



12<sup>th</sup>

INTERNATIONAL SCIENTIFIC  
**CONFERENCE**  
Research and Education in Nursing

Book of Abstracts, June 13<sup>th</sup> 2024, Maribor, Slovenia

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Faculty of Health Sciences

# **International Scientific Conference »Research and Education in Nursing«**

Book of Abstracts

June 13<sup>th</sup> 2024, Maribor, Slovenia

Editors

**Mateja Lorber**

**Klavdija Čuček Trifkovič**

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June 2024

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## Preface

ASSOC PROF MATEJA LORBER, PHD  
University of Maribor, Faculty of Health Sciences, Dean

Dear Esteemed Speakers and Conference Participants,

This year's traditional international conference is enriched by lectures from domestic and international higher education teachers, researchers, and students in the fields of nursing, healthcare, and public health.

The purpose of the conference is to present the progress in research and education in nursing both in Slovenia and internationally. Additionally, it will be an excellent opportunity to exchange research evidence, models of good practice, innovative ideas, opinions, and experiences.

Engaging plenary lectures will provide detailed insights into the safe use of artificial intelligence in nursing, the development of research capabilities in nurses, person-centred palliative care, and the collective impact on the mental well-being of adolescents. These will be followed by presentations in three different sections, where the latest research findings will be presented, significantly contributing to the development of nursing science and discipline.

The conference is an excellent opportunity for networking and strengthening ties with higher education teachers, researchers, and students from our partner institutions on both national and international levels, paving the way for successful future collaborations and connections.

We hope the conference has met your expectations, and we sincerely thank you for your contribution. We look forward to continuing successful collaboration in the fields of education and scientific research.

## Predgovor

IZR. PROF. DR. MATEJA LORBER

Univerza v Mariboru, Fakulteta za zdravstvene vede, dekanica

Cenjeni in spoštovani predavatelji in udeleženci konference!

Letošnjo tradicionalno mednarodno konferenco bogatijo predavanja domačih in tujih visokošolskih učiteljev, raziskovalcev in študentov s področja zdravstvene nege, zdravstva in javnega zdravja.

Namen konference je predstaviti napredek na področju raziskovanja in izobraževanja v zdravstveni negi v slovenskem in mednarodnem prostoru. Poleg tega bo to odlična priložnost za izmenjavo raziskovalnih dokazov, modelov dobrih praks, inovativnih idej, mnenj in izkušenj.

Zanimiva plenarna predavanja bodo podrobneje predstavila varno uporabo umetne inteligence v zdravstveni negi, razvoj raziskovalnih zmogljivosti medicinskih sester, na osebo osredotočeno paliativno oskrbo ter kolektivni vpliv na duševno blagostanje mladostnikov. Sledila bodo predavanja v treh različnih sekcijah, kjer bodo predstavljene najnovejše ugotovitve raziskav, njihovi izsledki pa bodo pomembno prispevali k razvoju znanosti in discipline zdravstvene nege.

Konferenca je odlična priložnost za druženje in utrjevanje vezi z visokoškolskimi učitelji in raziskovalci ter študenti iz naših partnerskih institucij na nacionalni in mednarodni ravni za uspešno nadaljnje sodelovanje in povezovanje.

V upanju, da je konferenca dosegla vaša pričakovanja se vam najlepše zahvaljujemo za vaš doprinos in se veselimo nadaljnjega uspešnega sodelovanja na izobraževalnem in znanstvenoraziskovalnem področju.

**Plenary lectures**  
Plenarna predavanja



# A Journey Through the Safe Application of Artificial Intelligence in Nursing

LAURA-MARIA PELTONEN

Digitalisation has enabled the processing of vast amounts of information and the application of artificial intelligence technologies within healthcare. Artificial intelligence is transforming healthcare delivery and nursing at an increasing pace. Common applications include clinical decision support systems, sensors and wearable devices for monitoring health, natural language processing technologies to support documentation and interactions, process automation in administrative tasks, virtual health assistants, predictive analytics for risk assessment as well as simulation tools and virtual reality environments to support learning. Although these technologies bring a multitude of benefits, their application also poses risks related to data privacy and security, bias and inequality, depersonalisation of care, technical challenges, as well as legal and ethical issues. Hence, the application of artificial intelligence technologies into nursing necessitates a recalibration of nursing roles and competencies. This development requires a corresponding evolution in nursing education, where curricula includes artificial intelligence literacy, data management, legal and ethical considerations around the use of these technologies, preparing the nurses to effectively interact with these systems and interpret their outputs. This integration of artificial intelligence necessitates ongoing interdisciplinary collaboration between nurses, computer scientists, information scientists and researchers to ensure that the systems developed are used ethically, effectively and in a clinically relevant and appropriate manner to support nursing, patient outcomes and organisational processes. This presentation covers applications of artificial intelligence in nursing and their implications to practice, education and research.

**Keywords:** artificial intelligence, nursing, nursing education, ethics.

**About the author**

Assoc Prof **Laura-Maria Peltonen**, PhD, RN  
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# Developing Research Capacity of Nurses and Midwives in Ghana: The Near Ghana Project

ROSIE STENHOUSE

**Background:** Nursing and midwifery, like other healthcare disciplines, are evidence-based. In order to practice in an evidence-based manner, professionals need access to up-to-date research as well as research skills and knowledge. A chance email in 2020 from a psychologist/lecturer in Ghana searching for resources to teach community workers about mental health, led to the development of this project focused on research capacity development.

**Aim:** to co-produce an understanding of the challenges, their causes/maintaining factors, and priorities and actions for change when trying to access up-to-date research to support teaching, research or evidence-based practice.

**Research approach:** The six steps in quality intervention development (6SQuID) framework is used with mixed methods approach. The work so far addresses steps 1-4 of the 6SQuID.

**Methods:** A systematic review (Zhang et al 2023) was undertaken and underpinned development of qualitative co-productive workshops and an online survey. 43 nurses and midwives from two teaching hospitals in Ghana participated in the workshops. 100 healthcare professionals in Ghana responded to the survey.

**Findings:** The systematic review identified a paucity of literature, finding that challenges were experienced at individual, organisational and infrastructural levels. The workshop added to our understanding of the challenges experienced at these three levels, and enabled complex understanding of factors which cause and maintain these challenges. The survey findings add further support to this evidence, with additional data around potential mechanisms which might be amenable to change.



**Discussion:** When considering research capacity development it is important to work with stakeholder groups to enable contextually situated understanding of the challenges, causal mechanisms and potential solutions.

**Conclusion:** Healthcare professionals in Ghana experience a range of challenges in relation to accessing evidence for practice and education. For change to occur, the next stage is to co-produce theories of change with a wide range of stakeholders, enabling the development, implementation and testing of interventions.

**Keywords:** research in Ghana, research capability in healthcare, challenges.

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# The Collective Impact: Parents, Teachers, Nurses, and Legislators Shaping Adolescent Mental Well-Being

LEONA CILAR BUDLER, MAJDA PAJNKIHAR, GREGOR ŠTIGLIC, OWEN BARR

**Introduction:** Mental well-being encompasses an individual's positive state, characterized by self-acceptance, societal integration, and the realization of one's potential. This state is influenced by factors such as positive relationships, self-acceptance, culturally supported values, and expectations. Interpersonal relations play a vital role in maintaining the mental well-being of adolescents.

**Methods:** This study adopted a pragmatic research paradigm, using a mixed-methods research design. The quantitative part involved 2,972 adolescents surveyed using questionnaires and analyzed using descriptive and inferential statistics. Qualitative data were collected through semi-structured interviews with 5 focus groups comprising adolescents, parents, teachers, legislators, and nurses. Data analysis followed Corbin and Strauss's (2008) framework.

**Results:** Adolescents' mental well-being is positively correlated with their social support. As the age of adolescents increases, both their mental well-being ( $r=-0.286$ ) and social support ( $r=-0.239$ ) tend to decrease. According to adolescents, nurses play a role in talking with them, helping, providing advice, and explaining any difficulties they may be experiencing. The mental well-being of adolescents is influenced by their interactions and relationships with parents, friends, and teachers. The interactions and expectations of adolescents differ depending on their age.

**Discussion and Conclusion:** Adolescents prioritize family support and expect relations based on mutual respect and trust. Nurses are essential for maintaining adolescent mental well-being due to their expertise in health promotion, while teachers acknowledge their contribution as role models. To ensure the mental well-being of adolescents, it is essential

to consider a multidimensional model of well-being, which encompasses various aspects such as emotional, social, psychological, and physical dimensions.

**Keywords:** mental health, teens, healthcare support, social support.

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# Person-Centred Palliative Care Live Experience of Patients with Non-Communicable Diseases, Care Partners and Healthcare Professionals

SERGEJ KMETEC, MATEJA LORBER, BRENDAN MCCORMACK

**Introduction:** Palliative care is a person-centred approach that aims to manage distressing symptoms, improve quality of life, and support patients and care partners. However, it is often introduced too late and faces barriers in acute care. This abstract explores person-centred palliative care experiences for patients, care partners, and healthcare professionals dealing with non-communicable diseases.

**Methods:** The data was collected using semi-structured interviews and then analysed thematically between June and July 2021. Patients with non-communicable diseases, care partners and healthcare professionals from three facilities participated in the study. We opted for a purposive sample as we were interested in the experiences of these participants. We ended the data collection and analysis process when we reached data saturation.

**Results:** Data saturation was achieved with 13 patients, 11 healthcare professionals and 12 care partners. This resulted in a total sample of 36 respondents. We identified one main theme: Person-centred palliative care in patients with non-communicable diseases. These components are (1) approach to person-centred palliative care, (2) aspects of person-centred palliative care, (3) environment of person-centred palliative care, and (4) experiences of person-centred palliative care.

**Discussion and conclusion:** Person-centred palliative care is essential in the treatment of patients with non-communicable diseases. For this reason, it is essential to follow the four key components of person-centred palliative care. These four key components provide healthcare professionals and transdisciplinary palliative care teams with the steps to provide person-centred palliative care to the patient and support care partners.

**Keywords:** person-centred care, palliative care, patients, care partners, healthcare professionals, experience.

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**Abstracts – Session 1**  
Izvečki – Sekcija 1





# Translation, Adaption, and Content-Validity of the Austrian Self-Assessment of Nursing Informatics Competencies Scale

MARTEN SCHMIED, JAN DANIEL KELLERER, ELISABETH HOLZER,  
GERHARD MÜLLER

**Introduction:** Even though the digital competencies needed by nurses and nursing specialists have already been defined elsewhere, little is known about the digital competencies nursing students bring with them. This study aims to translate the Self-assessment of Nursing Informatics Competencies Scale (SANICS), a valid instrument to measure these competencies, into German and culturally adapt it to the Austrian context.

**Methods:** The reduced 18-item SANICS was translated and culturally adapted following the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Principles for translation. Using feedback from twenty healthcare specialists and experts for digital competencies, the scale's content validity index was established.

**Results:** The Austrian (AT-SANICS) scale proved good content validity indexes (CVI) with a Scale-CVI of 0.86 to 0.97. One item with low CVI was deemed culturally inappropriate and was therefore excluded, reducing the scale to 17 Items.

**Conclusion:** Currently, the scales' reliability and validity are being tested on nursing students from one Austrian University of Applied Sciences. Cronbach's  $\alpha$ , Coefficient McDonald's Omega, exploratory factor analysis, and contrasted groups approach will be used for psychometric testing. The authors found the reduced 17 itme AT-SANICS to be a instrument with good content-validity for measuring digital competencies in Austrian nursing students. Once the scale's reliability has been established it can be used for further assessments on a national level.

**Keywords:** nursing, digital competencies, education, validation study.

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# Mapping Review Study of Initial Dynamics of Linking Theory and Practice in Risk Management in Nursing Care – Key Elements

AGNEZA ALEKSIJEVIĆ, MORANA MAGAŠ

**Introduction:** Risk management is crucial to improve patient safety and care quality. The study examines the initial input of theory in future practice in risk management within nursing, underscoring the importance of a theoretical foundation to inform effective practical applications.

**Methods:** The mapping review included an analysis of publicly available current implementation curricula at the Faculty of Health Studies in Rijeka at the undergraduate and graduate levels of nursing studies with the keywords “risk management”. Additionally, the legal framework supporting patient safety strategies in Croatia was analysed. Key stakeholders in risk management activities have been identified. Future research should focus on teacher and student surveys to gain insight into the perception and application of risk management knowledge learned.

**Results:** Findings highlight a tangible link between theoretical knowledge and its application in real-life healthcare settings. Active learning and the application of theory to practice were identified as crucial for developing strategies that significantly improve patient safety and care quality.

**Discussion and Conclusion:** The study emphasized the need for further research in healthcare, particularly on nurses' application of theoretical principles in practice. It highlighted the importance of evaluating theory-informed risk management strategies on patient care through active learning and practical application. Continuous research and education were deemed essential for advancing risk management and improving patient care. The research faced limitations, including reliance on publicly available data and focus on a single educational institution.

**Keywords:** theoretical application, nursing education, patient safety strategies, active learning.

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# Dynamic Digital Resilience for Health and Allied Health Professionals: A Digital Literacy Needs Assessment

DOMINIKA VRBNJAK, JOHN WELLS, FLORIAN SCHEIBEN,  
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KASANDRA MUSOVIĆ, GREGOR ROMIH, MAJDA PAJNKIHAR

**Introduction:** Healthcare professionals often encounter challenges and stress related to digital technology engagement due to inadequate knowledge, training, and skills. Project, co-funded by the EU4Health program led by South East Technological University along with partners, addresses this issue by aiming to enhance digital competencies among healthcare and allied professionals in the European Union. This study assesses digital literacy among clinical and non-clinical staff in Slovenian health services.

**Method:** A cross-sectional study using an online digital literacy self-assessment survey was conducted. The online survey was distributed to health and social care institutions in Slovenia with prior consent and disseminated to clinical and non-clinical staff in health services, including doctors, nurses, and non-clinical staff. Descriptive statistics were applied for analysis.

**Results:** The survey collected responses from 326 participants. Preliminary results, though provisional and awaiting further validation, reveal insights into staff confidence in technology use and highlight educational and training needs. These findings underscore the continuous nature of the research and point towards potential improvements and opportunities for developing educational modules to improve technology integration and staff proficiency.

**Discussion and conclusion:** Despite general confidence in digital device usage, significant gaps in understanding the implications and security of digital technologies remain. Enhancing digital literacy is crucial for effectively utilizing digital tools in healthcare, aiming to improve the quality of care and efficiency.

**Keywords:** digitalisation, professionals, healthcare.

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# Detection of Arrhythmias Using Smartwatches – A Systematic Literature Review

BENCE BOGÁR, DÁNIEL PETÓ, DÁVID SIPOS, GÁBOR FÜREDI, ANTÓNIA  
KESZTHELYI, JÓZSEF BETLEHEM, ATTILA PANDUR

**Introduction:** Smartwatches represent one of the most widely adopted technological innovations among wearable devices. Their evolution has equipped them with an increasing array of features, including the capability to record an electrocardiogram. This functionality allows users to detect potential arrhythmias, enabling prompt intervention or monitoring of existing arrhythmias, such as atrial fibrillation. In our research, our scope was to collect what types of arrhythmias the smartwatches can recognise, and how effectively they do this.

**Methods:** In our research, we aimed to compile case reports, case series, and cohort studies from the Web of Science, PubMed, Scopus, and Embase databases published until August 01, 2023. We used more types of smartwatches, and cardiac arrhythmias as keywords for the search. We only included literatures that were written in English or German.

**Results:** We obtained a total of 758 results, from which we selected 57 articles, including 33 case reports and case series, as well as 24 cohort studies. Most of the scientific works focused on atrial fibrillation, often detected using Apple Watches. Nevertheless, we also included articles investigating arrhythmias with the potential for circulatory collapse without immediate intervention. According to the studies, the devices have an accuracy around 90%, for detecting tachy-, or bradyarrhythmias.

**Discussion and conclusion:** This systematic literature review provides a comprehensive overview of the current state of research on arrhythmia detection using smartwatches. Through further research, it may be possible to develop a care protocol that integrates arrhythmias recorded by smartwatches, allowing for timely access to appropriate medical

care for patients. Additionally, continuous monitoring of existing arrhythmias using smartwatches could facilitate the assessment of the effectiveness of prescribed therapies.

**Keywords:** cardiac arrhythmias, atrial fibrillation, monitoring.

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# Evaluation of Mobile Applications in the Field of Environmental Pollution

DOMINIKA MURŠEC, URŠKA ROZMAN, MIHA LAVRIČ, SONJA ŠOSTAR TURK

**Introduction:** Environmental pollution is a growing global problem. There are many ways to raise people's awareness of the facts and consequences of pollution, including through mobile applications, which are now widely available. The aim of the research was therefore to review mobile applications on mobile phones and tablets by each type of environmental pollution.

**Methods:** We used a descriptive method. We reviewed mobile applications in Google Play and iOS app stores using the keyword "environmental pollution". We followed PRISMA recommendations in the review. We excluded games, paid applications and applications that were not in English or Slovenian language.

**Results:** After removing duplicates, we counted a total of 461 mobile applications on all devices and in both mobile stores. Most mobile applications (n=196) related to air pollution, followed by water pollution (n=51) and noise pollution (n=37). We found many applications that addressed climate and environmental change in general (n=52), while only a handful of applications were available for other types of pollution.

**Discussion and conclusion:** Mobile applications can be an effective way to raise awareness about environmental pollution. Most applications address mainly the most common types of pollution, while in the future it would be important to focus on other types of pollution, e.g. plastic pollution, light pollution, or land pollution. In accordance with the current state of pollution, it would also make sense to develop new mobile applications.

**Keywords:** awareness raising, environmental care, review.

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# Effect of Technological Noise on Nurses in Pediatric Intensive Care Units: A Literature Review

AFERDITA LAHU, DOMINIKA VRBNJAK

**Introduction:** Excessive technological noise, such as alarms, monitors, infusion pumps, medical ventilators can risk nurse safety, reduce performance, and cause fatigue, especially in pediatric intensive care units where a calm environment is crucial for patient care. This study aims to examine the effects of technological noise on nurses working in pediatric intensive care units.

**Methods:** The literature review was conducted across databases: PubMed, ScienceDirect, and Web of Science using search terms “nurse” “pediatric” “intensive care” “technology”. It included studies published in English on the effect of technological noise on nurses in pediatric intensive care units. A narrative synthesis approach was employed to analyse quantitative, qualitative and mixed-methods studies.

**Results:** Technological noise impacts were primarily quantified through decibel levels and frequency analyses. Qualitative insights from surveys and interviews revealed nurses subjective experiences with technological noise in pediatric intensive care units. Nurses shared their perceptions regarding the frequency and duration of noise events, offering insights into the typical patterns of noise exposure in the unit. They reported highlighting the impact of noise on effective communication during patient care activities. Several nurses discussed the impact of noise on their own sleep quality and overall well-being, emphasizing the importance of addressing noise pollution for staff health and performance.

**Discussion and Conclusion:** Our review underscores the profound effect of technological noise on nurses in pediatric intensive care units, indicating that elevated noise levels may impede nurses' performance and jeopardise patient safety. It emphasizes

the importance of reducing technological noise to enhance nurse well-being and patient care.

**Keywords:** nursing, technology, well-being.

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# Mobile Application in Community Nursing in the Health Care Centre dr. Adolf Drolc Maribor

## Mobilna aplikacija v Patronažnem varstvu Zdravstvenega doma dr. Adolfa Drolca Mariboru

ALEKSANDRA JANČIČ, BARBARA KEGL

**Uvod:** Dokumentacijski obrazci patronažne zdravstvene nege so stari več kot 40 leti, ne sledijo razvoju sodobne patronažne zdravstvene nege in povzročajo dodatne obremenitve pri zaposlenih. Namen prispevka je predstaviti razvoj mobilne aplikacije in njeno umestitev v prakso.

**Metode:** Uporabili smo deskriptivno metodo dela in vsebinsko analizo dokumentov za razvoj mobilne aplikacije v Patronažnem varstvu v Sloveniji. Izvedli so bili tudi intervjuji z zaposlenimi v septembru 2022.

**Rezultati:** S pomočjo raziskave se je razvil računalniški program, ki sedaj omogoča planiranje brez rokovnika, prenos vnesenih storitev iz mobilnega telefon v računalnik in obratno, ocena rane ter ocena ogroženosti za razjedo zaradi pritiska se izvede ob pacientu vključno s fotografijo, izdajatelj delovnega naloga ima takoj vpogled v oceno rane preko informacijskega sistema PROMEDICA 2 in interoperabilna hrbtenica. Ob tem aplikacija nudi tudi dostop do telefonske številke, Google zemljevida, fotografiranje rane, itd. Ugotovili smo, da starejšim zaposlenim testiranje predstavlja velik izziv, saj imajo manj znanja in izkušenj s področja digitalnih veščin. V intervjujih so zaposlene izpostavljale vsebinske in tehnične težave ter podale tudi pobude in rešitve.

**Diskusija in zaključek:** Dokumentiranje istih podatkov v različne dokumentacijske obrazce je izguba časa, predstavlja dodatno obremenitev in nezanemarljiv finančni strošek ter nejevoljo pri zaposlenih. Izkazalo se je, da je potrebno individualno uvajanje zaposlenih, saj so digitalne veščine le teh različne. Z vključitvijo aplikacije v delovni proces se lahko doseže optimizacija delovnega procesa, zmanjšanje obremenitev zaposlenih, ter začetek načrtovan in nujno potrebne digitalizacije patronažne zdravstvene nege.

**Ključne besede:** digitalne kompetence, dokumentiranje, patronažna zdravstvena nega.

**Keywords:** digital competencies, documentation, community nursing.

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# The Impact of an Epilepsy Management Mobile Health Application at School Developed for Teachers: Protocol for a Randomized Controlled Trial

ZAHIDE İYİ, AYŞEGÜL İŞLER

**Introduction:** There is no epilepsy mobile health application developed for teachers of intellectual disabilities children. The present study will evaluate the effect of the Epilepsy Management Mobile Health Application at School to improve the epilepsy knowledge, attitude, and self-management of teachers of intellectually disabled children.

**Methods:** The randomized controlled trial will perform pre-test and post-test measurements together with follow-ups. The study will include teachers working in three special education practice schools. They will use an Android or iOS mobile phone. There will be two interventions and one control group in the study. Intervention-1 is an epilepsy management at school application and intervention-2 is an epilepsy training guide. With the help of simple randomization, individuals will be divided into the interventions and control groups. Teachers in the intervention-1 group will use the Epilepsy Management at School application. Teachers in the intervention-2 group will be given an epilepsy training guide. The third group of teachers will be the control group. Data will be collected using the Knowledge and Attitudes Toward Epilepsy Among School Teachers Scale and Epilepsy Self-Management Scale for Teacher. Data will be collected at the beginning of the study, and at 1- and 3-month follow-ups.

**Results:** The mobile health application that participants will use was prepared at the beginning of 2024. Currently, the research is in the data collection phase.

**Discussion and conclusion:** Considering the widespread use of mobile technology, this mobile health application will be an innovative tool with a high level of evidence and accessible to teachers.

**Keywords:** intellectually disabled children, epilepsy, knowledge, attitude, self-management, mobile health application.

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# Exploring the Impact of Nurse-led Interventions on Pediatric Medication Reconciliation: A Systematic Review

AGON HOTI, LIRIM MUSTAFA, MIRLINDA HAVOLLI

**Introduction:** Transitions in health care are the various points at which a patient goes to or returns from a specific physical place or contacts a health care practitioner to get health care. The aim and objectives of the study are to provide a theoretical framework to support research on medication reconciliation in pediatric care transitions, with specific objectives outlined for analyzing nursing theories and selecting an appropriate theoretical framework.

**Methods:** A systematic literature review (2014-2024) was conducted using keywords like "Watson theory," "medication reconciliation," and "paediatrics" across PubMed/MEDLINE, Embase, CINAHL, PsycINFO, and Web of Science databases. The roles of nurses and pharmacists in pediatric medication reconciliation were examined qualitatively.

**Results:** A total of 54 relevant articles were identified and analyzed. Nurses, utilizing brightly colored sashes to signify focus on medication administration, participated in a study to minimize errors. Aligned with Watson's Caritas theory, this intervention aimed to enhance nurses' concentration. While nurses valued uninterrupted medication administration, concerns were raised regarding compromised patient care coordination.

**Discussion and Conclusion:** Advocating for nurse-led interventions to reduce medication errors by minimizing distractions, this study underscores the importance of addressing such errors for patient safety. The intervention not only enhances nurse practice but also influences public perception positively.

**Keywords:** pediatric care, caritas theory, nurses, patient, intervention, public.

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# The Meaning of Nurse's Moral Sensitivity for Patients: A Literature Review

URŠKA FEKONJA, MATEJ STRNAD, ZVONKA FEKONJA

**Introduction:** Moral sensitivity represents a fundamental competency in the nursing practice. An advanced degree of moral sensitivity empowers nurses to validate moral decisions, carefully contemplate moral dilemmas, and effectively meet professional obligations and standards of practice within ethical frameworks. The purpose of the literature review is to present the significance of nurses' moral sensitivity on their relationship with patients and the quality of patient care.

**Methods:** A literature review was conducted following the PRISMA guidelines across the PubMed, CINAHL, MEDLINE, and ScienceDirect international databases with a predefined search strategy with no date limitation and in English/Slovene language. Inclusion criteria focused on nurses' level meaning and benefits of moral sensitivity. The studies included in the final analysis were analysed in the form of an evaluation table.

**Results:** In the final analysis, five articles were included. All selected studies conducted a cross-sectional quantitative methodology. The results were thematically analysed, leading to the identification of 5 main categories of the significance of moral sensitivity: (1) quality and safety of care, (2) recognition of ethical and moral dilemmas, (3) professional competencies, (4) recognition and maintenance of trust, and (5) creation of a safe and supportive environment for patients.

**Discussion and Conclusion:** In this context, moral sensitivity is a pivotal component of nursing professional competency, fostering the development of patience, composure, and responsibility in care delivery. Organizations should implement training programs for nurses aimed at fostering and communicating moral values in order to encourage behaviors that prioritize the well-being of the patient.

**Keywords:** ethics, healthcare professional, moral sensitivity, quality of nursing care, literature review.

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# Analysis of the Concept of Selfcare

## Analiza koncepta samooskrbe

NATAŠA KREFT, DOMINIKA VRBNJAK, SERGEJ KMETEC,  
MAJDA PAJNKIHAR

**Uvod:** V razvitem svetu, vključno v Sloveniji se soočamo z naraščajočim bremenom srčnega popuščanja. Raziskave poudarjajo pomen samooskrbe za izboljšanje zdravstvenih izidov in kakovosti življenja pacientov. Razumevanje bolezni, spremljanje simptomov in spreminjanje življenjskega sloga so ključni za učinkovito samooskrbo. Različne definicije samooskrbe zahtevajo jasnost za učinkovito komunikacijo in določanje odgovornosti med zdravstvenimi strokovnjaki in pacienti. Namen prispevka je analiza koncepta samooskrbe, avtoric Riegel, Jaarsma in Strömberg.

**Metode:** Izvedena je bila kvantitativna analiza koncepta, po avtorjih Cutcliffe in McKenna. Iskanje je potekalo v mednarodnih podatkovnih bazah PubMed, CINAHL, Medline in Web of Science. Pri iskanju in vključitvi literature smo upoštevali vključitvene kriterije: članke, ki obravnavajo tematiko samooskrbe pacientov, angleški jezik, objavljeni do novembra 2023.

**Rezultati:** Koncept pojasnjuje samooskrbo kot sposobnost skrbeti zase in vključuje attribute: ozaveščenost, samokontrolo in samostojnost, za doseganje, ohranjanje ali spodbujanje zdravja in dobrega počutja. Predhodniki koncepta so povezani s pacientom in s sistemom. Posledice samooskrbe so obvladovanje simptomov, zmanjšanje zapletov, izboljšano počutje in kakovost življenja. Merjenje samooskrbe vključuje uporabo različnih empiričnih kazalnikov, predvsem vedenja samooskrbe pacienta, s poudarkom na spodbujanju zdravja in preventivnih ukrepov in tudi vedenja samooskrbe pacienta pri srčnem popuščanju. Za učinkovito samooskrbo je ključno oblikovanje enotnih smernic za zdravstvene strokovnjake.

**Diskusija in zaključek:** Samooskrba pri pacientih s srčnim popuščanjem vključuje niz vedenjskih vzorcev, kateri odražajo aktivno sodelovanje in odgovornost za samooskrbo: vzdrževanje, spremljanje samooskrbe in samooskrbo upravljanja svoje bolezni. Cilj je, da se pacienti zavedajo njihovega zdravstvenega stanja in aktivno skrbijo za svoje zdravje, kar izboljšuje njihovo zdravstveno stanje ali preprečuje poslabšanje simptomov bolezni.

**Ključne besede:** zdravstvena vzgoja, samoodločanje, srčno popuščanje, pacient

**Keywords:** health education, self-determination, heart failure, patient.

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**Abstracts – Session 2**  
Izvečki – Sekcija 2





# Prescription of Medication for the Treatment of Mental and Behavioral Disorders Among Healthcare Workers in Slovenia: A Retrospective Study

DARJA KOROŠEC, DOMINIKA VRBNJAK, GREGOR ŠTIGLIC

**Introduction:** Prescription data of medication for mental health disorders is a key health status indicator for healthcare workers, who are exposed to stress, overload and dissatisfaction at work or home. The purpose of the study was to determinate the mentioned indicator of health status of healthcare workers.

**Methods:** In a retrospective observational study, we analyzed prescription data of medication for the treatment of mental health disorders (antidepressants, anxiolytics, and antipsychotics) among Slovenia's healthcare workers (35,008 in December 2020), from 2015 to 2020, using the National Institute of Public Health's databases and conducted descriptive data analysis to observe trends. We used IBM SPSS 29.0 and Microsoft Excel for data analysis and visualization.

**Results:** Prescription rates for the treatment of mental health and behavioural disorders have increased from 2015 to 2020, notably among nursing assistants (38.42%), pharmacists (29.36%) and nurses (26.61%). Since the covid-19 pandemic, the prescription rates have increased the most among dentists (12.36%), pharmacists (11.51%) and nurses (11.36%).

Antidepressants were most prescribed to nursing assistants, physicians, and pharmacists, with the largest increases observed in nursing assistants (40.70%), nurses (35.11%), and pharmacists (29.59%). Since start of the covid-19 pandemic, the prescription of antidepressants has increased the most among dentists (18.45%), followed by nurses (16.99%) and nursing assistants (7.72%).

**Discussion and conclusion:** The prescription of medications for treating mental health and behavioral disorders was on the rise from 2015 to 2020. The importance of employee health to individuals and society necessitates the systematization of effective prevention programs, especially among healthcare workers, whose work contributes significantly to maintaining public health. Additional qualitative research could explain the reasons for the increase in prescriptions for mental health and behavioral disorders among health professionals.

**Keywords:** healthcare professionals, Covid-19, mental health disorders, medication.

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# Advanced Nurse Practitioners' Valuable Role in Nursing and Sustainable Healthcare Globally

MARIE CARNEY

**Background:** Significant variations exist in how countries define the Advanced Nurse Practitioner (ANP) role which has led to countries not yet recognising or partially recognising the role and its associated competencies. Even though the ANP role encompasses the assessment, diagnosis and treatment of a range of conditions the role remains undervalued in many countries. ANPs promote wellness, offer healthcare interventions, and advocate healthy lifestyle choices for patients, their families and carers in a wide variety of setting, within the framework of relevant regulation and legislation.

**Aim:** To identify the roles and competencies currently being undertaken by ANP's and the outcomes being achieved.

**Method:** An evidence review was undertaken, in 2023, to identify what is known about the subject. A total of 65 manuscripts were retrieved through EBSCO host, Pub Med Central, Google Scholar, Medline and CINAHL. The search terms were advanced nurse practice, strategy initiatives and sustainable global healthcare. Themes were identified, defined, named, reviewed, analysed and coordinated.

**Findings:** Positive outcomes from advanced nurse practice results in sustainable nursing care practices, particularly in the areas of emergency, cardiac, respiratory, trauma care, recovery from surgery and pain relief. However, the contribution of advanced nurse practitioners remains under-recognised in some areas.

**Conclusions:** ANPs realise and articulate the value and diversity that they bring to health systems. However, recent research has identified that they are under-utilised generally, creating barriers to achieving universal health coverage and the Sustainable Development Goals. Research indicates that advanced nurse practitioners need to more actively articulate the value and diversity they bring to health care and to global health sustainability. Education for interdisciplinary partners, policymakers and the public

regarding ANP capacities is needed as lack of awareness of the systemic processes that enable and constrain the role affects their contribution to healthcare systems.

**Recommendations:** Advanced nurse practitioners need to highlight the growth and impact of the role by increasing the quantity, quality and amount of their research in journal manuscripts.

**Keywords:** ANP capacity, sustainability, competence.

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# Characteristics and Prevalence of the Eating Disorders Among the Elderly and the Role of the APN

MIKLÓS SUGÁR, LÁSZLÓ BENCE RAPOSA

**Introduction:** The importance of good nutritional status among the elderly cannot be emphasized enough. Our goal was the assessment of the most prevalent eating disorders among the elderly, comparison to the younger age groups, assessment of the role of the geriatric advanced practice nurse in the international practice and recommendations for the Hungarian practice.

**Methods:** We assessed the international literature about the subject, that was more recent than 10 years at the time of the data collection. We used the Researchgate and Scencedirect databases for the data collection, then we orgaized and evaluated the data from n=6 studies.

**Results:** The most common eating disorders among the elderly are different from the younger people's characteristics. Bulimia nervosa is less frequent, whereas binge eating disorder and the other specified feeding or eating disorders are more frequent. Somatic background behind the eating disorders is more frequent concerning the elderly as well.

**Discussion and conclusion:** The role of the geriatric advanced practice nurse shall become crucial in the diagnostics and therapy of the eating disorders among the elderly, especially at the field of social care. Further studies are needed to assess the options of implementation.

**Keywords:** geriatric advanced practice nurse, gerontology, education, anorexia, bulimia, nutrition.

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# Examination of the Role of Advanced Practice Nurses in Diabetic Retinopathy Screening by Telemedicine: A Systematic Review

LÍVIA PATTY, KLÁRA SIMON, ORSOLYA MÁTÉ

**Introduction:** Diabetes mellitus is a disease of civilization and is the leading cause of blindness in the working age population in developed countries. The goal of this systematic review was to create a summary of international literature on the role of advanced practice nurses the screening of diabetic retinopathy, with special emphasis on telemedicine. The main areas we examined were the efficacy of advanced practice nurses in the screening of diabetic retinopathy and the advantages of telemedicine.

**Methods:** The review includes 28 studies (n=28) chosen from 4 electronic databases (PubMed, EMBASE, PMC, and Cochrane Library) between 2005 and 2020.

**Results:** The effectiveness of advanced practice nurses in providing appropriate health care and in the screening of diabetic retinopathy, is supported by multiple sources in literature. The results showed that advanced practice nurses were nearly as effective in their ability to diagnose diabetic retinopathy as clinical doctors, confirming their efficacy. We can infer that with their participation, the quality of care, patient satisfaction, screening coverage and cost-effectiveness can all be improved. It is important to emphasize that the care of a diabetic patient is a complex task which not only involves fundus photography, but also physical exams, laboratory tests, as well as investigations and treatment of its complications.

**Discussion and conclusion:** In a primary health care setting, advanced practice nurses can provide efficient care in all these aspects. The involvement of advanced practice nurses in the telemedicine screening of diabetic retinopathy in Hungary may provide a significant leap forward in preventing blindness caused by this common condition.

**Keywords:** nurse practitioner, diabetes, telehealth.

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# New Challenges in Invasive Treatment of Atrial Fibrillation – Patients' Perception of the Transoesophageal Imaging During Pulsed Field Energy Ablation

IVA ŠAFARÍKOVÁ

**Introduction:** Peri-operational imaging, i.e., intracardiac echocardiography (ICE) or transoesophageal echocardiography (TOE) may reduce procedural times during pulsed field ablation (PFA) of atrial fibrillation (AF).

**Methods:** We compared the historical cohort of patients with ICE-guided PFA (in 2023) with a newer cohort of patients treated in 2024. Thirty consecutive patients from each group were interviewed, and complaints were recorded. Procedural characteristics were calculated for the whole patient group.

**Results:** The ICE-guided and TOE-guided PFA groups comprised 210 and 97 patients, respectively. Mean procedural times were  $38.8 \pm 14$  min vs.  $33.8 \pm 10$  min in the ICE-guided and TOE-guided groups, respectively ( $p=0.001$ ). Fluoroscopic times and doses were comparable between the groups ( $5.0 \pm 2.5$  vs.  $5.1 \pm 2.7$ ,  $p=0.43$  and  $3711 \pm 4714$  vs.  $3692 \pm 4342$  mGy.cm<sup>2</sup>,  $p=0.49$ ). Twenty-four patients (80%) in the TOE group compared to 3 (10%) in the ICE group reported sore throat persisting to the second post-procedural day. Mild to moderate chest pain following the procedure was reported by one patient in the ICE-guided group. Half of the ICE-guided group would strongly prefer only a single groin puncture; 10 patients (33%) did not mind both groin punctures. This was not the issue in the TOE-guided PFA, as only a single groin puncture was necessary during these procedures.

**Conclusion:** TOE-guided PFA for AF is less tolerated by patients than ICE-guided procedures concerning sore throat problems. Conversely, both groin punctures may represent a significant problem in the ICE-guided procedures. Using TOE does not

compromise procedural duration or fluoroscopic times and seems a financially affordable option for peri-procedural imaging during PFA.

**Keywords:** intracardiac echocardiography, paroxysmal atrial fibrillation, pulsed field ablation, transoesophageal echocardiography.

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# Comparison of Intravenous and Volatile Sedation

## Primerjava intravenske in inhalacijske sedacije

ANDREJ ČERNI, ANDREJ MARKOTA, JOŽEFA TOMAŽIČ

**Uvod:** Za zdravstveno oskrbo pacientov na oddelkih intenzivne medicine je bistvenega pomena sedacija, ki pacientom omogoča lažje prenašanje invazivnih postopkov tekom hospitalizacije. Poznamo dva načina aplikacije sedativov, in sicer intravensko in inhalacijsko. V prispevku bo predstavljen sistematičen pregled literature, ki raziskuje uporabo sedativov. Namen prispevka je iz pregleda literature prikazati prednosti in slabosti intravenske in inhalacijske sedacije.

**Metode:** Pregled literature je bil izveden v mednarodnih podatkovnih bazah PubMed, ScienceDirect, Web of Science in CINAHL. Iskanje literature ni bilo časovno omejeno. Izveden je bil sistematični pregled, analiza in sinteza literature s področja sedacije s pomočjo inhalacijskih in intravenskih sedativov na oddelkih intenzivne medicine med odraslo populacijo pacientov. Uporabili smo opisno metodo dela z analizo literature.

**Rezultati:** V analizo je vključenih skupno 10 člankov, od tega 9 randomiziranih kliničnih raziskav in en sistematični pregled randomiziranih kliničnih raziskav. Velikost vzorcev je bila od 44 (n = 44) do 6105 (n = 6105), skupno pa je bilo 7134 (n = 7134) pacientov. Vsi pacienti so bili intubirani in mehansko ventilirani. Članki so ocenjeni po SIGN metodi. Najvišjo oceno kakovosti (++) ima 9 raziskav in ena spremenljivo oceno (+).

**Diskusija in zaključek:** Na podlagi opravljenega sistematičnega pregleda literature se sklepa, da pri dolgotrajni sedaciji pacientov na oddelkih za intenzivno medicino inhalacijska sedacija kaže boljše učinke kot intravenska. Bistvena prednost uporabe

inhalacijskega sedativa je ta, da se pacienti po njegovi ukinitvi hitreje in bolj koordinirano zbudijo kot pri uporabi intravenske sedacije.

**Ključne besede:** sedacija, Sevofluran, Propofol, OIM, zdravstvena oskrba.

**Keywords:** sedation, Sevoflurane, Propofol, ICU, health care.

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# The Role of Public Health in the Management of Malignant Diseases and the Comparison Between Kosovo and Slovenia

MIRLINDA HAVOLLI, TIT ALBREHT, SANIJE GASHI, LIRIM MUSTAFA,  
FELLENZA VOCA-ABAZI, AGON HOTI, REMZI SPAHIU

**Introduction:** The National Institute of Public Health of Kosova faces challenges in cancer data integration and management, the National Institute of Public Health Slovenia's well-established cancer registry serves as a model for improvement. The aim of the study is to develop a theoretical framework supporting research on "the role of public health in the management of malignant diseases," including the analysis and evaluation of cancer registries in Kosovo and Slovenia.

**Methods:** The methods involved systematic literature searches, database queries, and careful selection based on predefined criteria to identify relevant theories and concepts for the study. Theory selection involved using keywords like "population based," "cancer registries," and "theory." A PRISMA diagram flow was utilized to visualize the search process and results.

**Results:** The study evaluated the application of Watson's Human Caring Model in cancer patients undergoing chemotherapy. A real test model featuring pretest and posttest with a control group was utilized. The experimental group received nursing care based on Watson's model over eight weeks, while the control group did not. Results showed that patients in the experimental group experienced a significant increase in the sense of meaning in life and a decrease in symptom levels compared to the control group.

**Discussion and conclusion:** The discussion emphasizes the challenges posed by the heterogeneity of cancer and the importance of detailed classification systems for effective treatment planning. Concluding, population-based cancer registries play a vital role in addressing the challenges of cancer surveillance, providing essential data for understanding disease burden, evaluating interventions, and improving cancer care on a population level.

**Keywords:** cancer data, Kosovo, Slovenia, theory, Watson's model, evaluating interventions.

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# Pregnant Women's Knowledge and Attitudes Towards Hospital Births at a County Referral Hospital in Kenya

NAOMY CHEROTICH KIRUI, MIRIAM C. A. WAGORO

**Introduction:** The high maternal and neonatal mortality ratio in Kenya is mainly attributed to home births. Lack of awareness about the importance of hospital births and negative attitudes are among the causes of home births. The study aimed to establish pregnant women's knowledge and attitudes towards hospital births at a county referral hospital in Kenya.

**Methods:** A three-week cross-sectional survey was conducted among 188 pregnant women aged 18-49 years, selected by systematic random sampling. A questionnaire, pretested for validity and reliability, was used to collect data from the pregnant women in the antenatal clinics. Data were cleaned, coded, and analysed using SPSS version 28. Descriptive statistics were used to summarise and categorize knowledge and attitude variables data. Relationships between knowledge, attitudes, and hospital birth were tested using Pearson's correlation coefficient and Chi-square, with a p-value of  $\leq 0.05$  considered significant.

**Results:** About half (57.6%) had home births, 64.9% had poor knowledge ( $<50\%$ ), and 52.4% had a negative attitude regarding hospital births. Knowledge ( $p=0.03$ ) and attitudes ( $p=0.012$ ) were positively associated with hospital births.

**Discussion and Conclusion:** Poor knowledge and attitude are associated with low births at the county hospital. The study generated evidence of low hospital births and related factors at the county referral hospital. Community education to create awareness of the importance of hospital births and a study to explore the reasons for negative attitudes could increase the number of hospital births.

**Keywords:** community education, maternal mortality, negative attitudes, neonatal mortality, poor knowledge.

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# Description, Analysis and Evaluation of Jean Watson's Theory of Human Caring

## Opis, analiza in vrednotenje Teorije skrbi Jean Watson

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**Uvod:** Na globalni ravni se soočamo z izrazitim primanjkljajem medicinskih sester, kar predstavlja izziv za zadovoljstvo na delovnem mestu, kakovost oskrbe in varnost pacientov. V ta namen smo v prispevku opisali, analizirali in vrednotili Watsonovo teorijo, ki poudarja pomen skrbnih odnosov pri zagotavljanju varne in kakovostne oskrbe pacientov ter zadovoljstvo z delom.

**Metode:** Uporabljena je bila deskriptivna metoda dela s pregledom znanstvene in strokovne literature v mednarodnih podatkovnih bazah PubMed, CINAHL, ScienceDirect in Web of Science. Pri tem smo upoštevali vključitvene kriterije kot so kvalitativne, kvantitativne in raziskave mešanih metod, ki vključujejo raziskovalno tematiko, objavljeno v angleškem jeziku do decembra 2023. Za opis, analizo in vrednotenje teorije smo uporabili model avtorice Pajnkihar.

**Rezultati:** Velika teorija skrbi je bila razvita retroduktivno in vključuje štiri osrednje koncepte: transpersonalni skrbni medosebni odnosi, skrbno srečanje, skrbna zavest in karitativni procesi. Rezultati kažejo, da aplikacija teorije v klinično okolje pozitivno vpliva na zadovoljstvo z delom medicinskih sester, delovno obremenitev, odnose s sodelavci in kakovost obravnave pacientov.

**Diskusija in zaključek:** Uveljavljanje tako kompleksne teorije v izobraževanju in kliničnem okolju zahteva čas, še posebej v okoljih, kjer je pomanjkljivo znanje o teorijah zdravstvene nege. V slovenskem prostoru je mogoča uporaba Watsonove teorije skrbi za

človeka, kar dokazujejo že opravljene raziskave. Z razumevanjem in z aplikacijo teorije v zdravstveni negi, bi lahko poglobili skrbne medosebne odnose med sodelavci, s čemer bi prispevali k večjemu zadovoljstvu pri delu ter posledično k zmanjšanju namer o odhodih in h kakovostnejši obravnavi pacientov.

**Ključne besede:** velika teorija, zdravstvena nega, skrbni odnosi, karitativni procesi.

**Keywords:** grand theory, nursing, caring relationships, caritive processes.

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# The Effect of a Caring and Safe Work Environment on the Fluctuation of Soldiers in the Military Medical Unit

## Vpliv skrbnega in varnega delovnega okolja na fluktuacijo vojaka v Vojaško zdravstveni enoti

ZLATKO KVRŽIĆ, DOMINIKA VRBNJAK, SERGEJ KMETEC,  
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**Uvod:** Odhodi vojaških medicinskih sester iz Vojaško zdravstvene enote ne vplivajo samo na organizacijske vidike vojske in slabšo oskrbo pacienta, temveč tudi na operativno sposobnost vojaške zdravstvene enote, kar vpliva na učinkovitost izvajanja nalog v vojaških operacijah. Namen našega prispevka je predstaviti analizo koncepta skrbi Jean Watson, ki nam bo pomagal razumeti povezavo med skrbnim in varnim delovnim okoljem ter fluktuacijo v Vojaško zdravstveni enoti.

**Metode:** Analizo koncepta skrbi smo izvedli s pomočjo devetih korakov kvantitativne analize koncepta, kot jih predlagata McKenna & Cutcliffe. Najprej smo oblikovali iskalni niz z Boolovimi operatorji in ključnimi besedami v angleškem jeziku. Ključne besede so bile: caring, nursing, concept in analysis, iz katerih smo sestavili naš iskalni niz: (caring OR "human caring") AND nursing AND concept AND (analysis OR analyze). Iskali smo literaturo v mednarodnih podatkovnih bazah: PubMed, CINAHL, Web of Science in Medline, upoštevali vključitvene in izključitvene kriterije. Časovno smo se omejili na 10 let.

**Rezultati:** Skrbno in varno delovno okolje ima zelo kompleksno povezavo s fluktuacijo v Vojaško zdravstveni enoti. Značilni atributi koncepta skrbi so: odnos, dejanje, sprejemanje, odgovornost in spremenljivost. Posledice koncepta skrbi lahko pozitivno

vplivajo na medicinsko sestro in njeno poklicno zadovoljstvo, kar je nagrajeno z občutkom uspešnosti in boljšo samopodobo.

**Diskusija in zaključek:** Povezava med konceptom skrbi in fluktuacijo v Vojaško zdravstveni enoti je odvisna od različnih dejavnikov. Skrb zase, skrb za vojaka, skrb za karierni napredek, skrb nadrejenih in skrbno ter varno delovno okolje so koncepti skrbi, ki so ključnega pomena za zmanjšanje fluktuacije v Vojaško zdravstveni enoti.

**Ključne besede:** Jean Watson, analiza, koncept, namera odhoda, povezava.

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# Caring Relationships Interprofessional Collaboration in Multidisciplinary Teams for Safety Medication in Pediatrics

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**Introduction:** Effective collaboration among healthcare professionals is crucial for delivering high-quality care. However, there is a gap in understanding the extent and nature of pharmacists' involvement in interprofessional medication decisions, particularly in complex paediatric care scenarios. This study investigates pharmacists' roles in multidisciplinary teams and their impact on medication safety in paediatric care.

**Methods:** This study employed a descriptive methodology to review and analyse existing theories, focusing on Watson's Theory of Human Caring. A systematic literature review was conducted across databases, including PubMed, Science Direct, and ProQuest, from 2014 to 2024, using keywords related to interprofessional collaboration, medication safety, and paediatrics. The PRISMA flow diagram illustrates the search process.

**Results:** Analysis of Jean Watson's Theory of Human Caring revealed its efficacy in increasing patients' sense of meaning and reducing symptom levels. Additionally, the literature review identified positive outcomes of an interprofessional approach to paediatric medication safety, such as reduced medication errors and improved patient outcomes.

**Discussion and conclusion:** Effective interprofessional collaboration, guided by Watson's Human Caring Theory, is essential for ensuring patient safety and quality care. As integral members of multidisciplinary teams, pharmacists play a significant role in medication management, particularly in paediatric care. Despite facing challenges such as time constraints and staffing shortages, pharmacists contribute expertise that enhances collaboration and patient care. Consensus-based frameworks for primary care across

healthcare systems are needed to clarify roles and responsibilities and further promote collaboration.

**Keywords:** Healthcare; professionals, pharmacists, pediatrics, Watson's Theory, clinical, teamwork.

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# Medical Dispatchers' Quality of Sleep

## Kakovost spanja zdravstvenih dispečerjev

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**Uvod:** Zdravstveni dispečerji imajo pomembno vlogo pri nudenju strokovne zdravstvene pomoči, podpore in usmeritve ključnim, ki se znajdejo v življenjsko nevarnih situacijah. Delo, ki ga opravljajo poteka neprekinjeno, kar pomeni, da izvajajo izmensko delo, ki lahko vpliva na kakovost spanja zaposlenih. Namen raziskave je bilo preučiti kakovost spanja zdravstvenih dispečerjev.

**Metode:** Uporabljena je bila kvantitativna metodologija. Presečna raziskava je vključevala namensko vzorčenje za izvedbo anketnega vprašalnika med zdravstvenimi dispečerji v dispečerski službi zdravstva, ki izvajajo izmensko delo. Podatki so bili zbrani med julijem in avgustom 2023, z anketnim vprašalnikom Sleep Quality Scale (SQS), ki ocenjuje šest področij o kakovosti spanja v zadnjem mesecu. Podatki so bili obdelani in analizirani s pomočjo programa IBM SPSS Statistics 29. Uporabljena je bila deskriptivna statistika.

**Rezultati:** Vrednost Cronbach alfe anketnega vprašalnika je bila 0,89. V raziskavi je sodelovalo 59 zdravstvenih dispečerjev ( $n = 59$ ). Ugotovitve so pokazale, da med zdravstveni dispečerji prevladuje slaba kakovost spanja (50,80 %). Ugotovljeno je bilo tudi, da večina anketirancev navaja zbrane misli po spanju ( $M = 1,81$ ), ter dnevne motnje v delovanju ( $M = 9,86$ ).

**Diskusija in zaključek:** Ugotovitve so pokazale povezavo med kakovostjo spanja zdravstvenih dispečerjev in izmenskimi delom. Z uporabo strategij za izboljšanje spanja in podpornim delovnim okoljem, bi se lahko zvišala dobra kakovost spanja, tudi v primeru, ko je izvajanje izmenskega dela neizbežno. Glede na majhno število raziskav na izbrano tematiko in razširjenost težav o kakovosti spanja, obstaja potreba po nadaljnjih raziskavah tudi drugod, da bi se le-ta izboljšala.

**Ključne besede:** dispečerska služba zdravstva, izmensko delo, ocena kvalitete spanca.

**Keywords:** emergency medical dispatch service, shift work, sleep quality assessment.

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**Abstracts – Session 3**  
Izvečki – Sekcija 3



## Energy Hardship for People with Palliative Care Needs at Home: Understanding Issues and Promoting Actions

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**Introduction:** This study aimed to understand energy hardship, a situation that occurs when households cannot afford energy use or access energy services. Palliative care patients are particularly at risk of energy hardship due to reduced work income. Increased time spent at home can also lead to higher energy costs. Cold temperatures can worsen their condition and impact their well-being. The study addressed the lack of evidence on energy hardship for palliative care patients and provided recommendations to decision-makers.

**Methods:** The study employed a mixed-methods approach, using an online scoping review of energy hardship literature. Quantitative data from the online survey was analysed using descriptive and inferential statistical tests on the platform SPSS v. 24. Quantitative data from the open-ended questions on the survey tool and the interviews were analysed using thematic analysis.

**Results:** Our study's findings are significant. Nurses reported that patients they had cared for were struggling financially, living in poor conditions, and suffering from mental health issues due to financial worries. Energy providers play a crucial role in this situation. Those receiving palliative homes agreed that energy hardship was a significant issue with potential mental and physical impacts.

**Discussion and conclusion:** Due to various interlinked factors, energy hardship is challenging for those receiving palliative care at home. Although interventions exist in Ireland, they are sometimes inaccessible. The study strongly recommends a collaborative

approach involving governmental organisations, energy suppliers, and health and social care professionals. Twelve specific actions are recommended for addressing this issue, emphasising all parties' shared responsibility.

**Keywords:** fuel poverty, cancer, end of life, at home.

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# Spiritual Care of Patients With Cancer in Palliative Care: Literature Review

NATAŠA MLINAR RELJIĆ, NIKA PLETERŠEK, ZVONKA FEKONJA,  
SERGEJ KMETEC

**Introduction:** Spiritual needs are crucial in palliative care, where personal values, beliefs, and connections play a vital role in individuals' lives. This review aims to identify the spiritual needs of cancer patients in palliative care.

**Methods:** A systematic literature review was conducted in Spring 2024 by searching databases including PubMed, CINAHL, Google Scholar, and Web of Science. The PRISMA guidelines were followed, and tools for critical assessment were used. The results were synthesized using thematic analysis.

**Results:** The analysis showed that spiritual needs were the main theme, with subthemes including (i) existential concerns, (ii) pursuit of life's purpose, (iii) religious requirements, and support networks, and (iv) spiritual distress.

**Discussion and conclusion:** To enhance the quality of life of those battling cancer, it is essential to tend to their spiritual needs. These needs encompass instilling hope and tranquility, coming to terms with mortality, discovering purpose in life, and accomplishing individual aspirations. Additionally, fostering supportive connections with family, close friends, and healthcare professionals is paramount for the overall well-being of the patient.

**Keywords:** nursing, cancer, terminal phase, systematic review.

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# Attitudes of College Nursing Students Toward Mental Illness Stigma: Literature Review

## Odnos študentov zdravstvene nege do stigme duševnih bolezni: pregled literature

LANA FRIŠ, TIANA ČEH, LUCIJA GOSAK, DOMINIKA VRBNJAK

**Uvod:** Duševna bolezen je klinična sprememba pri posameznikovi kogniciji, regulaciji čustev ali vedenju. Z njo se sooča vsak osmi človek na svetu. Zaradi obstoječe stigme, veliko posameznikov s težavami v duševnem zdravju nima ustrezne podpore. Prisotnost stigme lahko zasledimo tudi med študenti zdravstvene nege, kar lahko vpliva na kakovost zdravstvene obravnave. Namen prispevka je bil raziskati odnos študentov zdravstvene nege do stigme duševnih bolezni.

**Metode:** Izveden je bil pregled literature v podatkovnih bazah PubMed in CINAHL. Vključili smo literaturo v angleškem jeziku, pri čem se nismo časovno omejili. Iskalni niz je bil sestavljen s pomočjo Boolovih operatorjev AND in OR ter s ključnimi besedami “mental illness”, “stigma” in “nursing student” ter njihovimi sopomenkami. S pomočjo narativne sinteze smo predstavili rezultate vključenih raziskav.

**Rezultati:** Izmed 257 identificiranih zadetkov je bilo vključenih v končno analizo 15 člankov. Odnos študentov zdravstvene nege do stigme duševni bolezni je različen med posamezniki, vendar se pri večini študentov kaže pozitiven odnos do duševnih bolezni ter posameznikov s težavami v duševnem zdravju.

**Diskusija in zaključek:** Ugotovitve kažejo splošno pozitiven odnos, kljub različnim percepcijam med posamezniki. V raziskavah so navedeni dejavniki, ki vplivajo na odnos študentov zdravstvene nege do posameznikov s težavami v duševnem zdravju. Med dejavniki, ki vplivajo na odnos, so starost, letnik študija, neposredni stik in znanje. Prav tako se odnosi razlikujejo glede na spol, pri čemer ženske izkazujejo bolj pozitiven in

sočuten odnos. Večina študentov meni, da posamezniki s težavami v duševnem zdravju niso nevarni, od katerih manjšina izraža negativno stališče.

**Ključne besede:** stereotipi, mentalno zdravje, študenti, zdravstvena nega.

**Keywords:** stereotypes, mental health, students, nursing care.

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# Physical Restraint in Mental Health Nursing: a Concept Analysis

## Fizična omejitev v zdravstveni negi na področju duševnega zdravja: analiza koncepta

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MAJDA PAJNKIHAR

**Uvod:** Fizična omejitev je poseg delnega ali popolnega omejevanja oziroma obvladovanja pacientovega gibanja z uporabo pripomočkov. Odločitev za poseg odredi zdravnik. Uporablja se za zagotavljanje varnosti in zaščite pacienta ter drugih prisotnih. Namen prispevka je analizirati koncept fizične omejitve v zdravstveni negi na področju duševnega zdravja avtorjev Ye, et al. (2019).

**Metode:** Uporabili smo opisno metodo dela s pregledom in analizo relevantne literature. Iskanje literature je potekalo v podatkovnih bazah PubMed, SAGE, CINAHL Ultimate in Medline z vključitvenimi in izključitvenimi kriteriji ter v angleškem jeziku, zadnjih 10 let. Analizo koncepta smo izvedli po metodi avtorjev Cutcliffe & McKenna.

**Rezultati:** Izmed 1235 identificiranih zadetkov smo v končno analizo vključili 27 člankov. Izpostavljeni atributi analiziranega koncepta so prisilni postopek, ustrezno usposobljeno osebje, zagotavljanje varnosti pacienta ter zadnja možnost. Identificirani predhodniki se nanašajo na neprimerno vedenje pacientov, zdravniško oceno ter zakonsko ureditev. Definirane posledice so vezane na paciente, izvajalce ter institucijo. Koncept je mogoče meriti s pomočjo treh instrumentov, od katerih je eden namenjen oceni mladostnikov.

**Diskusija in zaključek:** Na stališča zdravstvenih delavcev o fizični omejitvi na področju duševnega zdravja vplivajo kultura, pravo, družba in etika. Pomemben proces med zdravstvenim delavcem in fizično omejitvijo ima etično razmišljanje. Za oceno potrebe po izvedbi fizične omejitve služijo ocenjevalni instrumenti. Kljub obstoječim definicijam,

razlagam, smernicam za uporabo ter usposabljanj osebja še vedno prihaja do zlorabe in nepravilne uporabe fizične omejitve, katere prinašajo negativne posledice. Z nadaljnjim raziskovanjem, bi izboljšali znanje zdravstvenih delavcev posledično zmanjšali uporabo fizične omejitve ter izboljšali kakovost zdravstvene nege na področju duševnega zdravja.

**Ključne besede:** prisila, varnost, zdravstveni delavci.

**Keywords:** coercion, safety, healthcare professionals.

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# The Role of Supervision in Nursing Practice: A Narrative Literature Review

## Vloga supervizije v praksi zdravstvene nege: narativni pregled literature

LEONA CILAR BUDLER, KLAVDIJA ČUČEK TRIFKOVIČ

**Uvod:** Supervizija ima ključno vlogo v praksi zdravstvene nege, saj služi kot temelj za zagotavljanje varne, učinkovite in visokokakovostne oskrbe pacientov. Zagotavlja strukturiran okvir za strokovni razvoj in podporo medicinskim sestram, omogoča razvoj kritičnega mišljenja, klinične presoje in prakse, ki temelji na dokazih. Namen članka je ugotoviti kakšno vlogo ima supervizija v praksi zdravstvene nege.

**Metode:** Izvedeno je bilo obsežno iskanje po elektronskih zbirkah podatkov, da bi se identificirale ustrezne študije, objavljene med letoma 2014 in 2024. Študije so bile izbrane na podlagi vnaprej določenih kriterijev, vključno z vlogo klinične supervizije, vključitvijo medicinskih sester in rezultati meritev. Izvedena je bila ekstrakcija in sinteza podatkov, da bi povzeli ključne ugotovitve in teme v izbranih študijah.

**Rezultati:** Sinteza rezultatov pregleda literature kaže, da ima supervizija pomembno vlogo pri izboljšanju celovitosti zdravstvene nege s spodbujanjem nenehnega razmisleka o vključevanju dinamike zdravstvenega dela in potreb pacientov. Klinična supervizija zlasti spodbuja podporno delovno okolje, ki vodi do kritičnega razmišljanja o vrednotah zdravstvene nege, neguje zavezanost izboljšanju standardov in spodbuja pogum za izpodbijanje uveljavljenih norm. Poleg tega rezultati poudarjajo pozitivne povezave med podporo nadrejenih ter glasom in angažiranostjo zaposlenih. Spodbujanje dobrih odnosov med zaposlenimi, podprto z zaupanjem znotraj organizacijskih hierarhij, vodi v povečanje zavzetosti zaposlenih in izboljšanje splošne organizacijske učinkovitosti.

**Diskusija in zaključek:** Supervizija ima več vlog v praksi zdravstvene nege. Nudi podporo in lajšanje stresa za medicinske sestre. Poleg tega supervizija deluje kot orodje za spodbujanje poklicne odgovornosti in spodbuja razvoj veščin in znanja ter izpolnjuje normativne oziroma formativne funkcije.

**Ključne besede:** kakovostna oskrba, blagostanje pacienta, kritično mišljenje, na dokazih podprta praksa.

**Keywords:** quality care, patient wellbeing, critical thinking, evidence-based practice.

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# Tools for Identification of Psychosocial Needs of Oncology Patients: A Scoping Review Protocol

TIHANA GAŠPERT, GREGOR ŠTIGLIC, DOMINIKA VRBNJAK

**Introduction:** Studies suggest that oncology nurses frequently fail to evaluate and address the psychological and social needs of cancer patients due to a lack of appropriate screening tools consistently or systematically, which results in difficulties in discerning patients' requirements and symptoms, leaving nurses with a sense of inadequacy in recognizing psychological needs and the imperative for help. The aim is to analyze and consolidate the literature on the instruments utilized by oncology nurses to identify the psychosocial requirements of oncology patients.

**Methods:** The scoping review methodology will adhere to the Joanna Briggs Institute approach, searching databases including CINAHL Ultimate, MEDLINE, PsycArticles, Web of Science PubMed, The Cochrane Library, The ProQuest Dissertations & Theses Database, and Google Scholar. EndNote will be used to manage and eliminate duplicate citations. Two independent reviewers will screen titles, abstracts, and full texts for eligibility, with findings presented via the PRISMA-ScR flow diagram. The same reviewers will perform data extraction, and the study findings will be summarized in a narrative form.

**Results:** The results will be summarized and presented based on the main categories of the data extraction templates, arranged in a way that directly relates to the objectives of the review.

**Discussion and conclusion:** Our review will consolidate the literature on tools used by oncology nurses to identify cancer patients' psychosocial needs, offering insights for practice and future research. Despite rigorous methodology, potential biases in primary studies and limitations such as the exclusion of relevant literature may affect the comprehensiveness of our findings.

**Keywords:** nursing, psycho-oncology, oncology support care, assessment, holistic care.

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# Trauma-informed Practice for Workers in Public Service Settings (TIPS): Innovative Pedagogical Strategies

ARTEMISA R. DORES, MARINA LETICA-CREPULJA, TIPS TASK FORCE,  
REGINA A. SILVA

**Introduction:** In various sectors of public services beyond mental health, professionals must possess competencies in detecting and responding appropriately to post-traumatic symptoms (PTS). "Trauma-informed practice" facilitates this process by helping professionals to recognize, understand, and address the effects of trauma. This work aims to introduce the Trauma-Informed Practice for Workers in Public Service Settings – TIPS.

**Methods:** Funded by the Erasmus+, the TIPS was developed by a multidisciplinary team from seven European countries. The project's first stage was to conduct a needs assessment. The TIPS utilized distance learning techniques, leveraging information and communication technologies, digital spaces, and storytelling methods.

**Results:** The project yielded several key outputs: (1) User-oriented guidelines aimed at public sector professionals, including educators, to heighten awareness of PTS among their clients; (2) a catalogue featuring case studies illustrating common work scenarios and effective responses to clients experiencing PTS; (3) a resource pack containing interactive training modules and e-learning activities aligned with the guidelines and catalogue tools; (4) an interactive e-platform delivering project materials alongside online tools such as blogs, social networking applications, and (5) a mobile app.

**Discussion and conclusion:** The project contributed to: (1) raise awareness among professionals about PTS occurrence, (2) equip them with skills to identify and address PTS while reducing discrimination-related barriers, (3) enhance the quality of care and support provided, and (4) explore innovative pedagogical strategies. This diverse array of learning opportunities aimed to foster new and improved learning strategies,

accommodating various learning styles and preferences, thereby facilitating successful learning outcomes.

**Keywords:** post-traumatic stress disorder, health care, information and communication technologies, digital technologies, storytelling, narrativization.

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# Description, Analysis and Evaluation of the Health Promotion Model

## Opis, analiza in vrednotenje modela za spodbujanje zdravja

BENJAMIN HABINC, DOMINIKA VRBNJAK, MAJDA PAJNKIHAR

**Uvod:** Posledice kroničnih obolenj, nezdravega in neustreznega življenjskega sloga predstavljajo breme sodobne družbe pri čemer se promocija zdravja izpostavlja kot osrednja strategija za izboljšanje zdravja. Medicinska sestra ima skrb in kompetenco za spodbujanje zdravja pri posamezniku, družini in skupnosti. Namen raziskave je opredeliti izbor kriterijev za analizo in ovrednotiti model spodbujanja zdravja po metodi Pajnkihar za uporabo v praksi zdravstvene nege.

**Metode:** Pregled znanstvene in strokovne literature je potekal v podatkovnih bazah PubMed, Science Direct in CINAHL s pomočjo iskalne strategije ter vključitvenih in izključitvenih kriterijev za obdobje 10 let. Opis, analiza in vrednotenje teorije je potekala po Modelu za opis, analizo in vrednotenje avtorice Pajnkihar.

**Rezultati:** Od skupaj 738 identificiranih zadetkov je bilo v končno analizo vključenih enajst zadetkov. Ugotovitve raziskave kažejo, da model spodbujanja zdravja pripomore k razumevanju vedenj, ki krepijo zdravje.

**Diskusija in zaključek:** Model spodbujanja zdravja medicinski sestri nudi teoretični okvir za prakso zdravstvene nege in se je izkazal za učinkovitega na dela z pacienti, ki imajo srčno žilna obolenja, nosečimi materami, posamezniki z povišano telesno težo, mladostnikov in na področju zagotavljanja zdravega delovnega okolju saj z njegovo uporabo medicinska sestra vpliva na izboljšanje zdravja pacientov. Model spodbujanja zdravja je uporaben na področju izobraževanja in raziskovanja saj so iz teorije izšla tri

raziskovalna orodja in tako predstavlja vodilo za raziskavo. Teorijo je potrebno testirati pred aplikacijo v klinično prakso.

**Ključne besede:** teorija zdravstven nege, promocija, medicinska sestra.

**Keywords:** nursing theory, promotion, nurse.

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# Customizing Breakfast Meal Plans with Micronutrient Supplements: A Case Study Using Large Language Models

LEON KOPITAR, LEON BEDRAČ, GREGOR ŠTIGLIC

**Introduction:** Our case study uses large language model (LLM) to build personalized breakfast plans using health data and supplement insights. We evaluate GPT-4's ability to adjust plans based on existing micronutrient supplement intake to optimize personalized nutrition advice for individual health spans.

**Methods:** Using Python and OpenAI libraries, we generated one-day meal plans for a 40-year-old woman with GPT-4, iterating the process 10 times with different seed numbers for reproducibility. We compared scenarios with and without supplement intake before breakfast.

**Results:** Our preliminary findings indicate that in one out of three scenarios, a breakfast plan with supplement intake shows a significant decrease in fibers, while in the same ratio, there is a significant increase in caloric intake and fats. LLM predicts an individual's biological age using information about their nutrition and general characteristics. The results indicate a favorable trend in aspects related to diet and supplement intake, with a predicted decrease in aging rate ranging from 0.07 to 0.08 over the 5-year period.

**Discussion and conclusion:** GPT-4 fails to produce meal plans as anticipated. The diverse effects on nutrient values indicate the necessity for careful analysis and tailoring in meal planning, as the model may not consistently correspond with anticipated nutritional guidelines. Proposing a breakfast followed by similarly structured meals, without changes in individuals' status or habits, foresees a reduced aging rate over a 5-year period of dietary adherence. The precision and relevance of the estimated biological ages will be determined in future studies.

**Keywords:** personalized nutrition, meal plan, LLM, supplements.

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## Health Benefits of Milk Kefir

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**Introduction:** Milk kefir is a fermented product that contains beneficial lactic acid bacteria, yeasts, and moulds, that live in symbiosis in kefir grains, made of the exopolysaccharide kefiran. The aim of this review was to research the evidence-based health benefits of milk kefir.

**Methods:** The study was based on a quantitative research methodology. We performed a literature analysis on the impact of milk kefir in the PubMed/Medline/ScienceDirect databases using the search strategy: 'milk kefir' AND ('health' OR 'health benefits'). We included full-text articles of double-blind randomised clinical trials. We found 20 clinical studies.

**Results:** Research has shown that milk kefir exhibits antimicrobial activity against both Gram-negative bacteria, such as Salmonella Typhi and Escherichia coli, as well as Gram-positive bacteria, like Staphylococcus aureus and Listeria monocytogenes. In adults with diabetes, fasting blood sugar was reduced after kefir consumption. Kefir consumption also significantly reduced the development of atherosclerotic lesions by reducing oxidative stress, the inflammatory immune response, and lipoproteins. However, it's worth noting that not all clinical studies have yielded statistically significant differences.

**Discussion and conclusion:** Milk kefir encompasses a rich array of bioactive compounds, including organic acids and bioactive peptides that contribute to its diverse health benefits. Evidence-based health benefits of milk kefir include modulation of intestinal microbiota, antibacterial properties, reduction of inflammatory responses, regulation of blood glucose and lipoproteins, as well as the amelioration of digestive issues and promotion of bone health. Due to its established health benefits nurses can promote milk kefir as a healthy and affordable functional food.

**Keywords:** lactic acid bacteria, fermented foods, kefiran, benefits.

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# Chemical Analysis Of Pharmaceuticals In Hospital Wastewater

## Kemijska analiza farmacevtskih učinkovin v bolnišnični odpadni vodi

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**Uvod:** Ostanke farmacevtskih izdelkov se v nizkih koncentracijah pojavljajo v površinskih, odpadnih in podtalnih vodah. Njihova prisotnost v vodnih okoljih je vzbudila zaskrbljenost strokovne javnosti v zvezi z možnimi tveganji za zdravje ljudi, kljub temu pa zaenkrat programi rutinskega monitoringa odpadne vode ne vključujejo spremljanja prisotnosti farmacevtskih učinkovin. Namen raziskave je preučiti porabo farmacevtskih izdelkov v splošni bolnišnici in izmeriti koncentracije izbranih farmacevtskih učinkovin v odpadni vodi bolnišnice.

**Metode:** Vzorčenje smo izvajali kontinuirano dva meseca in odvzeli osem vzorcev odpadnih vod. Kemijska analiza je zajemala kvalitativno in kvantitativno določevanje izbranih farmacevtskih učinkovin, produktov razgradnje in drugih organskih spojin s tekočinsko kromatografijo visoke ločljivosti in masno spektrometrijo.

**Rezultati:** Raziskava je pokazala, da je bilo v Sloveniji v letu 2021 ambulantno največ predpisanih zdravil za zdravljenje bolezni srca in ožilja, medtem ko je bilo v bolnišnicah predpisanih največ zdravil za bolezni prebavil in presnove. V analiziranih odpadnih vodah večino izbranih farmacevtskih učinkovin nismo zaznali ali pa so bile prisotne v sledovih. Izmerili smo povišane koncentracije določenih vrst učinkovin, kot so protivnetna zdravila in analgetiki, v najvišjem koncentracijskem območju (mg/L) smo izmerili 1H-benzotriazol.

**Diskusija in zaključek:** Sistematične raziskave bodo prispevale k nadaljnemu razumevanju pojavnosti, transporta in kroženja farmacevtskih učinkovin v okolju. Standardizacija protokolov za vzorčenje in analizo farmacevtskih učinkovin bi olajšala primerjavo podatkov. Zato se bodo na podlagi tovrstnih analiz lažje izdelale ocene tveganja in obravnaval toksikološki pomen različnih spojin v kontekstu tveganj za zdravje ljudi.

**Ključne besede:** sledovi zdravil, tekočinska kromatografija visoke ločljivosti, masna spektrometrija.

**Keywords:** residues of drugs, high-resolution liquid chromatography, mass spectrometry.

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# Effectiveness of Regular Physical Activity on the Management of High Blood Pressure in Children and Adolescents: a Systematic Literature Review

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**Introduction:** High blood pressure poses a significant public health concern and is increasingly prevalent among adolescents. Studies indicate a growing trend of physical inactivity and sedentary lifestyle among children and adolescents, increasing the risk of development of high blood pressure. This systematic literature review aims to explore the effectiveness of regular physical activity in managing high blood pressure among children and adolescents.

**Methods:** A systematic review was conducted using a descriptive method, analysis, and synthesis. Articles were searched in the Cochrane Library, PubMed, Web of Science and CINAHL, as well as the Google Scholar search engine. A literature search strategy was employed. Systematic reviews of quantitative studies, meta-analyses, and individual quantitative studies, published in English language in the last 10 years, were included. Qualitative studies, systematic reviews of qualitative studies, and meta-syntheses were excluded. Included studies were critically evaluated.

**Results:** Nine articles were included in final analysis. Included studies were evaluated as modest to high quality. Studies showed that regular physical activity is effective in managing high blood pressure among children and adolescents, with lowering systolic and diastolic blood pressure. Additionally, studies showed its effectiveness in managing body weight, thereby directly impacting their health and well-being of children and adolescents.

**Discussion and Conclusions:** Given the ongoing rise in hypertension among children and adolescents, it's essential to educate the general population about arterial hypertension, its risk factors, and non-pharmacological treatment methods such as regular physical

activity. There is a need for further research, especially on the population of children and adolescents.

**Keywords:** arterial hypertension, children, adolescents, exercise.

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# INTERNATIONAL SCIENTIFIC CONFERENCE »RESEARCH AND EDUCATION IN NURSING«: BOOK OF ABSTRACTS JUNE 13<sup>TH</sup> 2024, MARIBOR, SLOVENIA

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University of Maribor Faculty of Health Sciences is organising the International Scientific Conference "Research and Education in Nursing". It will be held on June 13th 2024 in Maribor and will include the most recent findings of domestic and foreign researchers in nursing and other healthcare fields. The conference aims to explore advances in nursing and health care research as well as research-based education, in the Slovenian and international arena. Furthermore, it will provide an opportunity for practitioners and educators to exchange research evidence, models of best practice and innovative ideas.

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# MEDNARODNA ZNANSTVENA KONFERENCA »RAZISKOVANJE IN IZOBRAŽEVANJE V ZDRAVSTVENI NEGI«: 13. JUNIJ 2024, MARIBOR, SLOVENIA

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Univerza v Mariboru Fakulteta za zdravstvene vede letos organizira mednarodno znanstveno konferenco »Raziskovanje in izobraževanje v zdravstveni negi«. Konferenca bo potekala 13. junija 2024 na fakulteti in bo vključevala prispevke in predavanja domačih in tujih strokovnjakov ter študentov s področja zdravstvene nege in zdravstvenih ved. Namen konference je predstaviti napredek na področju raziskovanja in izobraževanja v zdravstveni negi v slovenskem in mednarodnem prostoru. Poleg tega bo to odlična priložnost za zdravstvene delavce in visokošolske učitelje, da izmenjajo raziskovalne dokaze, modele dobrih praks in inovativne ideje.





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