



KLAIPEDA STATE UNIVERSITY OF APPLIED SCIENCES
FACULTY OF HEALTH SCIENCES

**BIOMEDICAL AND SOCIAL SCIENCES:
EDUCATION, RESEARCH AND INNOVATION**

2020 Nr. 1(4)

**INTERNATIONAL CONFERENCE ABSTRACT BOOK DEDICATED TO
5TH NORDIC FORUM FOR NURSE EDUCATORS**

CURRENT TRENDS AND INNOVATION IN NURSING EDUCATION

November 10th, 2020, Klaipeda, Lithuania



Klaipėda, 2020

Biomedical and Social Sciences: Education, Research and Innovation. International conference abstract book, 2020 Nr. 1(4). *Abstracts from the 5th Nordic Forum for Nurse Educators 2020, 10th of November, Klaipėda 2020, 36 p.*

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The International forum is organized in partnership with MEDICO (Nordic Collaboration Network for Nursing Medication Educators) – a Nordplus Higher Education Network.

Main coordinator – Klaipėda State University of Applied Sciences (Lithuania).

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ISSN 2669-039X

Leidinio bibliografinė informacija pateikiama Lietuvos nacionalinėje Martyno Mažvydo bibliotekos Nacionalinės bibliografijos duomenų banke (NBDB).

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The Times They Are a-Changin - Teaching Nursing in a Changing Student Population and with a Changing Healthcare System

Marit Silén PhD

Senior lecturer, faculty programme director

University of Gävle, Sweden

In many countries, including Sweden, nursing education has transitioned from a practical, non-academic program into higher education. Nursing education in Sweden comprises 3 years full-time study, ending with a professional qualification and a Bachelor's degree in nursing. During recent years, the number of nursing students in Sweden has also increased. This presentation will focus on some of the challenges universities in Sweden offering nursing programs face and how we try to deal with them.

It has become more and more difficult to find places where the students can undergo their clinical practice education, due to the shortage of hospital beds. Peer learning, that is, a one-to-one relationship with a peer enrolled in the same course sharing a preceptor during the clinical practice education, has been introduced in many universities for pedagogical reason and not as way to deal with the shortage of places for clinical practice but has also eased this situation. What are the students' and the preceptors' opinions, respectively, of the pros and cons with peer learning?

High-fidelity simulation methodology might be a methodology that can be useful in identifying gaps as well as strengths in nursing students' knowledge and in a non-threatening environment prepare them for the transition to become a registered nurse. However, it is also a way to deal with the shortage of places for clinical practice. Instead of regarding high-fidelity simulation as a substitute for clinical practice education, it might perhaps be an option in educational preparation since there is substantive research that indicates that this kind of education fills a gap between theoretical courses and clinical practice education.

The presentation will also cover some of the challenges that have been noticed when nursing education became part of higher education, not least when it comes to academic writing, and ways to work with that.

Keywords: *teaching, nursing, healthcare system*

Facing New Challenges in Nursing Profession in the Context of Changing World Health Situation.

Aušra Volodkaitė

President of Lithuanian Nursing Specialists 'Organization

The aim is to discuss the challenges of the nursing profession and the new roles of nurses in a context of changing world health situation.

Methods. Literature analysis, discussions with the international nursing community.

Results. Living in a rapidly changing world presents many new challenges. It is essential for the nursing profession to be prepared to respond appropriately and promptly to the changes they face. Chronic lifestyle-related illnesses, stress-related mental health disorders, constant population movement - migration, the refugee problem, conflict - acts of terrorism, violence - all require a new approach and the readiness of nurses to work in vulnerable communities. Recently, the world has been facing increasingly threatening infectious diseases outbreaks involving one or more countries, and in recent years it has had to deal with a pandemic that threatens countries around the world. Nurses have a very important role and responsibility to be prepared to take on new challenges and respond appropriately to them, to take care of the health of the population. This requires the involvement of educational institutions, politicians, the nurses themselves and efforts to ensure that nurses are properly trained, have the necessary tools, knowledge and can work in all areas where nurses are needed.

Conclusions. Nurses, as important health workers, face many challenges in a changing world, so it is important to acquire new skills and competencies to be prepared to work in the face of emerging situations.

Keywords: *nursing profession, challenges.*

To be a good nurse: balancing between being and becoming

Vilma Žydžiūnaitė PhD Professor

Vytautas Magnus University, Academy of Education, Lithuania

Klaipeda State University of Applied Sciences, Klaipeda, Lithuania;

St. Ignatius of Loyola University of Applied Sciences, Kaunas, Lithuania.

Background. "To be a good nurse" is the essential aim in training of nurses and nursing practice, and is experienced through integration of nursing studies and work practice. However this is taken for granted and rarely studied in nursing research, mostly with the focus on personal qualities, "good nursing" or "quality of care or nursing". But the "being" and "becoming" as important components within the phenomenon of "to be a good nurse" are not discussed, and analyzed in nursing research. This study explores nursing students' work experience-based perceptions of the individual meaning of "to be a good nurse".

The qualitative study was focused on answering the following **research question**: "What does it mean "to be a good nurse" for final study year nursing students?"

The aim of the study was to reveal and describe nursing students' work experience-based perceptions with regard to the meaning of the phenomenon of "to be a good nurse".

Sample consisted of 110 final year nursing students.

Methods. In the research were applied unstructured narrative-based written reflections for data collection and the manifest inductive qualitative content analysis were implemented for data analysis.

Findings showed that for nursing students "to be a good nurse" means caring, solidarity, humanity, loyalty, professionalism and courage. Thus "to be a good nurse" is personally experienced and perceived phenomenon, which is based on balancing between "being" and "becoming" and this balancing never ends as the nurses students learn through collaborations with nurses practitioners, patients and their relatives, and later, by being nurses practitioners they continuously learn "to be a good nurse" from connections with patients, colleagues and other significant persons within their nursing practice. Balancing between "being" and "becoming" is a premise for nurses students, and after studies, for nurses practitioners, to experience the endlessness of the processual phenomenon "to be a good nurse".

Conclusion. "To be a good nurse" is a part of who the student is and it means seeking to be the best role model, which is realistic, based on work practice and attached to continuous and permanent learning within and through practice. This phenomenon is process-related, which motivates nursing students to reflect before, in and after professional acting. "To be a good nurse" for nursing students means an opportunity for everyday learning through different kind of interactions and this gives the nurse student the possibility to add to her/his knowledge base while developing one's own skills.

Keywords: *becoming; being; good nurse; Lithuania; manifest inductive qualitative content analysis; nursing student.*

Robotic Surgery and Artificial Intelligence

Prof. habil. dr. Narimantas Evaldas Samalavičius
Chief of Surgery and Director of Robotic Surgery Program, Klaipeda University Hospital,
Health Research and Innovation Science Center, Faculty of Health Sciences, Klaipeda
University, Lithuania

Aim. To present current developments in robotic surgical technologies and give an insight into use of artificial intelligence, predominantly in gastroenterology.

Methods. PUBMED and public media search has been performed using key words ‘robotic surgery’ and ‘artificial intelligence’.

Results. Robotic system by Intuitive Surgical is currently dominating robotic technology in surgery, including their last innovations - da Vinci Xi® and da Vinci SP® robotic platforms. However, in recent years some other robotic platforms are either on the market already or emerging. This leads towards competition on robotic surgical market, and hopefully for hospitals – less expensive and more sophisticated robotic techniques. Flex® Colorectal Drive robotic system by Medrobotics has been launched for transanal and transoral approach, but so far even limited reports in the literature are more related to oral rather than transanal surgery. Senhance® robotic system by Transenterix has been first used in gynecology, but today already some data exists on feasibility and safety of this robotic system in other types of surgery – as well as advantage of haptic sensation and camera control by the surgeon’s eye. More recently Versius® has been launched by CMR Surgical Ltd., but data in the literature are mostly on preclinical use. In 2020, major three robotic platforms – Sport® by Titan Medical, Hugo® by Medtronic and Verb® by GOOGLE and J&J – were expected to reach the market but it seems some additional time will be still needed for that. A great number of other, including national, robotic projects are developed, some already available on national level, some in preclinical use – Revo-I® from Korea, MicroHand S® from China, Avatera® from Germany etc.

Current existing evidence on use of novel robotic systems in surgery and their features are discussed during this presentation.

In addition, artificial intelligence is a separate novel trend to reach medicine already today and may be fused with robotics. Existing examples of artificial intelligence use in several fields of medicine are demonstrated.

Conclusion. Both robotic surgery and artificial intelligence in medicine is already not tomorrow, but today. None of the two will substitute doctors and medical personnel, but knowledge in those frontline achievements are likely to slowly be a must in everyday medical professional practice.

Keywords: *robotic surgery, artificial intelligence*

Links between professional nurse competence and nurse education

Natalja Fatkulina PhD Professor

Vilnius University, Faculty of Medicine, Health Sciences Institute, Lithuania

In the last years the higher education in Europe became more international and no longer provided solely with national borders. The challenge to nurse educators is to ensure that professional education remains relevant and keeps a breast of both societal and healthcare changes. However, the links between professional nurse competence and nurse education are not very clear and need to be explored and analyzed in order to improve, nursing clinical practice and nurse curricula to achieve better adaptation of newly graduated nurses.

Nurse competence-based approach is the mostly used in nursing education. The outcome of such education is to produce competent professionals for health care/patient care. It is why competence needs to be evaluated already in educational level. On the other hand, there is not clear connection between education and competence at work-life as well. Therefore, it is important to define the nursing competence in purpose to find out what are the links with a nursing education.

The most common professional nurse competences related to nurse education were found out initiating and implementing nursing care, interprofesional team-working and communication, competence of cultural care and competence in nursing leadership.

Keywords: *nurse competence, nurse education*

Review of healthcare simulation in the Nordic countries

Sissel Eikeland Husebø*, Faculty of Health Sciences, University of Stavanger, Department of Surgery, Stavanger University Hospital, Norway

Minna Silvennoinen, University of Jyväskylä, Department of Teacher Education, Jyväskylä, Finland

Eerika Rosqvist, Department of Education and Science, The Center of Medical Expertise, Central Finland Healthcare District, Jyväskylä, Finland

Italo Masiello, Department of Pedagogy and Learning, Faculty of Social Sciences, Linnaeus University, Växjö, Sweden

Aim. Based on common healthcare services, the Nordic countries could benefit from increased collaboration and uniformity in the development of simulation-based learning. However, only a limited overview exists on healthcare simulation research and its progress in the Nordic countries. Therefore, the aim of the current literature review is to provide a general overview of the Nordic research on simulation in healthcare education, and to suggest directions for future research.

Methods. The design employed was an integrative review. We conducted a search for relevant research published during the period spanning from 1966 to June 2016. Thirty-seven studies were included and appraised for quality. A thematic analysis was used.

Results. The results revealed that Finland has published the greatest number of qualitative studies, and only Sweden and Norway have published randomised control trials. The studies included interprofessional or unprofessional teams of healthcare professionals and students. Most studies used a qualitative or a descriptive design. Five themes that explicate the Nordic research subjects emerged from the thematic analysis: technical skills, non-technical skills, user experience, educational aspects, and patient safety.

Conclusions. This review identified the research relating to status and progress of simulation in the Nordic countries. Shortcomings in simulation research include a lack of well-designed randomised control trials or robust evidence that supports simulation as an effective educational method. Furthermore, there is a shortage of studies focusing on patient safety, the primary care setting, or a combination of specialised and primary care settings. Suggested directions for future research include strengthening the design and methodology of simulation studies, incorporating a cross-country comparison of studies using simulation in the Nordic countries, and studies combining specialised and primary care settings.

Keywords: *healthcare simulation, Nordic countries*

Nursing students' medication competence and education in the Baltic countries and Finland

Sulosaari Virpi, PhD, RN, Principal lecturer
Turku University of Applied Sciences Health and well-being Finland

Hannele Kuusisto, MSc, Lecturer
Turku University of Applied Sciences Health and well-being Finland

Ireen Bruus, MSc, RN, Lecturer, Tartu Health Care College, Estonia

Riitta-Liisa Lakanmaa* PhD, RN
Head of Education and Research
Turku University of Applied Sciences, Finland

Background. Medication safety has been identified as one of the key development areas in patient safety. Deficiencies on nurses' medication competence has been found to be one of the contributing factors. Therefore, development of educational preparation of nurses is important. The challenges in relation to education are similar in the Nordic and Baltic countries. There is some research in this field from the Nordic countries. However, there is only limited information on medication competence of the nursing students in Baltic countries.

Aim. The ultimate goal is to increase patient and medication safety by developing the educational preparation of nurses. The aim was to describe a) the current education, b) nurses' roles in medication management and c) medication competence of students in the four countries.

Methods. The study is part of international Erasmus + funded eMed-PASS project. The current education was assessed by literature review and expert panel inquiry, nurses' roles were assessed by expert panel analysis on the content of Finnish Medication Passport and medication competence of students (n=285) was evaluated by using modified previously developed instrument.

Results. Overview of the current situation revealed similarities and differences among the countries. However, medication management is integral part of the curriculums in each country. In analysis of nurses' role, main difference was identified related to independence of certain tasks, mainly in intravenous medication administration. In the evaluation of the medication competence the average score of students was 59% correct in pre evaluation (all four countries) and 54 % in post evaluation (Baltic countries). The highest scores students achieved in medication calculations.

Conclusions. The project aim was to improve the quality and relevance of higher education in bachelor level nurse education cross-borders in EU-level in the Baltic countries and Finland. Based on study results, there is a need for collaborative development of education.

Keywords: *nursing students', medication competence, education, Baltic countries, Finland*

Nursing students' perceived stress during learning in clinical practice: ways of feeling and ways of doing

Viktorija Piscalkienė PhD Assoc. Prof.
Kaunas University of Applied Sciences, Lithuania

Aim: to identify nursing students' perceived stress during learning in clinical practice and stress reduction experience.

Methods. Quantitative research aims were: I) to determine the causes of stress during practical learning; II) to evaluate how students are reducing stress during practical learning. Data were processed using the SPSS software. Methods used for statistical analysis: descriptive statistics, Cronbach's Alpha, T-test, Anova test, Chi-Square Test. The study involved 145 students from General Practice Nursing study program.

Results. 49.6 % of nursing students feel stress during clinical practice. Stress among nursing students is caused by a variety of factors during the internship. The most common causes of stress in the area „Work content and clinical situations “are: fear of infection from various infectious diseases (80 %), changing requirements for the role and competencies of a nurse (69 %). The most prominent causes of stress in the field “Work organization and conditions” during internships are lack of staff (90.3 %), heavy workload (87.5 %), urgent execution of unplanned additional work (82.1 %), large number of patients (80.7 %). Communication and collaboration during nursing internship students are a particular problem. The most common situations that cause stress to students are arrogant and disrespectful behavior of patients and their relatives (86.9 %), slander of colleagues (77.9 %). Working students are less affected by stress during clinical practice in these dimensions: „Communication and collaboration “, „Work content and clinical situations “, „Work conditions and organization“(p ≤ 0.05).

Research has shown that there is an under-implementation of stress reduction in nursing students during internships. There were statistically significant differences by the courses for the demand of educational-informational and psychosocial-organizational measures (p ≤ 0.05).

Conclusions. The findings demonstrated that nursing students have stress at the clinical practice. Students have been prepared to cope with stress during their practical learning.

Keywords: *Nursing students' perceived stress, learning in clinical practice, ways of feeling, ways of doing*

Nursing leadership at bedside: training and education of nurses to be leaders through managerial positions

Vilma Žydžiūnaitė PhD Professor

Vytautas Magnus University, Academy of Education, Lithuania

Klaipeda State University of Applied Sciences, Klaipeda, Lithuania

St. Ignatius of Loyola University of Applied Sciences, Kaunas, Lithuania

Strong leadership is critical if the vision of health care system is to be realized. The nursing profession must produce leaders throughout the health care system, from the bedside to the boardroom, who can serve as full partners with other health professionals and be accountable for their own contributions to delivering high-quality care while working collaboratively with leaders from other health professions. Training and education here plays a great role.

The nursing research is mostly focused on the phenomenon of leadership, which is associated with nursing administration and leadership. And the development and implementation of leadership is mostly seen through skills and competencies. But nursing leadership emerges and is implemented through interactions with patients, their relatives, colleagues nurses and other health care professionals and etc.

Nursing leadership is not merely linked to top management, but it can be and is developed at bedside. Thus nursing leadership is focused on patients and healthcare teams rather than formal administrative / managerial leadership position. Nursing leadership relates to nursing professional activities, which provide direct care at bedside. This point of view on leadership differs from the traditional nursing leadership definition. Nursing leadership allows nurses to direct and support patients and healthcare teams when providing care. It is crucial for nurses to develop an efficient leadership role(s) to deliver high-quality care and ensure patient safety through performing a variety of leadership roles in their daily activities and routines. Moreover, nursing leadership emphasizes the importance of the cooperation between nursing education programs and healthcare organizations in preparing nurses to be effective leaders for the new era of health care.

Keywords: *nursing leadership, education of nurses, managerial position*

Summary of the study of nursing education and previous researches related to medication competence of nursing students in Finland, Estonia, Latvia and Lithuania

Marit Kiljako* PhD
Tartu Health Care College, Estonia

Virpi Sulosaari PhD, Principal lecturer, degree programme leader, Health and Well-being Turku University of Applied Sciences Finland

Ilona Gurnienė
Kaunas University of Applied Sciences, Lithuania

Aiga Grauduma,
P. Stradins Medical College University of Latvia

Background. The study is part of international Erasmus + funded eMed-PASS project.

Aim. The objective of the review was to gain overview the current nursing medication education in the undergraduate programs and produce summary of the existing study results related to nursing students' medication competence in the Baltic countries and Finland.

Methods. Data on nursing education were collected using a questionnaire developed for the purpose. Summary of previous research was based on literature research.

Results. Average amount of ECTS credits devoted to medication education varies from country to country (10-3 ECTS). However, the number of hours is hard to calculate, because medication education subjects are often integrated with other subjects (for example medical and surgical nursing). All four countries evaluate medication competence of nursing students using written exam that may include medication calculation. Estonia, Lithuania and Finland have the same pass rate requirement (100% of correct) on medication calculation exam. Latvia uses 75% correct answer system. In Latvia and Lithuania there weren't carried out any researches of nursing student's medication competences. In Estonia, one research has been carried out to describe drug-related knowledge and skills, as well as the level of risk of medication errors of second- and fourth-year nursing students at Tartu Health Care College. In Finland, there is more research evidence existing on medication competence and education.

Conclusions. It's not possible to evaluate conclusively the amount and sufficiency of medication education based on available data. There are no national guidelines for minimum requirements for acquiring proficiency, except in Finland. In Estonia, Latvia, and Lithuania no research has been done to evaluate the issue. More research is needed about nursing students' medication competence to give a better picture of the situation in the Baltic Countries.

Keywords: *medication competence, nursing education, nursing student, medication education*

"Project eMed-PASS - Adaptation of The Digital Learning Tool „eMedication Passport" into The Context of Estonian, Latvian and Lithuanian Nursing Education and Health Care"

Ireen Bruus*, MSc, RN
Tartu Health Care College, Estonia
Marit Kiljako, PhD
Tartu Health Care College, Estonia

Riika Teuri, MNs, RN
Turku University of Applied Science, Finland

Background. Several international studies have found that registered nurses' medication competence plays an important role in patient safety, at the same time indicating that graduating nurse students have deficiencies in their medication competence. Therefore, development of standardized nursing students' medication competence and standardized learning and evaluation techniques must be in place during the undergraduate nurses' study process and clinical practice. For this reason, four higher education institutions in the Baltic countries and Finland decided to launch the "eMed-PASS" project.

Aim. The main goal of the "eMed-PASS" project was to adapt and standardize the Finnish digital learning tool "eMedication Passport" into education context of the Baltic countries ensuring the nursing students' medication competence in the Baltic countries and Finland.

Results. As one of the results of the "eMed-PASS" project the standardized digital learning tool "eMedication Passport" in Baltic countries for nursing students was created and adapted. After the project the learning tool will be implemented during the undergraduate nurses' study process and clinical practices. EMedication Passport consists of the general principles of pharmacology and medication administration as well as specific skills. At the same time it includes the tasks of multiprofessional collaboration and patient instruction, and the support of compliance.

Conclusions. The expected impact of the digital learning tool "eMedication Passport" is improvement on nursing students' medication competence by supporting the student in the learning process of pharmacology and medication administration during the undergraduate nurses' study process and clinical practice.

Acknowledgement. This research was supported by European Commission under the Erasmus+ programme, grant 2017-1-EE01-KA203-034884.

Keywords: *digital learning tool, Nursing Education, Health care*

The connection of primary healthcare nurses' experienced stress at team level with organizational culture and climate

Nijolė Galdikienė* PhD, Assoc. Prof.
Klaipėda State University of Applied Sciences, Lithuania

Tarja Suominen, PhD, Prof.
University of Tampere, Finland

Background. Primary healthcare (PHC) is delivered by teams of health care professionals, including nurses. Occupational stress can be seen to be influenced by these different levels, from the overall organization, the team, and the individuals with whom the person is working. Organizations vary in regard their organizational culture and climate.

Aim: To describe the connection between PHC nurses' experienced stress at team level and organizational culture and climate.

Methods: A descriptive, cross-sectional correlation study was undertaken. 29 teams in 18 PHC centers situated in one Lithuanian county participated in the study. The total population of PHC professionals invited to participate in the study was 1096 (579 nurses, and 517 others). The response rate was 32%. A total of 187 nurses completed the Expanded Nursing Stress Scale, while 344 healthcare professionals (including nurses) responded to the Organizational Social Context questionnaire. In the study, the size of each team varied from six to 24 healthcare professionals.

Results: The study found significant but very weak correlations between some of the nurses' occupational stress factors and the organizational culture and organizational climate of the PHC teams in which they worked. Absolute values of Spearman's rho correlation coefficients between 0.19–0.24 ($p < 0.01$) were found when examining the association of nurses' stress with organizational culture and climate across PHC teams. Whether the culture was resistant or proficient seemed to have associations with some of the stress factors experienced by nurses. Additionally, how the whole team reported stress or functionality in their organizational climate seemed to be associated with perceived stress of nurses.

Conclusion: Investigating the organizational culture and climate experienced by PHC teams may help identify manageable problems and decrease stress experienced by nurses. The study also allows the possibility of nursing scholars using the study's designs and instruments for further investigation of teams.

Keywords: *nurse stress; organizational climate; organizational culture; primary healthcare*

Collaborative teaching methods in nursing education

Natalja Fatkulina PhD Professor

Vilnius University, Faculty of Medicine, Institute of Health Sciences, Vilnius

Active learning has received considerable attention over the past several years in nurse education. However, what are the advantages and the differences of collaborative education system from traditional education system should be explored in more details in nurse education field.

The collaborative learning had been employed in classroom, clinical education and online teaching. Furthermore, the collaborative learning is one of the most widespread and fruitful areas of theory, research, and practice in education. Teacher facilitates the learning process by becoming a resource and support person, circulating among groups, asking questions, facilitating participation of students, monitoring group process, and encouraging problem-solving process.

A collaborative learning involves five essential components including positive interdependence: a cooperative group shares a common goal and completes learning tasks together; individual accountability: each member holds accountability for the success of each other; promotive interaction: strategies are used to facilitate teamwork, create trust and enhance communication; social skills training; and, group processing: learners need to reflect upon group experiences and learn from each other. The collaborative learning is useful for improving student cognitive performance, promoting social interactional and positive learning behavior.

It is recommended to integrate collaborative learning into nursing education due to positive influences on student learning and student outcomes.

Keywords: *collaborative teaching methods, nursing, education*

Perceptions of the Educators of Nursing and Midwifery Curricula in Estonian Health Care Colleges About Educators' Professionalism and Factors Influencing its Development

Mari Teugjas-Koit
Tartu Health Care College, Estonia

The need for sustainable and quality nursing education, also the need for professional nursing educators, is still a topical issue in Estonia as well as worldwide. When examining the scientific literature, the research exploring the concept of professionalism of nursing educators or their own viewpoints is scarce. However, in Estonia the model of competence for nursing educators is needed, for providing input to job descriptions of nursing educators, allowing to assess the competence of educators and thus, support the development of nursing education. The aim of this study is to describe the viewpoints of the educators of nursing and midwifery curricula of Estonian health care colleges on the factors influencing professionalism and professional development of educators. Data collection was carried out between September – December 2017 with a semi-structured interview method. 12 nursing educators participated in the study. The data was analyzed with inductive content analysis. As a result three themes emerged. The educators described professionalism as a combination of the recognition and observance of professional and vocational core values, and vocational and professional skills and competences. The professional development of the educator is influenced by aspects related to both the personality of the specific educator, as well as the organization where they work. Novice faculty members are more dependent on the organization's support, as they need more guidance, and educators with longer work experience realize that teaching requires a corresponding education. The results of the study show that in order to support academic staff's professionalism, educational institutions need to pay more attention to educators' professional preparation and to optimizing their workload.

Keywords: *professionalism, professional development, nursing education, perceptions about professionalism.*

Maternal and Neonatal Health: Why Do Nurses Need Obstetrical Skills?

Rasa Liutikienė* Master in Nursing, Midwife
Klaipeda University Hospital, Lithuania

Asta Mažionienė PhD
Klaipeda State University of Applied Sciences, Lithuania

Akvilė Virbalienė PhD
Klaipeda State University of Applied Sciences, Lithuania

Aim: to evaluate and summarize the importance of maternity care education and the necessity obstetrical skills for nurses.

Methods: The analysis of scientific articles, selected from the database Pubmed was performed.

Results. Childbearing women are experiencing a normal physiological event. However, they and their babies have specific care and support needs which are different to those of other adults using health services. Their safety may be compromised if their particular needs are ignored or misunderstood.

Obstetric complications, during pregnancy may compromise a woman's health and depending on its severity, may result in hospitalizations during pregnancy, childbirth or after delivery. For instance, in the United States, between 8 and 27% of women were hospitalized at least once during pregnancy and the most common causes were: preterm labor, hyperemesis gravidarum, urinary tract infection and hypertensive disorders of pregnancy. As compared with nonpregnant women, pregnant women are more severely affected by infections with some organisms, including influenza virus, hepatitis E virus (HEV), herpes simplex virus (HSV), and malaria parasites.

Substandard quality of maternal and neonatal care seriously hampers the achievement of desired health outcomes. Nurses working in labor and delivery, postpartum care, prenatal care, public health and community health, are one of the key players in ensuring adequate maternal and neonatal care. Having in mind the particularities of maternal and neonatal care, nurses must have adequate knowledge and obstetric skills, as well as to be able to closely collaborate with obstetricians and midwives.

Conclusions. It is therefore very important to properly teach nursing students about the maternal and neonatal care and equip them with comprehensive knowledge and skills. Nursing students must not only understand specific and particular needs of pregnant women, newborns, including the needs during early postpartum, but also properly react and provide adequate help during the healthcare process.

Keywords: *nursing student's, nursing student's knowledge, maternity care, interprofessional collaboration*

Students' Satisfaction with Clinical learning Environment as the Background for Clinical Learning Improvement

Vitalija Gerikienė* PhD
Šiauliai State College, Lithuania
Klaipėda State University of Applied Sciences, Lithuania

Asta Mažionienė PhD
Klaipėda State University of Applied Sciences, Lithuania

Aim: To reveal the interfaces between the internship mentor and nursing students relationships and students satisfaction with their clinical internship.

Methods. Quantitative research was carried out, seeking to reveal the attitude of the student nurses towards their clinical placement environment. The research questionnaire was presented to students from two higher education institutions from the Northwest regions of Lithuania, who have recently completed their clinical placement at hospitals. Research instrument was paper version of the Clinical Learning Environment and Supervision questionnaire. The study involved first-fourth year nursing students (n=381). The data analysis was carried out using SPSS 25. A non-parametric K independent sample (Kruskal–Wallis) was used to analyse the data and the χ^2 criterion was applied. Spearman correlation analysis was used to test the interrelationship between interval measures and the $p < 0.05$ was considered significant.

Results. The majority of the students in the study were satisfied of their clinical internship (59%; n=225) and agreed regard to following statements „The mentor showed a positive attitude towards supervision” (81%; n=310), ”I felt that I received individual supervision” (59%; n=224), ”I continuously received feedback from my mentor” (58%; n=219), ”Overall I am satisfied with the supervision that I received” (67%; n=254), ”The supervision was based on a relationship of equality and promoted my learning” (58%; n=220), ”There was a mutual interaction in the supervision relationship” (54%; n=243), ”Mutual respect and approval prevailed in the supervision relationship” (73%; n=277), ”The supervisory relationship was characterized by a sense of trust” (69%; n=261). Additionally, the study revealed that students with individual supervision model of clinical internship assessed the learning environment more positively ($p < 0.05$). Students were more satisfied with their clinical internship when they appreciated behavior of the mentor more positively ($p < 0.05$).

Conclusions. According to the nursing students who participated in the study, the competence of evidence-based nursing practice is related to the close human and professional relationships of the mentors. Accordingly, that determines students' satisfaction with their clinical internship and multidisciplinary professional competencies of the futures nurses.

Keywords: *learning environment, nursing student, mentor's behavior.*

Spirituality as a tool in developing emotional intelligence during formation of general practice nurses

Br. Andrius Dobrovolskas* OFM
Kretinga Franciscan Annunciation Monastery, Lithuania

Akvilė Virbaliienė PhD
Klaipeda State University of Applied Sciences, Lithuania

Aurelija Žebrauskaitė
Klaipeda State University of Applied Sciences, Lithuania

Background. Spirituality is known to be an integral part of holistic care, yet research shows that it is not well valued or represented in nurse education and practice. There are questions about how spirituality is currently approached and to what extent student nurses feel competent in assessing and delivering spiritual care in practice. Issues of conceptual clarity and articulation around the ontological and phe-nomenological aspects of nursing must be addressed to prepare nurses to provide truly holistic care, including spiritual and existential issues. Adequate preparation, environmental support for both nursing educators and students, and explicit representation of spirituality in the nursing curriculum will facilitate this. An emphasis on the philosophical underpinnings of nursing care is needed to rebalance existing nursing education to embrace caring for spiritual needs as part of holistic care.

Emotional Intelligence includes self-awareness, empathy, self-motivation, emotional stability, managing relationships, integrity, sociability, warmth and optimism on the part of the leader reflecting it onto the followers and spirituality comprises the values, attitudes, and behaviours that are reflecting compassion, vision, hope, commitment, satisfaction and happiness that are necessary to intrinsically motivate one and others.

Aim: The aim of this presentation is to present spirituality as a tool in developing emotional intelligence during formation of general practice nursing.

Methods: scientific literature review, comparison of health care and theology book sources, analysis of the situation in the field of nursing, reflection of potential steps to change the situation.

Results: Spiritual intelligence and emotional intelligence can complement each other for purification of human life. On the one hand, spiritual intelligence strengthens spiritual and religious beliefs, thus establishing good qualities. On the other hand, emotional intelligence can improve social relationships, control emotions and help individuals progress towards perfection.

Conclusions: This conceptual framework suggests that both spirituality plays an important role in in developing emotional intelligence during formation of general practice nurses. Spirituality may enhance development of emotional intelligence, well-being, and education of nurses as emotions are a basis of awareness and engagement within humanity. Emotional intelligence and spirituality ought to be examined in relationship to other outcome measures such as student performance, workplace performance, resilience, empowerment, and health benefits.

Keywords: *Spirituality, emotional intelligence, general practice nurse*

Challenges of Interdisciplinarity in the Modern Curriculum of Undergraduate Nursing Studies: Scientific Literature Review

Jurgita Andruškienė* PhD
Klaipeda State University of Applied Sciences, Lithuania

Asta Mažionienė PhD
Klaipeda State University of Applied Sciences, Lithuania

Aim. To analyse the challenges of interdisciplinarity met by faculty members creating the modern curriculum of nursing study programme, based on the scientific literature review.

Methods. The scientific literature search was performed in Pubmed data base in the September 2020, using keywords *interdisciplinary, nursing, curriculum*.

Results. Interdisciplinary clinical experiences offer students opportunities to develop needed collaboration and communication skills. Nursing educators should create interdisciplinary educational experiences for students to better prepare them for their roles in a clinical setting (Sievers and Wolf, 2006). The healthcare setting is a rich learning environment for students to experience interprofessional working and interprofessional education. However, opportunities for interprofessional working are limited, and student experiences of effective interprofessional education are varied. This raises the question of how interprofessional working and interprofessional education are valued by health or social care professionals. It is important that health and social care professionals would be led by example by working collaboratively and providing students with opportunities for interprofessional education. Identifying the variables influencing attitudes to interprofessional working and interprofessional education may assist in improving interprofessional working and experiences of interprofessional education for students learning in the healthcare setting (O'Carroll et al., 2016). Interprofessional collaboration is an essential approach to comprehensive patient care. Interprofessional education must be integrated in a stepwise, systematic manner in undergraduate health profession education, including nursing, study programmes. Given this perspective, first year interprofessional education is a critical opportunity for building the foundation of interprofessional collaborative practice (Imafuku et al., 2018).

Conclusions. Interdisciplinary curricula are time consuming and takes collaborative team work to create, which can seem like a hard and exhausting disadvantage, but in the end, the interdisciplinary approached inhibits many favoured skills that are sought by future colleagues and employers in health care settings.

Keywords: *interdisciplinary, nursing, curriculum*.

References

1. Sievers B, Wolf S. (2006). Achieving clinical nurse specialist competencies and outcomes through interdisciplinary education. *Clin Nurse Spec*, 20(2):75-80. doi:10.1097/00002800-200603000-00008
2. O'Carroll V, McSwiggan L, Campbell M. (2016). Health and social care professionals' attitudes to interprofessional working and interprofessional education: A literature review [published correction appears in *J Interprof Care*, 30(1):42-49. doi:10.3109/13561820.2015.1051614
3. Imafuku R, Kataoka R, Ogura H, Suzuki H, Enokida M, Osakabe K. (2018). What did first-year students experience during their interprofessional education? A qualitative analysis of e-portfolios. *J Interprof Care*, 32(3):358-366. doi:10.1080/13561820.2018.1427051

Future of Education: The Eve of the Nursing Education Reform in Latvia: Literature Review

Linda Alondere, Mg.paed., Mg.sc.sal
Riga Medical College of the University of Latvia/Head of Nursing Department, Latvia

Aim: analyse nursing education and benefits of reform.

Methods: analysis of regulatory documents.

Results. Evidence lies in establishment of merciful nursing school in Riga on 1921; teachers were not only doctors, but also nurses with higher education, graduated from Bedford College, United Kingdom. Study courses included various teaching methods: lectures, demonstrations, discussions, laboratory work, patient history case-studies, achieving high-level nursing education in Latvia. At the time, only few European countries trained nurses with such thorough education.

Restoration of independence in the 1990s brought cooperation with Scandinavian colleagues, improving nursing education, approximating European theoretical and practical approach. From 1995 to 1998, Latvia implemented PHARE program; in parallel, nursing studies advanced into higher education. In 1994, first twenty nurses graduated the Faculty of Nursing of Latvian Medical Academy, receiving bachelor degree diplomas (Odiņa, 2013).

Transformation occurred with Latvia's accession to the EU in 2004. According to national standard, the first-level professional higher education study program Nursing is implemented in medical colleges, currently 6 semesters of full-time studies, corresponding to 180 ECTS. Nurse obtains the registry of medical practitioner; for full labor-market integration nurses obtain second-level professional higher education diploma and qualification for certification in one of seven core-specialties (MK noteikumi Nr. 268, 2009).

A multilevel-system is maintained in nursing education; there are nurses in labor-market with third, fourth and fifth level of professional qualification (Par konceptuālo ziņojumu "Par māsas profesijas turpmāko attīstību", 2019).

Conclusion. In the documentation studies, the conceptual report on reform of nursing education to assure professional wholesomeness, integrity and labor-market mobility, proposes action in three areas:

- 1) amend regulatory enactments on health and education, determining qualification requirements, tasks of professional activity and competence;
- 2) introduce new approach to nursing specialization, obtained within professional development program;
- 3) wave the certification process.

By amending regulatory documents, nursing studies will upgrade into second-level professional higher education only. New system will launch on 2022/2023 academic year.

Keywords: *nursing, education, reform.*

References

1. Odiņa O. Māsu profesijas attīstība Latvijā (18.-20.gs.). RSU; 2013.
2. MK noteikumi Nr. 268 (24.03.2009.) Noteikumi par ārstniecības personu un studējošo, kuri apgūst pirmā vai otrā līmeņa profesionālās augstākās medicīniskās izglītības programmas, kompetenci ārstniecībā un šo personu teorētisko un praktisko zināšanu apjomu [Internet]. 2009 [cited 2020 Oct 7]. Available from: <https://likumi.lv/doc.php?id=190610>
3. Par konceptuālo ziņojumu "Par māsas profesijas turpmāko attīstību" [Internet]. 2019. Available from: <https://m.likumi.lv/doc.php?id=310369>

Assessment of palliative care competence using an objective structured clinical examination (OSCE)

Virpi Sulosaari PhD, Principal lecturer, degree programme leader, Health and Well-being
Turku University of Applied Sciences Finland

Background. Palliative care aims to improve the quality of life of patients with life-threatening illness and their nearest ones. In Finland, a new master's degree education on advanced practice in palliative care has been developed as a part of the Ministry of Education and Culture funded project "Developing palliative nursing and medical education EduPal 2018 – 2020. Comprehensive health assessment is a core clinical competency required from advanced practice nurses. In health sciences, OSCE has been widely used in assessment of clinical competence. **Aim.** To introduce OSCE as an assessment tool and describe results of the first master's degree students' (n=42) assessments.

Methods. Cross-sectional design was used. Students completed either a case on palliative care patient having symptoms of oral mucositis or respiratory infection. C-CEI© instrument developed by Kirkpatrick was used in the OSCE assessment.

Results. Prior the OSCE, students received short description of the patient coming to an appointment as they would in the clinical practice. The appointment with an actor patient was 15 minutes long and included an assessment of the patient's status and identification needs for care. Students received immediate feedback after the OSCE. In the first attempt, 40 out of 42 students passed the OSCE. In average, the students passed with 80% of the total score.

Conclusions. OSCE as an assessment tool suits well for evaluation of clinical competence of students in advanced practice program. Students showed an adequate level of competence in health assessment. The instrument used was originally developed for simulation OSCEs of undergraduate nursing students. The evaluators found the assessment form difficult to adapt to this type of OSCE and therefore it needs further development. The use of the tool in practice requires also more training of the evaluators. OSCEs are used to evaluate clinical competence. However, it is also a tool for learning.

Keywords: *palliative care competence, objective structured clinical examination*

The competence of nurse educator and graduating nurse students' satisfaction with education

Tuukkanen Minna* BNSc, RN, MNSc student
Department of the Nursing Science, University of Turku, Finland

Salminen Leena PhD, PHN, Professor
Department of the Nursing Science, University of Turku, Finland

Clever Katharina, Psychologist (Dipl.-Psych), Doctoral candidate
Institute of Health and Nursing Science, Martin Luther University Halle-Wittenberg, Germany

Fuster Pilar PhD, RN, Professor
Faculty of Medicine and Health Sciences, Universitat Internacional de Catalunya Barcelona, Spain

Kelly Mary EdD, MSc, RN
School of Nursing, Psychotherapy and Community Health, Dublin City University, Ireland

Kiele Viktorija, MNSc, RN, Assistant, Doctoral candidate
Institute of Health Sciences, Vilnius University, Lithuania

Koskinen Sanna PhD, RN, Postdoctoral Researcher, Department of the Nursing Science, University of Turku, Finland

Löyttyniemi Eliisa, Biostatistician,
Unit of Biostatistics, Faculty of Medicine, University of Turku, Finland

Sveinsdóttir Herdís PhD, RN, Professor
Faculty of Nursing, University of Iceland, Iceland

Leino-Kilpi Helena, PhD, RN, FAAN, FEANS, Professor and Nurse Director (part-time)
Department of the Nursing Science, University of Turku and Turku University Hospital, Finland

Aim of this study was to describe the competence of nurse educators and its connection with the graduating nurse students' satisfaction with nursing education.

Methods: A cross-sectional survey design was used. Data were collected with structured questionnaire between 5/2018–3/2019. Convenience sample of graduating nurse students (n=1796, response rate 49%) from Finland, Germany, Iceland, Ireland, Lithuania and Spain evaluated the nurse educators' competence using a part of the Tool for Evaluation of Requirements of Nurse Teacher (ERNT) using four-point Likert scale (1 = realise very poorly, 4 = realise very well). There were also three, four-point Likert scale questions about students' satisfaction with nursing education (1 = very unsatisfied, 4 = very satisfied). The data were analysed statistically. This study was a part of Professional Competence in Nursing research project (PROCOMPNurse). Good scientific practice was followed in all phases of the study and PROCOMPNurse research project

received an ethical approval from the University of Turku. All of the students gave informant consent before participating in this study.

Results. Graduating nurse students evaluated nurse educators' competence rather high (mean: 3.0; SD: 0.5). Irish and Icelandic students evaluated nurse educator competence highest. There were statistically significant differences for the total ERNT mean scores between countries ($p < 0.0001$). Graduating nurse students were mainly satisfied with their education. Students who were more satisfied with their nursing education evaluated the competence of educators as higher than students who were less satisfied ($p < 0.0001$).

Conclusions. In the population studied, competence of educators seems to be connected with students' satisfaction with nursing education. It is important to cultivate teachers' competence as students' satisfaction with education may realize desired outcomes of education.

Acknowledgements: The authors wish to thank all the nurse students participating in this study and all the contact persons for providing assistance during data collection. Finally, the authors thank the members of the PROCOMP Nurse Consortium for their contributions. The PROCOMP Nurse research project is funded by the Academy of Finland.

Keywords: *competence, nurse educator, nurse students' satisfaction with education*

Nursing education perspectives: mentoring nursing students

Marija Truš PhD
Klaipėda University, Lithuania

Background. Nursing practice is a part of nursing education. Mentoring is considered a key factor in training professionals and helps transfer knowledge and experiences to students.

Aim: to analyze nursing mentor related literature for finding out the perspectives for nursing education.

Methods: the literature review. The articles were searched in accordance with the keywords: mentor, mentoring, nursing, nurse, education in different combinations using Boolean operators in the databases such as Medline, PubMed, ScienceDirect, ERIC. After reviewing the full and accurate text of the searched articles, the appropriate were selected for the study.

Results: it was found that the implementation of mentoring is one of the most important aspects of the educational experience. The mentor plays an important role in creating an encouraging learning atmosphere. Through the interaction with mentor, the students utilize the advantages, possibilities and diverse opportunities in the working environment. The mentoring process reduces distance between theory and practice, increases self-confidence, improves the quality of patient care, promotes critical thinking. The nursing students learn, grow and develop professionally led by mentor.

Conclusions: the need of a national funded training programme for practice nurses is highlighted for them to implement the role of a mentor. The importance of mentor competencies through appropriate education is required. Mentoring allows the organizations to identify the future leaders among the mentors. Through the interaction with students, the mentor makes the influence by shaping the attitudes of the nursing profession.

Keywords: *Nursing education, mentoring, nursing students*

Relations Between Mentor's Behavior and Evidence based Practice Competence in Nursing Education

Asta Mažionienė* PhD
Klaipėda State University of Applied Sciences, Lithuania

Vitalija Gerikienė PhD
Šiauliai State College, Lithuania

Renata Ramanauskienė
Klaipėda University, Lithuania

Aim. To analyze the relations between mentor 's behavior and evidence-based practice competence in Nursing Education.

Methods. The quantitative research was performed using Structure of mentors 'behavior in nursing education (Chen et al., 2016) and Evidence-based Practice Competence Questionnaires (EBP-COQ) (Ruzafa-Martinez et al., 2016). The mean age of Nursing students (N=247) who participated in the study was 22.49 ± 4.10 years, they were studying second (30.7%), third (37.7 %) or fourth year (31.6 %).

Statistical software SPSS version 21.0 was used for data analysis. Research methods implemented factorial analysis, *student's t* criteria, ANOVA, method of Pearson's correlation (r), analysis of multiple linear regressions.

Results. Self-evaluation of evidence-based competence of clinical practice in general group of subjects scored 3.36 ± 0.40 (in 5 grade scale). The students' evidence-based clinical practice competence was significantly ($p < 0.001$) related to the assessment of mentor's behavior. Students' evidence-based clinical practice competence as well as its component - attitude competence was more strongly related to the mentor's psychological support ($r = 0.51$ vs $r = 0.36$), his professional development ($r = 0.50$ vs $r = 0.35$) than with the learning environment ($r = 0.38$ vs $r = 0.21$). Students' skills competence was most strongly related to the mentor's professional development ($r = 0.39$), the least to the learning environment ($r = 0.26$). The mentor's activities had strongest influence over competence of evidence-based practice of students of nursing: *psychosocial support* ($\beta = 0.53$), *professional development* ($\beta = 0.52$) and *facilitates learning* ($\beta = 0.39$). Next to mentoring diversified clinical practice affected self-development of competence of evidence-based practice of subjects ($\beta = [0.22-0.24]$). Students, which took practice in different levels of healthcare, evaluated their own competence of evidence-based practice more positive.

Conclusions. Mentor 's activity was imminently connected with self-development of evidence-based competence of students of nursing during clinical practice. The students with highest self-evaluating scores for self-development of competence of evidence-based practice assessed most positively mentor's psychosocial support and professional development during clinical practice.

Keywords: *evidence-based practice, nursing mentors ', student nurses, nursing education.*

References

1. Chen Y., Watson R., Hilton A. (2016). An exploration of the structure of mentors' behavior in nursing education using exploratory factor analysis and Mokken scale analysis. *Nurse Education Today*. Volume 40, Pages 161-167. <https://www.sciencedirect.com>.
2. Ruzafa-Martinez M., Lopez-Iborra L., Barranco D.A., Ramos-Morcillo, A. J. (2016). Effectiveness of an evidence-based practice (EBP) course on the EBP competence of undergraduate nursing students: A quasi-experimental study. *Nurse Education Today*. Volume 38, Pages 82-87. <https://www.sciencedirect.com>.

Modelling of Evidence-Based Practice Education of Nursing in the Higher College Studies

Danguolė Šakalytė*, Lecturer

Utena University of Applied Science, Faculty of Medicine / PhD stud. Mykolas Romeris University, Lithuania

Rūta Jurgelionienė, Lecturer

Utena University of Applied Science, Lithuania

Professor PhD Valdonė Indrašiienė

Mykolas Romeris University

Background. A term describing “evidence-based practice” was coined in 1990 at McMaster University in Canada. After analyzing the importance of evidence-based practice (EBP), David Sackett highlighted aspects of patient-centred clinical decisions, assurance of patient safety, and the emotional state of the patient and their family. Speaking specifically of nursing, F. Nightingale herself, without even knowing it, applied this practice in her work, to achieve the best possible results in the nursing process and to improve the education of nurses.

Aim. The presentation aims to present an evidence-based practice EBP teaching model of nursing study programmes in higher college education through an intervention of educational action research.

Results. Recommendations based on researches done by foreign researchers suggest that the content of nursing study programs needs to be reviewed and EBP integrated, as it is one of the core paradigms of the nursing study program that contributes to the development of both general and specific professional skills for future nurses (Lehane et al., 2017). Search for evidence, formulation of answerable questions and the critical appraisal and integration of available evidence are considered to be essential EBP knowledge and skills that students must learn and master (Levin & Feldman, 2012, as cited in Hung, 2019).

Conclusions. The legislation, which regulates the education of nurses, presupposes the acquisition of EBP skills by prospective nurses, but in the practical level, there is a lack of a clear definition of what is meant by the terms 'evidence-based practice' and 'science'. Teachers lack the skills on how to apply all steps of EBP teaching in the study process. Research of practical activities is carried out, with the participation of the researcher himself/herself, in order to solve the problematic area of research and in cooperation with other interested members of the community to solve the educational problem of nursing training.

Keywords: *evidence-based practice education, nursing, higher college studies*

Does effective leadership affect the innovation in the nursing practice?

Andželika Zavackienė, RN

Deputy Director of Nursing, Republic Klaipeda Hospital, Lithuania

Background: Health care is rapidly changing and a fully engaged workforce is required to address increasing health care demands. Effective leadership promotes better health care outcomes by fostering employee engagement and encouraging innovation (Galuska, 2014).

Aim: Reviewing the literature of effective leadership trends in nursing practice.

Results: Effective frontline leaders are needed to retain a robust nursing workforce that delivers high quality and reliable health care (Richey and Waite, 2019). Leadership skills of nurse managers are critical for empowering nurses to think creatively and adopt innovative solutions that ultimately allow improving health care outcomes (Crenshaw and Yoder-Wise, 2013; Clayton et al., 2018). The health care system is in chaos, as is much of the business world; it is critical to identify both effectively working and presently absent nurse managers' skills and begin creating or improving educational models and management development programs to ensure the presence of these skills in current and future generations (Huston, 2020).

Conclusions: The leadership skills of nurse managers are critical to improve health care outcomes. It is vital to identify crucial nursing leadership skills and create or improve formal educational models and management development programs that would allow both development of current nurse leaders and preparation of the next generation.

Keywords: *leadership, innovation, nursing practice*

References:

1. Galuska L. *Enabling leadership: unleashing creativity, adaptation, and learning in an organization*. *Nurse Leader*. 2014;12(2):34-38.
2. Karen Richey, Stephanie Waite. 2018. *Leadership Development for Frontline Nurse Managers Promotes Innovation and Engagement*. 1541-4612/2019/ Elsevier Inc. www.nurseleader.com, <http://dx.doi.org/10.1016/j.mnl.2018.11.005>
3. Crenshaw JT, Yoder-Wise PS. *Creating an environment for innovation: the risk-taking leadership competency*. *Nurse Leader*. 2013;11(1):24-27
4. Carol Huston. 2020. *Preparing nurse leaders for 2020*. *Journal of Nursing Management*. <https://doi.org/10.1111/j.1365-2834.2008.00942.x>
5. Clayton J. Shuman, Xuefeng Liu, Michelle L. Aebersold, Dana Tschannen, Jane Banaszak-Holl and Marita G. Titler. 2018. *Associations Among Unit Leadership and Unit Climates for Implementation in Acute Care: A Cross-Sectional Study*. *Implementation Science* (2018) 13:62, <https://bit.ly/2TqTqpF>.

Creating a safe environment in a health care institution

Diana Kleštorė, Lecturer

Nursing and Social Welfare Department, Klaipėda State University of Applied Sciences, Lithuania

Background. During the COVID-19 pandemic, healthcare workers faced enormous challenges in creating a safe work environment, upholding the principles of a safe culture, and implementing the requirements set by the responsible authorities. These challenges have affected not only a different approach to the use of personal protective equipment, but also the specificity of work organization and the expression of competencies. Each nurse was affected by the changed work environment and specifics. Accordingly, the competencies used changed to the required competencies, which were less or not needed at all in the usual work. This has been and remains one of the most important tasks not only for nursing managers but also for nursing practitioners.

Aim. The aim of the work is to reveal the expression of nurses' competencies in creating a safe environment in a health care institution.

Methods. The analysis of systematic scientific literature was used, scientific articles were interpreted and compared with Lithuanian legislation and recommendations on creating a safe environment in health care, use of personal protective equipment, other hygiene requirements in normal operation and what changes occurred during COVID-19 pandemic.

Results. Assessing the challenges of this pandemic and the data collected, much attention is paid to the competencies of future nurses, whether sufficient attention is paid to training future nurses in educational institutions, developing their necessary competencies in working in extreme conditions, such as communicable diseases. This is not the first time the world has faced a pandemic of this magnitude, there have been, is and will be in the future. The results revealed the need for competencies such as the ability to collect, evaluate, and analyze the epidemiological history of patients, to raise awareness, and the ability to create important things such as creating a safe environment.

Conclusion. Educational institutions should focus on the adaptation of nursing study programmes accordingly to the changing situation.

Keywords: *nurse competencies, safe environment, COVID-19 infection*

Improvement of patient safety in clinical practice at medical college

Jeļena Urbēna* Mg. sc. sal. MBA

P. Stradins Medical College of the University of Latvia, Latvia

Maira Lāce Mg. sc. educ.

P. Stradins Medical College of the University of Latvia, Latvia

Olga Rozentāle Mg. sc. educ.

P. Stradins Medical College of the University of Latvia, Latvia

Leila Korejeva Mg. sc. sal.

P. Stradins Medical College of the University of Latvia, Latvia

Aim: to describe the aspects of patient safety observed in the clinical practice of medical college students.

Methods: within the study process of the study course “Practical work skills in patient care” (I, II, III) at P. Stradins Medical College of the University of Latvia, anonymous questionnaires were systematically conducted for n=40 (100%) of the 2nd study year Nursing students. The study performed a quantitative analysis of sample data on the implementation of patient safety during 2019/2020 academic year students' clinical practice. The choice of used data (a total out of 14 questions) is based on the international patient safety objectives: 1) three questions on a safe patient identification; 2) five questions about the safety of medication and patient care; 3) three questions about interpersonal communication; 4) three questions about biological risks and biosafety. Respondents provided answers about the practice based on their observations and own activities. Research period between 01.03.2020. - 01.05.2020. The study was conducted using the google documents site. Microsoft Excel was used for data processing.

Results. In a patient identification cases 24 respondents (60%) have used or observed an incorrect patient identification method. The availability of guidelines, safety instructions, equipment and documentation for the safe use of medicinal products is limited. 16 (40%) respondents indicate that the availability of informative material is still insufficient or non-existent. According to 14 (35%) respondents, consultations with the practice mentor took place every day, the same number of respondents (35%) indicate that the practice mentor rarely met them. The engagement of clinical specialists and the need to perform both patient care work and work with students create communication and educational difficulties. Hand hygiene, etc. infection control measures were not always fully performed. In contact with the patient's biological fluids, medical staff disinfected hands before each procedure in 18 (45%) cases; 20 (50%) respondents indicate that the medical staff only put-on gloves, without hand hygiene.

Conclusions. The results of the study to assess the general directions in which develop the issue of patient safety learning in the study process, what issues pay attention to the course of students' clinical practice and in cooperation with practice organizations and managers. In the study process of the Medical College, it is necessary to pay systematic attention to the acquisition of patient safety measures and the closer connection between the study process and clinical practice.

Keywords: *patient safety, clinical practice, medical college*

Innovative learning solutions in nurses continuing education

Svetlana Greičienė, RN, BSN, HPM

Methodologist at Center of excellence of healthcare and pharmacy specialists, Lithuania

Rapid technological advances related to knowledge extension extremely changed nursing practice. That's why continuing nursing education (CNE) is essential for undergraduate nurses. CNE is any postbasic nursing education aimed at actively engaging nurses in a lifelong process of learning, with the ultimate goal of improving delivery of health care.

In Lithuania continuing professional development (CPD) is mandatory. Duration of mandatory CPD is evaluated by hours for obtaining / re-registering a nurse practice license and confirming compliance with the conditions of the licensed practice.

The Covid-19 situation led to the rapid transfer of nursing CPD to the electronic space. There are five broad categories of eLearning and blended learning: non-networked computer-based, internet and local area network-based, psychomotor skills training, virtual reality, digital game-based learning. eLearning advantages and disadvantages from learners and education providers perspective are different.

Innovative learning solutions, such as eLearning, is not our future, it is our present. And nurse educators play significant role in integration of these technologies in CNA.

Keywords: *Innovative learning solutions, nurses continuing education*

Communication Competence Development in Bachelor Nursing Education

Lina Gedrimė* PhD student
Klaipėda State University of Applied Sciences, Lithuania
Klaipėda University, Lithuania
Klaipėda Respublic Hospital, Lithuania

Aelita Skarbalienė
Klaipėda University, Lithuania

The **aim** of the research is to assess the communication skills of bachelor nursing students

Methods: Interpersonal Communication Skills Inventory (Learning Dynamics, 2002) was used for students' self-assessment of communication skills. This Interpersonal Communication Skills Inventory was designed to self-measure the level of communication competencies in the main areas of the concept: speaking skills, active listening, giving/getting feedback, and the skills of emotional interactions with others. Thus, the inventory consists of four scales, each section containing ten questions. By answering seldom, sometimes, or usually, the participants can get from 0 to 3 points (using the scoring key) and can collect up to 30 points on each scale.

Results: The overall average of students' communication skills is 16.0, whereas the skills of sending a clear message are the strongest and sending and getting feedback is the weakest.

By analyzing individual components of communication skills separately, the advantages and disadvantages of students' communication can be identified. The mean value of students' skills of sending a clear message is 1.73 and is rather of medium level.

The analysis of students' listening skills indicates the medium level of these skills with a mean of 1.66. The weakest component of students' communication skills is giving and getting feedback. The item average is 1.46.

Conclusions. Introducing interpersonal communication courses for students of health sciences. Encouraging students to use their strengths in communication: listening without interrupting, paying attention to other people's feelings, ability to compliment or praise, as well as to apologize and admit when something wrong was done. Encouraging students to participate in the discussions, express their opinions with appropriate reasoning and argumentation, as well as to explain the importance of paying attention to the speakers' voice, and dealing with the difficult emotional conditions.

Keywords: *Communication, Competence Development, Nursing Education*

Biomedical and Social Sciences: Education, Research and Innovation. International conference abstract book, 2020 Nr. 1(4). *Abstracts from the 5th Nordic Forum for Nurse Educators 2020, 10th of November, Klaipeda 2020, 36 p.*

SCIENTIFIC COMMITTEE

Chairperson – **PhD Jurgita Andruškienė**, Klaipėda State University of Applied Sciences (Lithuania)
e-mail j.andruskiene@kvk.lt

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ISSN 2669-039X