

NURSES THROUGH EDUCATION AND KNOWLEDGE ACQUIRED THROUGH CLINICAL PRACTICE

Ljiljana Stijepović

Special Hospital „Vaso Čukvić” Risan, Montenegro, Kovačevina bb Risan, Montenegro
stijepovicljiljana7@gmail.com

Kamelija Madacki Todorović

Medical Faculty, Sarajevo School of Science and Technology, Bosnia and Herzegovina,
kamelijamadackitodorovic@yahoo.com

Indira Poplata

Clinical Center of Sarajevo University, Bosnia and Herzegovina, poplataindira@hotmail.com

Elvedina Hodžić

Clinical Center of Sarajevo University, Bosnia and Herzegovina, elvedinahodzic@hotmail.com

Abstract: Nursing education is the right path to gain new knowledge and obtain academic titles. The initiative is to improve the quality of work in clinical practice, work on assessment and evaluation of nursing diagnosis. Patterns of practice are changing among healthcare professionals. An insight into the effectiveness of multi-component, interactive learning about the outcomes of knowledge and competences in different disease states of patients is needed. During the hospitalization, patients receive multispecialty medical interventions and comprehensive care, however, the characteristics of the disease and medical treatment need to be considered to assess the health outcomes and this is the proof of the work quality. Materials and methods: This study is a review of scientific articles from the online databases: Scopus, Ebsco, PubMed, Medline, Google Scholar, on the subject of education of nurses and its applications in clinical practice. This study was conducted from January to August 2024. Results: Many graduate nurses with a university degree have very few chances to implement what they have learned, they are often prevented from implementing their competences and knowledge into clinical practice by their superiors. Conclusion: The education of nurses is of essential importance for providing the necessary quality of care. It is necessary to work during studies on humane education where empathy is of essential importance. By training nurses orient themselves for the real world, where complete care is needed: physical and mental. Modern methods for a simpler and more comprehensive approach acquired through education is a way of teaching evaluation of evidence-based practice (EBP).

Keywords: university-educated nursing, application in clinical practice

1. INTRODUCTION

In the 19th and 20th centuries, there was a turning point in health education, there was a rise in the very work of healthcare providers. Faculties and more and more schools for the education of nurses were founded, and this represented a decisive step forward in the process of evolution that we know today as health education. In the United States, the term „Health education“ was first used at the “International Conference on Occupational Hygiene Recommendations” in 1919. Health education is a learning experience that aims to facilitate a change in human behavior for the process of health promotion (Ferreira et al, 2021).

Nurse scientists use team practice, the latest innovations and technology to accelerate knowledge creation through new discoveries, and its applications in practice. The research conducted by nurses is of vital importance because the acquired knowledge greatly influences the way of recovery of hospitalized patients and instructions to help their caregivers (Chesak et al, 2022).

Nurses, PhD students, focus on better understanding of healthcare needs as well as individual and community well-being. They use research methods, with teamwork. When working, they use the latest data, as well as innovations and new technologies as tools for better work quality, while education based on practice is a key resource in setting methods for solutions in the practical part of the work. The acquired knowledge and methods are applied in practice, the final goal is to improve the health of the patients (Bryce-Smith et al, 2023).

The North American Nursing Diagnosis Association (NANDA) recommends the use of the “Nursing Process” to maintain and ensure professional quality of work. As part of the nursing process, nursing diagnoses (ND) represent a systematized clinical assessment that require from registered nurse first to make an assessment of potential health problems requiring care that nurses are competent to prevent and/or treat independently (Herdman & Remediated, 2023).

During work, nurses plan care, which must be coordinated with medical treatment in order to contribute to the treatment of diseases, but above all, to the very quality of life of patients, which is related to health (Fennelly, Grogan, & Hardiker, 2021).

Many studies in recent times say that health professionals with experience and work on empathy, improving humane education, work to improve health care. Science based on practice has importance both for patients and for society (Wang et al, 2023).

Abundant humane emotions, and a higher level of humane literacy, enable nurses to possess deep empathy. Empathy allows them to quickly and accurately assess and satisfy the physical, mental and spiritual needs of patients, and thus quality of the work of nurses (Liu et al, 2022).

In recent times, the humanistic education of nurses is extremely important for the transmission of values rich in humanity and humane relations through practice related to the meaning of life and its values. It is very important to improve the development of empathy, compassion, cultured and measured behavior of nurses, which will give them enough mean in work for greater satisfaction and recovery of patients (Chen et al, 2023).

Florence Nightingale more than a century ago, recognized not only the need for formal training of nurses, but also the power and contribution of the nurse in the recovery of patients. During the work of the National Institute for Nursing Research (NINR), indicated that nurses can use its expertise in clinical research and the impact of nursing science in the wider community'. Although the majority of nurse scientists are employed in academic settings such as nursing schools/colleges, there is an emerging trend for nurse scientists to be full-time involved in healthcare settings where they can also work (Chesak et al, 2022).

The teaching organized by the professors are of great importance, as is the curriculum. An important step is to make interesting, meaningful lectures that will be applicable for non-medical nurses in practice. By training, the nurses orient themselves for the real world, where complete care is needed: physical and mental. Modern methods for a simpler and more comprehensive approach acquired through education is a way of teaching evaluation of evidence-based practice (EBP) (Kumah et al, 2022).

Nursing students have the opportunity to acquire new knowledge and improve the quality of their work with the help of existing knowledge and clinical practice. Through their work, nurses use the methods acquired through education to apply evidence-based practice with favorable outcomes (Patel et al, 2020).

In Iraq, one quarter of the total number of nurses are graduate nurses, and they do not have study programs for palliative care (Al-Kindi, Zeinah, & Hassan, 2014). The application of acquired knowledge based on evidence is a measure of the quality of the care. The quality of work can be seen by the patient recovery in the part where the quality of care, which is needed for the patient's recovery, is considered (Wakibi et al, 2021).

In some situations, when providing assistance to injured patients, nurses react on their own initiative based on their assessment, the assessment of the patient's health condition depends on self-efficacy, expertise and education (Terry, Peck, Smith, & Nguyen, 2019).

In a study of Swedish students who, during research for their graduate thesis, are expected to acquire valuable knowledge during research necessary for their professional practice in health services, which is not easy to implement (Grønning, Karlsholm, & André, 2022).

An important role is played by nutrition education, researchers often state it as one of the most important non-medical elements of health prevention in society since birth (Woźniak-Holecka et al, 2022).

2. MATERIALS AND METHODS

This study was designed as a non-experimental, or as a scientific literature review. The systematic literature review included scientific articles published in relevant scientific journals and databases (Scopus, Ebsco, PubMed, Medline, Google Scholar from February 2024 to July 2024) applicable in practice.

3. RESULTS

Results from the scientific research Article „Investigation of the influence of nursing diagnosis education on the intentions, attitudes and behavior of Romanian nurses” states: “...education on nursing diagnosis (ND) is the knowledge of nurses, which they acquired during training and self-training on the application of nursing diagnoses during the research”. According to their results, 424 of them (63.9%) knew how to apply nursing diagnoses at work, which is a prerequisite for good practice. Respondents had knowledge of ND and applied them in clinical practice, while slightly more than a quarter of nurses (32.7%) did not learn nursing diagnoses, while (3.5%), expressed a desire to learn nursing diagnoses so that they could apply them in practice.

A study that investigated the level of education and labor protection by level of education states “The necessary protection of permanent employees in Europe decreased in 14 out of 23 countries, and the biggest decrease was

recorded in Portugal (from 4.0 to 2.8), Slovakia (from 2.2 to 1.7) and Greece (from 2.9 to 2.4)". Because of the lower education status in most countries, nurses are forced to leave the workplace.

From the scientific research work „Effect of application of evidence-based care in gastrointestinal surgical care“ reached the following results „In gastrointestinal patients, evidence-based effects in gastrointestinal surgery pipeline care is as high as 80%, and the use of evidence-based medicine for gastrointestinal surgery pipeline care is as ineffective as 12%, based on evidence-based medicine research. While the effect of pipeline care for gastrointestinal surgery is not evident in 8%“.

There are more and more highly educated nurses, who acquire new knowledge and actively participate in the publication of scientific research articles. Research covers the period from 2010 to 2020. From those, one article was published within 3-4 years. For 2021, the increase in published articles increased to three articles that year. The increase in published articles by nurses increased to six articles in 2022, while in 2023 it was a high as 28 articles, which is (78%) of the published scientific research papers in databases (PubMed, Web of Science and Embase).

Results from the study „Perceptions of students in the final year of nursing“, the students of the final year of nursing appeal with their suggestions: „...it is necessary to work on humane education. The method of humane approach to work with empathy plays a big role in the vocation of nurses/technicians“. Students think that the environment is pleasant affects the recovery of patients with a grade (4.10). Out of the total number of students who participated in the research, 107 students (49.5%) think that psychology, both in the clinical and theoretical parts, should be much more represented in the part of developing empathy. They (62.6%) suggest a pleasant environment which has a positive effect on patients.

4. DISCUSSION

O'Connor et al., (2024) points out that in accordance with modern nursing, investing in education is an important resource for the well-being of patients and society itself, primarily health. Health is the most important resource, if the healthcare providers are qualified to work and the dedication of the care providers is great, everyone benefits: patients and families. There is more and more educational research of nurses working to discover modern approaches in work. Nurses' acquired knowledge, device innovations that are important in their work, acquired skills needed to provide high-quality patient care are the foundation of modern nursing (O'Connor et al, 2024).

Mårtensson et al., (2020) concludes that educated nurses/technicians go through the stages of modern nursing education, and that education will be applied in clinical practice. Professors play a huge role in the education of modern nursing, as well as the evaluation of their learned work, effort and commitment. When the learning method is adapted and easy to understand, the student understands more easily and the attention is more focused on the teaching. Comprehensible and interesting teaching supported by clinical practice is the key to the success of applying quality care. Through discussion through the teaching, the student presents the acquired knowledge and the professors can establish the students' readiness for future applications in practice, and such verified knowledge is of vital importance for clinical practice (Mårtensson et al, 2020).

Lee & Wessol, (2022) emphasizes that the student's clinical approach to reasoning, judgment and about the condition of patients during clinical practice can increase the safety of medication use among nursing students (Lee, & Wessol, 2022).

Sharpnack (2023) points out that graduate nurses enter practice after graduation with limited experience and minimal self-confidence. Very often in their beginnings they are prevented by superiors from implementing their competencies. The education acquired during studies is the ability to transfer with certainty to clinical practice.

Gligor (2023) investigated nursing diagnoses (ND) in Romania and concluded that the success of nurses is reflected in how much with their background they can apply ND empirically, focus on clinical practice with their attitudes and knowledge. Nursing diagnoses facilitate staying in hospitals and faster recovery of patients.

5. CONCLUSION

Nurse scientists employed in healthcare institutions have a unique position to inform and apply research in practice. They use teamwork to innovate new technologies in clinical practice.

Based on the conducted research, doctoral students in nursing established that nutrition education plays important role in health prevention. The education of the hospitalized patient and their family members for health promotion and the action of nurses with knowledge on prevention is of essential importance.

During the education of nurses at one of the scientific congresses, there was an exchange of knowledge with the congress participants from practice, which is of vital importance. They transferred knowledge from clinical practice in decubitus wounds and the method of repair where congresses are an excellent place for new knowledge based on clinical evidence (22).

REFERENCES

- Al-Kindi, S. G., Zeinah, G. F., & Hassan, A. A. (2014). Palliative care knowledge and attitudes among oncology nurses in Qatar. *The American journal of hospice & palliative care*, 31(5), 469–474.
<https://doi.org/10.1177/1049909113489874>
- Bryce-Smith, S., Burri, D., Gazzara, M. R., Hermann, C. J., Danecka, W., Fitzsimmons, C. M., Wan, Y. K., Zhuang, F., Fansler, M. M., Fernández, J. M., Ferret, M., Gonzalez-Uriarte, A., Haynes, S., Herdman, C., Kanitz, A., Katsantoni, M., Marini, F., McDonnell, E., Nicolet, B., Poon, C. L., ... Zavolan, M. (2023). Extensible benchmarking of methods that identify and quantify polyadenylation sites from RNA-seq data. *RNA (New York, N.Y.)*, 29(12), 1839–1855. <https://doi.org/10.1261/ma.079849.123>
- Chen, L., Zhang, J., Zhu, Y., Shan, J., & Zeng, L. (2023). Exploration and practice of humanistic education for medical students based on volunteerism. *Medical education online*, 28(1), 2182691.
<https://doi.org/10.1080/10872981.2023.2182691>
- Chesak, S. S., Rhudy, L. M., Tofthagen, C., & Chlan, L. L. (2022). A practice-based model to guide nursing science and improve the health and well-being of patients and caregivers. *Journal of clinical nursing*, 31(3-4), 445–453.
<https://doi.org/10.1111/jocn.15837>
- Chesak, S. S., Rhudy, L. M., Tofthagen, C., & Chlan, L. L. (2022). A practice-based model to guide nursing science and improve the health and well-being of patients and caregivers. *Journal of clinical nursing*, 31(3-4), 445–453.
<https://doi.org/10.1111/jocn.15837>
- Fennelly, O., Grogan, L., Reed, A., & Hardiker, N. R. (2021). Use of standardized terminologies in clinical practice: A scoping review. *International journal of medical informatics*, 149, 104431.
<https://doi.org/10.1016/j.ijmedinf.2021.104431>
- Ferreira, P. B. P., Porto, I. S., Santo, F. H. D. E., Figueiredo, N. M. A., Enders, B. C., Cameron, L. E., & Araújo, S. T. C. (2021). Health education for hospitalized patient in nursing care: a conceptual analysis. *Revista brasileira de enfermagem*, 75(2), e20200459. <https://doi.org/10.1590/0034-7167-2020-0459>
- Gligor, L. E., Romero-Sánchez, J. M., Rusu, H., Paloma-Castro, O., & Domnariu, C. D. (2023). Romanian nurses' beliefs on nursing diagnosis. A survey study based on the theory of planned behavior. *International journal of nursing knowledge*, 10.1111/2047-3095.12449. Advance online publication. <https://doi.org/10.1111/2047-3095.12449>
- Grønning, K., Karlsholm, G., & André, B. (2022). Undergraduate Nursing Students' Experiences of Conducting Clinical Research Projects in Their Bachelor Theses - a Qualitative Study. *SAGE open nursing*, 8, 23779608221094537. <https://doi.org/10.1177/23779608221094537>
- Herdman, J. M. Remediated M. (2023). Reading and presenting Victorian print culture in the digital age. Diss. Carleton University, <https://scholar.google.com/scholar> 2023
- Kumah, E. A., McSherry, R., Bettany-Saltikov, J., & van Schaik, P. (2022). Evidence-informed practice: simplifying and applying the concept for nursing students and academics. *British journal of nursing (Mark Allen Publishing)*, 31(6), 322–330. <https://doi.org/10.12968/bjon.2022.31.6.322>
- Lee, K. C., & Wessol, J. L. (2022). Clinical Reasoning, Judgment, and Safe Medication Administration Practices in Senior Nursing Students. *Nurse educator*, 47(1), 51–55. <https://doi.org/10.1097/NNE.0000000000001059>
- Liu, X., Li, C., Yan, X., & Shi, B. (2022). Psychological capital has a positive correlation with humanistic care ability among nurses. *Frontiers in psychology*, 13, 955627. <https://doi.org/10.3389/fpsyg.2022.955627>
- Mårtensson, G., Lind, V., Edin, K., Hedberg, P., & Löfmark, A. (2020). Development and validation of a clinical assessment tool for postgraduate nursing education: A consensus-group study. *Nurse education in practice*, 44, 102741. <https://doi.org/10.1016/j.nepr.2020.102741>
- O'Connor, S., Peltonen, L. M., Topaz, M., Chen, L. A., Michalowski, M., Ronquillo, C., Stiglic, G., Chu, C. H., Hui, V., & Denis-Lalonde, D. (2024). Prompt engineering when using generative AI in nursing education. *Nurse education in practice*, 74, 103825. <https://doi.org/10.1016/j.nepr.2023.103825>
- Patelarou AE, Mechili EA, Ruza fa-Martinez M, Dolezel J, Gotlib J, Skela-Savič B, Ramos-Morcillo AJ, Patelarou, A. E., Mechili, E. A., Ruza fa-Martinez, M., Dolezel, J., Gotlib, J., Skela-Savič, B., Ramos-Morcillo, A. J., Finotto, S., Jarosova, D., Smodiš, M., Mecugni, D., Panczyk, M., & Patelarou, E. (2020). Educational Interventions for Teaching Evidence-Based Practice to Undergraduate Nursing Students: A Scoping Review. *International journal of environmental research and public health*, 17(17), 6351.
<https://doi.org/10.3390/ijerph17176351>
- Terry, D., Peck, B., Smith, A., & Nguyen, H. (2019). Occupational Self-Efficacy and Psychological Capital Amongst Nursing Students: A Cross Sectional Study Understanding the Malleable Attributes for Success. *European journal of investigation in health, psychology and education*, 10(1), 159–172.
<https://doi.org/10.3390/ejihpe10010014>

- Wakibi, S., Ferguson, L., Berry, L., Leidl, D., & Belton, S. (2021). Teaching evidence-based nursing practice: A systematic review and convergent qualitative synthesis. *Journal of professional nursing : official journal of the American Association of Colleges of Nursing*, 37(1), 135–148. <https://doi.org/10.1016/j.profnurs.2020.06.005>
- Wang, Y., Han, T., Han, G., & Zheng, Y. (2023). The Relationship Among Nurse Leaders' Humanistic Care Behavior, Nurses' Professional Identity, and Psychological Security. *American journal of health behavior*, 47(2), 321–336. <https://doi.org/10.5993/AJHB.47.2.12>
- Wells-Beede, E., Sharpnack, P., Gruben, D., Klenke-Borgmann, L., Goliat, L., & Yeager, C. (2023). A scoping review of nurse educator competencies. <https://scholar.google.com/scholar?>
- Woźniak-Holecka, J., Holecki, T., Suchecki, K., & Jaruga-Sękowska, S. (2022). Selected Organizational and Managerial Aspects of Health and Nutrition Education of Various Types of Consumers of Spa Treatment Services in Poland. *Nutrients*, 14(11), 2337. <https://doi.org/10.3390/nu14112337>