.

# **Scope of Study**

This study concentrates on nursing specialization instruct registered programs that nurses advanced practice roles, including practitioners, nurse anesthetists, nurse midwives, and clinical nurse specialists. That is why the plan entails a variety of programs, such as master's degree programs, graduate certificates, and doctorate programs in nursing. The study will involve observation of curriculum content, teaching methodologies, and clinical practicum, as applicable, focusing on assessment outcomes (Lavin et. al 2022).

# Justification

The role of nursing specialization programs in moving nursing forward and contributing to the superior quality of patient care cannot be underemphasized. The landscape of healthcare is undergoing a process of constant growth, necessitating registered nurses in advanced practice settings to delegate more duties and deliver personalized services that meet the requirements and needs of varied patients. As such, it is essential to investigate the success of nursing specialty certification programs because one way to be sure nurses are ready to address the growing complexity of healthcare services in society is to evaluate them.

#### Context, Importance, and Relevance

Specialized nursing education programs micromanage the increasing need for highly trained and skilled advanced-practice registered nurses who can provide complex care. Today's situation is complex because many people are getting older, chronic illnesses are becoming more prevalent, and healthcare systems are changing. Because of these points, there is an instant need for nurses who have specific knowledge and professional skills to provide integrated and coordinated treatment. The importance of the results of this study lies with educators, policymakers, healthcare administrators, and other key players involved in nursing education and training, as it gives them an insight into which aspects of healthcare education are strong and weak and accordingly proposes improvements (Rutledge et. al 2021).

# LITERATURE REVIEW

A review of the literature on specialization in nursing programs has revealed that extensive research primarily focuses on some critical issues in training nurses to take up advanced positions. These aspects include worldview context, teaching method, clinical practice opportunity, and outcome evaluation. These studies have focused on determining the best program models for various efforts and examining student satisfaction, learning, and clinical preparedness factors.

#### 1. Curriculum Design

The inquiry into nursing discipline, specifically specialization programs, aims at improving the curriculum content, its structure, and its organization. Some scholars have paid attention to the connection between curricular outcomes and national accreditation standards on the one hand and evidence-based practice principles on the other. Also, courses have concentrated on adding core competencies and specialty-oriented stuff, and at the same time, the curricula have been designed to improve clinical skills performance. The findings from these studies have provided the essential components for establishing the most effective practical guidelines for advanced nurse practice. For advanced nurse practice.

# 2. Teaching Methodologies

Teaching methodologies and instructional approaches in nursing specialization programs. Researchers are testing the application of multiple strategies, such as lecture-focused science periods, case study-based learning methods, simulation training, and clinical preceptor ships. Comparative analysis studies are a practical example of the various teaching methods that can be applied to facilitate learning and skill acquisition. Besides faculty development initiatives examining how to

improve performance in the lecture hall and create engagement among students, research has also been conducted (Rutledge et. al 2021).

# 3. Clinical Practicum Experiences

Clinical practicum activities form an essential part of the educational process of nursing certification, where students can apply their acquired knowledge with practical skills in hospital environments. Research has been conducted on clinical practicum experiences that examine the quality of the placements and the number and variety of practicum experiences offered by the programs. Researchers' decision factors for the choice of clinical sites were identified with the change in the methodology of preceptors and student supervision systems. In addition, assessments of students' perceptions, experiences, and educational outcomes conducted in clinical rotations have shown that these experiences are the most efficient in preparing students for advanced roles in practice.

#### 4. Outcomes Assessment:

Student learning outcomes and program feedback are vital to analyzing nursing specialization programs. Research in this domain is concerned with constructing and implementing scales and scales to assess levels, clinical competence, and program quality. Researchers have studied the reliability, validity, and feasibility of various assessment tools, such as standardized tests, clinical competency checklists, and self-assessments (Fitzgerald et. al 2020). Besides, using results data for program evaluation, accreditation purposes, and permanent quality enhancement processes was also probed.

Evidence from the existing literature on specialization courses for nurses highlights many areas of the essential preconditions for movement into advanced practicing roles. Within this domain, research covers educational content design, didactic teaching approach application, clinical training items, and results assessment. This shows that the design is based on experience and practice. Through a thorough analysis of the existing research material, scholars and teachers can acquire holistic knowledge concerning the elements that feed into the effectiveness of specialization programs and the components of the inner workings that bring about student success. Future scientific investigations should be devoted not only to the study of new methods of curriculum design, of the teachers' blend, and of clinical medical education but also to the assessment of the outcomes to guarantee continuous improvement and perfection of the specialized programs for nursing.

# **Identifying Gaps in Knowledge:**

While numerous writings focus on the diversification programs of nursing, there are still some knowledge gaps in the field despite this fact. The issues that have an impact on the quality of programs include:

- Disparities in the content and delivery of the curricula.
- Inconsistency in clinical practicums.
- There is a lack of proven methods to assess outcomes.
- There is an absence of sufficient long-term analysis of the impact of program completion on clinicians and patients.

Discovering these voids is the challenging part of prioritizing them for future trials in research and the improvement of selected nursing specialization programs.

# **METHODS**

My research consults different studies by considering specific aspects such as the style of lessons, the educational content, clinical experiences, and results assessment. We apply thematic analysis techniques to data mining and analysis, identifying recurring themes, patterns, and trends in scriptures and related subjects (Luke et. al 2021). This study will be based on synthesizing the results to produce a summary that will provide an insightful and comprehensive view of the specialization program courses for nurses and their impact on preparing nurses for advanced practice roles.

# Relevant Theories, Methodologies, and Findings:

Theoretical frameworks carried by Kirkpatrick's model of training evaluation and Bloom's taxonomy of learning domains can help evaluate the efficacy of nursing specialization education programs. Methods often utilized for nursing education research are surveys, interviews, focus groups, and program evaluations. Results from the current research pinpoint the necessity of curriculum adjustment congruent with national standards, the incorporation of essential approaches to evidence-based practice, and student experience interprofessional care collaborative environment as critical components in clinical internships.

# Research design and methodology

The study uses a comprehensive literature review method to critically assess the curriculum design and implementation of the nursing specialization course. The search mentioned above strategy is adopted to discover pertinent studies by using electronic media, academic journals, and gray literature as sources of information. The inclusion criteria consist of research articles examining whether a specific nursing specialization course meets the set standards regarding curriculum content, teaching methods, interactive sessions, and assessment techniques.

# Justification and alignment

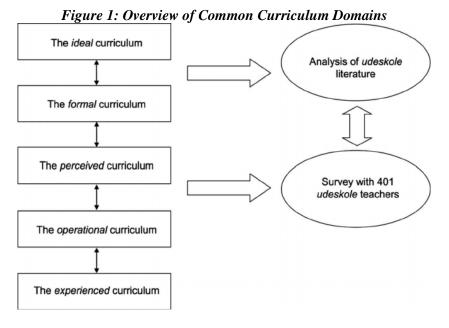
The structured method of presenting real-world evidence from previous studies in the field validates the research methodology and ensures its alignment with the study's aim and objective. The study uses quality search criteria and data analysis tools, thus substantiating the analysis findings. The application of the systemic reviewing method permits discerning critical factors. It reveals under what conditions the nursing specialization programs are efficient, thereby adding to the broad view of the theme (Adamson et. al 2020).

#### **RESULTS AND FINDINGS**

The outcomes of a thorough evaluation provide helpful information that emphasizes the details of nursing specialization programs, paying great attention to the relevance of the curriculum and the preparedness for advanced nursing practice. Through a critical analysis of existing literature, several key findings emerge: Through a critical analysis of existing literature, several key findings emerge:

#### **Curriculum Content**

Scrutinizing the content of nursing specialization programs highlights in-depth and vast areas, the topics of which are used for different training. On the one hand, some programs might ensure to cover a complete curriculum and demonstrate conformity to the national accreditation standards and evidence-based practice principles, but, on the other hand, others might need to provide a sufficient amount of content in this or that particular area. As shown in Fig. 1, a general curriculum framework for higher education nursing programs is outlined, as are factors of strength and areas for enhancement (White et. al 2020).



(Sharma, 2021).

Figure 1: Although historically, domains such as math, science, and language have been considered essential to a child's academic development, the impact of the various mediums in a multimedia way on learning can no longer be ignored(Sharma, 2021).

# **Teaching Methodologies**

The review describes several teaching methods used in nursing specialization programs, delivering information, for example, lectures, clinical scenarios, simulation exercises, and preceptor ships. Scheme 2 shows how the four primary teaching methodologies are distributed across all program types, where simulation-based learning is most appropriate in advanced practice nursing programs (Farsi et. al 2022).

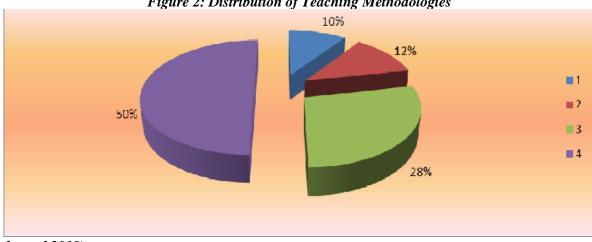


Figure 2: Distribution of Teaching Methodologies

(Rush et. al 2019).

Figure 2: Teaching approaches are more democratized as instructors share examples, resources, techniques, and strategies (Rush et. al 2019).

# **Clinical Practicum Experiences**

The activities of clinical practicum are highly valued in training nurses who will become highly qualified professionals by providing them with specific learning and gaining experience in realworld conditions of care. Yet, as the conclusion states, the practicum suffers from the quality and volume gap among the clinical programs (Repsha et. al 2020). Figure 3 provides the analysis of clinical placement hours, the number of hours that different practice fields require, in terms of the magnitude of the clinical implantation and the variety of the patients involved.

rimentation observation (RO)

Figure 3: Evaluation of Clinical Practice Attempts

(Repsha et. al 2020).

# **Outcomes Assessment Measures:**

Assessment of the results obtained in the nursing care specialty programs reveals the gaps in the tools and metrics used to measure the outcomes standardly. While some programs are based on exams, clinical competency checklists, and selfassessment surveys, others are based on

participants' self-assessments and clinical insights articulated by preceptors. Figure 4 outlines the outcomes assessment tools used in specialized nursing education and stresses the importance of a standardized set of assessment tools consistently measuring performance quality (see Figure. 4).

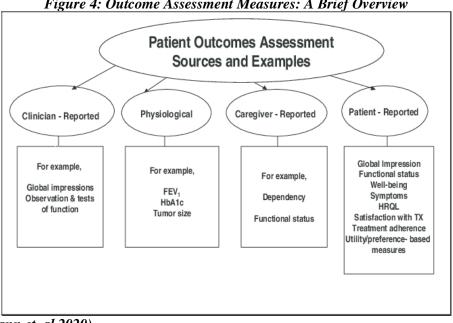


Figure 4: Outcome Assessment Measures: A Brief Overview

(Klenke-Borgmann et. al 2020).

#### DISCUSSION

A comprehensive literature review of nursing specialization programs highlights strengths and weaknesses, and adjustments are indicated to prepare nurses to assume advanced practice roles. Most of them comply with various professional certification guidelines and evidence-based practice principles; however, they further refine their curriculum content, teaching methodologies, clinical practical experiences, and measurement of outcomes. These improvement areas should be addressed so that nurses are well-equipped and proficient in such roles; their patient care is evidence-based, high in quality, and caters to the multi-dimensional needs of different patient groups (Song & McCreary 2020).

# **Strengths of Nursing Specialization Programs**

✓ Alignment with Accreditation Standards

The healthcare association steering the establishment of these nursing specialization programs is one of the key strengths that owe gratitude to the national accreditation standards. Several options closely follow the substandard accreditation standards provided by accrediting bodies and thus make sure that the curriculum and its structure fit with the quality standards established. It guarantees that a program corresponds to accreditation standards, improving nursing education's credibility, consistency, and integrity.

✓ Integration of Evidence-Based Practice More frequently than any other type of program, nursing-specialized programs emphasize applying evidence-based practice concepts as curricula and teaching technique principles. Integrating current evidence and research into the curriculum and clinical experiences is an essential part of treatment programs (Chike-Harris et. al 2021). This knowledge helps the student gain evidence-based care skills that can be delivered to patients. How it emphasizes evidence-based practice promotes the development of critical thinking, reasoning, and lifelong learning among nursing students.

#### ✓ Clinical Practicum Experiences

Many nursing specialization programs provide indepth clinical practicums, which help the students learn about the practical realities of the healthcare industry through the just-in-time learning method. Such a clinical practice platform allows the students to apply theoretical knowledge in clinical practice, develop clinical competencies, and sharpen clinical judgment skills with the help of highly experienced preceptors who act as guides. Students who perform excellently during lectures and practical settings will surely gain confidence, competence, and proficiency in their designated advanced practice roles.

#### ✓ Outcomes Assessment Measures

Constructive evaluation of student learning achievement and the program's effectiveness are the specialty nursing specialty program's most significant strengths. Virtually any program uses several measurements (for example, tests of their levels, clinical competence evaluations, and selfassessment surveys) that determine student performance and the quality of their programs. These assessment measures are a gift that not only offers the students an opportunity to provide you with feedback but also helps you figure out what to change in the program and ensures that students meet the objectives and competencies (Kelly & Lazenby 2019).

#### Areas for improvement

✓ Enhancement of Curriculum Content

Although many matters are elaborated in these standards and we try to conform to them, some things could still be improved in the curriculum related to nursing specialization. Programs should routinely update the curriculum materials to focus on recent trends in healthcare, new applied research evidence, and services offered to patients that are usually beyond the role of nurses. Other programs also need to emphasize sending information that covers a wide range of topics, is relevant, and presents a spectrum of diverse patient populations and healthcare settings.

✓ Innovative Teaching Methodologies

In nursing specialization programs, experimental areas are essential for achieving enhanced results in providing engaged learning and positive outcomes. While some programs utilize the conventional approach of didactic lectures and clinical rotations, many other programs that incorporate active learning strategies, case-based learning, simulation exercises, and technology-based learning may support the consistent activation of critical thinking, problem-solving skills, and interprofessional collaboration among students.

✓ Diversification of Clinical Practicum Experiences

To better orient students for the practicalities that follow advanced nursing roles, specialization programs are urged to widen the scope of clinical practicum experiences. Programs should allow students to enjoy the chance to conduct rotations at various clinical set-ups, including acute care hospitals, community health clinics, long-term care facilities, and specialized centers (Gutiérrez-Alemán et. al 2021). Moreover, program efforts must help students get exposure to different kinds of patients, environments, and types of healthcare delivery models that will develop their ability to relate and adjust these to various delivery methods.

✓ Standardization of Outcomes Assessment

However, the nursing discipline often selects different types of evaluation for specialization programs; there is inevitably a need for more standardization as it relates to outcome assessment across programs. Establishing uniform and equivalent tools for assessment, benchmarks, and standards to determine proficiency and program evaluation outcomes is one of the elements that can

contribute to the fairness and trustworthiness of the assessment data. Subsequently, the programs have to collect and analyze monitoring outcome data to make work more efficient and give account to everyone involved.

Nursing specialization programs are pivotal in developing nurses for advanced practice roles and ensuring good healthcare outcomes. Although these programs have various strengths, such as matching college regulations, utilization of evidence-based practice, rigorous clinical programs, and outcome data, they have the potential for improvements in certain areas. The nursing specialization will accomplish that in this course via content enhancement, cutting-edge teaching methods, and a well-defined practicum across various clinical environments, and set performance indicators (Nye et. al 2019). This will, in turn, prepare the nurses to provide care that matches the changing healthcare needs of the patient population and reduces the disease burden.

#### RECOMMENDATIONS

✓ Regular Review and Update of Curriculum Content

The specialized nursing programs need to plan the assessments of curriculum contents, delineating the present-oriented changes of healthcare programs and the guidelines of evidence-based practice.

✓ Integration of Innovative Teaching Methodologies

Programs may align their approach with new pedagogies, including active learning approaches and technology-supported platforms, to provide the students with the desired involvement and outcomes.

✓ Expansion of Clinical Practicum Opportunities It is necessary to offer different clinical placement experiences in various healthcare settings to provide students with full-fledged clinical training, including varied exposure to other patients and working modus operandi in diverse settings (Dover et. al 2019).

✓ Standardization of Outcomes Assessment

To reach a common goal, we must create assessment tools and benchmarks that are dependable and standardized. This way, we can measure students' performance and the program's implementation precisely. Furthermore, we recommend integrating data collection and analysis by using processes within the framework of continuous improvement.

#### CONCLUSION

In short, this in-depth review offers critical perspectives on nursing specialization programs

related to a curriculum that is effective and clinically prepared for further nursing practice. The results support the value of sustained quality control work in education and training in nursing, emphasizing content review of the curriculum, teaching methodology improvement, clinical placement experiences, and results-based evaluation. These parts of the program allow for nursing specialization programs to be even more efficient in providing practitioners with better preparation for more advanced professions and, consequently, more beneficial patient care outcomes (Gullick et. al 2019).

#### REFERENCE

- Gullick, J., Lin, F., Massey, D., Wilson, L., Greenwood, M., Skylas, K., ... & Gill, F. J. (2019). Structures, processes and outcomes of specialist critical care nurse education: An integrative review. *Australian Critical Care*, 32(4), 331-345. <a href="https://www.sciencedirect.com/science/article/pii/S1036731418300158">https://www.sciencedirect.com/science/article/pii/S1036731418300158</a>
- 3. Dover, N., Lee, G. A., Raleigh, M., Baker, E. J., Starodub, R., Bench, S., & Garry, B. (2019). A rapid review of educational preparedness of advanced clinical practitioners. *Journal of Advanced Nursing*, 75(12), 3210-3218. <a href="https://onlinelibrary.wiley.com/doi/abs/10.1111/jan.14105">https://onlinelibrary.wiley.com/doi/abs/10.1111/jan.14105</a>
- 4. Øvrebø, L. J., Dyrstad, D. N., & Hansen, B. S. (2022). Assessment methods and tools to evaluate postgraduate critical care nursing students' competence in clinical placement. An integrative review. *Nurse Education in Practice*, 58, 103258. <a href="https://www.sciencedirect.com/science/article/pii/S1471595321002948">https://www.sciencedirect.com/science/article/pii/S1471595321002948</a>
- 5. Schwendimann, R., Fierz, K., Spichiger, E., Marcus, B., & De Geest, S. (2019). A master of nursing science curriculum revision for the 21st century—a progress report. *BMC medical education*, 19, 1-11. <a href="https://link.springer.com/article/10.1186/s1290/9-019-1588-9">https://link.springer.com/article/10.1186/s1290/9-019-1588-9</a>
- Egerod, I., Kaldan, G., Nordentoft, S., Larsen, A., Herling, S. F., Thomsen, T., & Endacott, R. (2021). Skills, competencies, and policies for advanced practice critical care nursing in Europe: A scoping review. *Nurse education in practice*, 54, 103142. <a href="https://www.sciencedirect.com/science/article/pii/S1471595321001785">https://www.sciencedirect.com/science/article/pii/S1471595321001785</a>
- 7. Nye, C., Campbell, S. H., Hebert, S. H., Short, C., & Thomas, M. (2019). Simulation in advanced practice nursing programs: A North-

- American survey. *Clinical Simulation in Nursing*, 26, 3-10. https://www.sciencedirect.com/science/article/pii/S1876139918301658
- 8. Rush, K. L., Janke, R., Duchscher, J. E., Phillips, R., & Kaur, S. (2019). Best practices of formal new graduate transition programs: An integrative review. *International Journal of Nursing Studies*, 94, 139-158. <a href="https://www.sciencedirect.com/science/article/pii/S0020748919300513">https://www.sciencedirect.com/science/article/pii/S0020748919300513</a>
- Gutiérrez-Alemán, T., Esandi, N., Pardavila-Belio, M. I., Pueyo-Garrigues, M., Canga-Armayor, N., Alfaro-Diaz, C., & Canga-Armayor, A. (2021). Effectiveness of educational programs for clinical competence in family nursing: A systematic review. *Journal of Family Nursing*, 27(4), 255-274. <a href="https://journals.sagepub.com/doi/abs/10.1177/10748407211038683">https://journals.sagepub.com/doi/abs/10.1177/10748407211038683</a>
- 10.Kelly, T., & Lazenby, M. (2019). Developing and validating learning domains, competencies, and evaluation items for global health clinical immersion practicums for graduate-level nursing programs. *Journal of Advanced Nursing*, 75(1), 234-252. <a href="https://onlinelibrary.wiley.com/doi/abs/10.1111/jan.13851">https://onlinelibrary.wiley.com/doi/abs/10.1111/jan.13851</a>
- 11.Song, Y., & McCreary, L. L. (2020). New graduate nurses' self-assessed competencies: An integrative review. *Nurse Education in Practice*, 45, 102801. <a href="https://www.sciencedirect.com/science/article/pii/S1471595319308029">https://www.sciencedirect.com/science/article/pii/S1471595319308029</a>
- 12. Chike-Harris, K. E., Durham, C., Logan, A., Smith, G., & DuBose-Morris, R. (2021). Integration of telehealth education into the health care provider curriculum: a review. *Telemedicine and e-Health*, 27(2), 137-149.
  - https://www.liebertpub.com/doi/abs/10.1089/tmj.2019.0261
- 13. Katz, J., Powers, M., & Amusina, O. (2021). A review of procedural skills performed by advanced practice providers in emergency department and critical care settings. *Disease-a-Month*, 67(1), 101013. <a href="https://www.sciencedirect.com/science/article/pii/S0011502920300754">https://www.sciencedirect.com/science/article/pii/S0011502920300754</a>
- 14.Repsha, C. L., Quinn, B. L., & Peters, A. B. (2020). Implementing a concept-based nursing curriculum: A review of the literature. *Teaching and Learning in Nursing*, *15*(1), 66-71. <a href="https://www.sciencedirect.com/science/article/pii/S1557308719302239">https://www.sciencedirect.com/science/article/pii/S1557308719302239</a>

- 15. Klenke-Borgmann, L., Cantrell, M. A., & Mariani, B. (2020). Nurse educators' guide to clinical judgment: Α review conceptualization, measurement. and development. Nursing **Education** Perspectives, 41(4), 215-221. https://journals.lww.com/neponline/fulltext/20 20/07000/Nurse Educators Guide to Clinica 1\_Judgment\_\_A.4.aspx?context=LatestArticles
- 16.Lavin, R. P., Veenema, T. G., Sasnett, L., Schneider-Firestone, S., Thornton, C. P., Saenz, D., ... & Couig, M. P. (2022). Analysis of nurse practitioners' educational preparation, credentialing, and scope of practice in US emergency departments. *Journal of Nursing Regulation*, *12*(4), 50-62. <a href="https://www.sciencedirect.com/science/article/pii/S2155825622000102">https://www.sciencedirect.com/science/article/pii/S2155825622000102</a>
- 17.Farsi, Z., Nasiri, M., Sajadi, S. A., & Khavasi, M. (2022). Comparison of Iran's nursing education with developed and developing countries: a review on descriptive-comparative studies. *Bmc Nursing*, 21(1), 105. <a href="https://link.springer.com/article/10.1186/s12912-022-00861-x">https://link.springer.com/article/10.1186/s12912-022-00861-x</a>
- 18. White, B. P., Abuelezam, N. A., Dwyer, A. A., & Fontenot, H. B. (2020). A sexual health course for advanced practice registered nurses: effect on preparedness, comfort, and confidence in delivering comprehensive care. *Nurse Education Today*, 92, 104506. <a href="https://www.sciencedirect.com/science/article/pii/S0260691719308123">https://www.sciencedirect.com/science/article/pii/S0260691719308123</a>
- 19. Fitzgerald, A., McNelis, A. M., & Billings, D. M. (2020). NLN core competencies for nurse educators: are they present in the course descriptions of academic nurse educator programs?. Nursing education perspectives, 41(1), 4-9. https://journals.lww.com/neponline/fulltext/20 20/01000/nln\_core\_competencies\_for\_nurse\_e ducators\_are.3.aspx
- 20.Sharma, S. K. (2021). Realities, scope, challenges, and facilitators for implementation of nurse practitioner's role in India: a review. *International journal of nursing sciences*, 8(2), 237-242. <a href="https://www.sciencedirect.com/science/article/pii/S2352013221000284">https://www.sciencedirect.com/science/article/pii/S2352013221000284</a>
- 21.Adamson, K., Ashcroft, R., Langlois, S., & Lising, D. (2020). Integrating social work into interprofessional education: A review of one university's curriculum to prepare students for collaborative practice in healthcare. *Advances in Social Work*, 20(2), 454-472.

- http://advancesinsocialwork.iupui.edu/index.php/advancesinsocialwork/article/view/23602
- 22.Tan, M. W., Lim, F. P., ling Siew, A., Levett-Jones, T., Chua, W. L., & Liaw, S. Y. (2021). Why are physical assessment skills not practiced? A systematic review with implications for nursing education. *Nurse Education Today*, 99, 104759. <a href="https://www.sciencedirect.com/science/article/pii/S0260691721000162">https://www.sciencedirect.com/science/article/pii/S0260691721000162</a>
- 23.Goodwin, M., Fingerhood, M., Slade, E., & Davidson, P. (2021). Development of an innovative curriculum-to-career transition program for nurse practitioners in primary care. *Nursing outlook*, 69(3), 425-434. <a href="https://www.sciencedirect.com/science/article/pii/S0029655420307077">https://www.sciencedirect.com/science/article/pii/S0029655420307077</a>
- 24.Rutledge, C. M., O'Rourke, J., Mason, A. M., Chike-Harris, K., Behnke, L., Melhado, L., ... & Gustin, T. (2021). Telehealth competencies for nursing education and practice: The four P's of telehealth. *Nurse Educator*, 46(5), 300-305. <a href="https://journals.lww.com/nurseeducatoronline/fulltext/2021/09000/telehealth competencies for nursing education\_and.14.aspx">https://journals.lww.com/nurseeducatoronline/fulltext/2021/09000/telehealth competencies for nursing\_education\_and.14.aspx</a>
- 25.Loke, A. Y., Li, S., & Guo, C. (2021). Mapping a postgraduate curriculum in disaster nursing with the International Council of Nursing's Core Competencies in Disaster Nursing V2. 0: the extent of the program in addressing the core competencies. *Nurse education today*, 106, 105063.

https://www.sciencedirect.com/science/article/pii/S0260691721003208