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Glavni i odgovorni urednik

Prof.dr Hadžan Konjo

Izvršni urednik

Doc.dr Amer Ovčina

Redakcijski odbor

Nada Malešić, Zineta Mulaosmanović, Magbula Grabovica,
Aida Kapo, Armin Hadžić, Mediha Avdić, Belma Muharemović

Sekretar

Ibrahim Pašalić

E-mail: komora.mstks@gmail.com

Tel. +387 33 214 673

Derebent br. 41 Sarajevo

Štamparija

„START“

Tehnički urednik

Armin Omeragić

Tiraž

100 komada

Adresa

Komora medicinskih sestara-tehničara Kantona Sarajevo

Web: www.kmst-ks.com

E-mail: komora.mstks@gmail.com

Tel. +387 33 214 673

Derebent br. 41 Sarajevo

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Riječ urednika

Poštovani i dragi čitatelji,

Sa posebnom radošću objavljujemo prvi broj Časopisa Komore medicinskih sestara-tehničara Kantona Sarajevo.

Osnovni ciljevi ovog Časopisa jesu promocija sestrinske profesije, prikaz djelokruga rada medicinskih sestara-tehničara na svim nivoima zdravstvene zaštite, promocija naučnih dostignuća u sestrinskoj praksi i informisanje o savremenim dostignućima u području zdravstvene njege.

Ovo je ujedno i prilika za povezivanje medicinskih sestara-tehničara kako u Regionu, tako i šire sa ciljem razmjene iskustava u praksi i otvaranjem novih inovativnih područja zdravstvene njege neophodnih za izučavanje i prezentiranje.

U ovom broju Časopisa objavljeni su stručni i naučni radovi prezentirani na Sarajevskom simpoziju medicinskih sestara-tehničara sa međunarodnim učešćem koji je održan u decembru 2022.g. Radovi su posvećeni inovacijama u području sestrinske prakse i potrebama za implementacijom istih.

Vizija ovog Časopisa je usmjerena na jačanje sestrinske profesije u cjelokupnom zdravstvenom sistemu, podrška reformi zdravstvenog sistema, zagovaranje zdravstvene politike usmjerene na zdravlje ljudi, jačanje sestrinskih kompetencija i pružanje zdravstvene njege zasnovane na dokazima. Skladno tome Časopis je dobio svoj naziv "Reformator" jer vrijeme za promjene i prilagođavanje promjena je pred nama.

Glavni i odgovorni urednik

Prof.dr Hadžan Konjo

Development of standard operating procedures in Bosnia and Herzegovina

Dragana Galić, magistar zdravstvene njege i terapije
Ministarstvo zdravstva FBiH, Titova 9, 71000 Sarajevo
e-mail: dragana.galic@fmz.gov.ba

ABSTRACT
Nurse-technicians are leaders of the health team in the health care process, therefore the application of standardized procedures is necessary, all for the purpose of quality work process, improvement of patient health outcomes, contribution to evidence-based nursing practice and global sharing of data sources. One of the frequently used tools for standardization of nursing practice are standard operating procedures, which represent a step towards improving the provision of services in the field of health care.
As part of the Project for Strengthening Nursing in Bosnia and Herzegovina (ProSes), which is financed by the Swiss government, it is implemented by the Fami Foundation and supported by the Federal Ministry of Health, in the period 2016-2021. a total of 5 manuals with 279 SOPs were created in 2008, with appendices and algorithms for individual SOPs. In the Federation of Bosnia and Herzegovina, in a period of five years, a total of 149 procedures were developed for nurse-technicians of all levels of health care. Also, with the support of the Project for Strengthening Nursing in Bosnia and Herzegovina and the Ministry of Health and Social Protection of the Republic of Srpska, a total of 130 were developed. SOPs.
The main purpose of the manual is to make standard operating procedures available to all nurse-technicians employed in the health institutions of Bosnia and Herzegovina. It is primarily intended for nurse-technicians involved in the work process, as a set of guidelines for a safe and unique way of providing services. In addition, the manuals will find their implementation in the process of introducing new employees to work, and as useful literature for the teaching process of secondary medical schools and faculties of health studies.
Keywords: standard, procedures, nurses, algorithm

INTRODUCTION
In the mid-1970s, nursing researchers began developing standardization of nursing practice to help bedside nurse technicians document and evaluate the care they provide to patients (1). The irreplaceable role of nurse-technicians in every healthcare system, their great commitment, effort and desire for continuous knowledge and skills, especially in times of global health challenges, and increasingly complex forms of disease and the introduction of more demanding methods of healthcare, have imposed an obligation for the additional development of nursing professions (2). Since nurse-technicians are the leaders of the health team in the health care process, it is necessary to apply standardized procedures, all

for the purpose of quality work process, improving patient health outcomes, contributing to evidence-based nursing practice and global sharing of data sources (3).

STANDARD OPERATING PROCEDURES (SOP)

The origin of the term SOP is not entirely clear. The Encyclopedia Britannica states that the abbreviation came into use in the mid-1900s, and that the term was used during World War II. Today, SOPs exist in various contexts from military operations, business routines, manufacturing processes to medical activities (4). In the context of clinical trials, at the International Conference held in 1990, harmonization was discussed, then SOPs were mentioned in an effort to standardize the regulatory requirements of medical procedures. SOP is defined as a detailed, written instruction for achieving equal performance of a certain function (5).

All members of the healthcare team must be familiar with evidence-based practical recommendations and guidelines. The above documents must be audited to ensure relevance. Research has shown that 10% of doctors are not aware of the existence of medical practice guidelines (6). For health care providers, guidelines require adaptation to suit local application, implementation circumstances, and achieving ownership of standard procedures, both of which are important factors in the acceptance and use of guidelines (7). Regardless of the content of SOPs, they certainly accelerate the start of the healthcare process, increase awareness in the care process, improve patient treatment outcomes (8), and improve the rate of compliance with relevant guidelines (9)

THE IMPORTANCE OF STANDARD OPERATING PROCEDURES IN THE WORK PROCESS OF NURSES - TECHNICIANS

The field of quality and safety of health care certainly implies the issue of standardization of nursing practice. One of the frequently used tools for standardization of nursing practice are standard operating procedures (SOP), which represent a step towards improving the provision of services in the field of health care (2).

Standard operating procedures significantly contribute to determining the appropriate course of action for a particular medical condition. SOPs are intended to promote the standardization of nursing practice in accordance with scientific principles or the best (available) evidence of effectiveness (10).

The introduction and application of nursing standard operating procedures in hospital health institutions ensures better organization of work, more successful control of health services, prevention of errors in the work process, objective evaluation of work, correct and better division of work, protection of nurses and technicians, and ultimately rational distribution means of work (2).

Regulation of nursing procedures, important for health safety, is most effectively ensured through SOPs. Risk assessments enable identification of the most important elements of activities performed by

personnel of all levels of health care, development and implementation of standard operating procedures, the application of which increases the safety of health care. Many authors have developed basic principles (algorithms) for the development of standard operating procedures that are used to increase safety in the field of health care, and which can be considered universal and applicable in every health organization. According to the stated principles, taking into account the relevance, the authors described certain types of activities performed by health personnel and developed standard operating procedures (11).

Standard operating procedures serve to improve the safety, quality and efficiency of health care, providing services in a uniform and standardized manner, as a verification for the personnel performing the control, and as evidence of how certain processes took place (2,11). Standard operating procedures ensure the prevention of errors in the work process, more successful control of the services provided, better organization of work, prevention of errors in the work process, protection of service providers, protection of service recipients (2).

DEVELOPMENT OD STANDARD OPERATING PROCEDURES IN BOSNIA AND HERZEGOVINA

As part of the Project for Strengthening Nursing in Bosnia and Herzegovina (ProSes), which is financed by the Swiss government, it is implemented by the Fami Foundation and supported by the Federal Ministry of Health, in the period 2016-2022. a total of 5 manuals with 279 SOPs were created in 2008, with appendices and algorithms for individual SOPs. The first manual for nurse-technicians of the Federation of Bosnia and Herzegovina was developed for the primary level of health care (Part I). The manual contains 46 standard SOPs, 12 algorithms and 6 appendices that were developed using various professional literature, knowledge, experience and good practice (12). Then in 2019, a second manual with standard operating procedures for nurses and technicians at the primary health care level was developed for the field of polyvalent patronage/nursing in the community (Part II). The manual contains 37 SOPs and 10 algorithms (13). A manual with standard operating procedures for secondary and tertiary levels of health care was developed in 2022, which contains 66 SOPs (14). Thus, in a period of five years, a total of 149 procedures were developed for nurse-technicians of all levels of health care in the Federation of Bosnia and Herzegovina.

With the support of the Nursing Strengthening Project in Bosnia and Herzegovina and the Ministry of Health and Social Protection of the Republic of Srpska, manuals for nurse technicians were developed. The first manual of SOPs was written in 2020 for the secondary and tertiary level of health care. The manual contains a total of 56 standard operating procedures (15). The second manual was developed in 2022 in the field of health care for the primary level of health care, and a total of 74 procedures were developed. A total of 130 SOPs (16) were developed.

BASIC PARTS OF STANDARD OPERATING PROCEDURES

Various professional literature, knowledge and experience of good practice were used in the preparation of the manual. Considering the content of the manual as well as the methodology used during its creation, its purpose is multiple. Thanks to the manuals, all nurses and technicians in Bosnia and Herzegovina now have access to information on procedures relevant to their work in one place.

Procedures in FBiH are designed in such a way that each one has uniform basic parts:

- General policy statement
- Field of application
- Distribution and monitoring
- The procedure
- Precautions
- Records
- Revision.

Procedures in the Republika Srpska are designed in such a way that each has uniform basic parts:

- Subject and field of application
- Jurisdiction for implementation
- Exclusions
- Terms and abbreviations
- Description of the procedure
- Attachments and forms.

CONCLUSION

The main purpose of the manual is to make standard operating procedures available to all nurse-technicians employed in the health institutions of Bosnia and Herzegovina. The use of these manuals will help nurse-technicians to provide health services in a uniform and standardized manner, with the ultimate goal of improving the safety, quality and efficiency of health care.

It is primarily intended for nurse-technicians involved in the work process, as a set of guidelines for a safe and unique way of providing services. In addition, the manuals will be used in the process of introducing new employees to work, and as useful literature for the teaching process of secondary medical schools and faculties of health studies.

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Razvoj standardnih operativnih procedura u Bosni i Hercegovini

Dragana Galić, magistar zdravstvene njege i terapije

Ministarstvo zdravstva FBiH, Titova 9, 71000 Sarajevo

e-mail: dragana.galic@fmz.gov.ba

SAŽETAK

Medicinske sestre-tehničari su voditelji zdravstvenog tima u procesu zdravstvene njege, s toga je nužna primjena standardiziranih postupaka, a sve u svrhu kvalitetnog procesa rada, poboljšanja zdravstvenih ishoda pacijenata, doprinosa praksi sestrinstva utemeljenoj na dokazima i globalnom dijeljenju izvora podataka. Jedan od često korištenih alata za standardizaciju sestrinske prakse su standardne operativne procedure, koje predstavljaju korak prema unaprjeđenju pružanja usluga iz domena zdravstvene njege.

U okviru Projekta jačanja sestrinstva u Bosni i Hercegovini (ProSes), kojeg financira Švicarska vlada, implementira Fondacija fami i podršku Federalnog ministarstva zdravstva, u period da 2016.-2021. godine je izrađeno ukupno 5 priručnika sa 279 SOP-a, uz priloge i algoritme za pojedine SOP-ove. U Federaciji Bosne i Hercegovine je u period od pet godina, razvijeno ukupno 149 procedura za medicinske sestre-tehničare svih nivoa zdravstvene zaštite.. Također, uz potporu Projekta jačanja sestrinstva u Bosni i Hercegovini i Ministarstva zdravlja i socijalne zaštite Republike Srpske razvijeno je ukupno 130 SOP-ova.

Osnovna namjena priručnika je da se standardne operativne procedure učine dostupnim svim medicinskim sestrama-tehničarima uposlenim u zdravstvenim ustanovama Bosne i Hercegovine. Primarno je namijenjen medicinskim sestrama-tehničarima uključenim u proces rada, kao set smjernica za siguran i jedinstven način pružanja usluga. Pored toga će priručnici svoju implementaciju pronaći u procesu uvođenja novih uposlenika u rad, te kao korisna literatura za nastavni proces srednjih medicinskih škola i fakulteta zdravstvenih studija.

Ključne riječi: *standard, procedure, medicinske sestre, algoritam*

Innovative digital tools in nursing education

Prof.dr.sc.med. Dragana Milutinović, Prof.dr.sc.med. Dragana Simin

Univerzitet u Novom Sadu, Medicinski fakultet, Hajduk Veljkova 3, 21000 Novi Sad, Republika Srbija

e-mail: dragana.milutinovic@mf.uns.ac.rs

dragana.simin@mf.uns.ac.rs

ABSTRACT

The digital technologies application in the education of future health professionals is recognized as an opportunity to solve many demands and challenges that are set before the educational and health systems, and they are increasingly represented, both in academic and lifelong education. The coronavirus pandemic caused education to be rapidly shifted, at all levels and in all areas, from the dominantly traditional to the digital framework. With that, nurse educators in higher education institutions also started applying different models of innovative digital technologies. The recreational escape room (ER) game, which has gained global popularity in the last decade, has inspired nurse educators to apply it in an educational setting. According to the definition, ER is a game in which a team of players discovers clues solves puzzles and performs tasks in one or more rooms to achieve a specific goal in a limited time, usually "room escape". In educational ER, all problems, challenges and activities are called a puzzle, while the term room means the space in which it is realized. Therefore, educational ER can be on-site and online. ER has found its place in the learning environment because it brings time-limited authentic situations from the natural professional environment. To complete the mission and "escape from the room", students, in addition to engagement that encourages critical thinking, intensively communicate and cooperate. This paper presents the application of online educational ER in the subject Fundamentals of Nursing.

Keywords: digital technologies, nursing, education, student, escape rooms

INTRODUCTION

The constant trend of increased development and application of digital technologies is evident in all areas of everyday life (1). In addition, technology's ubiquity and impact on lives and work today have contributed to their application in the educational environment (2). In this environment, digital technologies mean "any product or service that can be used to create, view, distribute, modify, store, retrieve, transmit and receive information electronically in a digital form" (3).

The application of these technologies in the education of future health professionals is recognized as an opportunity to solve many demands and challenges posed to the educational and health systems, and they

are increasingly represented, both in academic and lifelong education (1). Digital technologies that serve a specific purpose, i.e. the execution of some function such as information processing, communication, content creation or problem-solving, are called digital tools (3). Although the modern concept of improved teaching and learning with these tools is considered the standard in nursing education, a critical attitude must be taken. The technologies application must be viewed as a contingent practice, which does not always lead to progressive development (2). So, the most important criterion when deciding on the technology application and technological tools for nursing educators should focus on learning outcomes, not because the technologies are innovative and exciting (4). In addition, today, in the academic environment, members of the Z generation make up the most significant number of "those who learn", which should not be ignored. They are often called digital natives as they grow up under the support of digital technologies and tools, which they know and respect well, and at the same time, they are also considered avid "consumers of technology" (5).

DEVELOPMENT OF DIGITAL TOOLS APPLICATION IN NURSING EDUCATION

In the last fifty years, many technologies have been affirmatively promoted in the academic community, starting with radio, through personal computers, multimedia, the Internet, and even virtual reality and mobile phones, and educational institutions, teachers and students were expected to accept and apply them (2). The digitization of academic institutions has contributed to nursing educators applying various digital tools in teaching (6, 7). First, digital tools were used to convert teaching content into digital format (e.g. presentations from power point® to pdf format, books from print to digital format, etc.) (1). Then, with the technical capabilities development of hardware and software, Web 1.0 and Web 2. tools, mobile phone applications, tools for a virtual environment, virtual reality, gamification and application of serious games in teaching were developed (1, 8). However, a large number of these tools and different aspects of their application, since they increasingly have more functions, significantly limits their simple systematization, and they can roughly be divided into several categories: learning management systems (Moodle, Google Classroom, Microsoft Teams, Edmodo); tools for collaboration and sharing lecture content (Zoom, Google Meet, Microsoft Teams, Viber Community, Linolt, Twinspace, Cisco Webex, Padlet, Blackboard Collaborate); tools for creating and editing presentations and video materials (Microsoft PowerPoint, Prezi, Biteable, Magisto, Animoto, Screencast-O_Matic) tools for creating interactive content (Animatron, Glogster, Dotstorming,); tools for creating tests/quizzes/questionnaires (Microsoft Forms, Google forms, Mentimeter, Kahoot, Socrative), platforms with free content (Freeimages, Pixbay, Incompetech, Audionautix); options for content storage (Google Drive, Dropbox, Linolt, OneDrive) (9, 10).

When preparing students for future professional tasks, nursing educators use and develop innovative teaching methods that promote active learning with the application of new technologies (4). Modern

educational technologies, including those used in nursing education, include digital tools and combine them with educational theories to meet the needs and expectations of students, communities, trends in the health system, and institutional resources (11).

The coronavirus pandemic caused education to be completely transferred from the dominantly traditional to the digital framework at all levels and in all areas. In the academic education of all future healthcare workers, these changes made it impossible to teach in a clinical environment, and teachers had to quickly fill this "gap" with digital tools (7, 10). However, in many academic institutions, especially those in low- and middle-income countries, despite the challenges of the transition to digital education, such as insufficient technical resources and an insufficient number of experts to implement educational e-platforms and digital tools, the pandemic has provided an opportunity to promote them in nursing education (12). This is supported by a comprehensive analysis of many studies conducted during the pandemic. According to those results, digital education significantly contributed to the "distance training" of graduate nurses and has the potential to be applied in the future as well. However, further research is needed on the effectiveness of individual digital educational tools in their education in extraordinary circumstances (7).

INTERNATIONAL EXCHANGE OF EXPERIENCES REGARDING THE APPLICATION OD DIGITAL TOOLS IN NURSING EDUCATION

With the formal introduction of digital education in study programs for nurses, educational policymakers were able to influence the nursing profession positively (12). Given that technologies are constantly evolving, nurse educators who want to apply them must constantly update their competencies, especially the "critical competency", the ability to use and evaluate innovative technologies (8). With the aim of their practical implementation, and especially the empowerment of both teachers and students, the recommendation for higher education institutions is to provide training on the application of digital tools in addition to appropriate infrastructure standards and regulations (12). A recent study shows that international partnerships funded under the Erasmus + program, with the topic of applying e-learning materials, strongly contribute to the development of modern, digitally interactive educational programs and to the transparency and cohesion of nursing education in Europe (13). As part of the Erasmus+ K2 program, the realization of a project called Digital Education in Nursing, DEN, whose initial idea was precisely the exchange of experiences and the empowerment of teachers and students for using digital tools, is ongoing. Nurse teachers from the Department of Nursing, Faculty of Medicine, University of Novi Sad, are working on the project together with colleagues from Sweden (Malmö University, Faculty of Health and Society), Slovenia (College of Nursing Celje), Croatia (University of Applied Health Science Zagreb) and Macedonia (Goce Delchev University Štip, Faculty of Medical Science). The first short training, Innovative digital teaching methodologies for nursing studies, was held at the Faculty of

Medicine in Novi Sad from May 31 to June 4, 2022. The topics of the five-day lectures and workshops were focused on learning theories and online learning; understanding the generational characteristics of students and overcoming the generation gap; integration of technology in education; teaching in an online environment according to Gilly Salmon's model; management in the digital classroom; implementation of E (evocation) R (understanding of meaning) R system (reflection) in online education; application of digital Escape room (ER) in teaching; application of social networks and video in online education; application of the digital tool Padlet for interactive teaching and models of summative and formal assessment of student's knowledge in a digital environment.
A trailer about the activities is available at:
https://www3.mf.uns.ac.rs/Aktuelnosti/DEN_NS_C1.mp4 (14).

DIGITAL ESCAPE ROOM – AN INNOVATIVE APPROACH IN NURSING EDUCATION

Innovative digital tools and methods, such as game-based learning, are readily embraced and appreciated by today's nursing students as digital natives. Their application in classes makes students significantly more active and improves their satisfaction and enjoyment while learning (15-17). Escape room (ER) has become globally famous as a recreational game in the last decade, inspiring many teachers to implement them (6, 15-19). According to one of the most frequently cited definitions, ER is a game in which a team of players discovers clues, solves puzzles, and performs tasks in one or more rooms to achieve the goal in a limited time - escape from the room (20). The puzzles represent all the problems, challenges and activities, while the "room" is the space (on-situ or online) in which the ER is realized (15, 17, 20). In the on-site educational ER, the "room" is most often a faculty classroom where there are subjects, which concerning the topic and the planned outcome of the ER, correspond to those from a natural professional environment, as well as various padlocks, locks that open when the puzzle is solved (18-19). Time limits, the included timer during nursing ERs simulate time limits from a natural environment and are in line with their future professional tasks, where they are expected to make correct decisions and adequate solutions in a limited time (19, 21). Students' opinions about ER suggest that it is not only fun for them but also beneficial since, in a short period, often during one school lesson, they can apply and consolidate previous knowledge, reason, and develop profession-specific skills, which motivates them and for further study (21).
A recent study that dealt with an integrative review of the ER application showed that this innovative strategy was effective and well-accepted in various areas of nursing education (22). A brief description of an on-site ER in the education of graduate nurses implemented in the Nursing Skill lab at the Faculty of Medicine in Novi Sad is available at the link:
https://www3.mf.uns.ac.rs/Vesti_sa_Katedri/ESCAPE%20ROOM%20SPOT .mp4.

Many elements of puzzles in on-site ER can be in digital form (short film to present the case, audio recordings, interactive images, QR code to access the puzzle or solution, crosswords, etc.). Indeed, that makes ER even more attractive, but often due to cost savings and an economically more profitable innovative teaching method (15).

Positive experiences with on-site ER and activities within the DEN project empowered several nurse educators from the Department of Nursing of the Faculty of Medicine to use several digital tools to create a digital ER that was placed on the e-learning platform (SOVA) of the University of Novi Sad. The work of the SOVA platform initially developed within the Erasmus + program is based on the Moodle platform. In creating digital ER, the lesson module option was used, enabling independent learning of new content, implementation of scenarios and simulation of decision-making exercises for correcting learned material with different sets of questions (23). Furthermore, this module allows the teacher to organize the lesson so that based on the chosen answer if the student answers it correctly, he moves on or is returned to the previous page, i.e. redirected to the page that "helps" him to solve the puzzle.

The content of this ER's puzzles spanned multiple areas of general nursing. After the instruction on the course's home page, where the ER was placed, the students solved six puzzles of different designs, and the timer started counting down 45 minutes.

For the creation of ER, the most straightforward digital tools were used, audio recordings and text materials converted to pdf format. Interactive animated content is created using multiple tools within the Genially web platform. By using the advantage of the platform, interactive approaches have been made for most puzzles to connect the content as much as possible with problems from the natural clinical environment. Each document was opened by clicking on the marked fields and paged by dragging the cursor (up and down).

After marking or entering the code in all puzzles, the parameters were set so that the student goes back one step if the answer is incorrect. In doing so, the student receives additional instructions, reads the text and/or listens to the audio track, and solves the puzzle again but the timer does not stop.

To implement the final puzzle, we used a crossword game integrated into the SOVA platform as a tool. Since this tool is dynamic, each group of students had a visually different appearance of the crossword puzzle.

CONCLUSION

In the last decade, innovative digital tools have been present in all spheres of life and education and have been affirmatively promoted in nurses' education. They significantly contribute to their education even after the pandemic, when, due to the impossibility of maintaining traditional teaching in a clinical environment, the gap in acquiring professional knowledge was filled with digital tools. However, applying these tools and their integration into innovative teaching methods such as ER requires additional

teacher engagement and training. The international collaboration of the partnership financed within the Erasmus + program, like the DEN project, allows nurse educators to become even more sensitized and empowered to apply these tools in everyday practice.

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Inovativne digitalne alatke u obrazovanju medicinskih sestara

Prof.dr.sc.med. Dragana Milutinović, Prof.dr.sc.med. Dragana Simin

Univerzitet u Novom Sadu, Medicinski fakultet, Hajduk Veljkova 3, 21000 Novi Sad, Republika Srbija

e-mail: dragana.milutinovic@mf.uns.ac.rs

dragana.simin@mf.uns.ac.rs

SAŽETAK

Primena digitalnih tehnologija u obrazovanju budućih zdravstvenih profesionalaca prepoznata je kao mogućnost za rešavanje mnogih zahteva i izazova koji se postavljaju pred obrazovne i zdravstvene sisteme, te su one sve više zastupljene, kako u akademskom, tako i celo životnom obrazovanju. Pandemija korona virusom uslovila je da se obrazovanje ubrzano, na svim nivoima i u svim oblastima, iz dominanto tradicionalnog u potpunosti prebaci u digitalni okvir. S toga su i medicinske sestre, nastavnici u visokoškolskim ustanovama, započeli primenu različitih modela inovativnih digitalnih tehnologija. Rekreativna igra Escape room (ER), koja je u poslednjoj deceniji stekla globalnu popularnost, inspirisala je medicinske sestre nastavnike da je primene u obrazovnom okruženju. Prema definiciji ER je igra u kojoj tim igrača otkriva tragove, rešava zagonetke i obavlja zadatke u jednoj ili više soba, kako bi u ograničenom vremenu postigao određeni cilj, najčešće „beg iz sobe“. U obrazovnoj ER se zagonetkom nazivaju svi problemi, izazovi i aktivnosti, dok termin soba podrazumeva prostor u kom se realizuje. Prema tome, obrazovna ER može biti on-situ i on-line. ER je u obrazovnom okruženju našla svoje mesto, jer u prostore za učenje donosi vremenski ograničene autentične situacije iz realnog profesionalnog okruženja, koje od studenata, da bi uspešno završili misiju i „pobegli iz sobe“, pored angažovanja koje podstiče kritičko mišljenje, zahteva i da intenzivno međusobno komuniciraju i sarađuju. U ovom radu je prikazana primena on-line obrazovne ER na predmetu Opšta zdravstvene nega.

Ključne reči: *digitalne tehnologije, sestrinstvo, obrazovanje, soba za bekstvo*

Nursing professional standards and ethical conduct

Dragica Stojanović, Vesna R. Jovanović, Sanja Stanisavljević, Dragana Terzić Marković i Zvonko Dimoski
Akademija strukovnih studija Beograd, Odsek Visoka zdravstvena škola, Cara Dušana 254, 11080 Beograd - Zemun, Republika Srbija

ABSTRACT
Introduction: The profession of "Nursing" is dynamic and keeps up with the growing demands of health care with changes in scope of practice, roles, competencies and responsibilities. Current and future health care systems require a professional nurse who can provide comprehensive care that meets the complex and diverse needs of patients and should be able to combine different sources of information and incorporate them into decision-making and nursing practice.
Regardless of the role, speciality or surroundings in which nurses work, the professional practice standards should be applied as an important tool for guiding practice, self-assessment, evaluation and a framework for defining and developing competencies.
As a basic standard of nursing care, the nursing process was first described by Lydia Hall (an American nursing theorist) back in 1955. The first standards of nursing practice were published by the American Nurses Association (ANA) in 1973 and have been developing since then. The last revision of these standards was done in 2021. Even today, there is a dilemma regarding the application of standards in the nursing profession in our area.
Aim: Understanding the importance of implementing professional standards in nursing practice and their impact on professional development, quality of health care and ethical behavior.
Method: Descriptive analytical approach.
Conclusion: Defining competencies and implementing standards (standards that describe a competent level of nursing practice and standards of professional action) in nursing practice is a necessary need to define the profession's responsibility to the public and client outcomes for which nurses are responsible. Ethical behaviour is contained in every standard of nursing work and action.
Keywords: professional standards, nurse, ethical conduct

INTRODUCTION

An accountability-based management system is a dominant feature of the professional practice model. Accountability and authority are established in certain processes, not in certain individuals who determine the nurse's responsibilities. In order to meet the growing needs for health care services, it is necessary for

the nurse to assume responsibility that must be supported by: competencies, standards of practice, ethical behavior and standards of professional action. In the current conditions, in our region, the nursing profession does not have a legitimate role in decisions related to nursing practice. Changes and efforts in defining competences and standards are necessary in order for nurses to assume legal, moral and institutional responsibility. Particularly significant responsibilities are the responsibilities defined by the International Council of Nurses (ICN), which derive from the basic roles of nurses, as well as the responsibilities contained in the new definition of health care: "Health care is the diagnosis and treatment of human responses and advocacy in the care of individuals, families, groups, communities and populations in recognition of the connectedness of all humanity. Health care integrates the art and science of care and focuses on the protection, promotion and optimization of health and human functioning; prevention of diseases and injuries; facilitating treatment; and alleviating suffering through compassionate presence...” (1)

OBJECTIVE OF THE WORK

Understanding the importance of implementing professional standards in nursing practice and their impact on professional development, quality of health care and ethical behavior.

DISCUSSION

Nursing competencies are the key abilities needed to fulfill nursing responsibilities defined by nurse roles. They determine nursing education, practice, lifelong learning and the quality of services that nurses provide. The concept of nursing competence is not fully developed in many countries, so there is an urgent need to regulate this area.

The competence of a nurse defines the expected and measurable level of the nurse's work ability, which unites: knowledge, skills, abilities and the ability to assess based on scientific knowledge, in accordance with the standards of nursing practice. A nurse should be competent in each standard of practice.(2) The study of conceptual analysis looks at nursing competence from three theoretical aspects: behaviorism, trait theory and holism. Behaviorism refers to competence as the ability to perform individual basic skills and is assessed by demonstrating those skills. Trait theory considers competence as individual traits necessary for effective performance of duties (knowledge, critical thinking skills...). Holism views competence as a set of elements, including knowledge, skills, attitudes, thinking ability and values that are required in specific contexts. Nursing competence is generally viewed as a complex integration of knowledge, including professional judgment, skills, values and attitude, indicating that holism is widely accepted.(3)

Standards of professional nursing practice are “authoritative statements of actions and behaviors that all nurses, regardless of role, population, specialty, and setting, are expected to perform competently.(4)

These are statements in which the profession of "nursing" describes the responsibility of its members. The standards also define the nurse's responsibilities to the public. They reflect the values and priorities of the profession and provide direction for the professional practice of nursing and a framework for evaluating this practice. Competencies that accompany each standard can be evidence of compliance with the corresponding standard. The significance of the standard stems from the following facts:

- state what the profession expects from its members,
- enable self-assessment and evaluation of practice,
- provide a framework for the development of competences and
- define the responsibilities of the nurse.(4)

Standards are set by several organizations. During the development and revision of standards, the following are included: professional associations and organizations of nurses, agencies for certification, accreditation and improvement of the quality of health care, which should be in accordance with the Law on Nursing of a certain state. It is important to note that professional organizations (associations, associations, chambers) prescribe two important documents:

a) Code of Ethics for Nursing, which establishes an ethical framework for nursing practice for all roles, levels and settings.

b) Scope and standards of practice that describes the scope of professional practice of a nurse and defines "who", "what", "where", "when", "why" and "how" the professional practice is carried out. It also sets competency standards for each practice standard.

The American Nurses Association (ANA) in its latest revision of the standards "Scope and standards of practice 4th ed." (2022) defined 18 standards of professional practice and development.

Dickerson and Durkin describe that the first six standards constitute the nursing process and define a competent level of nursing practice based on a model of critical thinking known as the nursing process..(5) This process includes the following standards: Assessment, Diagnosis, Outcome Identification, Planning, Implementation and Evaluation.

The first standard "Assessment" has been expanded to include the use of evidence-based assessment techniques to gather relevant data. The standard also includes creating a safe environment for assessing competencies for this standard.

Standard 5 - Implementation, has two subcomponents: standard 5A - Coordination of care and standard 5B - Health education and health promotion. Competencies in standard 5A include coordination and recognition of interprofessional team members in plan implementation, and competencies in new standard 5B include promotion of healthy lifestyles.

The standards of professional action consist of 12 standards that describe the professional behavior of nurses, including activities related to ethical behavior, advocacy, respect and fair practice,

communication, cooperation, leadership, education, scientific research, quality of practice, evaluation of professional practice, resource management and environmental health.(1)

Ethical behavior is one of the standards of the professional action of nurses (standard 7). Nursing ethics differs from medical ethics in that it focuses on caring for the patient and understanding the relationships and needs of people involved in ethical decision-making. It is defined as the promotion of the client's value and well-being, and is based on the following values: human dignity, precision and accuracy in care, professional competence, responsibility, social justice, empathy and respect for the patient. Ethics regulates rights and responsibilities and directs moral decision-making. Ethical behavior includes the application of a holistic approach (viewing human needs through all eight dimensions of health). The basic concepts of work in ethical behavior are: advocacy, cooperation, care and responsibility. The nurse is responsible on several levels and in her work demonstrates the following responsibilities: legal, moral, institutional, as well as responsibilities arising from the roles and definition of healthcare.

The moral responsibility of nurses is regulated by the Code of Ethics. The Code is a statement of professional values and responsibilities in order to implement ethical practice. It serves as a foundation on which professional standards can be built and a framework for solving the ethical dilemmas faced by nurses. The International Council of Nurses (ICN) first defined the Code of Ethics for Nurses in 1953 and since then the Code has guided nursing practice worldwide. Changes in health care and society as a whole and changes in the roles and responsibilities of nurses require that the code be revised regularly. The latest revision (2021) of the International Council of Nurses (ICN) Code of Ethics lists four aspects that represent the main elements of ethical behavior: (6)

• nurses and patients or other persons in need of services
• nurses and practice
• nurses and the profession
• nurses and global health.

The main change in the revised edition is the addition of a section on global health, where the advocacy role of nurses in solving inequalities in health care is particularly emphasized. Current ethical issues are an integral part of the mentioned code: media influence, artificial intelligence in healthcare, consequences of environmental and climate changes, appropriate education.

Ethical dilemmas can arise from patient care situations or interactions with co-workers and are always accompanied by a conflict of a personal value system with a specific decision or course of action. During their work, nurses encounter complex ethical problems. Some of the questions are: What to do in this situation? What is the right thing to do? How to be sure and convinced that decisions and actions in a given situation are morally correct? The nurse may experience the aforementioned dilemmas as a violation of ethical principles or a moral discrepancy, which consequently has an impact on the nurse's

health. Decisions made by nurses should be aligned with professional standards, ethical principles and quality of care.

CONCLUSION

Nursing as a profession needs to take responsibility for professional development and practice. It is necessary to make an effort to implement standards of practice, standards of professional action and competencies that accompany each standard in nursing practice. It is very important that practical nurses cooperate with institutions that educate nurses in this field. Permanent professional education is an important element for acquiring and maintaining competences.

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Profesionalni standardi za medicinske sestre i etička postupanja

Dragica Stojanović, Vesna R. Jovanović, Sanja Stanisavljević, Dragana Terzić Marković i Zvonko Dimoski

Akademija strukovnih studija Beograd, Odsek Visoka zdravstvena škola, Cara Dušana 254, 11080 Beograd - Zemun, Republika Srbija

SAŽETAK

Uvod: *Profesija medicinska sestra je dinamična i prati rastuće zahteve zdravstvene zaštite sa promenama u obimu prakse, ulogama, kompetencijama i odgovornostima. Sadašnji i budući sistemi zdravstvene zaštite zahtevaju profesionalnu medicinsku sestru koja može da pruži sveobuhvatnu negu koja zadovoljava složene i različite potrebe pacijenata i treba da bude u stanju da kombinuju različite izvore informacija i da ih ugrade u donošenja odluka i sestrinsku praksu.*

Bez obzira na ulogu, specijalnost ili okruženje u kome rade medicinske sestre treba da primenjuju standarde profesionalne prakse kao važan alat za usmeravanje prakse, samoprocenu, evaluaciju i okvir za definisanje i razvoj kompetencija.

Sestrinski proces kao osnovni standard nege prvi put je opisala Lydia Hall, (američka teoretičarka sestrinstva) davne 1955. godine. Prve standarde sestrinske prakse objavilo je Američko udruženje medicinskih sestara (ANA) 1973. godine i od tada ih je razvijalo. Poslednja revizija ovih standarda je urađena 2021. godine. Na našim prostorima i danas u sestrinskoj profesiji postoji dilema o primeni standarda.

Cilj rada: *Razumevanje značaja implementacije profesionalnih standarda u sestrinsku praksu i njihovog uticaja na profesionalni razvoj, kvalitet zdravstvene nege i etičko postupanje.*

Metod rada: *deskriptivno- analitički.*

Zaključak: *Definisanje kompetencija i implementacija standarda (standardi koji opisuju kompetentan nivo sestrinske prakse i standarda profesionalnog delovanja) u sestrinsku praksu je neophodna i vitalna potreba kako bi se definisala odgovornost profesije prema javnosti i ishodima klijenata za koje su odgovorne medicinske sestre. Etičko postupanje sadrži se u svakom standardu sestrinskog rada i delovanja.*

Ključne reči: *profesionalni standardi, medicinska sestra, etično postupanje*

CORRESPONDING AUTOR:

Dragica Stojanović, nastavnik praktičnih veština,

e-mail: dragica026@gmail.com

Competencies according to education levels necessary for the standardization of health care

Doc.dr.sc. Ivona Ljevak

Fakultet zdravstvenih studija, Sveučilišta u Mostaru, Zrinskog Frankopana 34, 88000 Mostar, Bosna i Hercegovina

e-mail: ivonaljevak@gmail.com

ABSTRACT

Nursing encompasses independent and joint care of individuals of all ages, families, groups and communities, sick and healthy, regardless of context. The newly created document "Book of professional competencies in the field of health care in FBiH will serve nurses-technicians as guidelines for performing those activities that are foreseen by the level of education, users of health services and the employer. It will inform them about what can and should be expected from nurse-technicians, and will clearly determine the level of rights, duties and responsibilities of nurse-technicians in their area of work - health care.

In Bosnia and Herzegovina, the education of nurses is divided into two levels: basic education, secondary vocational school for nurse-technicians and high level of education, undergraduate and graduate professional or university nursing studies. The level of the university graduate study in nursing enabled nurses-technicians in Bosnia and Herzegovina to further vertical education at the level of doctoral studies. The education must meet all the conditions in order for the nurse-technician to be fully a member of a multidisciplinary and multiprofessional health team, in which she makes decisions equally, assumes the role of team leader as necessary and is responsible for the achievement of the intended goals.

Nursing practice must be regulated by legal acts, and the same will help nurse-technicians in making decisions and taking actions that must be in accordance with legal principles, thus protecting the nurse-technician from liability. Therefore, it is necessary to regulate the practice of nurse-technicians in order to ensure a standard for achieving safe practice, and one of the ways is to define the professional competences of all levels of education in FBiH.

INTRODUCTION

Nursing encompasses independent and joint care of individuals of all ages, families, groups and communities, sick and healthy, regardless of context. Nursing primarily includes health promotion, disease prevention, as well as caring for sick, disabled and dying people. Promoting and advocating for a

healthy environment, research, participation in the creation of health policy and management of the health system and patients, as well as education, are key elements of nursing.

Competences of nurse technicians are a combination of skills, knowledge, attitudes, values, abilities and judgement, which enable the valid performance of health care. Competencies are the level of implementation that shows the effective use of all elements (1).

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Competences of nurse technicians are a combination of skills, knowledge, attitudes, values, abilities and judgment, which enable the valid performance of health care. Competencies are the level of implementation that shows the effective use of all elements (1).

THE PURPOSE OF THE COMPETENCIES OF NURSE TECHINICANS

Competences serve nurses-technicians as guidelines for performing those activities that are foreseen by the level of education, users of health services and the employer. They are informed about what can and should be expected from a nurse-technician. Competencies also clearly determine the level of rights, duties and responsibilities of nurse-technicians in their field of work – health care.

Competent nurse technicians understand:

• that all services in the field of health care must be directed towards the patient, he is a partner in the decision-making process and implementation of health care;

• that the goal of all activities of nurse-technicians is to achieve the planned outcome for the patient and prevent possible harm (injury, breach of privacy...);

• that there is a constant need for the improvement and education of theoretical and practical knowledge, and the creation of conditions for critical professional evaluations;

• that nurse-technicians should always carry out their activities in accordance with professional and professional requirements, regardless of politics or different requirements of the work environment (2).

DEVELOPMENT OF PROFESSIONAL COMEPTENCIES IN FBiH

Today, nursing is faced with numerous challenges and requirements in reaching a satisfactory level of quality, health care safety, but also the safety of the nurses-technicians themselves in the work process. Thanks to the great commitment, effort and work of the nurse-technicians, the increasingly complex forms of disease, the introduction of more demanding methods and procedures in health care, caused changes in nursing, but also in education (3).

In Bosnia and Herzegovina, the education of nurse-technicians can be divided into two levels: basic education, secondary vocational school for nurses and higher education, undergraduate and graduate professional or university nursing studies. The level of the university graduate study in nursing enabled nurses-technicians in Bosnia and Herzegovina to further vertical education at the level of doctoral studies. From the above, it is clear that the education of nurses must meet all the conditions in order for the nurse-technician to be fully a member of a multidisciplinary and multiprofessional health team in which they make decisions equally, and if necessary assume the role of team leader and responsibility for the achievement of the intended goals.

According to the document of the European Federation of Nursing Associations (EFN) for the implementation of the EU directive 2013/55/EU, which in Article 31 determines the minimum requirements for the education of nurse-technicians for general health care and includes a series of eight competencies. The starting point for the general competences chapter is the relationship between the eight competences, which contains the following propositions: culture, ethics and values; health promotion and prevention, guidance and teaching; decision making; communication and teamwork; research, development and management; health care (4). According to the directive, they are owned by health care providers, nurse-technicians with secondary and higher education, within their competences and responsibilities. The competencies and professional activities of health care are defined in more detail through the prism of responsibility and professional activities, in the chapters on ensuring basic life needs and other health care activities (5,6).

Accordingly, the need to develop professional nursing competitions in the Federation of Bosnia and Herzegovina (FBiH) was imposed. That's it in 2021/22. year, with the support of the Project for Strengthening Nursing in Bosnia and Herzegovina (ProSes), which is financed by the Swiss Agency for Development and Cooperation (SDC), the Federal Ministry of Health appointed a working group that developed a document called the "Book of Professional Competencies in the Field of Health Care". . The purpose and goal of that document is, first of all, to define activities in health care, to divide the competences of individual service providers, to have safe and high-quality implementation of health care, to plan personnel and personnel policy, and to help with the creation of job descriptions and the systematization of primary, secondary and of tertiary health care in the Federation of Bosnia and Herzegovina.

In the future, the document will be adapted to changes in educational programs and professional standards, and changed in accordance with the needs of patients and the needs of the healthcare system.

The document on the professional competences of nurses-technicians includes the basic determinations, the purpose and goals of the document, the peculiarities of the document in terms of the division of responsibilities, the demarcation of health care and the level of professional competences in the practice

of health care. The document will be subject to revision and changes in accordance with the legal and by-laws that will be developed in the coming period.

PURPOSE AND OBJECTIVES OF THE DOCUMENT

Purpose of the document:

• defining activities in health care;

• presentation of the scope of work of health care service providers;

• division of competences of individual service providers in the field of health care;

• ensuring safe and high-quality implementation of health care;

• the basis for the adoption of legal and by-laws in the field of health care;

• the basis for the implementation of the European Union (EU) directive.

Objectives of the document:

• personnel planning and personnel policy in the field of health care;

• job description and job systematization;

• determining the competencies of health care service providers;

• preparation and renewal of formal educational programs;

• preparation and renewal of informal educational programs;

• organization and development of work within the health sector.

DEVELOPMENT AND LEVELS OF PROFESSIONAL COMPETENCIES

Education in the EU for health care service providers takes place at different levels, therefore the preparation and development of the document was guided primarily by international guidelines/directives that describe the levels of competences in health care related to the education achieved, but also the already developed competences of neighboring countries. above all Slovenia and Croatia.

When designing the document and the level of professional competences, we started from the professional competences that were acquired during schooling and the competences that the service provider acquires during lifelong and continuous education. Therefore, competencies were developed for two levels of education, secondary and higher vocational education.

It is clear that a nurse-technician can plan, prepare, perform independently or assist, and evaluate some competencies from the health care process. Additional education of nurse technicians is required for certain competencies. The designation of additional education implies the education of services in the field of health care from which sufficient knowledge and skills were not acquired during formal education. Education in this case is mandated by the health institution, professional standards, accreditation standards of the quality system and the Ministry of Health.

DEVELOPED COMPETENCIES BASED ON VIRGINIA HENDERSON'S THEORY

The document describes the competencies of nurse-technicians, which are based on the theory of health care according to Virginia Henderson (1,7):

- breathing and blood flow,
- food and liquid intake,
- elimination of stool and urine,
- mobility and position of the patient,
- sleep and rest,
- putting on and taking off clothes,
- maintenance of normal body temperature,
- maintenance of personal hygiene,
- providing a safe environment,
- communication in healthcare,
- expressing religious needs,
- work therapy and creative activities,
- leisure and recreation,
- educating the patient about health care and prevention of disease complications.

DEVELOPED COMEPTENCIES IN THE FIELD OF PROFESSIONAL ACTIVITES

The professional activities of the nurse-technician related to:

- organization of work and professional development,
- quality and safety system management activities,
- prevention of infections,
- mental and physical preparation of the patient for medical-technical procedures,
- preparation and application of medicines,
- diagnostic and therapeutic procedures,
- sterilization.

DEVELOPED GENERAL COMPETENCIES IN THE FIELD OF HEALTH CARE

The starting point for the general competences chapter is the relationship between the eight competences, which contains the following propositions:

- culture, ethics and values;
- health promotion and prevention, guidance and teaching;
- making decisions;
- communication and teamwork;

• research, development and management;
• general health care competencies (2,8,9).

Two levels of competence are described, the first (1st) newly refers to the professional competences of secondary vocational education, and the second (2nd) newly to the professional competences of higher vocational education (180/240 ECTS).

PROFESSIONAL COMPETENCIES OF SECONDARY VOCATIONAL EDUCATION (LEVEL 1.)

A nurse-technician has those competencies that are acquired after graduating from secondary medical school, completing an internship and passing a professional exam. In accordance with the acquired professional competencies, he can perform part of the health care activities and the diagnostic-therapeutic program independently, and part of the activities he assists in the health care team, which is led by a nurse-technician with a university degree. The nurse-technician plans, monitors, evaluates, documents and reports on her work in direct and indirect health care.

PROFESSIONAL COMPETENCIES OF HIGHER PROFESSIONAL EDUCATION (LEVEL 2.)

The nurse technician is the leader of the health care team. Determines health care needs, sets goals, and plans, implements, evaluates, and documents health care. In doing so, it includes associates in the health care team and in the medical team. It operates in accordance with the competencies under Directive 2013/55/EU (5).

The updated EU Directive 2013/55/EU, in Article 31, determines the minimum educational requirements for general health care nurses and includes a series of eight competencies:

• Competencies for independent diagnosis of medical care require the use of current theoretical and clinical knowledge, as well as planning, organization and execution of medical care when treating a patient based on acquired knowledge and skills;
• Competence for effective cooperation with other medical personnel, including participation in practical training of health workers, based on acquired knowledge and skills;
• Competencies for empowering the individual, family and community to lead a healthy lifestyle and personal care based on acquired knowledge and skills;
• Competencies for independent initiative when taking emergency measures to save life and carrying out measures in crisis and disaster situations;
• Competencies for independent advice, guidance and support for individuals in need of health care;
• Competencies to independently ensure quality health care and to assess it;
• Competencies for comprehensive and professional communication and cooperation with representatives of other professions in healthcare;
• Competences to analyze the quality of health care in order to improve their professional work (5,6).

CONCLUSION

Nursing is a profession that has its own importance and direct impact on the life, health and well-being of the individual, family and community. It is necessary to regulate the practice of nurse-technicians in order to ensure a standard for achieving safe practice, and one of the ways is to define the professional competencies of all levels of education in FBiH. Nursing practice must be regulated by legal acts when taking actions that must be in accordance with legal principles, and the same will help the nurse-technician in making decisions and protect her legally.

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Kompetencije prema nivoima obrazovanja neophodne za standardizaciju zdravstvene njege

Doc.dr.sc. Ivona Ljevak

Fakultet zdravstvenih studija, Sveučilišta u Mostaru, Zrinskog Frankopana 34, 88000 Mostar, Bosna i Hercegovina

e-mail: ivonaljevak@gmail.com

SAŽETAK

Sestrinstvo obuhvata samostalnu i zajedničku njegu pojedinaca svih uzrasta, obitelji, grupa i zajednica, bolesnih i zdravih, bez obzira na kontekst. Novonastali dokument „Knjiga profesionalnih kompetencija iz oblasti zdravstvene njege u F BiH će služiti medicinskim sestrama-tehničarima kao smjernice za obavljanje onih aktivnosti koje su predviđene nivoom obrazovanja, korisnicima zdravstvenih usluga i poslodavcu. Informirat će ih o tome što se može i smije očekivati od medicinske sestre-tehničara, te će jasno određivati nivo prava, dužnosti i odgovornosti medicinskih sestara-tehničara u njihovom području rada–zdravstvenoj njezi.

U Bosni i Hercegovini obrazovanje medicinskih sestra dijelimo na dvije razine: temeljna obrazovanja, srednja strukovna škola za medicinske sestre-tehničare i visoki stupanj obrazovanja, preddiplomski i diplomski stručni ili sveučilišni studiji sestrinstva. Razina sveučilišnog diplomskog studija sestrinstva omogućila je medicinskim sestrama-tehničarima u Bosni i Hercegovini daljnju vertikalnu naobrazbu na razini doktorskih studija.

Obrazovanje mora zadovoljiti sve uvjete kako bi medicinskih sestara-tehničara u potpunosti bila član multidisciplinarnog i multiprofesionalnog zdravstvenog tima, u kojem jednakopravno donosi odluke, prema potrebi preuzima ulogu vođe tima i odgovornost za postignuće predviđenih ciljeva.

Sestrinska praksa mora biti uređena pravnim aktima, a istim će pomoći medicinskim sestrama-tehničarima u donošenju odluka i poduzimanju radnji koje moraju biti u skladu s pravnim načelima, te na taj način i zaštiti medicinsku sestru-tehničara od odgovornosti. S toga je nužno regulirati praksu medicinskih sestara-tehničara kako bi se osigurao standard za postizanje sigurne prakse, a jedan od načina je definiranje profesionalnih kompetencija svih razina obrazovanja u F BiH.

Use of innovative teaching models in nursing study programmes

Marijana Neüberg, Tina Košanski, Zoran Žeželj, Mateja Križaj, Tomislav Meštrović

Sveučilište Sjever, Sveučilišni centar Varaždin, Jurja Križanića 31b, 42000 Varaždin, Republika Hrvatska

ABSTRACT

Introduction: In today's higher education, the focus in class has been gradually shifting from the teacher as the central figure in the teaching process, to the students. Traditional forms of teaching can no longer satisfy all the intellectual and social needs of students. Therefore, it is necessary to use innovative models that promote active involvement of students in the process of acquiring knowledge and competencies, thus facilitating the achievement of educational goals.

Methods: A cross-sectional study was conducted using a convenience sample of 328 participants. The participants were nursing students (N=186) and their teachers and mentors in practical sessions (N=142). Previously designed questionnaires for nursing students and mentors/teachers were used to collect data.

Results: Mentors/teachers apply most innovative teaching models 'often' or 'very often' in class. As many as 97.1% of mentors/teachers report that they use problem-based learning; however, 63.2% of students report 'never', 'rarely' or 'sometimes' encountering this type of teaching. More than 85% of mentors/teachers are interested in receiving training on innovative teaching models.

Discussion and conclusion: Teachers/mentors and students have a positive attitude towards innovative teaching models. Both respondent groups believe that such models should be used in all forms of teaching. Mentors/teachers are highly motivated for using these models in teaching.

Keywords: innovative teaching models, teachers, mentors, students, teaching

INTRODUCTION

The interaction between teachers and students is extremely important for the success of the teaching process. However, due to the changes driven by the use of modern technologies in education, the focus has gradually shifted from the teacher as the central figure in the teaching process, to the students. The quality of teaching at higher education institutions depends on at least three factors, i.e. teacher competency and experience, learning objectives, and student engagement in the classroom. Higher education institutions have an obligation to ensure that the education they provide meets the expectations of students as well as the demands of the labour market. Teaching quality management, especially in higher education, is considered an essential precondition for its development. Teachers are required to impart quality knowledge to a diverse population of students with different expectations. In the past, up to 10% of population undertook higher education and these were mostly highly motivated students dedicated

solely to their studies, while nowadays most students study while in employment and have different interests, abilities, and prior knowledge (1). Not only is the student population changing but also the goals of studying are becoming more and more challenging. It is no longer possible to meet such complex goals using traditional teaching methods such as lectures or practical classes (2). Regardless of whether the study programme is in social, natural, technical, or health sciences, lectures are the predominant teaching method compared to other forms of teaching, i.e. seminars, practical classes, and practicums. Traditional forms of teaching can no longer satisfy today's intellectual and social needs of students (1). New generations of students prefer the mixed/hybrid model of teaching, i.e. the combination of traditional teaching methods and innovative ones that require a different organization of teaching and management of the teaching process. Instead of teacher-centred classes, they expect participation in groups and individual projects (3). Today, high expectations are placed on young people, future nursing students included; among other things they are expected to acquire adequate knowledge, clinical experience, and critical thinking skills; they should be dynamic and creative and develop professional communication skills. Thus, it is necessary to promote active involvement of students in the acquisition of knowledge and competencies, which can be achieved through innovative teaching models. Among others, they include the exploration and discovery teaching method, whereby, under the guidance of their teacher, students discover new facts or draw conclusions using their experience and critical thinking. Problem-based learning is another innovative teaching strategy where students are faced with a problem they have not encountered before and asked to find new ways, and develop new procedures or paths to solving it. Pair work is a frequently used innovative model; it involves students working in pairs to discuss and exchange ideas. Various sources of knowledge, such as models, textbooks, manuals, graphs and images, etc. are used in this type of teaching. Group work helps students develop stronger communication skills and increases their motivation. Debate is a useful interactive exercise for exchanging ideas and opinions. Simulation is a model in which certain social events, natural phenomena, processes or practical actions are imitated or mimicked. Role-play is an innovative model based on a loose script and background information that encourages students to learn by immersion and to connect theory with practice (4). The benefits of these innovative teaching models for students are that they facilitate information exchange, develop critical thinking, promote independent problem solving, and give students the opportunity to use different media and sources for learning, in contrast to traditional learning where a textbook is the main source of information. Barriers to the use of innovative models by teachers are insufficient training and motivation, lack of technical infrastructure, and lack of time (5), which suggests there is a need for additional training of teachers and mentors.

MATERIAL AND METHODS

Research objectives

The objectives of this research were to:

- determine the frequency of use of innovative and traditional teaching models from the perspective of students and from the perspective of mentors in practical sessions and teachers;
- examine the perception of students as well as the perception of mentors and teachers about the impact of innovative teaching models on learning content acquisition;
- determine the level of motivation of mentors and teachers for the use of innovative teaching models;
- determine the level of competency and the need for additional training of mentors and teachers on the use of innovative teaching models.

Sample

A quantitative approach was used. A cross-sectional survey was conducted using a convenience sample of 328 participants. The participants were nursing students (N=186) and their mentors and teachers (N=142).

Instrument

Previously designed questionnaires for nursing students, mentors and teachers were used to collect data. The first part of the questionnaire for students collected data on gender, age, and year of study, while the second part examined the level of general satisfaction with teaching, the frequency of encountering innovative and traditional teaching models in class, and their opinion about them. The questionnaire for mentors and teachers included questions about gender and age as well as statements about the frequency of using innovative and traditional teaching models in the classroom and practical sessions, statements concerning self-assessment of motivation to use these models, and statements concerning self-assessment of the need for further training on the use of innovative teaching models. The participants were given a choice of possible answers to a statement or question on a Likert scale (where 1 means 'strongly disagree', 5 means 'strongly agree', 1 means 'never', and 5 means 'very often').

Data collection procedure and statistical analysis

The research was conducted during the month of November 2022. A survey questionnaire was used as a data collection tool. A Google Forms survey was created and the questionnaire was e-mailed to students, mentors/teachers of the Nursing Department of University North. The survey was voluntary and anonymous, and the participants could withdraw at any time. A descriptive method of data presentation was used in statistical data analysis (tabular and graphical presentation, frequencies, percentages, and arithmetic mean).

RESULTS

A total of 328 participants were surveyed, of which 186 were nursing students, while the rest (N=142) were their mentors and teachers. In both groups, the participants were predominantly female and students were mostly in the younger age group (Table 1).

Table 1. Sociodemographic profile of the participants

Sociodemographic profile of mentors and teachers		**N**	**%**
Gender	Male	19	13.7%
	Female	120	86.3%
Age	25-35	15	10.6%
	36-45	61	43%
	46-55	39	27.5%
	>55	27	19%
Role	Mentor	107	75.4%
	Teacher	35	24.6%
Sociodemographic profile of nursing students			
Gender	Male	28	15.2%
	Female	156	84.8%
Age	18-29	131	72.4%
	30-39	36	19.9%
	40-49	14	7.7%
Year of study	1st year of undergraduate study programme in nursing	62	34.4%
	2nd year of undergraduate study programme in nursing	26	14.5%
	3rd year of undergraduate study programme in nursing	18	10.0%
	1st year of graduate study programme in nursing	43	23.9%
	2nd year of graduate study programme in nursing	31	17.2%

Source: Authors

The survey results indicate that mentors/teachers apply the innovative teaching models ‘often’ or ‘very often’. In class, 80.7% of them ask students questions to help them find the correct answer relying on their experience and logical thinking. The majority of students, i.e. 58.4%, agree with this. As for the

problem-based teaching model, almost all mentors/teachers (97.1%) report using it in the classroom; however, 63.2% of students report ‘never’, ‘rarely’ or ‘sometimes’ encountering this form of teaching. Pair or group work is ‘often’ or ‘very often’ encountered by 1/3 of students, while 38.9% of them ‘often’ or ‘very often’ report having the opportunity to participate in a debate to discuss a certain problem. While the majority of mentors/teachers say that they apply these teaching methods, at least one third of students state the opposite. The opinions of these two groups of respondents differ also when asked about the use of simulations and role-play as teaching models. More than half of the students and mentors/teachers report that the traditional model of teaching, i.e. where the teacher delivers a lecture and students listen, is still predominantly used in the classroom. Content studying and independent interpretation by the students are ‘rarely’ or ‘never’ used as teaching methods, as reported by both the students (53.5%) and their mentors/teachers (63.5%) (Table 2).

Table 2. Frequency of use of innovative and traditional teaching models

Statement		**Never**	**Rarely**	**Sometimes**	**Often**	**Very often**
In class, I ask students questions to help them give the correct answer relying on their experience and logical thinking skills.	Mentors/teachers	0 (0%)	4 (2.8%)	23 (16.4%)	70 (50%)	43 (30.7%)
	Students	0 (0%)	25 (13.5)	52 (28.1%)	82 (44.3%)	26 (14.1%)
In class, I present the students with a problem they have not encountered before, to promote creative thinking and independence in finding new ways and paths to solving the given problem.	Mentors/teachers	0 (0%)	4 (2.8%)	37 (26.4%)	63 (45%)	36 (25.7%)
	Students	5 (2.7%)	43 (23.2%)	69 (37.3%)	54 (29.2%)	14 (7.6%)
In class, students are divided into pairs to work on a specific assignment together.	Mentors/teachers	15 (10.8%)	25 (18%)	38 (27.3%)	36 (25.9%)	25 (18%)
	Students	18 (9.7%)	52 (28.1%)	59 (31.9%)	41 (22.2%)	15 (8.1%)
In class, students are	Mentors/teachers	16	26	38	37	22

organized into groups of three or more to work on a specific assignment together.		(11.5%)	(18.7%)	(27.3%)	(26.6%)	(15.8%)
	Students	16 (8.6%)	51 (27.6%)	61 (33.0%)	45 (24.3%)	12 (6.5%)
In class, students participate in a debate to discuss a certain problem.	Mentors/teachers	6 (4.3%)	16 (11.5%)	34 (24.4%)	51 (36.7%)	32 (23%)
	Students	15 (8.1%)	44 (23.8%)	54 (29.2%)	51 (27.6%)	21 (11.3%)
In class, students participate in simulations where they simulate certain skills, situations, problem-solving, etc.	Mentors/teachers	19 (13.6%)	14 (10%)	37 (26.6%)	48 (34.5%)	21 (15%)
	Students	30 (16.2%)	49 (26.5%)	53 (28.6%)	35 (19.0%)	18 (9.7%)
In class, students play the roles and solve the assignments given to them by teachers (e.g. nurse-patient role).	Mentors/teachers	30 (21.4%)	25 (17.8%)	37 (26.4%)	33 (23.6%)	15 (10.7%)
	Students	34 (18.4%)	57 (30.8%)	50 (27.0%)	33 (17.8%)	11 (6.0%)
In class, the teacher holds a lecture and presents the content (using the board, PowerPoint, or a model), and the students listen.*	Mentors/teachers	18 (12.7%)	27 (19.1%)	37 (26.2%)	38 (26.9%)	21 (14.9%)
	Students	2 (1.1%)	11 (6.0%)	34 (18.4%)	58 (31.3%)	80 (43.2%)
In class, students read the learning content (e.g. from textbooks or professional papers) which they then interpret independently, in pairs or in groups.*	Mentors/teachers	52 (37.1%)	37 (26.4%)	31 (22.1%)	14 (10%)	6 (4.3%)
	Students	38 (20.5%)	61 (33.0%)	54 (29.2%)	25 (13.5%)	7 (3.8%)

Note: *traditional teaching models

Source: Authors

39.1% of students would like innovative teaching models to be applied by mentors/teachers in all forms of teaching (lectures, seminars, practical classes at the University, clinical practice in health and social institutions). The remaining students would like innovative teaching models to be more frequently used in lectures (20.1%) and practical classes at the University (22.8%), while a smaller percentage of them would like to see innovative methods be used during their clinical practice in health and social institutions (14.1%) and in seminars (3.8%). The survey results also show that mentors/teachers feel motivated to use innovative teaching methods; however, as many as 62.5% of them grade their competency for using them with 1 to 3 (1 being the lowest grade and 5 the highest). An encouraging finding is that more than 85% of mentors/teachers are interested in receiving additional training on innovative teaching models and have a positive opinion about their use in class.

DISCUSSION

The results of the conducted research indicate a positive attitude of students, teachers/mentors towards innovative teaching models. The majority of students, 82 of them (44.3%), agree that teachers often ask students questions to help them find the correct answer independently using their previous experience and knowledge. This finding is supported by the answers given by mentors and teachers, 70 of whom (50%) state that they often ask students questions for the purpose of teaching. Less than half of the mentors and teachers, 63 of them (45%), state that they 'often' present the students with a problem they have not encountered before so that they use creative thinking to independently develop new problem-solving ways and paths, while 37 (26, 4%) of them report using such a model 'sometimes'. This is consistent with data collected from students reporting that they 'often', reported by 54 (29.2%) of them, or 'sometimes', reported by 69 (37.3%) of them, encounter such a teaching model in class. Mentors and teachers also use pair work 'sometimes', as reported by 38 of them (27.3%), or 'often', as reported by 36 of them (25.9%). However, 52 students, (28.1%) state they 'rarely' work in pairs to solve assignments, while 59 of them (31.9%) say that they do it 'sometimes'. Working in groups is encouraged and used by teachers and mentors 'sometimes', as reported by 38 of them (27.3%), or 'often', as reported by 37 of them (26.6%). However, 51 (27.6%) students state that they work in groups 'rarely', or 'sometimes', as reported by 61 of them (33.0%), while 45 (24.3%) of them state that this happens 'often'. Among 5 mentors and teachers, 51 (36.7%) state that students 'often' participate in a debate to discuss a problem in class. As for students, 51 (27.6%) agree with this statement, 54 (29.2%) of them state it happens 'sometimes', while 44 (23.8%) of them report 'rarely' encountering debates as a teaching method. The largest proportion of teachers and mentors, 48 of them (34.5%), state that in class students often participate in simulations where they are presented with new situations and asked to solve problems, develop skills, etc., while only 14 (10%) of them report 'rarely' using this method. In contrast, as many as 30 (16.2%) students state that simulations are 'never' used in class; 49 of them (26.5%) take part in simulations 'rarely', 53 of them

(28.6%) say it happens ‘sometimes’, while 35 of them (19.0%) claim simulations are used in class ‘often’. The largest proportion of mentors and teachers, 30 of them (21.4%), report ‘never’ using role-play as a teaching method; 37 (26.4%) state they use this technique ‘sometimes’, while 33 of them (23.6) use it ‘often’. The students’ perceptions are similar to their mentors’ and teachers’ as 50 of them (27.0%) report role-play is used ‘sometimes’; 57 of them (30.8%) report it being used ‘rarely’, while 34 of them (18.4%) report this teaching method is ‘never’ used in class. Teaching methods that promote active involvement of students increase student performance and the quality of studies (11). Gojkov (2013) finds that communication and interaction in class, where students and teachers cooperate, have proven to be conducive to learning in higher education (6). Innovative teaching models, such as group work, not only facilitate knowledge acquisition but also develop communication, teamwork, conflict resolution skills, empathy, etc., which are essential in nursing (7, 8). Traditional teaching models where the teacher or mentor gives lectures and presents the content to students (using the whiteboard, PowerPoint presentation, or a model) while students listen, is ‘often’ used by 38 (26.9%) mentors and teachers, and ‘sometimes’ used by 37 (26.2%) of them. The majority of students, 80 of them (43.2%), state that mentors and teachers use such a traditional teaching model ‘very often’, and only 2 (1.1%) students report ‘never’ encountering this model in class. Another traditional teaching model which involves students reading the content (e.g. from textbooks, professional papers, etc.) and then interpreting it independently, in pairs or in groups, is ‘never’ used by the largest proportion of teachers and mentors, 52 of them (37.1%), while 52 of them (37.1%) use it ‘rarely’. As for students, 61 (33.0%) state that they ‘rarely’ encounter such a model, 38 (20.5%) of them ‘never’, while 54 (29.2%) report encountering it ‘sometimes’. Although traditional models have certain advantages, they still need to be combined with innovative models, considering that traditional models discourage student independence and keep them passive, thus reinforcing a surface approach to learning rather than a deep approach that ensures greater acquisition of knowledge and skills (1). Students were asked to indicate on a 5-point Likert scale their agreement with the statement that innovative models would improve their understanding and learning of the teaching content more than traditional teaching models. The largest proportion of students, 59 of them (31.7%), ‘agree’ with this statement. An almost equal number of students, 56 (62.9%) of them, ‘neither agree nor disagree’, while 50 (61.4%) of them ‘strongly agree’. In contrast, the largest proportion of teachers and mentors, 79 (55.6%) of them, ‘strongly agree’ with this statement. Innovative teaching models help students develop problem-solving skills and intellectual abilities (9, 10). Research by Nikčević-Milović (2004) shows that course content is more easily acquired using innovative teaching models (11). Moreover, group work facilitates learning and retention and improves student academic performance (12, 13). Despite the fact that not many of them are convinced that innovative teaching models would help them understand and remember the learning material, 39.1% of students would like innovative teaching methods to be used in all forms of teaching; 22.8% of them believe that such methods should be used

mainly in practical classes at the higher education institution. Research also shows that the use of innovative teaching models increases student satisfaction (14, 15). Teachers and mentors are highly motivated to use innovative teaching models in class, as reported by as many as 73 (52.1%) of them, which reaffirms the importance of using them. More than half of the surveyed mentors/teachers, i.e. 77 of them (54.2%) have not received training on innovative teaching methods. On a 5-point Likert scale, the largest proportion of mentors and teachers, 61 of them (43.3), rate their competency for using these methods with 3. The vast majority of mentors and teachers, 122 of them (86.5%), are interested in receiving additional training on innovative teaching. Research by Reić-Ercegovac and Jukić (2008) shows that innovative teaching models are used less by teachers who consider that they lack the training to use them (16), which points to the importance of ensuring continuous training of both teachers and mentors.

CONCLUSION

Innovative teaching models have numerous benefits for students. In addition to facilitating the acquisition of learning content, these models develop students' communication, teamwork, and cooperation skills as well as other skills that are crucial for their future work as nursing professionals. The conducted survey shows that mentors/teachers believe that they apply most of the innovative teaching models 'often' or 'very often', while role-play is the least frequently used innovative model. They feel highly motivated to use such models, and most of them are interested in further training in this field. The students' answers are mainly in agreement with those of teachers. Students believe that innovative teaching models should be included in all forms of teaching, which is consistent with previous research findings suggesting that traditional teaching models need to be combined with innovative ones.

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Korištenje inovativnih modela poučavanja na studiju sestrinstva

Marijana Neüberg, Tina Košanski, Zoran Žeželj, Mateja Križaj, Tomislav Meštrović

Sveučilište Sjever, Sveučilišni centar Varaždin, Jurja Križanića 31b, 42000 Varaždin, Republika Hrvatska

SAŽETAK

Uvod: *Danas je u visokoškolskoj nastavi fokus postupno pomaknut s predavača, kao središnje figure u nastavnom procesu, na studente. Klasični oblici poučavanja u današnje vrijeme teško mogu zadovoljiti sve intelektualne i socijalne potrebe studenata, stoga je potrebno koristiti modele koji studente aktivno uključuju u proces stjecanja znanja i kompetencija, a upravo inovativnim modelima lakše se postižu ciljevi današnje visokoškolske nastave.*

Metode: *Provedeno je presječno istraživanje na prigodnom uzorku od 328 sudionika. Sudionici istraživanja bili su studenti studija sestrinstva (N=186) te njihovi mentori vježbovne nastave i nastavnici (N=142). Za prikupljanje podataka korišteni su prethodno konstruirani upitnici za studente studija sestrinstva te mentore/ nastavnike.*

Rezultati: *Mentori/nastavnici većinu inovativnih modela poučavanja primjenjuju često ili vrlo često tijekom nastave. Čak 97,1% mentora/nastavnika navodi kako koriste problemski model, međutim 63,2% studenata ističe kako se nikad, rijetko ili ponekad susrelo s ovim načinom rada. Više od 85% mentora/nastavnika zainteresirano je za sudjelovanje na edukaciji o inovativnim modelima poučavanja.*

Rasprava i zaključak: *Nastavnici/mentori te studenti imaju pozitivan stav prema inovativnim modelima poučavanja. Obje istraživačke skupine smatraju kako takvi modeli trebaju biti zastupljeni u svim oblicima nastave te mentori/nastavnici iskazuju visoku razinu motivacije za korištenje inovativnih modela u nastavi.*

Ključne riječi: *inovativni modeli poučavanja, nastavnici, mentori, studenti, nastava*

CORRESPONDING AUTOR:

Prof.dr.sc. Marijana Neüberg

e-mail: mneuberg@unin.hr

Innovations in the treatment of chronic wounds - new guidelines and recommendations of the European Wound Management Association (EWMA)

Mirela Bulić, bacc.med.techn.

Ustanova za zdravstvenu njegu "MIRELA-SLATINA", Vodičko 1, 21292 Tugare, Republika Hrvatska

e-mail: mirela.slatina@gmail.com

ABSTRACT

The growing problem of antimicrobial resistance (AMR) is an urgent problem that requires an immediate, global, coordinated action plan. The word "antimicrobial" is an umbrella term that refers to disinfectants, antiseptics, antivirals, antifungals, antiparasitics, and antibiotics that are used to inhibit the growth of or kill various microorganisms.

AMR refers to the phenomenon of microorganisms developing mechanisms whereby they are no longer susceptible to various agents, rendering them ineffective for treatment. Effective antimicrobial agents (including antiseptics and antibiotics) are essential for protecting patients from infection in many settings and situations, including postoperative wound infection and the management of various types of chronic wounds.

Evidence from around the world shows that common wound pathogens are increasingly becoming resistant to antibiotics. Therefore, it is essential that all wound care professionals who use systemic or topical antimicrobials are familiar with and adhere to the principles of appropriate use.

EWMA's update is structured around a 2013 document on antimicrobials and chronic wounds with the following headings: major role of bioburden in wounds, treatment, patient perspective, and economics and organization of care. Under these headings, the paper provides a supplement to the knowledge gained in each area and updated answers to the questions posed in the 2013 publication. In addition, the document includes a new section on future perspectives and antimicrobial stewardship to highlight strategies generally adopted in the field since 2013 and outline their impact on antimicrobial use in wound care.

TREATMENT

Despite the increasing number of publications related to the presence and possible treatment of biofilms in wounds, there are no significant developments in this area.

The reasons for this lack of progress are not fully understood, but we suspect that the way we imagine bacteria in the wound bed may be at least partly to blame. There seems to be too much focus on extrapolating data from studies of laboratory-grown biofilms and their behavior to bacteria in the wound

bed. In vitro biofilms and experimental systems are not wrong, but they do not fully capture the wound microenvironment.

Clinical practice is often influenced by a lack of knowledge about the role of biofilm in chronic wounds. This means that most clinicians still treat patients based on wound culture results. At the same time, at least one recent study shows that healthcare professionals have adopted an in vitro-based mental model of how bacteria grow in wounds. In addition, industry and basic researchers appear to be committed to an approach to developing in vitro-influenced wound healing strategies.

We also face problems in the treatment of chronic wounds because the standard minimum inhibitory concentration (MIC) of antibiotics is not transferable to wounds, and in vitro biofilm sensitivity only reveals that the bacteria are more tolerant. Eventually, resistance to any topical antimicrobial is likely to develop. Therefore, continuous and proactive monitoring of resistance is necessary. In experiments, bacteria treated with honey, povidone iodine, octenidine, polyhexanide and chlorhexidine in vitro did not show that they develop resistance, but additional research is needed.

One could argue that the reason so many dressings and antimicrobials fail to eradicate bacteria from chronic wounds and other chronic infections is because they are designed only for planktonic bacteria. Susceptibility testing of sessile bacteria in biofilms is not widely available in clinical microbiology laboratories—only in research settings. However, in the future, it will be important to evaluate the efficacy of antimicrobial agents in biofilm bacteria, as new drugs and devices are being developed to combat biofilm bacteria.

The development of assays and techniques to improve tissue sampling and analysis, imaging technology, and scientific advances in cellular and molecular biology have enabled the development of more "objective" wound outcome parameters for assessment of both wound status and treatment intervention. However, assays using physiological changes and molecular biology to assess wound healing are still not widely used outside of preclinical research settings. A challenge, especially in chronic wounds, remains that objective endpoints (preferably assessed by an independent observer) are difficult to achieve.

THE PATIENT'S PERSPECTIVE

There is currently a growing interest in understanding the individual's perspective on their own treatment and care. "The patient's perspective" is defined as the individual experience of living with a chronic wound and its impact on the person, including the physical, psychosocial and goal-oriented dimensions of the disease and its treatment.

Evidence shows that patients expect healthcare professionals to inform them not only about the most accurate, but also about non-standard treatment options. In the management of wounds with a problematic bioburden, accurate and ongoing assessment is necessary to ensure accurate identification of the patient's

clinical needs, in order to apply the most appropriate interventions. However, with the growing threat of antibiotic resistance, antibiotics should only be used when necessary.

We believe that achieving a reduction in the inappropriate use of antimicrobials for wound care requires the involvement of not only healthcare personnel, but also the empowerment of affected patients and their families. This can be achieved through the efforts of a properly constructed interdisciplinary wound care team. Nurses, physicians, pharmacists, and other team members need patient care and teaching skills, as well as sufficient time to assess and treat these complex patients.

Judicious use of antiseptic products and antibiotic therapy is critical to providing safe and effective patient care and limiting the emergence of drug-resistant organisms. Education and training for patients and clinicians, application of integrated standards of care, ensuring good communication and teamwork are essential to ensure appropriate use of antimicrobials. This in turn will help achieve a strong patient safety culture within healthcare services that will drive improved clinical outcomes.

Patients with chronic wounds need a care plan that often continues for months, years, or even a lifetime. Patients and their families should receive information about how to treat the wound, participate in decision-making and be satisfied with the care provided. However, patients and their families often receive too little support, information and advice from health professionals and are not well involved in the planning of wound care interventions.

Evidence shows that involving patients in the decision-making process about their care can increase their motivation and knowledge. The need for patient participation may change over the course of their illness, influenced by factors such as patient age, wound duration, underlying disease, level of education and literacy. Healthcare professionals must therefore explore each patient's perspective to gain insight into the complex issues affecting their individual patient's life. Providing proactive wound care while incorporating the patient's perspective can improve wound outcomes and encourage the patient to become an active partner in their care.

ECONOMICS AND ORGANIZATION OF WOUND CARE

Annual wound prevalence increased by 71% between 2012/2013. and 2017/2018. During this period, there was a significant increase in the use of resources, and the cost of treating patients increased by 48% in real terms. Corresponding data have been presented in various countries/regions of the western world and are associated with an increasing number of elderly populations, an increased prevalence of diabetes and individuals with multi-organ diseases.

It is important to be aware of the costs associated with suboptimal management of complex wounds, especially in cases with multi-pressure care. The economic impact of care organization and the danger of fragmented care due to a lack of coordination between different disciplines and levels of care is illustrated in reports related to the management of complex wounds, particularly the diabetic foot. A large number of

studies indicate the importance of organization in wound care, as well as interdisciplinary coordination of treatment strategies to achieve optimal care in terms of outcome and cost.

In wound care, decision makers include clinicians, hospitals or other health care organizations, and third party payers. For example, from a hospital management perspective, the cost of intravenous antibiotics or revascularization could be considered high, especially because it could increase the length of hospital stay. However, from a societal perspective, the use of antibiotics and revascularization in this case is only a fraction of the total costs incurred to achieve complete wound healing.

However, it can be concluded that non-healing wounds often result in a significant financial burden, associated with a long healing time and a high frequency of complications. When assessing the consequences of a wound infection, it is important to view the consequences as an integral part of the overall management and resource utilization of the individual with a chronic wound.

FUTURE PERSPECTIVES AND ANTIMICROBIAL MANAGEMENT

Many discussions and many papers have addressed the ever-growing global threat of antimicrobial resistance. Increasing microbial resistance to antimicrobial drugs is predicted to be associated with up to 10 million deaths per year by 2050, surpassing cancer-related deaths. The increasing use of antibiotics in recent decades has led to a selection pressure that encourages the emergence of antibiotic-resistant strains and an increase in prevalence. Judicious use of all antimicrobials is urgently needed to maintain effective methods for treating and preventing infections, thereby avoiding a return to the restrictions (eg, in surgery or immunocompromising therapy) that characterized the pre-antibiotic era.

All open wounds are contaminated or colonized with microorganisms, but not all contaminated wounds become infected. Because wound infections are associated with significant morbidity, occasional mortality, and substantial financial costs, it is the duty of all healthcare providers to make efforts to prevent them. As stated in the International Institute of Wound Infections (IWII) 2022 guideline Wound infections in clinical practice, the likelihood of a wound becoming infected is related to the characteristics of the individual (systemic and multifactorial host factors), their wound and the environment. Prevention of wound infection is aimed at implementing strategies to reduce the patient's individual risk factors.

The continuous increase in the prevalence and costs of wound infections and the ongoing problems in the development of new antibiotics require new approaches to optimize and preserve current interventions aimed at preventing infections.

In wound care, early identification of infection is an integral part of antimicrobial management and programs, as its eradication helps avoid non-healing. Key antimicrobial stewardship strategies include: promoting known effective infection control methods such as hand hygiene practices; creating and continuously updating a local knowledge base on evidence-based antimicrobial stewardship; ensuring educational opportunities for clinicians on the appropriate use of antimicrobial agents; auditing actual

antimicrobial treatments to identify and correct inappropriate practices associated with treatment decisions; choice of empirical and definitive regimens, duration and dose of therapy. The main goals are to treat only clinically infected (not uninfected) wounds, using the narrowest spectrum antimicrobial regimen with the lowest necessary doses, for the shortest necessary duration. This effort should be supported by the development and implementation of an infrastructure that enables clinicians to accurately diagnose infection and rapidly institute appropriate antimicrobial treatment.

Adopting such a systematic approach should help reduce the adverse outcomes that so often occur with wound infections. Indeed, a study in Sweden demonstrated the potential for improved wound care using a national quality registry for structured ulcer care. Project data revealed the current performance of their Wound Care Ulcer Registry in significantly reducing healing times from 146 days (21 weeks) in 2009 to 63 days (9 weeks) in 2012. They also noted a 71% reduction in antibiotic use from before registration at 29% between registration and ulcer healing.

Although antimicrobial therapy is a key component of the management of infected wounds, optimal management also includes wound cleansing and debridement and selection of appropriate dressings, devices, vascular assessment, and optimized nutrition.

Uninfected wounds generally do not require antimicrobial therapy; there are no high-quality data showing that the use of antimicrobials prevents wound infection or accelerates wound healing. Numerous studies have documented the overuse of antibiotics to treat patients with non-infected chronic wounds.

An essential practice for the treatment and prevention of wound infection is the preparation of the wound bed. Any tissue suspected of being devitalized or colonized by biofilm requires vigorous therapeutic cleansing of microorganisms and detritus from the wound bed. Rigorous therapeutic debridement of chronic or difficult-to-heal wounds is performed: to remove excessive wound exudate or debris from the wound bed and to optimize visualization and assessment; before taking a wound sample (swab or biopsy) to reduce contamination; and to help hydrate the dried wound bed.

An antimicrobial strategy for chronic wounds should include:

• Routine determination of whether the wound is infected
• Wound infection surveillance programs
• Clear and achievable metrics
• Local policies for reviewing the appropriateness of antimicrobial use
• Multidisciplinary educational programs available
• Antimicrobial stewardship programs
• Campaigns to raise patient awareness

CONCLUSION

This update document on antimicrobials and chronic wounds provides clinical decision support using the latest evidence for the appropriate use of antibiotics and antiseptics in wound care. Antimicrobial resistance (AMR) is a global problem in clinical practice, although there are methods to reduce the occurrence of resistance and improve outcomes in the care of patients with wounds. Wound infection is one of the most common complications in chronic wounds. The presence of infection can be determined through clinical signs and symptoms of inflammation that can be supported by various laboratory parameters. For this purpose, healthcare professionals must have the knowledge and skills to assess wound infection and know the consequences of different treatment methods. Antimicrobial stewardship must be viewed as an integral part of the overall management and resource utilization of the individual with a chronic wound. While it is important to identify interventions and strategies early to avoid complications and facilitate healing, they also often have cost implications. Prevention, management and treatment of wound infection in clinical practice ideally involves not only antibiotics and antimicrobial agents, but also understanding the individual patient's perspective on how the infection affects their life. Providing proactive wound care while incorporating the patient's perspective is essential to improving wound outcomes and encouraging the patient to become an active partner in their treatment. Clinical practice, however, shows that there is still a lack of knowledge, especially about the role of biofilm in chronic wounds, with a tendency to adopt in vitro models for the growth of bacteria in wounds. Considering the most recent evidence on the value of topical antimicrobial treatment for wound management, the primary endpoint should be defined as prevention of clinical infection, clinical resolution of infection, or resolution of wound infection. Therefore, it is recommended that researchers adhere to standard research guidelines to support improved uniformity and comparability of clinical studies.

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Inovacije u tretmanu kroničnih rana – nove smjernice i preporuke Europske udruge za liječenje rana (EWMA)

Mirela Bulić, bacc.med.techn.
Ustanova za zdravstvenu njegu "MIRELA-SLATINA", Vodičko 1, 21292 Tugare, Republika Hrvatska
e-mail: mirela.slatina@gmail.com

SAŽETAK

Rastući problem antimikrobne rezistencije (AMR – antimicrobial resistance) hitan je problem koji zahtijeva trenutačni, globalni, koordinirani akcijski plan. Riječ „antimikrobno“ je krovni pojam koji se odnosi na dezinficijense, antiseptike, antiviruse, antimikotike, antiparazitike i antibiotike koji se koriste za inhibiciju rasta ili ubijanje različitih mikroorganizama.

AMR se odnosi na fenomen mikroorganizama koji razvijaju mehanizme prema kojima više nisu osjetljivi na različite agense, što ih čini neučinkovitima za liječenje. Učinkoviti antimikrobni agensi (uključujući antiseptike i antibiotike) ključni su za zaštitu pacijenata od infekcije u mnogim okruženjima i situacijama, uključujući infekciju postoperativne rane i liječenje raznih vrsta kroničnih rana.

Dokazi diljem svijeta pokazuju da uobičajeni patogeni rana sve više postaju otporni na antibiotike. Stoga, neophodno je da svi stručnjaci za njegu rana, koji koriste sistemske ili lokalne antimikrobne lijekove, budu upoznati s načelima odgovarajuće uporabe i da ih se pridržavaju.

EWMA-ina nadopuna strukturirana je prema dokumentu iz 2013.godine o antimikrobnim lijekovima i kroničnim ranama sa sljedećim naslovima: glavna uloga biološkog opterećenja u ranama, liječenje, perspektiva bolesnika te ekonomija i organizacija skrbi. Pod ovim naslovima, rad pruža nadopunu znanja stečenog u svakom području i ažurirane odgovore na pitanja postavljena u publikaciji iz 2013.godine. Osim toga, dokument sadrži novi odjeljak o budućim perspektivama i upravljanju antimikrobnim lijekovima kako bi se istaknule strategije koje su općenito usvojene u ovom području od 2013. i ocrtao njihov utjecaj na upotrebu antimikrobnih sredstava u liječenju rana.

Psychiatric nursing today and the foreseeable future

Dr.sc. Senka Repovečki

Sveučilišna psihijatrijska bolnica Vrapče, Bolnička cesta 32, 10090 Zagreb, Republika Hrvatska
e-mail: srepovecki@gmail.com

ABSTRACT

The basic role of nurses, which since the advent of nursing, was based on the tradition of caring for the sick and wounded, as well as caring for the weak and poor, remains the backbone of the nursing profession, which has a human being at the center of its profession, who is most often vulnerable and health - impaired. Today, however, nursing is no longer just a vocation with the basic task of meeting the needs of other people but is developing and growing from an occupation into a profession. Today, when the possibility of education up to the doctorate is open to nurses, with the increase in the level of education, the quality of work also increases, considering that new more complex methods and procedures are being introduced in health care. Psychiatric nursing is part of the overall nursing profession that deals with human emotional reactions to illness, stress and crisis situations and, in conjunction with other factors, helps people realize their physical, mental and social potential. In the years to come, nurses in psychiatry will work in different environments, using technology that we cannot even imagine at the moment, but despite all the challenges, the basis of health care will remain the same, helping people, sick or healthy, to perform activities that contribute to health or recovery. Recovery implies a personal experience of empowerment for a person to manage his life. Remission is a clinical term and is associated with clinical symptoms, while recovery is a process that includes changing personal attitudes, experiencing control over one's own life, and quality of life despite the limitations that the disease brings. The recovery of a person suffering from mental disorders is a goal that all team members should strive for, today as well as in the future.

Keywords: mental health, recovery, prevention, psychiatry, nursing

INTRODUCTION

Psychiatric nursing is part of the nursing profession, primarily oriented to the prevention, treatment and rehabilitation of a person's mental health. When talking about mental health, the first thought is related to psychological disorders and emotional difficulties such as depression, anxiety disorders or addiction. But mental health means much more than the mere absence of mental illness. Mental health includes the emotional, psychological, and social part of being human, the ways in which we interact with other people and how we deal with stressful situations. Stressful situations are an unavoidable part of life, as are feelings of fear, helplessness, worry, sadness, and anger. Good social and cognitive functioning, high self-

respect, optimism, and vitality are positive features of mental health. Whereas negative mental health features are characterized by changes in thinking, behavior and mood that worsen with our anxiety, frustration, and dysfunction (1). The subjective well-being of mental health means a fulfilled and quality relationship in which we feel stronger, we get confirmation that we are just the way we are, worthy of someone's love. We maintain and nurture long-term relationships with friends and family. Good mental health is not only an individual matter, it should also be surrounded by other mentally healthy people and a community that brings out the best in a person, encourages productivity and values our overall contribution (2).

Nursing care for psychiatric patients does not differ by definition from care for patients with physical illness but working with psychiatric patients requires special professional knowledge and skills, which includes physical and psychosocial interventions based on the principles of a holistic and individualized approach (3).

The competencies of nurses in the field of psychiatric nursing are regulated by the Nursing Act. In addition to legal regulations, competencies, responsibilities, and deontological ethics are defined by the Code of Ethics for nurses published by the Croatian Chamber of Nurses in 2005. In Nursing Act, the competencies for nurses with basic education, bachelor's degrees nurses, and master's degrees in nursing are listed. Furthermore, according to the recommendations and standards of the World Health Organization, one of the very important areas of health care that require special professional knowledge is the health care of psychiatric patients. Accordingly, formal education for nurses in Croatia, at the graduate level, begins with the specialist study "Psychiatric Nursing" in Zagreb at the University of Applied Health Sciences in the academic year 2010/2011. For nurses with completed specialist training, the competencies are in accordance with the learning outcomes in accordance with the regulations on the specialist training of nurses, i.e., the regulations on higher education institutions, which build on the basic nursing competencies.

PRINCIPLES OF HEALTHCARE FOR PSYCHIATRIC PATIENTS

Psychiatric nursing uses the principle of a holistic and individual approach to the patient, which implies a shift from care for a particular problem, symptom or syndrome, towards understanding and comprehensive care for the patient and his family and loved ones. Nursing's task, therefore, moves from a narrower framework focused on illness to a broader one, which is a focus on the whole being. In terms of health care for psychiatric patients, the principles indicate the rules of conduct and the basic starting point for all nursing interventions (4). The principles of a holistic approach, uniqueness of the person, privacy, therapeutic communication, acceptance, inclusion and adaptation are at the basis of psychiatric nursing practice.

The holistic approach is based on the inclusion of the patient's social and cultural environment and includes a biopsychosocial formulation of understanding the origin of the disease through the assessment of the interaction of psychological, biological and social factors (5).
The principle of the uniqueness of the human being requires a high level of self-control from the nurse, which is achieved through education, and the principle includes acceptance of the patient in all his diversity with all his traits and value systems.
The principle of preserving privacy and dignity is the focus of interest today because it has been systematically violated throughout history. The team members are expected to respect the patient's dignity because the patient should not be defined by his diagnosis, he is first and foremost a human being with his own needs and feelings. Illness is a strictly personal and private fact, and the patient has the right to be discussed it without the presence of other persons, he also has the right to receive answers to all questions about his condition; denial of professional medical information is a form of violation of human dignity.
The principle of therapeutic communication represents the realization of a relationship of trust and good communication between the patient and the nurse. Achieved good communication helps the therapeutic alliance between the patient and the nurse. In addition to providing the necessary information, therapeutic communication enables support and counselling and influences the feeling of acceptance and cooperation, which ultimately results in the patient's behavior. Achieving good therapeutic communication is often conditioned by the education of nurses from different psychotherapy directions. A good example is an education in group analysis, which is applied in the treatment of people with various mental disorders. The goal of group analysis is to achieve a healthier integration of the individual in his relationship with other people.
The principle of unconditional acceptance represents providing help to the patient without any judgment or discrimination. In life, we often divide people into those who are likeable and those who are less likeable. Every patient should be approached equally and the right to complete and professional nursing care should be provided unconditionally (5, 6).

PSYCHIATRIC NURSING OF THE FORESEEABLE FUTURE

Nursing in today's economic environment is too often represented as a cost rather than an economic benefit to society. Nurses contribute to health and investing in a well-educated nurse has measurable benefits. Furthermore, we face the problem of public perception of nursing and education. In the future, we must show that our movement towards the academic community has not affected the attitude towards patients and the time spent in the "sick room".
Crises like the pandemic have taught us how crisis situations and the need to adapt to new situations can lead to new qualities; growth both professionally and personally, which can certainly be a deposit for the future. In the conditions of these crises, nurses and technicians are professionals, but they are also people

like everyone else - burdened with fears, unknowns, uncertainties, fatigue and, above all, encounters with death and bereaved people. All this can lead to exhaustion and burnout syndrome, which is mostly not recognized in time. That is why it is important to emphasize and work on resilience, and psychological resistance, which has marked the work of nurses to a significant extent in the last two years. The resilience we developed during the pandemic helped us to positively reorganize our lives, private and professional and despite the difficulties - by including our own resources, but also external sources of support, as well as undoubtedly support within the team.

In recent years, there has been a significant outflow of nurses with significant clinical experience outside the country and outside the profession. The need for clinical mentors within nursing is becoming more and more important, due to the increased number of general nurses employed after graduation (7). Clinical mentors in nursing are highly educated nurses from certain clinical branches of medicine, who combine theory and practice and provide organized and systematic activities during education. A nurse trained and dedicated to a specific field of activity will surely work much more efficiently in improving the patient's health condition, but also in achieving the possible level of quality of life of the sick person and his relatives. The necessity of engaging clinical mentors and direct education of nurses at the patient's bedside is a necessary prerequisite for providing quality health care within our workplaces.

In the future, in addition to raising the level and quality at that professional-scientific level, nursing in its development will turn from illness to health, although the patient will remain at the center of attention of the nursing profession.

Following the changes in socio-economic indicators, economic and demographic, it is possible to predict an increasing life expectancy of the population, thus an increase in chronic diseases, for example, dementia, and then depression in view of increasing alienation, the pace of life, and economic insecurity. In the future, nursing must adapt to these changes, so in addition to the care of the patient itself, the important role of nurses will certainly be in active participation in preventive and promotional activities of public health.

Programs for the prevention of mental health of the population are currently oriented towards shortening hospitalizations and providing care for patients near their homes. A highly educated nurse in the prevention of mental disorders should be a facilitator who can offer cooperation to experts from different fields at the primary, secondary and tertiary levels (8, 9).

At the primary level, measures should be aimed at individuals, by strengthening the person's ability to withstand stress. Encouraging programs are aimed at children at school because along with the family, the school plays an important role in shaping the child's personality, and activities focused on caring for families in crisis and preventive measures aimed at society.

Secondary prevention measures should include screening programs for new cases through public education, in order to recognize the symptoms of the disease as early as possible. Inform the public about

the possibilities of treatment and institutions where people with present symptoms can come, as well as the presentation of the treatment program. Encourage cooperation with community nurses who play an important role in screening new cases of the disease. Education of health personnel by conducting orientation courses in order to solve problems in the field of health care for patients with mental disorders.

In tertiary prevention, the emphasis is on reducing the disability resulting from the disease. Tertiary prevention often means long-term health care, the nurse must do everything to preserve the best possible level of quality of life for the sick person.

Looking ahead, it is clear that there is a growing need for more nurses in the community, which opens up more opportunities and new roles for nurses within hospitals. Mental health disorders greatly affect the life of the patient as well as the family of the affected person and leave them without answers to many questions. The counselling role, or the education of patients and families, is one of the most common interventions carried out by nurses in the health care process with the aim of achieving as much independence as the possible and satisfactory quality of life for patients and families. Nurses in the community will often find themselves in the role of consultant, as a link between the psychiatrist, the patient and the patient's family. This role requires the nurse to know how to assess, plan and implement interventions that lead to the recovery of the patient, and when necessary, to know how to manage emergency situations (10).

The main problem today is very simple, nurses need more time to be able to do their job effectively. But if healthcare teams are understaffed, care delivery is reduced to emergency interventions. The challenge in the future will be to combine two seemingly incompatible models; the evidence-based model of health care and the narrative model of health care based on storytelling (11).

Integrated narrative health care represents a new normative approach that integrates quantitative data already discovered in the patient, with subjective information obtained from the sick person, his family and the social influence that causes the disease. Integrated narrative health care uses quantitative (scales, measuring devices) and qualitative tools (narrative, patient autobiography). Furthermore, an approach based on a holistic understanding and a high degree of narrative skill results in different ways of understanding and improving the quality of life and creating positive effects on care outcomes.

CONCLUSION

The knowledge, experience and education of nurses have proven to be one of the strongest tools for maintaining stability within the health system. Along with the need for continuous education, which almost always refers to the acquisition of new knowledge, it is important to always emphasize the human aspect of the work of nurses. Here I mean learning empathy, friendliness and acceptance that adorn our profession and that gives us the opportunity to live the principles of pure kindness every day.

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Psihijatrijsko sestrinstvo današnjice i dogledne budućnosti

Dr.sc. Senka Repovečki

Sveučilišna psihijatrijska bolnica Vrapče, Bolnička cesta 32, 10090 Zagreb, Republika Hrvatska

e-mail: srepovecki@gmail.com

SAŽETAK

Osnovna uloga medicinskih sestara, koja se od pojave sestrinstva temeljila na tradiciji njegovanja bolesnih i ranjenih, te na skrbi za nemoćne, siromašne i danas ostaje okosnica sestrinske profesije koja u središtu svojega zanimanja ima čovjeka, koji je najčešće ranjiv i zdravstveno ugrožen. No, danas sestrinstvo nije više samo poziv sa osnovnom zadaćom za zadovoljavanje potreba drugih ljudi, nego se razvija i prerasta iz zanimanja u profesiju. Danas kada je medicinskim sestrama otvorena mogućnost obrazovanja sve do doktorata znanosti, s porastom razine obrazovanja, raste i kvaliteta rada, s obzirom da se uvode nove složenije metode i postupci u zdravstvenoj njezi.

Psihijatrijsko sestrinstvo dio je ukupne sestrinske profesije koja se bavi ljudskim emocionalnim reakcijama na bolest, stres i krizna stanja te u sprezi s drugim čimbenicima pomaže ljudima u ostvarivanju njihovih fizičkih, mentalnih i društvenih potencijala.

U godinama koje dolaze medicinske sestre u psihijatriji, raditi će u različitim okruženjima, koristeći tehnologiju koju trenutačno ne možemo ni zamisliti, no unatoč svim izazovima temelj zdravstvene skrbi će i dalje biti isti, pomoć čovjeku, bolesnom ili zdravom, u obavljanju aktivnosti koje doprinose zdravlju ili oporavku. Oporavak podrazumjeva osobni doživljaj osnaživanja da osoba upravlja svojim životom. Remisija je klinički pojam i povezana je s kliničkim simptomima, dok je oporavak proces koji uključuje promjenu osobnih stavova, doživljaj kontrole vlastitog života te kvaliteu života usprkos ograničenjima koju bolest donosi. Oporavak osobe oboljele od psihičkih poremećaja je cilj kojem svi članovi tima trebaju težiti, danas ali i u budućnosti.

Ključne riječi: *mentalno zdravlje, oporavak, prevencija, psihijatrija, sestrinstvo*

Holistic nursing care from the perspective of nurses – qualitative pilot study

Tina Košanski, Marijana Neüberg, Mateja Križaj i Tomislav Meštrović

Sveučilište Sjever, Sveučilišni centar Varaždin, Jurja Križanića 31b, 42000 Varaždin, Republika Hrvatska

ABSTRACT

Introduction: Holistic nursing is an approach that involves care for the physical, psychological, social and spiritual dimensions of patient welfare. This concept of care is still poorly understood and barely used in nursing practice in Croatia. A qualitative pilot study is carried out with the aim of ascertaining the understanding of the concept and the experience of holistic nursing among palliative care nurses.

Material and methods: Data are collected via interviews. Main categories, subcategories and codes are established through coding. Using an unstructured interview as a research instrument, three nurses holding a Master of nursing degree with a minimum one year of experience in palliative care are selected for an interview.

Results: The participants define holistic nursing as comprehensive care in which the patient is a partner. They state that it includes an understanding and addressing of the various physical, psychological, social and spiritual needs of the patient. Holistic nursing care is rarely practiced due to the lack of knowledge and time, the functional model of healthcare organisation currently used, and other factors. Participants highlight that patients' physical needs are still prioritized over their other needs and nurses often do not consider tending to them to be their responsibility.

Discussion and conclusion: Holistic care can bring numerous benefits and should therefore be incorporated into nursing education and practice. In addition, organizational changes are needed to facilitate the provision of holistic, patient-centred care.

Keywords: holism, comprehensive care, holistic nursing care, nurse, patient, needs

INTRODUCTION

The word holism is of Greek origin (Greek: holos, meaning all, whole, entire). It implies that various systems should be viewed as a whole, not merely as a collection of parts (1). Holism emerged from the humanities and social sciences; however, its importance is also recognized in biomedical sciences (2). The father of modern medicine, Hippocrates, believed that diseases were not caused only by physical disorders, and that treating physical symptoms only would not always lead to recovery (3). More specifically, the dimensions of wellbeing are physical, psychological, social and spiritual. The physical dimension includes the body, cells, organs and interconnected organ systems. The psychological

dimension consists of thoughts, emotions, temperament and traits. The social dimension includes culture and relationships with other people that are related to the values, customs, behaviour and way of life of the individual (4). Finally, the spiritual dimension includes religious beliefs, searching for the meaning of life, connection with God or a "higher power", connection with nature and people, creativity, hope (5). A holistic approach to nursing was introduced by Florence Nightingale, who believed that the environment, smell, light, touch and music facilitate the healing process and that a person comprises several components (6). Other nursing theorists, such as Martha Rogers, Ernestine Wiedenbach, Dorothy Orem, and Jean Watson, advocated holism in their theories (2, 7). Frisch and Rabinowitsch (2019) report there has been an increasing interest in holistic nursing in the literature for several years. (2). In 2006, holistic nursing was recognized by the American Nurses Association as a nursing specialty (8). Holistic nursing is defined by the American Holistic Nurses' Association as "all nursing practice that has healing the whole person as its goal" (8), which means that patients should be treated as a whole, considering biological, psychological, social and spiritual dimensions of their wellbeing in the provision of nursing care (9). In addition to traditional healing, holistic nursing includes communication with the patient, patient involvement in their care, patient education, complementary treatment methods, along with an understanding of their thoughts, emotions, culture and respect for their attitudes and opinions (9), study of their lifestyle, dietary habits, mental health, and environment in which they live (10). However, due to numerous barriers nurses face daily, holistic patient care is only partially provided or completely absent. The most common barriers include the lack of time, knowledge and skills, lack of continuity of nursing care, and the inability or poor ability to identify patient needs (11, 12). The literature suggests that due to different definitions of holistic care and a poor understanding of what it implies, the concept of holistic nursing remains unclear (13, 2) and is perceived differently among nurses (14). Existing research shows issues in holistic approach in palliative care and care for the elderly, suggesting there is a need to improve the knowledge about holism in nursing theory (15, 16). The aim of this pilot qualitative study is to ascertain the level of understanding of the concept of holistic nursing among nurses and to explore their experiences in providing holistic care. Two overarching research questions were addressed: "How do nurses define holistic care?" and "What are nurses' experiences of providing holistic care?".

MATERIAL AND METHODS

Qualitative research was undertaken using an unstructured questionnaire starting with the question "What is holistic care, how would you define it and what does it include?" Around ten open-ended questions were asked in each interview. Non-probability sampling was used to select three nurses holding a Master of nursing degree, who were interviewed in April 2020. The selection criteria were: completed higher education (master's degree in nursing) and at least one year of work experience in palliative care. The first participant, NN1, has more than 20 years of work experience, the second, NN2, has one year of work

experience, while NN3 has six years of work experience in palliative care. NN2 and NN3 also have experience in nursing patients with acute diseases. All three participants have experience as educators in vocational (NN1 and NN3) or in higher nursing education settings (NN1, NN2, NN3). Interviews were conducted with each participant individually via the Google Meet platform, with the microphone and camera turned on. At the beginning of the interview, the participants were informed about the purpose of the research and were asked to give their consent for an interview and publication of research data collected. They also gave their consent to be recorded. Each interview lasted for approximately 35 minutes. The interviews were then analysed. Each interview was first transcribed and assigned the designation NN1, NN2, NN3. After reading them several times, interviews were coded, key terms were selected and defined, and finally subcategories and categories were defined. Participation was anonymous and voluntary. No personal information or personally identifiable information was taken.

RESULTS

Based on the research questions, three main categories were defined: “concept of holistic nursing”, “holistic nursing practice” and “further development and improvement of holistic nursing care”.

Table 1 shows the category “concept of holistic nursing”, which includes three subcategories: “defining the term”, “current holistic nursing education” and “the importance of holistic nursing for patients”. The participants define the term holistic nursing as the practice of treating the patient as a whole, considering their physical, psychological, social and spiritual needs. It is patient-centred and includes partnership between patients and nurses, active participation of patients in their health decisions and involvement of patient family in the process. Current holistic nursing education is inadequate; nurses lack knowledge about holistic nursing care as this topic is only briefly touched upon during their education. In addition, integration of theory into practice is difficult as there are no mentors for teaching holistic nursing in clinical settings. Providing holistic nursing care is important to patients because they want to be seen as people, not as diagnoses. Patients feel the need to communicate during their treatment. Involving patients in their health decisions and care shows respect for their values and preferences. Holistic nursing improves patient satisfaction and the overall quality of nursing care. The participants report that it is necessary to educate and empower patients through civic associations and the media to be active participants in their care and communicate their needs more easily and openly. This means they need to overcome the usual role of submissive recipient of care.

Table 1: Overview of the category "concept of holistic nursing" with subcategories and codes

CONCEPT OF HOLISTIC NURSING		
DEFINING THE TERM	**CURRENT HOLISITIC NURSING EDUCATION**	**IMPORTANCE OF HOLISITIC NURSING FOR PATIENTS**
The patient is seen as a whole Considering patient's physical, psychological, social and spiritual needs Patient-centred care All-encompassing care with the patient as partner Patient's family is also a partner in provision of care	Nurses lack knowledge on holistic care Holistic care is briefly mentioned during education, which is insufficient Integration of theory into practice is difficult No mentors to provide training in holistic nursing	Patients wish to be seen as people, rather than just diagnoses Patients have the need to communicate Involving patients as partners shows that we respect and appreciate them Associations and media can help to educate patients so that they become active participants and not only submissive recipients of care Increase of overall quality of nursing and patient satisfaction

Source: authors

Table 2 shows the category "holistic nursing practice" which comprises three subcategories: "Nurse attributes needed for holistic nursing", "Barriers to holistic nursing" and "Current holistic nursing practice". The interviewees believe that nurses should have and develop certain attributes and skills to be able to provide holistic care, i.e. treat the patient as a whole. This includes emotional intelligence, empathy, self-control and emotional stability, trustworthiness, being friendly and approachable. Personal experience of being a patient or patient's family member can also be an asset. The participants in the study report on numerous barriers to holistic nursing to explain why it is only sporadically practiced or not at all. A major barrier is the lack of knowledge about holistic nursing, followed by failure to give due consideration to patients and their various needs. Lack of adequate communication skills, which are particularly important when caring for seriously ill and terminal patients, is another barrier. Moreover, nurses find that tending to patients' social and spiritual needs is not their responsibility. Another problem is burnout, which leads to exhaustion and listlessness, affecting the nurses' ability to provide holistic care. In addition, most health care institutions adhere to the functional nursing care model, where nursing is task-oriented rather than patient-centred. Lack of emotional resilience in nurses has also been reported. These barriers reduce the ability of nurses to deliver holistic care and explain the current situation in healthcare institutions, where nurses focus on treating the disease, i.e. the medical condition itself, failing

to tend to patients' other needs. Nurses often feel that they do not have the time to address social and spiritual issues because they have too much to do and little time to do it in. Talking to the patient is time-consuming, but it is not tangible and cannot be objectively measured. This is why, in most cases, the nurses prefer to do what is tangible, that is, the tasks that can be measured, such as feeding the patient, changing the patient's position, making the bed or changing bed linens, etc.

Table 2: Overview of the category "holistic nursing practice" with subcategories and codes

HOLISTIC NURSING PRACTICE		
NURSE ATTRIBUTES NEEDED FOR HOLISTIC NURSING	**BARRIERS TO HOLISTIC NURSING**	**CURRENT HOLISITIC NURSING PRACTICE**
Emotional intelligence Empathy Self-control and emotional stability Experience of being a patient/ patient's family member is a plus Being approachable and trustworthy	Lack of knowledge on holistic care Failure to give due consideration to patients and their various needs Nurses often don't know how to talk about a terminal illness with a patient/family member Prevalence of the functional, task-oriented healthcare model Nurses believe that addressing social and/or spiritual issues of patients is beyond their remit Burnout among nurses Lack of emotional resilience (defence mechanisms)	Holistic care is rarely practiced Nurses are focused on the physical aspects, they often disregard the fact that patients listen and hear, feel the touch, wish to interact Physical symptoms and needs are addressed, and other needs neglected Addressing social and/or spiritual needs are viewed as a waste of time

Source: authors

Table 3 shows the category "Further development and improvement of holistic care delivery", which includes two subcategories: "Education" and "Personal and organizational changes". To support the development of holistic nursing in practice, it is vital to incorporate the concept of holistic nursing into nursing education programmes. The participants came up with the following ideas on how to achieve this:

by learning how to develop empathy with patients, by incorporating a holistic care course into nursing study programmes, by continuous communication skills training, by developing and practicing empathy skills, logotherapy training, therapeutic nurse-patient relationship training, and by training mentors who will teach students and new nurses how to deliver holistic care in clinical settings. Personal and organizational changes are also needed to reduce the barriers and facilitate holistic care delivery. Among personal changes, the participants mentioned developing emotional intelligence and treating patients as individuals with diverse needs. Nurses should also accept that addressing the patient's psychological, social and spiritual needs is their responsibility and adopt a more permissive attitude rather that a traditional one, allowing patients to ask questions and give their opinions, thus promoting patient participation in their care. Among the organizational changes, they mentioned the introduction of different nursing care models, such as the patient-centred care model.

Table 3: Overview of the category "Further development and improvement of holistic care delivery" with subcategories and codes

FURTHER DEVELOPMENT AND IMPROVEMENT OF HOLISITIC CARE DELIVERY	
EDUCATION	**PERSONAL AND EDUCATIONAL CHANGES**
Developing empathy with patients Incorporating the concept of holistic nursing into nursing education programmes Continuous training in communication skills Training on empathy and ways to practice it Logotherapy training Training on therapeutic nurse-patient relationship Training mentors who will teach students and new nurses how to deliver holistic care in clinical settings	Developing emotional intelligence Treating patients as individuals with diverse needs Supporting the idea that nurses' roles and responsibilities include addressing psychological, social and spiritual needs of patients Change of attitudes – patients have every right to ask questions and to be involved in decisions about their care Being more attuned to patients and their family members in palliative care Introducing alternative organisational models, e.g. patient-centred care model

Source: authors

DISCUSSION

The conducted research shows that the participants define holistic care as a comprehensive approach to care which involves treating a patient as a whole and attending to his physical, psychological, social and spiritual needs. A holistic approach to patient care means putting the patient at the centre of care and involving them in their care as active partners. The concept of holistic nursing is also connected to the involvement of the patient's family in care, which is particularly important in palliative care, as highlighted by Strandberg et al. (2007), who examined holistic care delivery by primary care nurses (17). Lemos et al. (2010) conclude that holistic care implies care for people who have their desires, emotions and problems, rather than care in which the focus is on the disease and the sick person (18). Based on their own experience as nurses and nurse educators, the participants in this study agree that holistic care teaching in nursing education is inadequate as the theory of holism and holistic care is only briefly touched upon. They also report that there is a lack of mentors who would teach holistic care to students and new nurses. Authors Montgomery et al. (2013) describe holistic approach as a science and art which do not require only theoretical knowledge, but also additional training by mentors qualified for training in the holistic care practice (19). The authors McMillan et al. agree with the above (2018) but also point out that the theory provides a more complete and insightful disposition to the practice of nursing. To develop a modern healthcare system in which the patient is at the centre of care and which focuses on patient satisfaction, it is essential to use a holistic approach as opposed to the medical model of reductionism (7). In addition to the lack of holistic nursing education, nurses face numerous barriers in their everyday practice that limit their ability to provide holistic care. In addition to the lack of specific knowledge, the study participants point out the lack of consideration for patients' needs beyond just the physical. Moreover, nurses find that tending to patients' spiritual and social needs, i.e. taking a wider view of the patient and his various needs, is not their responsibility. Poor communication skills or reluctance to talk about 'difficult' topics are also reported as barriers. Portillo and Cowley (2011) cite the lack of time, knowledge and experience, poor definition of the nursing role, and ineffective communication as reasons for limited holistic care in the wards (20). Nurse burnout can also limit the ability of nurses to deliver holistic care. It is characterized by emotional exhaustion, depersonalization and lack of a sense of accomplishment (21). Due to emotional exhaustion, nurses are unable to adequately tend to their patients' needs. As for organizational barriers, a major one is the functional care model, which, due to being task-oriented, does not focus on patient's needs and patient satisfaction. Also, this model relies on nurses with secondary-education level, who have not had the opportunity to gain in-depth knowledge about holistic care during their education. The research participants find the holistic nursing practice lacking, as the usual patient care focuses mainly on the treatment of the physical symptoms of the disease, while other needs remain neglected. The nurses find that tending to patients' social and spiritual needs is a waste of time, because it is not tangible and cannot be measured. Instead, they focus on concrete activities, such as

changing the patient's position to prevent pressure ulcers, administering medications, etc. Talking with patients about their emotions and problems, providing emotional support to patients and their families, and respect of their cultural background are aspects that are not measured and remain undervalued. The authors Roche-Fahy and Dowling (2009) report that there is a perception that ‘talking to the patient’ or ‘being with the patient’ is not considered ‘real work’ (22). Lamb et al. (2017) point out that organizational environment is of key importance to the provision of holistic care, which would mean that holistic care can be delivered only in a culture of continuous assessment both of patient satisfaction and medical outcomes (23). In developed countries, such as the United States, holistic care is incorporated in nursing education and practice; it is recognized as a nursing specialty and supported by professional organizations. In contrast, developing countries have not yet integrated the philosophy of holism and holistic care into nursing practice (24). This suggests the need to extend the teaching content to include the concept of holistic nursing in the nursing programmes. To be able to recognize and address the patient's needs, in addition to acquiring the relevant knowledge, nurses must also develop emotional intelligence and empathy skills, whereas having personal experience of being a patient/patient's family member can also help. Frisch and Rabinowitsch (2019) note that to practice holistic care, a nurse should possess qualities such as self-awareness, developed empathy, spirituality, intuition, creativity, compassion, and expertise. (2) The mentioned limitations and barriers to the provision of holistic care indicate that personal and organizational changes as well as changes to educational programmes are needed. Holistic nursing should be taught both at schools and in clinical settings by trained mentors. Continuous communication skills training, developing and practicing empathy skills, logotherapy training, and therapeutic nurse-patient relationship training are needed. The therapeutic relationship is based on trust and thus facilitates the provision of holistic care - the nurse gets to know the patient and knows what is important to him, what his needs are, and what can contribute to his/her comfort and contentment. Hau (2004) believes that holistic care requires a progressive therapeutic relationship between nurses and their patients (25). Mirhaghi et al. (2017) report that since the beginning of theorizing in nursing, the nurse-patient relationship has been presented as an essential element of care (26). Among personal changes required, the interviewed nurses mention developing emotional intelligence skills and treating patients as individuals with diverse needs. In addition, nurses should accept that tending to psychological, social and spiritual needs is part of their job. They should move away from traditional nursing towards holistic nursing, which, among other things, includes the patient's right to ask questions and be actively involved in care. An important organizational change would be the adoption of other nursing care models, such as the patient-centred model, which is patient-oriented instead of task-oriented.

CONCLUSION

Individuals have diverse needs that arise from different dimensions of the human being. Often nurses focus on illness and symptoms, without considering the psychological, cultural and spiritual aspects of the patient and addressing the needs arising from those aspects. The results of this study show that nurses lack adequate education and knowledge about holistic nursing and are thus unable to deliver such care and appreciate its importance for the patient. This is one of the biggest barriers to holistic care delivery, along with the model of nursing care delivery currently used, i.e. functional nursing model, and the fact that nurses have too little time to deliver complete care. The results suggest that, to promote holistic care, nurses need to start considering the patient as a whole and address their diverse needs, put patients at the centre of care, and allow them to actively participate in their care. To be able to recognize, understand and tend to the different needs of patients, nurses need to develop emotional intelligence, empathy and communication skills. To incorporate holistic care into clinical practice, first, it is necessary to incorporate holism in nursing education and then promote personal and organizational changes that will allow the theoretical knowledge about holistic care acquired through formal education to become part of everyday practice. Further research should be done to identify the most common or most important needs of patients and analyse them with respect to various variables such as age, type of illness, perception of support from family members, patient personality traits, etc. In addition, it would be important to see which patient needs, apart from physical ones, nurses most often address, and compare them with the needs highlighted by patients as most important. Due to the size the sample and sampling method, the results of this research cannot be generalized to the entire population of nurses. Nevertheless, they are consistent with research results presented in the current literature and suggest that holistic nursing care needs to be given more attention both in formal education and in everyday nursing practice.

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Holistička skrb iz persepktive medicinskih sestara – kvalitativno pilot istraživanje

Tina Košanski, Marijana Neüberg, Mateja Križaj i Tomislav Meštrović

Sveučilište Sjever, Sveučilišni centar Varaždin, Jurja Križanića 31b, 42000 Varaždin, Republika Hrvatska

SAŽETAK

Uvod: *Holistička sestrinska skrb podrazumijeva skrb za fizičku, psihičku, socijalnu i duhovnu dimenziju pacijenta, no u sestrinskoj praksi na našim prostorima je još uvijek nejasan i nedovoljno korišten koncept. Kvalitativno pilot istraživanje provedeno je s ciljem utvrđivanja razumijevanja koncepta holističke skrbi te identifikacije iskustva medicinskih sestara o holističkoj skrbi unutar palijativne skrbi.*

Materijal i metode: *Podatci su dobiveni tehnikom intervjuiranja. Kodiranjem su određene glavne kategorije, potkategorije i kodovi. Instrument istraživanja je nestrukturirani intervju u kojem su sudjelovale tri magistre sestrinstva s najmanje jednom godinom iskustva u radu s pacijentima u palijativnoj skrbi.*

Rezultati: *Sudionici definiraju holističku skrb kao cjelovitu skrb u kojoj je pacijent partner. Navode kako ona uključuje razumijevanje i zbrinjavanje pacijentovih fizički, psihičkih, socijalnih i duhovnih potreba. U praksi se holistička skrb nedovoljno prakticira zbog nedostatka znanja, manjka vremena, funkcionalnog modela organizacije zdravstvene njege i dr. Sudionici naglašavaju kako se još uvijek najviše pozornosti pridaje fizičkim potrebama, dok su socijalne i duhovne gotovo zanemarene i medicinske sestre ih često ne smatraju svojim djelokrugom rada.*

Rasprava i zaključak: *Holistička skrb ima brojne dobrobiti i trebala bi biti sastavan dio provođenja zdravstvene njege i edukacije medicinskih sestara, stoga je potrebna usmjerena edukacija o holističkoj skrbi te organizacijske promjene koje bi omogućile način rada koji će u fokus stavljati pacijenta i njegove potrebe.*

Ključne riječi: *holizam, cjelovita skrb, holistička skrb, medicinska sestra, pacijent, potrebe*

CORRESPONDING AUTOR:

Tina Košanski, mag.med.tech.

e-mail: ticikic@unin.hr

Specialist training as an innovation process in the nursing profession through in home health care

Vlatka Mrzljak[1,2,3], Antun Bajan[4,5], Andrea Milostić Srb[4], Nika Srb[5], Nikola Bajan[6]

[1]Ustanova za zdravstvenu njegu "Vlatka Mrzljak", Zagrebačka 78/a, 49243 Oroslavje, Republika Hrvatska,

[2]Hrvatsko Katoličko sveučilište, Ilica 242, 10000 Zagreb, Republika Hrvatska,
[3]Veleučilište Ivanić – Grad, Moslavačka ulica 13, 10310 Ivanić – Grad, Republika Hrvatska,
[4]Fakultet dentalne medicine i zdravlja Sveučilišta Josipa Jurja Strossmayera u Osijeku, Crkvena 21, 31000 Osijek, Republika Hrvatska,

[5]Medicinski fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku, Josipa Huttlera 4, 31000 Osijek, Republika Hrvatska,

[6]Zavod za hitnu medicinu Osječko-baranjske županije, Josipa Huttlera 2, 31000 Osijek, Republika Hrvatska

ABSTRACT

Medical nurses and medical technicians employed in health care in the home take care of the sick. Considering the progress of medicine, technology and nursing, the basic level of education of nurses and medical technicians does not always meet the real needs in ensuring and providing quality nursing care. In accordance with the current legal regulations (Health Care Act, Nursing Act), every individual (healthy or sick) has the right to receive the necessary quality health care services in the entire territory of the Republic of Croatia. Since "health/nursing care includes the application of specific knowledge and skills based on scientific knowledge from the fields of nursing, natural, medical and human sciences" (Article 5, paragraph 2 of the Law on Nursing), that "nursing activities can only be carried out by medical nurses to the extent provided by the competences acquired through education" (Article 5, Paragraph 4 of the Law on Nursing) and that "the implementation of health care must be based on the needs of the population" (Article 6 of the Law on Nursing) "additional training of nurses is carried out in the case when the scope and complexity of the tasks and the expected results require additional education, i.e. specialization in a certain area of health care" (Art. 9, paragraph 1 of the Law on Nursing) and "it is carried out for the purpose of improving the quality and efficiency of the work of nurses " (Art. 9, para. 2 of the Act on Nursing) precisely thanks to the proactivity of nurses and medical technicians from various activities of the nursing profession that, through innovation models and projects, create the possibility of further development and advancement in the form of education of nurses and medical technicians, and in order to achieve concrete efficiency in practice through competitive participation in the implementation of the

necessary interventions for the purpose of achieving faster diagnostics in patients, i.e. through greater efficiency in outcomes.

INTRODUCTION

At home health care is part of the system of the primary level of health care of the Croatian health system, which is carried out completely independently by nurses and medical technicians, most often the founders of private practices and institutions for health care - contractual entities with the Croatian Institute for Health Insurance (1).

With a continuous 30-year investment in the mentioned activity in parallel with the individual investments of nurses and medical technicians of home health care in themselves through various forms of formal and informal education (2).

If we talk about the need for additional training of nurses and medical technicians at the level of primary health care, the activity of home health care is the first activity within the nursing profession that recognized the need for the introduction of such an education model. In 2014, the activity of health care at home in cooperation with the Faculty of Medicine in Osijek, and at the initiative of the Croatian Chamber of Nurses and with the support of the Ministry of Health and the Ministry of Science and Education, created a Proposal for an additional training program.

Given that home health care is carried out completely and independently by nurses and medical technicians, the goal of this program was to enable the development of the national standard of knowledge and skills of nurses and home health care technicians and to enable them to acquire additional necessary competencies for independent work. Jadranka Plužarić, mag. med. tech., mr. sc. Petar Ćosić, mag. med. tech., Eva Smokrović, mag. med. tech. and Vlatka Mrzljak, univ. mag. admin. sanit., med. techn.

When creating the aforementioned program, the authors were guided by Directive 2005/36/EC, which prescribes the required ratio of highly and medium-educated health personnel, indicates an increase in the need for quality education of nurses and medical technicians, and the need to expand existing competencies. After the acceptance of the prepared Program Proposal by the competent institutions, in 2016, Croatian nursing received the first generation (and the only one) of successfully completed participants of the aforementioned program with acquired additional expanded competencies. The implementation of the Program for additional training of nurses and medical technicians of home health care lasted one year. The education strategy is based on educational outcomes according to Bloom's taxonomy. The program was structured through 15 compulsory and 4 optional courses (750 hours in total - 270P, 240S, 240V, 480MV), and upon completion, participants earned 60 ECTS credits. In 2015, nurses: Eva Smokrović, mag. med. tech., Jadranka Plužarič, mag. med. tech. and Vlatka Mrzljak, univ. mag. admin. sanit., dipl. med. techn created a proposal of competences for the completed additional

training program, which were based on educational outcomes according to Bloom's taxonomy and in accordance with the "Competences of general health care nurses" published by the Croatian Chamber of Nurses in 2011, which represent the basis for upgrading of further competencies in specific areas of nursing, such as the activity of health care in the home.

The competence of nurses and medical technicians derive from the aforementioned Competences of General Health Care Nurses, primarily for procedures marked with an asterisk (PDE) that require additional education and for which there is a need in the home health care industry. In 2015, the Professional Committee of the Croatian Chamber of Nurses accepted the Draft of Defined Competencies. In 2018, the Ministry of Health adopted the Rulebook on the additional training of nurses and medical technicians in home health care (NN 35/2018). Although the aforementioned Additional Training Program was designed and implemented in terms of effective acquisition of the additional necessary expanded competencies of nurses and medical technicians of home health care, it had one major drawback. Upon completion of the mentioned program, the participants who successfully completed it did not have the legal possibility of acquiring a new title or additional evaluation of their work, which caused justifiable dissatisfaction among our colleagues. Through newly acquired knowledge and skills and through acquired additional competences, additional responsibilities and powers were imposed on nurses and medical technicians of home health care in practical work, for which they were not evaluated financially or status wise. According to the views of the nursing profession, the future of additional training is in specializations, i.e. in specialist studies intended for activities that require it.

The purpose of the paper is to present the results of the research conducted following the above-mentioned perceived problem regarding the willingness and need of nurses and medical technicians to participate in a certain form of further additional training - specialist study, guided by the premise of readiness and recognition of the need for inclusion in the model of additional training designed in this way.

With the repeated apostrophized and valorized readiness and established need for further additional education, i.e. additional training, argued by the results of research conducted in January 2022 and in the period from June to August 2022 (3), and in accordance with the actual requirements and needs of the market confirmed in practice, the Proposal of the Teaching plan and Program of specialist study for nurses and medical technicians providing health care at home.

MATERIAL AND METHODS

The first survey was conducted in the period from January 14, 2022. until February 5, 2022. among nurses and medical technicians employed in the field of health care at home through an online questionnaire. The research participants filled out the questionnaire in an online form mediated through social networks and electronic mail. The questionnaire was designed by the author according to a

previous review of the literature, and included sociodemographic data. Participation in the research was voluntary and anonymous, and the purpose and goal of the research was explained to each of the participants at the beginning of filling out the questionnaire. The survey was correctly completed by 92 nurses and medical technicians.

The survey consisted of 13 questions. The first 5 questions were of a sociodemographic nature and the participants filled in data such as gender, age, county area of work, level of education and total years of work experience in home health care. The remaining 8 questions related to the knowledge and attitudes of nurses and medical technicians about the application of compassion and empathy and about the readiness and need for their further additional training.

Data analysis was done in Microsoft Excel. The obtained data are presented with the help of bar and pie charts and tabular representations, and the results are presented in percentages and the frequency of each response.

The second survey was conducted in the period from June 10, 2022. until 10.08.2022. year among nurses and medical technicians employed in the field of health care at home through the Google Forms form. All participants filled in the online form an informed consent and agreement to participate in the research. The questionnaire was designed by the author according to a previous review of the literature, and included sociodemographic data. Participation in the research was voluntary and anonymous, and the purpose and goal of the research was explained to each of the participants at the beginning of filling out the questionnaire.

As in the first research, data analysis was done in Microsoft Excel. The obtained results are presented in percentages and the frequency of each answer.

RESULT

A total of 92 participants were included in the first study. Inclusion criteria were IT literacy and employment in the field of health care at home. Of the total number of participants, 85 (92.4%) were female, and 7 (7.6%) were male. The largest number of participants was between the ages of 30 and 39 (N=35,38%).

58 participants (63%) had a secondary vocational education, 26 participants (28.3%) had a bachelor's degree in nursing, and 8 participants (8.70%) had a bachelor's or master's degree in nursing. A very important indicator of the time period of staying in one activity was obtained from the following results; 37% of participants have been employed in home health care for 5 years, 23.8% have been working in home health care from 11 to 20 years, 20.7% of them from 6 to 10 years, and even 18.5% of participants are employed in home health care for 21 to 30 years continuously.

Considering the demandingness of the daily implementation of nursing interventions through the activity of health care at home, the response of the majority of participants (37%, N=34) who believe that the

application of empathy can be improved by attending certain formal and informal forms of training, 33.7% (N= 31) of the participants believe that there are no appropriate ways of learning about improving the application of empathy, 17.4% (N=16) believe that scientific professional articles are of great importance in the application of empathy, and only 12% (N=11) of the participants believe that enough knows about the application of empathy in work and that they do not need additional training. 78% of the nurses and medical technicians who participated in this research believe that in the future they should participate more actively in educations related to the application of empathy, but also narrow areas; communication, ethics and active listening to patients and expressed their desire and readiness for additional training.

A total of 100 participants were included in the second study. Inclusion criteria were IT literacy and employment in the field of health care at home. Of the total number of participants, 93% were female, and 7% were male. The largest percentage of participants were aged 40-49 (35%), with an average of 21-30 years of experience working in home health care. A large percentage of respondents (84%) declared that they provide continuous health care for the most demanding category of patients - palliative patients through the activity of health care at home.

91% of the participants stated that they believe that carrying out nursing interventions through health care in the home of palliative patients is an extremely challenging and demanding work task, but they also stated that they, as health care workers in the home, continuously carry out all the necessary procedures of palliative health care at to the address of residence of the palliative patient. When caring for patients, they most often cooperate with family medicine doctors (58%), outpatient services (40%) and mobile palliative teams (20%), depending on the need and availability of the teams. In home health care workers are willing to get additional education related to the specific procedures of caring for palliative patients in the home and thereby enable additional quality of care for all palliative patients. 87% of the participants of this conducted research declared the need and readiness for additional training in the field of health care at home, related to specific nursing interventions such as work with home ventilators, procedures related to the health care of patients with a nasogastric tube, access to palliative patients, cardiopulmonary resuscitation and similar.

The specialized study will be intended primarily for bachelors of nursing in the expected duration of one academic year, the completion of which is realized by passing a specialist exam, obtaining the professional title of nurse/medical technician specialist in home health care and acquiring 60 ECTS. According to the original proposal, 40% of the implementation Curriculum and Program would be intended for the acquisition of additionally necessary skills from certain diagnostic and therapeutic procedures, 40% for additional training in the field of palliative health care for patients who today make up 60% of the total nursing interventions performed through the activity of home health care, and 20% to additional training related to organizing and coordinating work within health care institutions, as well as

communication and teamwork. Upon completion, there would be the possibility of continuing education through an additional year of study, and at the end of the second year of study (successfully passing all exams and defending the thesis), students would acquire the academic title of university master of nursing.

CONCLUSION

A significant contribution of this scientific work is the nomination of a nurse and medical technician of home health care as a key factor in providing quality, accessible and continuous health care at the patient's home at the level of primary health care. It is suggested to carry out a further survey in the form of an examination of the achieved efficiency and effectiveness in everyday work through the additional competences achieved upon completion of the specialization in the field of health care in the home. The obtained results have significant statistical significance and provide concrete guidelines for further actions in the form of indicators of the real needs for additional training of nurses and medical technicians of home health care.

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4. Zakon o sestrinstvu NN121/03, 117/28, 57/11…

Specijalističko usavršavanje kao inovacijski proces u sestrinskoj profesiji kroz kućnu zdravstvenu njegu

Vlatka Mrzljak[1,2,3], Antun Bajan[4,5], Andrea Milostić Srb[4], Nika Srb[5], Nikola Bajan[6]

[1]Ustanova za zdravstvenu njegu "Vlatka Mrzljak", Zagrebačka 78/a, 49243 Oroslavje, Republika Hrvatska,

[2]Hrvatsko Katoličko sveučilište, Ilica 242, 10000 Zagreb, Republika Hrvatska,

[3]Veleučilište Ivanić – Grad, Moslavačka ulica 13, 10310 Ivanić – Grad, Republika Hrvatska,

[4]Fakultet dentalne medicine i zdravlja Sveučilišta Josipa Jurja Strossmayera u Osijeku, Crkvena 21, 31000 Osijek, Republika Hrvatska,

[5]Medicinski fakultet Sveučilišta Josipa Jurja Strossmayera u Osijeku, Josipa Huttlera 4, 31000 Osijek, Republika Hrvatska,

[6]Zavod za hitnu medicinu Osječko-baranjske županije, Josipa Huttlera 2, 31000 Osijek, Republika Hrvatska

SAŽETAK

O bolesnima se brinu medicinske sestre i medicinski tehničari zaposleni u zdravstvenoj zaštiti u domu. S obzirom na napredak medicine, tehnologije i sestrinstva, osnovni nivo obrazovanja medicinskih sestara i medicinskih tehničara ne zadovoljava uvijek realne potrebe u obezbjeđivanju i pružanju kvalitetne sestrinske njege. U skladu s važećim zakonskim propisima (Zakon o zdravstvenoj zaštiti, Zakon o medicinskim sestrama), svaki pojedinac (zdrav ili bolestan) ima pravo na potrebnu kvalitetnu zdravstvenu zaštitu na području cijele Republike Hrvatske. Budući da „zdravstvena/sestrinska nega obuhvata primenu specifičnih znanja i veština zasnovanih na naučnim saznanjima iz oblasti sestrinstva, prirodnih, medicinskih i humanističkih nauka" (član 5. stav 2. Zakona o sestrinstvu), da „sestrinska delatnost može samo obavljaju medicinske sestre u obimu predviđenom kompetencijama stečenim obrazovanjem" (član 5. stav 4. Zakona o sestrinstvu) i da „sprovođenje zdravstvene zaštite mora biti zasnovano na potrebama stanovništva" (član 6.). Zakona o sestrinstvu) „dokvalifikacija medicinskih sestara vrši se u slučaju kada obim i složenost poslova i očekivani rezultati zahtevaju dodatno obrazovanje, odnosno specijalizaciju iz određene oblasti zdravstvene zaštite" (čl. 9. st. 1.). Zakona o sestrinstvu) i „provodi se u cilju poboljšanja kvaliteta i efikasnosti rada medicinskih sestara" (čl. 9. st. 2. Zakona o sestrinstvu) upravo zahvaljujući proaktivnosti medicinskih sestara i medicinskih sestara. technici iz različitih aktivnosti sestrinske profesije koje kroz inovativne modele i projekte stvaraju mogućnost daljeg razvoja i napredovanja u vidu edukacije medicinskih sestara i medicinskih tehničara, a u cilju postizanja konkretne efikasnosti u praksi kroz konkurentno učešće u implementaciji. potrebnih intervencija u cilju postizanja brže dijagnostike kod pacijenata, odnosno veće efikasnosti u ishodima.

COORESPONDING AUTOR:

Vlatka Mrzljak, Doktorand soc., dipl.med.ses.

e-mail: vlatka.mrzljak@kr.t-com.hr

Invasive procedures in intensive care unit

Zaneta Bogoevska – Miteva, mag.zdrav.njege
Klinička bolnica "Žan Mitrev", Bledski Dogovor 8, 1000 Skoplje, Republika Sjeverna Makedonija
e-mail: zaneta.miteva@zmc.mk

ABSTRACT

Introduction: Intensive care units (ICUs) are specialist hospital wards. They provide intensive care (treatment and monitoring) for people in a critically ill or unstable condition. ICUs are also sometimes known as critical care units or intensive therapy departments. A person in an ICU needs constant medical attention and support to keep their body functioning. They may be unable to breathe on their own and have multiple organ failure. Medical equipment will take the place of these functions while the person recovers. There are several circumstances where a person may be admitted to an ICU. These include after surgery, or following an accident or severe illness.

The Special Hospital for Surgical Diseases"Filip Vtori" was established on 01.03.2000 and from the very beginning of its existence, it represents a new and original concept in medicine based on modern medical technology, prime education of staff, intensive work and uncompromising dedication and humanity for patients.

The Intensive Care Unit in SHSD "Filip Vtori" is a 15-bed unit that provides care to patients requiring pre- and post-operative care for cardiac surgical conditions. Care in this unit is provided on a continuous 24-hour basis and is available for critically ill patients requiring intensive care as well as patients requiring intermediate care (IMC). A critical care intensivist rounds daily with other care providers.

Invasive procedures conducted in our ICU are:

1. Central venous catheter – CVK is a catheter placed into a large vein in the neck (internal jugular vein), chest (subclavian vein or axillary vein) or groin (femoral vein).

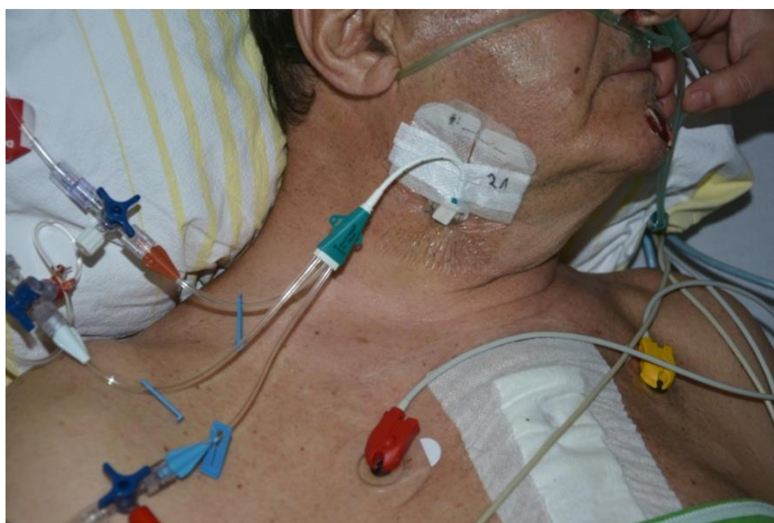

Figure 1. Position of CVK

Indications

- Hemodynamic monitoring
- Administration of drugs likely to induce phlebitis
- Temporary cardiac pacemaker
- Hemodialysis
- Lack of peripheral venous access
- Use of Vigileo

2. Arterial catheter - is a thin catheter inserted into an artery. It is most commonly used in intensive care medicine and anesthesia to monitor the blood pressure real-time (rather than by intermittent measurement), and to obtain samples for arterial blood gas measurements.

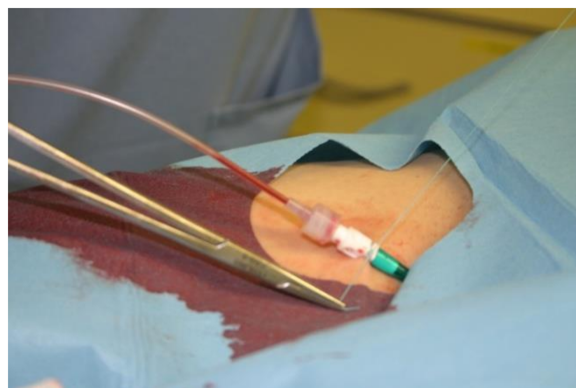

Figure 2. Insertion of arterial catheter

Indications

- Continuous direct blood pressure(BP) monitoring
- Inability to use indirect BP monitoring
- Frequent blood sampling

3. Intraaortic ballon pump (IABP) is a mechanical device that increases myocardial oxygen perfusion while at the same time increasing cardiac output. Increasing cardiac output increases coronary blood flow and therefore myocardial oxygen delivery. It consists of a cylindrical polyethylene balloon that sits in the aorta, approximately 2 centimeters (0.79 in) from the left subclavian artery and counterpulsates. That is, it actively deflates in systole, increasing forward blood flow by reducing afterload through a vacuum effect. It actively inflates in diastole, increasing blood flow to the coronary arteries via retrograde flow. These actions combine to decrease myocardial oxygen demand and increase myocardial oxygen supply.

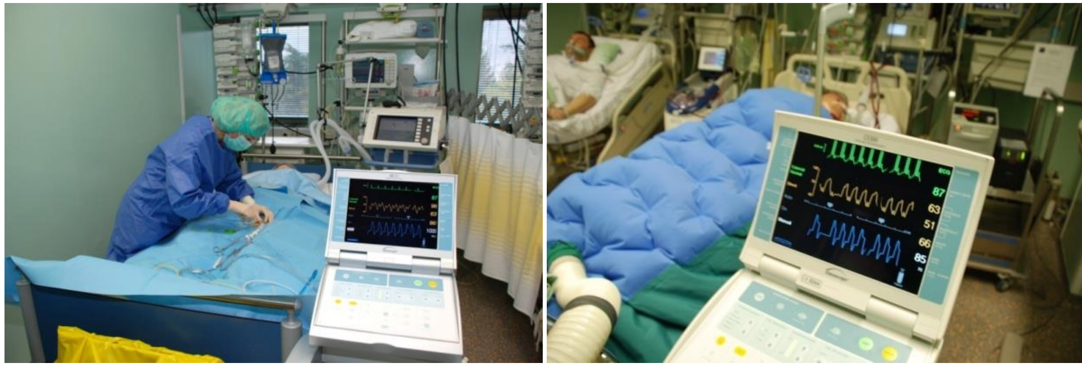

Figure 3. Placement and use of IABP

Indications

- Cardiogenic shock
- Non stabile angina
- Acute myocardial infarction with hemodynamic instability
- Acute left heart failure
- Chronic left heart failure
- High left main stenosis with hemodynamic non stability

IABP pre-op. 2781(81.2%) pts.
IABP post op. 644(18.8%) pts.
IABP total 3425 (23,9%)
of 14 589 operated patients

3. A Tracheotomy is a surgical procedure to create an opening through the neck into the trachea (windpipe). A tube is usually placed through this opening to provide an airway and to remove secretions from the lungs. This tube is called a tracheostomy tube or trach tube.

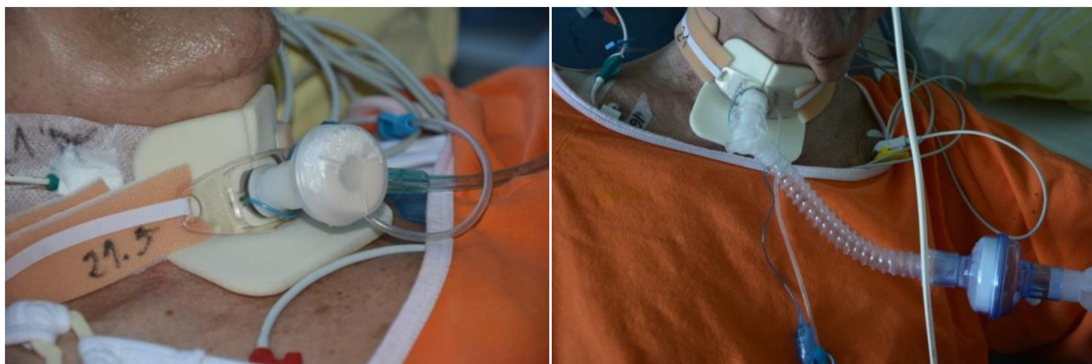

Figure 4. Tracheostomy tube with "nose" and on ventilator

Indications

- To facilitate weaning from positive pressure ventilation in acute respiratory failure or prolonged ventilation.
- To secure and clear an airway in the upper respiratory tract where obstruction is a risk.
- To facilitate the removal of respiratory secretions.
- To protect/minimise risk of aspiration in the patient with poor or absent cough reflex.
- To obtain an airway in patients with injuries or surgery to the head and neck area.

In certain circumstances the tracheostomy may facilitate:

- Improved oral hygiene for the intubated patient
- Decreased requirement for sedation in the intubated patient
- Oral movement for communication, nutrition and hydration (with manipulation)
- Reduction in damage to the larynx, mouth or nose from prolonged endotracheal intubation
- Vocalisation (with manipulation)
- Improved patient comfort

4. Renal Replacement Therapy – (RRT); Continuous veno- venous hemofiltration (CVVH) The goal of any continuous renal replacement therapy (CRRT) is to replace, as best as possible, the lost function of kidneys. CRRT provides slow and balanced fluid removal that even unstable patients - those with shock or severe fluid overload - can more easily tolerate.

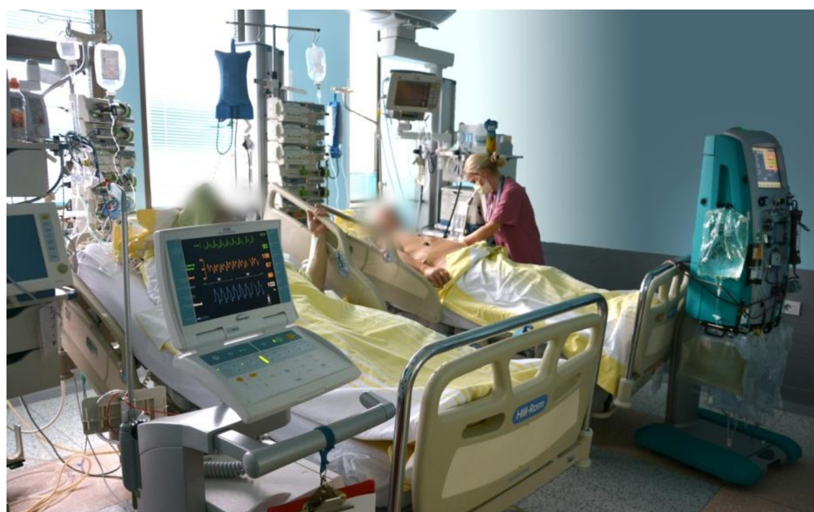

Figure 5. Patient on IABP and CRRT

Indications

- Normal water balance
- Electrolyte control
- Coagulation control
- Decreasing of serum urea and creatinine level

- Good patient comfort- without muscle cramps, hypoglycemia, parenthesis and vomiting

341 (21,3%) pts with RRT

(mortality rate 14,8%-50pts)

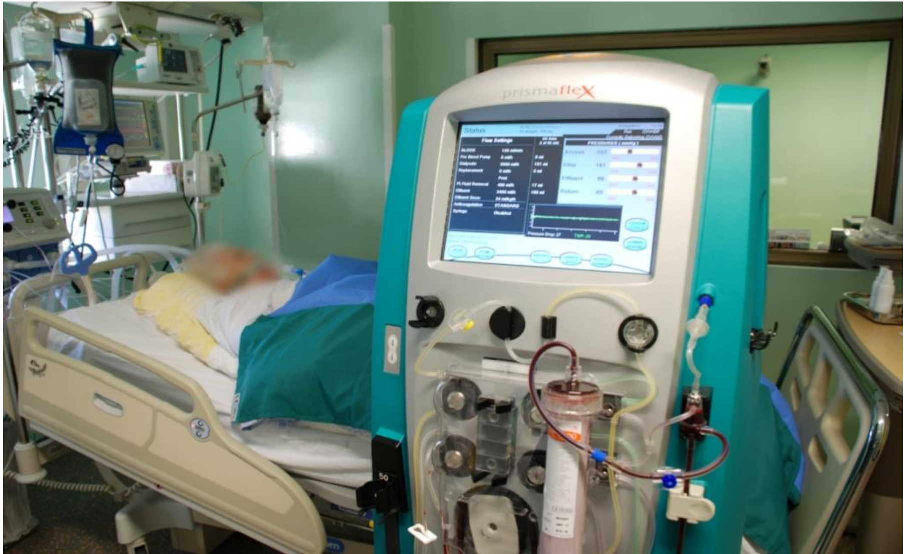

Figure C. ontinuous veno- venous hemofiltration (CVVH) in progress

5. Percutaneus endoscopy gastrostomy – PEG is an endoscopic medical procedure in which a tube (PEG tube) is passed into a patient's stomach through the abdominal wall, most commonly to provide a means of feeding when oral intake is not adequate (for example, because of dysphagia or sedation).

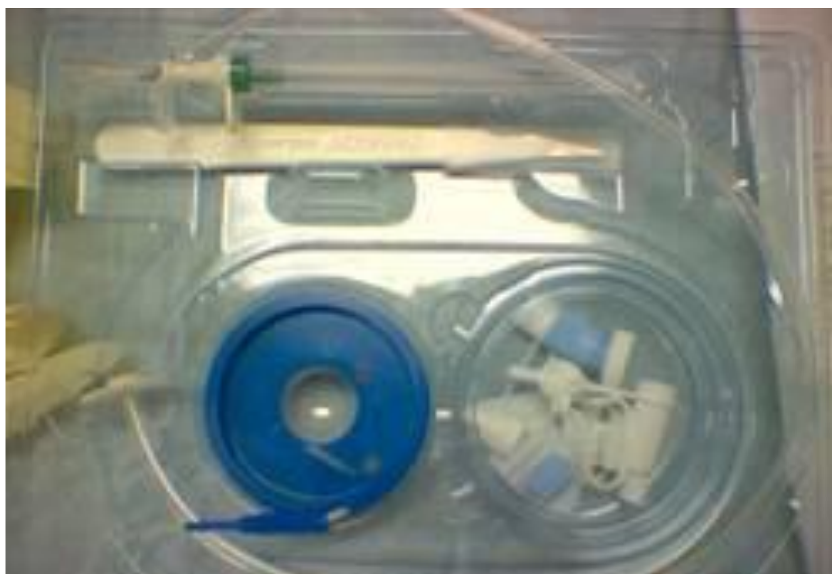

Figure 7. Set for percutaneous endoscopic gastrostomy

Indications

- Neurologically unsafe swallowing:
- Acute ischaemic or haemorrhagic stroke:
- Chronic progressive neuromuscular disease.
- Failure of feeding:
- Dementia
- Cystic fibrosis
- Peritoneal dialysis

6. Percutaneus chest tube is a flexible plastic tube that is inserted through the chest wall and into the pleural space or mediastinum. It is also known as a Bülau drain or an intercostal catheter.

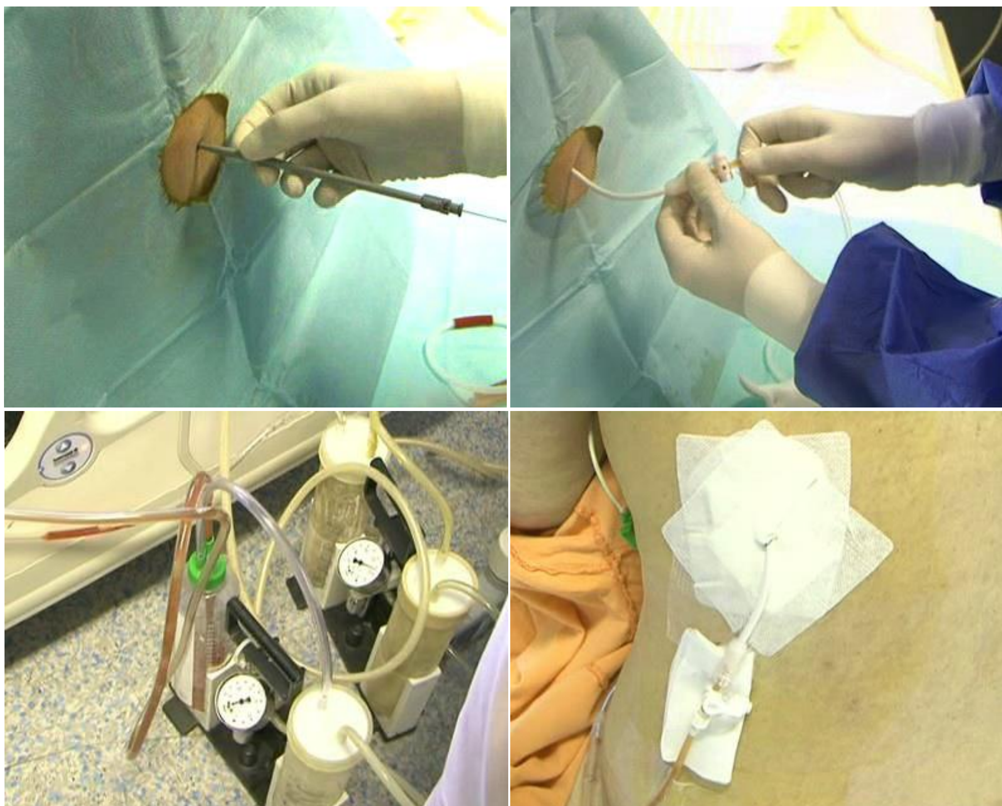

Figure 8. Placement phases of percutaneous chest tube

Indications

- to remove air (pneumothorax)
- or fluid (pleural effusion, blood, chyle),
- or pus (empyema) from the intrathoracic space

DISCUSSION

These invasive procedures are done on patient's bedside by our intensivist mostly in life treating situations, saving patient's lives. The planned procedures are convenient to the patients as well as for staff

members because they are shortening the time to getting adequate treatment, are performed in patient's familiar settings by familiar faces and the time to get results are much faster considering transport related time spending. Prompt and timely diagnostics based on modern imaging techniques provides right diagnosis at the right time for every patient. That is why performing these procedures on patients bed most of the times is life saving.

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Invazivne procedure u jedinici intenzivne nege

Zaneta Bogoevska – Miteva, mag.zdrav.njege

Klinička bolnica "Žan Mitrev", Bledski Dogovor 8, 1000 Skoplje, Republika Sjeverna Makedonija

e-mail: zaneta.miteva@zmc.mk

SAŽETAK

Uvod: *Jedinice intenzivne njege (ICU) su specijalistička bolnička odjeljenja. Pružaju intenzivnu njegu (liječenje i praćenje) za osobe u kritično bolesnom ili nestabilnom stanju. Jedinice intenzivne terapije su ponekad poznate i kao jedinice kritične njege ili odjeljenja intenzivne terapije. Osoba na intenzivnoj nezi treba stalnu medicinsku pomoć i podršku kako bi svoje tijelo funkcionisalo. Možda neće moći samostalno da dišu i imaju višestruko zatajenje organa. Medicinska oprema će zamijeniti ove funkcije dok se osoba oporavlja. Postoji nekoliko okolnosti u kojima osoba može biti primljena na intenzivnu negu. To uključuje nakon operacije, nesreće ili teške bolesti.*

Specijalna bolnica za hirurške bolesti "Filip Vtori" osnovana je 01.03.2000. godine i od samog početka svog postojanja predstavlja nov i originalan koncept u medicini zasnovan na savremenoj medicinskoj tehnologiji, vrhunskom obrazovanju osoblja, intenzivnom radu i beskompromisnoj posvećenosti. i humanost za pacijente.

Jedinica intenzivne njege u SHSD „Filip Vtori" je jedinica sa 15 kreveta u kojoj se zbrinjavaju pacijenti kojima je potrebna pre- i postoperativna njega zbog kardiohirurških stanja. Njega u ovoj jedinici pruža se kontinuirano 24 sata i dostupna je za kritično bolesne pacijente kojima je potrebna intenzivna njega, kao i za pacijente kojima je potrebna intermedijarna njega (IMC). Intenzivista intenzivne njege svakodnevno obilazi druge pružaoce njege.

UPUTE AUTORIMA

Časopis "Reformator" objavljuje stručne i naučne radove, preglede, prikaze bolesnika, zapažanja, primjere iz kontinuirane edukacije, sažetke radova s kongresa i simpozija, preliminarna naučna i stručna saopštenja iz područja sestrinskog obrazovanja, prakse istraživanja, zdravstvene njege, primaljstva, medicine i srodnih područja, kao što su etika i pravo u zdravstvu, sestrinska i liječnička znanost o upravljanju, javno zdravstvo i povijest sestrinstva i medicine. Prihvaćanje kategorizovanog članka obavezuje autora da isti rad ne smije objaviti na drugome mjestu bez dozvole Uredništva.

Radovi se predaju isključivo, kao prilog ili attachment putem elektronske pošte, upućeni na e-mail adresu Komore medicinskih sestara i tehničara Kantona Sarajevo, sa Naslovom ili Subject-om: Za glavnog i odgovornog urednika Časopisa, komora.mstks@gmail.com. Nakon zaprimanja naučnog rada, glavni i odgovorni urednik ocjenjuje hoće li ga odmah proslijediti recezentu, vratiti autoru sa sugestijama za doradu ili odbiti. Naučni radovi podliježu recenziji od strane jednog recezenta. Recenzija je „dvostruko slijepa" - autorima nije poznat identitet recenzenata, niti je recenzentima poznat identitet autora.

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Uredništvo ne mora radove objavljivati onim redom kojim pristižu. Časopis izlazi dva puta godišnje.

Upute autorima u skladu su s tekstom International Committe of Medical Journal of Editors. Uniform Requirements for Manuscripts submitted to Biomedical Journals (N. Engl J Med 1997;336: 305-15).

1. TEKST RADA

Cijeli tekst mora biti elektronski pripremljen, da na jednoj stranici bude najviše 30 redova, pri ispisu veličine slova 12, fonta Times New Roman. Iza interpunkcijskih znakova (uključujući tačke, zareze i ostalo) ostaviti samo jedno prazno mjesto. S obje strane teksta teba ostaviti bijeli rub širok najmanje 2,5 cm. Pregledi, stručni i naučni radovi smiju imati do 10 stranica teksta, a prikazi bolesnika, metoda, preliminarnih saopćenja, te osvrti do 8 stranica. Svaki dio teksta treba započeti na novoj stranici. Sve stranice trebaju biti numerisane, počevši s naslovom. Broj stranica treba označiti u donjem desnom uglu.

Sve osobe navedene kao autori rada moraju ispunjavati sljedeće uslove:

A. da su značajno pridonijele planiranju i izradi rada ili analizi i interpretaciji rezultata,

B. da su učestvovale u pisanju i ispravljanju rada, te da se slažu s konačnim tekstom.

Osobe koje su samo učestvovale u prikupljanju podataka ili su nadređene istraživačima, ali nisu aktivno učestvuju u izradi rada, ne mogu biti autori. Urednik ima pravo tražiti od autora da objasne doprinos svakog od njih. Redoslijed autora, određuju dogovorno autori.

Radovi moraju imati ovaj sadržaj:

1.1. Naslovnu stranicu s naslovom na jednom od jezika konstitutivnih naroda i engleskom jeziku te imena i prezimena svakog autora s akademskim zvanjem uz naziv ustanove u kojoj radi, te na kraju rada navedeno ime i prezime autora zaduženog za komunikaciju s časopisom, njegova puna adresa, telefonski broj, broj faksa i e-mail adresa.

1.2. Sažetak na jednom od jezika konstitutivnih naroda u BiH, prilaže se na posebnom papiru, sa ukupno 200-250 riječi. Mora sadržavati poglavlja: Cilj, Metode, Rezultati i Zaključak. Dakle treba sadržavati sve bitne činjenice iznesene u radu: svrhu rada, metodu, bitne rezultate s brojčanim podacima, osnovne zaključke.

1.3. Sažetak na engleskom jeziku piše se također na posebnom papiru. On sadrži i naslov rada na engleskom jeziku. Neprevedene ili loše prevedene sažetke uredništvo će dati na popravak ili prijevod lektoru engleskog jezika na autorov trošak. Mogu se dakle, slati i neprevedeni sažeci.

1.4. Ključne riječi. Na listu papira koji sadrži sažetak na jednom od jezika konstitutivnih naroda u BiH ili engleskom jeziku, ispod teksta, valja napisati 3-6 ključnih riječi koje su bitne za brzu identifikaciju i klasifikaciju rada. U pravilu treba kao ključne riječi koristiti glavne natuknice (MeSH, od engl., Medical Subject Headings) iz Index Medicusa.

1.5. Uvod je kratak i jasan prikaz biti problema i svrhe istraživanja. Jasno opisati glavnu svrhu istraživanja i glavnu hipotezu koja se provjerava istraživanjem ili glavno pitanje na koje treba odgovoriti. Uključiti dosad objavljene informacije o toj temi u naučnoj literature, te istaknuti čime će ovo istraživanje doprinijeti poznavanju teme.

1.6. Materijali i metode primijenjene u radu, prikazuju se kratko, ali dovoljno da se čitatelju omogući ponavljanje opisanog istraživanja. Korištene statističke metode treba objasniti dovoljno detaljno da bi čitatelj mogao iz originalnih rezultata izračunati navedene vjerovatnosti. Pružiti informacije o okruženju u kojem je istraživanje provedeno (ruralna ili gradska sredina, zdravstvena ustanova, škola, radno mjesto). Za istraživanja na ljudima treba navesti jesu li provedeni u skladu s etičkim načelima i Deklaracijom iz Helsinkija iz 1975.

godine i njezinim izmjenama iz 1983. godine. Također treba navesti je li koji etički odbor dao pristanak za provođenje istraživanja. U radu se ne smiju navoditi imena, inicijali ili matični brojevi bolesnika. Potrebno je navesti kriterije izbora odnosno isključivanje bolesnika iz istaživačke skupine, kao i detalje rondomizacije. Treba navesti kako je postignuta jednostruka odnosno dvostruka sljepoća istraživanja, nastale komplikacije i broj bolesnika izgubljenih iz praćenja. Ako su se koristili testovi, navesti standardne vrijednosti za testove, vremenski odnos (prospektivna, retrospektivna studija), izbor i broj ispitanika – kriteriji za uključivanje i isključivanje u istraživanje. U preglednim radovima treba objasniti kako su podaci pronalaženi, birani i sintetizirani. To treba ukratko navesti i u sažetku.

1.7. Rezultate treba jasno i precizno prikazati, ali bez rasprave i tumačenja. Značajnost rezultata potrebno je statistički obraditi. Rezultati se prikazuju tablicama, grafikonima, slikama i izravno se unose u tekst gdje im je mjesto, s rednim brojem i tačnim naslovom. Tablica treba imati najmanje dvije kolone, s obrazloženjem šta prikazuje; slika čista i kontrastna, a grafikon jasan, s vidljivim tekstom i obrazloženjem.

1.8. Rasprava je kritički osvrt na podatke opisane u svojim rezultatima, tumačenje rezultata. Vlastite dokaze treba potkrijepiti drugim podatcima: usporedba s dosadašnjim vlastitim i tuđim istraživanjima. Njih treba citirati, i to tako da ne ispustimo radove drugih kako bi vlastito istraživanje izgledalo važnije.

1.9. Zahvala, u kojoj treba zahvaliti ljudima koji su pomogli u istraživanju, ali nisu autori rada. Dobro je navesti izvor finansiranja istraživanja.

1.10. Zaključci moraju biti kratki i da sadrže najbitnije činjenice do kojih se došlo u radu tokom istraživanja.

1.11. Popis literatura, prikazati izvore drugih istraživanja, tj. koji su ih napravili, povećati vjerodostojnost vlastitih rezultata, čitatelju pomoći da pronađe dodatne informacije. Ona se navodi rednim brojem, prema redoslijedu citiranja u tekstu (Prva referenca nosi broj 1.). Literaturni navodi koji se citiraju u tekstu trebaju biti označeni brojevima u uglatim zagradama. Ako rad ima šest ili manje autora, treba ih navesti sve, a ako ih ima više, iza šestog stavlja se zarez i oznaka „et al.“. Literatura se citira prema dogovoru postignutom u Vancouveru, po Vancouverskom sistemu, i to: redni broj referencije, prezime autora, inicijali autora, naslov članka, ime časopisa, godina izdanja, broj, prva stranica, zadnja stranica. Primjer: Nasić M, Orešković S. Two ophthalmology departments financed by compulsory health insurance: what is it that makes a difference in costs and clinical effectiveness? Croat Med J. 20002;43:433-8.). Za naslove časopisa treba koristiti kraticu navednu u Index medicus.

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2. POPRATNO PISMO UREDNIKU

Svi novi rukopisi trebaju biti popraćeni pismom glavnom uredniku u kojem se navode sljedeće izjave:

(a) nije bilo dvostruke publikacije ili slanja rukopisa na drugo mjesto,

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(c) ako rad bude prihvaćen za objavljivanje, autori će prenijeti prava na izdavača, i

(d) ne postoji etički problem ni sukob interesa.

Također korisno je uputiti, ako tekst bude prihvaćen za objavljivanje, u kojim se dijelovima može skratiti. Imajte na umu da radovi mogu biti prihvaćeni i objavljeni u kraćoj varijanti.

U pismu treba navesti mišljenje autora o kojoj se vrsti rada radi.

Rukopisi se ne vraćaju, a svi štampani prilozi, vlasništvo su časopisa Reformator.

Sadržaj časopisa Reformator može se koristiti uz navod „preuzeto iz časopisa Reformator“.

AKTIVNOSTI O KOMORI

Šestoaprilska nagrada Grada Sarajevaza
Komoru medicinskih sestara – tehničara Kantona Sarajevo

Čast nam je i veliko zadovoljstvo podijeliti sa Vama informaciju, da je Gradsko vijeće Grada Sarajeva na sjednici koja je održana 08.03.2023.g. donijelo Odluku da se Komori medicinskih sestara-tehničara Kantona Sarajevo dodijeli „Šestoaprilska nagrada Grada Sarajeva za 2023.g.“ za doprinos u oblasti zdravstva i socijalne zaštite. Nagrada je uručena na Svečanoj sjednici Gradskog vijeća u povodu obilježavanja Dana Grada Sarajeva – 6. aprila. Šestoaprilsku nagradu su uručili gradonačelnica Grada Sarajeva g-đa Benjamina Karić i predsjedavajući Gradskog vijeća Grada Sarajeva g-din Jasmin Ademović. Prisutnima se u ime Komore medicinskih sestara-tehničara obratila g-đa Magbula Grabovica, mag.zdravstvene njege i terapije koja je i primila Plaketu.

Dodijelom ovog značajnog priznanja, možemo sa sigurnošću reći da je prepoznat doprinos medicinskih sestara-tehničara u svim društvenim sferama u Kantonu Sarajevo. Ova nagrada nas obavezuje da jačamo svoju profesiju, mijenjamo društvene poglede prema profesiji, unaprijeđujemo znanja, utičemo na reformu zdravstvenog sistema sa ciljem poboljšanja kvalitete usluga, pomažemo ljudima u očuvanju zdravlja, liječenju i njegovanju bolesnih i unesrećenih, te pružanju podrške i njege bolesnim na kraju života.

Novčana nagrada koju je ovom prilikom Komora dobila će biti proslijeđena narodu Republike Turske koji je pogođen zemljotresom.

Sarajevski simpozij za medicinske sestre – tehničare sa međunarodnim učešćem

„Inovacije u zdravstvenoj njezi“

U organizaciji Komore medicinskih sestara – tehničara Kantona Sarajevo, a pod pokroviteljstvom Fakulteta zdravstvenih studija – Univeziteta u Sarajevu, od 02. – 04.12.2022.g. u hotelu „Holiday“ održan je Sarajevski Simpozij za medicinske sestre – tehničare sa međunarodnim učešćem, pod nazivom ***„Inovacije u zdravstvenoj njezi“****.*

Simpozij je poprimio međunarodni karakter jer su aktivno učešće u Simpoziju uzeli i medicinski radnici iz 5 zemalja regiona, tj. iz Republike Slovenije, Republike Srbije, Republike Hrvatske, Republike Sjeverne Makedonije i Republike Austrij+387e. Kroz sva tri dana aktivnih izlaganja, predstavljena su 22 naučna rada, istraživanja, metode ili inovacije u zdravstvenoj njezi.

Simpozij je izazvao veliko interesovanje svih medicinskih radnika kako u BiH, tako i u regionu, te je posjećenost Simpoziju i predavanjima i izlaganjima bila velika, što dokazuje broj učesnika koji je bio veći od 600.

Simpozij je svečano otvorio predsjednik Komore medicinskih sestara – tehničara Kantona Sarajevo Prof. Dr. Hadžan Konjo i Doc.Dr.sc. Amer Ovčina koji su na početku Simpozija istakli značaj teme i izlaganja radova, kroz koje se možemo upoznati sa novim pravcima i tendencijama u zdravstvenoj njezi, a koje su neke od ustanova ili država u svojim praksama već primijenile ili se pripremaju da primjene.

Simpozij je svečano otvoren sa prigodnim programom od strane učenika Osnovne škole “Mirsad Prnjavorac“u Vogošći, a pod vodstvom nastavnika g-din Midhata Kujundžića. Pored učenika skupu se obratila prikladnim numerama sopranistica prof.dr Lejla Jusić. Da tema simpozija nije samo zdravstvena njega, pobrinuo se organizator koji je organizovao svečanu večeru, gdje su se u svečanoj atmosferi razmijenile ideje, pravci, načini, iskustva, prijateljstva, saradnje, kontakti itd., tj. sve ono što je pored glavne teme i cilja simpozija i potrebno za bolje razumijevanje i bolje djelovanje u oblasti zdravstvene njege i sestrinstva.

Sarajevski simpozij za medicinske
sestre-tehničare sa međunarodnim učešćem
„Inovacije u zdravstvenoj njezi"

sestre-tehničare sa međunarodnim učešćem
„Inovacije u zdravstvenoj njezi"