





# International Scientific Conference »Research and Education in Nursing«

Book of Abstracts

June 9th 2022, Maribor, Slovenia

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#### **Preface**

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

Distinguished lecturers and conference participants!

The University of Maribor, Faculty of Health Sciences, organizes the traditional international scientific conference »Research and Education in Nursing«, with the aim of presenting progress in the field of research in nursing and health care, ass well as education based on research in Slovenia and abroad, with exchanging experiences and opinions.

The conference is enriched by the contributions and lectures of renowned domestic and foreign invited lecturers, researchers and students in the field of nursing and health care, with whom we successfully cooperate in the field of scientific research and education.

Papers and lectures shed light on important aspects of nursing education and practice, especially during the COVID - 19 pandemic, which greatly affected both education and nursing practice. The presented research results make an important contribution to the development of the science of nursing as a discipline, the recognition of social development in relation to the needs of health and society, and at the same time represent a strong link between education and practice.

We consider it an honor and a privilege to follow the latest findings of renowned and recognizable domestic and foreign lecturers at the conference, and at the same time we look forward to further successful cooperation in the field of education and research.

International Scientific Conference »Research and Education in Nursing« Book of Abstracts M. Lorber, K. Čuček Trifkovič, S. Šostar Turk, G. Štiglic (eds.)



### Predgovor

IZR. PROF. DR. MATEJA LORBER

Univerza v Mariboru, Fakulteta za zdravstvene vede, dekanica

Cenjeni predavatelji in udeleženci konference!

Univerza v Mariboru, Fakulteta za zdravstvene vede organizira tradicionalno mednarodno znanstveno konferenco Raziskovanje in izobraževanje v zdravstveni negi za predstavitev napredka na področju raziskovanja v zdravstveni negi in zdravstvu ter izobraževanja, ki temelji na raziskovanju, v slovenskem in mednarodnem prostoru, hkrati pa služi izmenjavi mnenj in izkušenj.

Konferenco bogatijo prispevki in predavanja uglednih domačih in tujih vabljenih predavateljev, raziskovalcev ter študentov s področja zdravstvene nege in zdravstva, s katerimi uspešno sodelujemo na znanstvenoraziskovalnem in izobraževalnem področju.

Prispevki in predavanja osvetljujejo pomembne vidike na področju izobraževanja in prakse zdravstvene nege, še posebej v času pandemije COVID-19, ki je v veliki meri vplivala tako na izobraževanje, kot tudi na prakso zdravstvene nege. Predstavljeni rezultati raziskav pomembno prispevajo k razvoju znanosti zdravstvene nege kot discipline, prepoznavanju družbenega razvoja glede na potrebe v zdravstvu in družbi ter hkrati predstavljajo trdno vez med izobraževanjem in prakso.

V čast in privilegij si štejemo, da na konferenci spremljamo najnovejša dognanja priznanih in prepoznavnih domačih in tujih predavateljev in se obenem veselimo nadaljnjega uspešnega sodelovanja na izobraževalnem in znanstvenoraziskovalnem področju.



Plenary lectures Plenarna predavanja





# Leadership in Nursing, Nursing Management and Nursing Practice

FIONA TIMMINS

The *Journal of Nursing Management* is an international forum which aims to inform and advance the discipline of nursing management and leadership. The Journal encourages scholarly debate and critical analysis to provide evidence that may underpin and illuminate the practice of management, innovation and leadership in nursing and health care. An exploration of output of scholars within the *Journal of Nursing Management* (2015-2019) was insightful and provided more information on research activity in the field (Timmins 2020). The aim of this editorial is to provide a brief overview of these general patterns and trends in publications in the Journal, to suggest ways in which this information could be utilised to inform the future strategic direction of international scholars. A brief overview of Slovenian publications will also be provided.

The five year analysis revealed that 562 papers were published during this time (Timmins 2020). The top ranking universities, in terms of research publication output, were the University of Technology Sydney, Australia; Itä-Somen yliopisto (University of Eastern Finland), Finland; Trinity College Dublin, Ireland; Western University, Canada and University of Toronto, Canada comprising the top five. The most frequently published countries of origin remain those that are English speaking: (1) USA; (2) Australia; (3) UK; (4) Canada and (5) Finland.

In terms of topics, [according to Weberg et al's 2018 outline of the leadership role in nursing] two of the main foci of these papers in the *Journal of Nursing Management* were navigating care networks/creating the context for professional practice and staffing, scheduling and patient care assignments. There was also some attention paid to the

capacity of the person to lead (Timmins 2020). There was a smaller percentage (less than 10% of papers published) in other areas pertinent to the nurse leader (Timmins 2020). Interestingly, Jasper & Crossan (2012:643), some time ago, revealed similar omissions, they highlighted the occurance of "persistent themes" in the literature. These were the role of the nurse manager/leader and its components, evaluation of the role and identification of the developmental needs of nurse managers. As such areas there are key areas that are deplete of (research and) publications (-delegation & supervision; negotiation; accountability & ownership. There are also those with few papers - principles of ethical decision making; managing your career & resources for healthcare excellence. These are likely areas where research and publication could be focused for the future.

It is likely that the emphasis on practical aspects of health care and management (navigating care networks/creating the context for professional practice and staffing, scheduling and patient care assignments) reflects a concern with day to day operations rather than taking a more strategic outlook. Indeed this finding is not new. This focus and concern with day to day operations in nursing and health care at the expense of more global concerns has been identified ( Carney & Crossan 2009:655). These authors suggested that "it is by no means clear that nurse managers view strategy development as part of their management role" (Carney & Crossan 2009:655). They further state "developing and managing strategy is a critical success factor for healthcare managers" (Carney & Crossan 2009:655).

One important area that receives very limited attention in recent years is principles of ethical decision-making. It is increasingly being recognized that nurses in practice face many ethical issues (Silén & Svantesso 2019). This situation is likely to intensify given changing patterns of illness. It is well understood internationally that in most societies, healthcare needs are changing in an unprecedented fashion. Advances in medicine, including detection, treatment, prevention together with improved socio-economic circumstances, increased access to health care and improved understandings of the contribution of lifestyle mean not only that people are living longer, but older people are presenting with a novel co-morbidity with consequential impacts on personal health, personal needs and the vision for societal support of the aging population (Kagan 2015, 2016). There are also concurrent ethical issues as society struggles with treatment decisions, end of life care, and emerging policy and legislation related to euthanasia internationally (Pesut et al 2019).

The Journal recognises that "complex and rapidly changing nature of global health care is constantly generating new challenges and questions" and in this regard researchers and clinicians ought to be encouraged and supported to explore novel research questions that arise beyond the day to day immediacies and priorities. Taking a more long term view of the nursing and midwifery profession, and exploring facets of management and leadership roles in a more comprehensive is needed. As Carney & Crossan (2009:655) suggest "much has been achieved in positioning nurses and nursing as an influencer in the arena of policy and political decision-making" however there is a need for greater coordination of action to ensure that nursing is actively "supported in influencing and shaping health and health care policy". Nurses and midwives "need to grasp the importance of balancing the needs of the patient and health service stakeholders" and begin to "deliver on their strategic objectives across clinical, education, leadership, research and community areas" (Carney & Crossan 2009:658). Ultimately "[nurse and midwifery] managers could play a greater role in enhancing healthcare delivery if an understanding of, and acceptance of the importance of strategy in health care delivery was promoted" (Carney & Crossan 2009:658). Developing a vision for research and development within nursing and midwifery management and leadership is therefore a priority. This vision needs to encompass research priorities that directly influence staffing and workforce issues, clinical environments and the leadership role, but also to begin to explore those areas that receive less examination such as ethical issues, ethical leadership and ethical decision making; resources; career development; the impact of leadership styles; change and innovation; practice partnerships; skills of conflict management; delegation; accountability & ownership and policy. Any such development needs to be undertaken in relation to national and global research priorities and health care trends.

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## Delivery of Healthcare During Covid 19 - Telehealth Innovations in Ireland

SUZANNE DENIEFFE

Introduction: The Covid-19 pandemic impacted worldwide. When the pandemic started, people were ordered to quarantine in place. In the midst of being quarantined however, people with acute and chronic conditions still required medical care and treatment, particularly as the health care systems struggled under the weight of this additional burden, Covid 19. Therefore in many countries, including Ireland, health care systems had to take a leap forward to incorporate more technology to enable health care delivery. This paper explores how Ireland introduced new technologies and an evaluation of one of the pilot projects introduced.

Methods: Thirty two older patients with Diabetes, Chronic Heart Failure, or Chronic Obstructive Pulmonary Disease, from an acute hospital service, received a 12-week managed telehealth service intervention, which included daily monitoring of their condition with clinical oversight. The evaluation data included (i) patient interviews prior to, during and post the intervention, (ii) clinical data from the device, (iii) well-being assessment tool, (iv) interviews with referring clinicians and specialist nurses and (v) data on patients who declined to participate. Data was analysed using SPSS 26 using descriptive statistical tests and thematic analysis for qualitative data.

**Results:** Qualitative findings included i) impact of the intervention on quality of care, ii) impact on quality of life and iii) clinician experience.

**Discussion and Conclusion:** It is important that healthcare does not just revert back to our pre covid delivery of care models. We got an opportunity with the pandemic to see the value of technology for health care delivery and we need to build on the best elements of this to enhance health care delivery. Health care staff and patients need to be supported to use telehealth for the benefit of all.

**Keywords:** Covid 19; Quality of Care; Telehealth; Quality of Life; Older persons; Chronic conditions.

#### About the author

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### Innovative Professional Membership Award for Nurses and Midwives

MARIE CARNEY

**Introduction:** This study presents an innovative award titled 'Membership of Faculty of Nursing and Midwifery'. Membership supports the development of nursing and midwifery through the delivery of transformative learning experiences, impactful research in professional development and active engagement of registered nurses and midwives at all stages of their career through professional association with the faculty.

**Methods:** Qualitative analyses was undertaken using a literature search (2016-2021), focus groups (2) and assessment on reflection. Data were analysed using van Manen's thematic analysis. Data were collected from nurses working in two large general hospitals in Ireland. The Membership Professional Reflection Assessment undertaken by applicants must identify the importance of reflection to clinical practice.

**Results:** Results indicated that participants believed the Membership award would act as a steppingstone to their future career development, of the need for continuous professional development and of belonging to a professional group, particularly during the transition period. Membership was highly valued as a means of demonstrating professional interest and motivation: it makes explicit individual priorities and professional commitment.

**Discussion and Conclusion:** Joining a professional body or organisation acknowledges that standards have been achieved and confers certain privileges, as determined by the faculty. Membership will provide applicants with resources to support advances in leadership, management, education, research and evidenced based compassionate clinical

practice and networking opportunities. Professional Membership demonstrates dedication, enthusiasm and commitment to quality and standards while supporting professional development.

**Keywords:** professional, membership, nurses, midwives, innovation, transformative learning

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**Abstracts**Povzetki





# A Framework Analysis of Frontline NHS Staff Experiences of Support During the Covid-19 Pandemic

ROSIE STENHOUSE, SAM QUINN, CATHERINE CLARISSA

**Introduction:** Frontline healthcare staff working in pandemics have been reported to experience mental health issues during the early and post-peak stages. To alleviate these problems, healthcare organisations have been providing support for their staff. This paper reports the findings of a study aimed to understand the experience of NHS staff relating to the provision of wellbeing interventions between March and August 2020.

**Methods:** Data were gathered from free-text comments of eight surveys completed by a wide range of staff across sites within one NHS health board in Scotland. We conducted a framework analysis of the data.

**Results:** Our findings show that despite the provision of relaxation and cognitive behavioural interventions to support staff wellbeing during the early months of the COVID-19 pandemic, there were barriers to access, including heavy workload, understaffing, inconvenient locations and the stigma of being judged. Organisational factors were the most frequently reported support need amongst frontline staff across sites.

**Conclusion:** While relaxation and cognitive behavioural interventions were well received by staff, barriers to accessing them existed. Staff support in the context of organisational factors, such as engagement with managers was deemed as the most important for staff wellbeing. Managers play a key role in everyday organisational processes and therefore are

in the right position to meet increasing frontline staff demands due to the pandemic and removing barriers to accessing wellbeing support. Healthcare managers should be aware of organisational factors that might increase job demands and protect organisational resources that can promote wellbeing for frontline staff.

**Keywords:** healthcare managers; wellbeing support; organisational support; Scotland; nurses; medics

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## Nurses' Coping and Resilience Mechanisms in Oncology Settings During the Covid-19 Pandemic: a Review

ELISABETTA LA MANNA, CRISTINA MAZZEGA FABBRO

**Introduction:** During the COVID-19 pandemic nursing staff activated resilience and coping strategies in order to overcome this sudden and unexpected issue in working environment. In oncology setting nurses have had to face the vulnerability and the fragility of patients and the risk of getting infected. The aim of the review was to identify the nurses' coping and resilience strategies.

**Methods:** A literature review has been conducted on these databases: Pubmed, CINAHL, Cochrane Library and Google Scholar. We analyzed just 4 articles full text that satisfied the inclusion criteria for the review.

**Results:** Based on the studies it is possible to analyze three areas: a shortage of personal protection equipment (PPE), a clinical and organizational changes (increase in working hours, lack of training and researching courses and absence of caregiver) and an individual and social impact (increase stress and burnout, fear of virus transmission and of therapeutic mistakes).

**Discussion and Conclusion:** From the last results, it is evident that coping and resilience mechanisms are an effective method to improve the care approach of nurses in oncological settings during the COVID-19 pandemic. The use of these strategies improves the experiences of health professionals so that every healthcare company could develop training and educational interventions in order to support nurses in similar situations in

the future. A negative aspect was the impossibility of analyzing the strategies of coping and resilience in a standardized way because there were not guide lines that take care of the fragility of the cancer patient.

Keywords: coping; strategies; oncology nurse; covid-19 pandemic; clinical changes

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## Organizacija dela zdravstvene nege enote COVID intenzivne terapije in zadovoljstvo izvajalcev zdravstvene nege v izbrani ustanovi

BINE HALEC, MOJCA DOBNIK

**Uvod:** Zaradi izjemne rasti števila obolelih z COVID-19, ter posledično povečanih potrebah po zdravljenju bolnikov v enoti intenzivne terapije, je bilo potrebno ustanoviti enoto COVID intenzivne terapije. Pred zaposlenimi v zdravstveni negi so bili številni izzivi. Eden od pomembnih izzivov so bili motivirani in zadovoljni zaposleni. Namen raziskave je predstaviti enoto COVID intenzivne terapije, organiziranost dela zdravstvene nege v izbrani ustanovi. Cilj je bil ugotoviti organizacijsko klimo in zadovoljstvo izvajalcev zdravstvene nege.

**Metode:** V raziskavi smo uporabili kvalitativno metodo raziskovanja, izvedli smo terensko presečno raziskavo z neeksperimentalnim eksplikativnim dizajnom. Raziskava je potekala v enem izmed Univerzitetnih kliničnih centrov v Republiki Sloveniji, v trimesečnem obdobju leta 2020. V raziskavo je bilo vključenih 123 izvajalcev zdravstvene nege. Kot metodo zbiranja podatkov smo uporabili anketni vprašalnik, ki smo ga analizirali in obdelali s pomočjo računalniških programov Microsoft Excel in IBM SPSS 22.0.

**Rezultati:** Izvajalci zdravstvene nege so v povprečju z delom v enoti COVID intenzivne terapije zadovoljni. Pomanjkljivosti so se izkazale glede vodstva (M = 3,48; SD = 1,01), neposredno nadrejenih (M = 3,40; SD = 1,03) in delovnih pogojev (M = 3,38; SD = 1,04).

Diskusija in zaključek: Izvajalci zdravstvene nege kljub napornemu delu in številnim potrebnim organizacijskim spremembam, delo v enoti COVID intenzivne terapije ocenjujejo kot zadovoljivo. Rezultati izkazujejo potrebo za oblikovanje strategij vpeljave zaposlenih v zdravstveni negi v primeru izrednih situacij. Raziskavo bi bilo smiselno razširiti še v druge ustanove, kjer imajo enote COVID intenzivne terapije. Prav tako bi jo bilo smiselno periodično ponoviti.

Ključne besede: medicinska sestra; COVID-19; motivacija; organizacijska klima

Organization of Nursing Work in Covid-19 Intensive Care Unit and Satisfaction of Nursing Providers in the Selected Institution

#### O avtorjih

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# The Experience of Nursing Graduates in Covid-19 Wards: Explorative Qualitative Study with Qualitative Thematic Analysis

Gaia Bertolissi, Davide Caruzzo, Irene Mansutti

**Background:** The global spread of the COVID-19 disease has led to the declaration of a public health emergency of international concern, changing people's lifestyles. The emergency has led to the recruitment of an increasing number of nurses, mostly newly graduates, in wards that were at the heart of the pandemic. Objective: to investigate the experience of newly nursing graduates who started to work in COVID-19 wards.

**Methods:** An exploratory qualitative study was conducted through semi-structured interviews, with qualitative thematic analysis. A purposeful sampling was used. The sample included 15 newly graduated nurses.

**Results:** The analysis of the interviews highlighted several subthemes: a) the entry of new graduates into Covid-19 wards, b) the support perceived by new graduates, c) the emotions felt by new graduates, d) the relationship with colleagues, e) the difficulties faced during the work transition, f) practical and emotive support during shifts, g) reflections on the experience in Covid wards. The subthemes that emerged fully described the lived experience and led to the definition of two conceptual dimensions, the first of a personal type, the second of a professional type.

**Discussion and conclusion:** The results underline the importance of organizing the entry of a recent graduate into a new ward. As far as clinical practice is concerned, it seems that taking into account new graduates' ideas, also about the workflow organization, could help to create a climate of equality.

**Keywords:** new nurse graduates; work transition; Covid-19 outbreak; pandemic; qualitative thematic analysis

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# The Impact of Covid-19 Pandemic on the Evolution of Functional Dependence in Patients Admitted to a Neuro-rehabilitation Ward

ELENA PETRI, IRENE MANSUTTI, TOMMASO LUPI, RENZO MOREALE, CARUZZO DAVIDE

**Introduction:** The neurorehabilitation departments are concerned with restoring people autonomy by taking care of the patient and their families throughout a multidisciplinary approach. Objective: to describe the impact of the pandemic on the effectiveness and efficiency of rehabilitation in patients admitted to a neurorehabilitation ward as measured by the Functional Independence Measure (FIM) and Barthel Index (BI) scales.

**Methods:** A retrospective observational study has been conducted at the Institute of Physical Medicine and Rehabilitation in Udine. Two distinct cohorts of patients have been taken into consideration prior to the beginning and during the pandemic.

**Results:** The two groups of patients resulted homogeneous by features; the presence of a bladder catheter was significantly greater in the Covid-19 cohort upon entering the ward. There were no significant differences in terms of recovery of functional independence between the two groups (FIM: 74.33 vs 80.81, p 0.176; BI: 56.08 vs 58.70, p 0.589). The presence of a bladder catheter and aphasia at the admission was highly correlated with a longer average length of stay. At logistic regression analysis, age, presence of tracheal stoma on admission, number of infections during hospitalisation, presence of bladder catheter on admission and coming from an intensive unit care explain the recovery of FIM and BI respectively of 42% and 49%.

**Discussion and conclusion:** The functional dependence of patients has not been compromised by the pandemic. The assessment scales FIM and BI have been found to be affected by some specific predictors.

**Keywords:** rehabilitation; brain injury; functional recovery; nursing care

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## The Impact of Working with Covid-19 Positive Patients on the Mental Burden of the Nurses

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**Introduction:** Research examining the impact of COVID-19 on the mental health of healthcare professionals shows that these have not only short-term but also long-term effects and that the value of adequate support and training is important. This study aimed to examine the mental burden of nurses during the outbreak of COVID-19 and to present the factors that can negatively affect their mental health.

**Methods:** Review, analysis and synthesis of the scientific literature on the impact of working with COVID-19 positive patients on the mental burden of nurses were performed. International databases PubMed, Science Direct and Web of Science were searched. Inclusion and exclusion criteria were used based on the research question; cross-sectional studies in English, focusing strictly only on nurses, addressing their mental burdens, where the result impacted their mental health.

**Results:** 23 articles were reviewed and analysed. The results have shown that nurses have been coping with symptoms of depression, insomnia, stress, regret for choosing a nurse profession, and fear of infecting themselves, patients, or their loved ones.

**Discussion and Conclusion:** The mental health of nurses is affected by professional competence, the amount and quality of sleep, stress and self-efficacy. While working with COVID-19 positive patients, nurses experience symptoms of depression, anxiety, stress, negative emotions, lack of sleep, and burnout. Hospitals should implement effective mental health promotion programs, focusing on occupational safety and family support

to improve the well-being of nurses. Further prospective studies on this topic should be implemented.

Keywords: COVID 19; nurse; mental health

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## Izgorelost zdravstvenih delavcev v socialno varstvenem zavodu med epidemijo koronavirusne bolezni 2019

ALEKSANDRA GJURA, KSENIJA TUŠEK BUNC

**Uvod:** Izgorelost se pojavlja na delovnem mestu kot dolgotrajen odziv na kronične stresorje pri fizično in čustveno izčrpanih posameznikih. Namen raziskave je bil ugotoviti, ali je stopnja izgorelosti med zdravstvenimi delavci v socialno varstvenem zavodu med epidemijo COVID-19 prisotna in visoka.

**Metode:** V letu 2021 je bila izvedena presečna, kvantitativna raziskava. Uporabljena je bila metoda opisne (povprečne vrednosti, standardni odklon, frekvence) in inferenčne statistike (t-test za samostojne vzorce, t-test za neodvisne vzorce, Hi-kvadrat test za neodvisne vzorce in Pearsonov koeficient korelacije). Uporabljen je bil anketni vprašalnik Copenhagen Burnout Inventory (CBI). Cronbach alfa koeficient za vsak sklop vprašanj je znašal 0,7, kar nakazuje dobro statistično zanesljivost testa.

**Rezultati:** V raziskavi je sodelovalo 178 zdravstvenih delavcev socialno varstvenega zavoda. Po analizi pridobljenih podatkov smo ugotovili, da je celokupna izgorelost, merjena v treh dimenzijah vprašalnika, prisotna, vendar ni presegala 75 %. Pri celokupni izgorelosti so imeli anketiranci povprečno oceno 57,3 (SD = 15,9). Raziskava je pokazala, da zaposleni z delovno dobo nad 30 let dosegajo višjo stopnjo izgorelosti kot zaposleni z manj delovne dobe.

Diskusija in zaključek: Ugotovitve kažejo, da je povečanih delovnih obremenitvah kot so osebno doživljanje, obremenitve povezane z delom in z uporabniki, utrujenosti večja. Čeprav vzorčenje omejuje posploševanje rezultatov, je raziskava pokazala, da epidemija koronavirusne bolezni 2019 povečuje tveganje za pojav izorelosti med zdravstvenimi delavci. V prihodnje lahko rezultati, raziskave delovni organizaciji pomagajo, da ob povečanih delovnih obremenitvah pravočasno sprejme ukrepe za zmanjšanje pojava izgorelosti med zdravstvenimi delavci v socialno varstvenem zavodu.

**Ključne besede:** izgorelost; izčrpanost; obremenitve; zdravstveni delavci; dom za starejše; epidemija COVID-19

Burnout of Health Care Workers in Nursing Home During the Covid-19 Epidemic

Keywords: burnout; exhaustion; loads; health workers; nursing home; covid-19 epidemic

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### Uvajanje medicinskih sester v COVID intenzivno terapijo: akcijski načrt

NATAŠA RADOVANOVIĆ, MOJCA DOBNIK

**Uvod:** Nepričakovana premestitev z matičnega oddelka v COVID intenzivno terapijo, je za izvajalce zdravstvene nege zelo stresna. Potrebno je osvojiti številna znanja, za kar potrebujemo program uvajanja. Namen izvlečka je predstaviti program uvajanja izvajalcev zdravstvene nege v COVID intenzivno terapijo. Cilj je bil ugotoviti, kako se zaposleni v zdravstveni negi soočajo s pridobivanjem veščin.

**Metode:** V raziskavi smo uporabili kvalitativno metodo raziskovanja, izvedli smo terensko presečno raziskavo. Raziskava je potekala v Univerzitetnem kliničnem centru, v trimesečnem obdobju leta 2020. Metoda zbiranja podatkov je bil intervju z vnaprej pripravljenimi odprtimi vprašanji. Za obdelavo podatkov smo uporabili metodo vsebinske analize.

**Rezultati:** V raziskavo so bili vključeni izvajalci zdravstvene nege, ki so v času pandemije bili premeščeni v COVID intenzivno terapijo (n = 9). Ob vstopu v COVID intenzivno terapijo so si želeli (n = 9) uvajanja in mentorja. Intervjuvanci so imeli različne klinične izkušnje s področja odvzema biološkega materiala (n = 5), osnovne zdravstvene nege (n = 3), spremljanja vitalnih funkcij (n = 6), aplikacije terapije (n = 6), itd. Med najtežja strokovna znanja so uvrstili poznavanje mehanske ventilacije (n = 9) in specifične terapije (n = 9).

**Diskusija in zaključek:** Na podlagi rezultatov smo izdelali programom uvajanja izvajalcev zdravstvene nege v COVID intenzivno terapijo. Smiselno bi bilo ponoviti raziskavo po izvedenem izobraževanju ter jo primerjati z uvajalnimi programi intenzivnih terapij drugih specialnostih. Naš namen je uvesti samozavestne in strokovno usposobljene izvajalce zdravstvene nege, ki se bodo znali soočiti z vsakodnevnimi izzivi.

Ključne besede: zdravstveni delavci; mentor; izobraževanje

Introducing Nurses to COVID Intensive Care: an Action Plan

Keywords: health professionals; mentor; education

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## Kontaminacija površin v zdravstvenih ustanovah z virusom SARS-Cov-2: sistematični pregled litarature

BENJAMIN HABINC, URŠKA ROZMAN, SERGEJ KMETEC, SONJA ŠOSTAR TURK

**Uvod:** Bolezen COVID-19, ki jo povzroča okužba z virusom SARS-CoV-2, predstavlja nevarnost za posameznike vseh starostnih skupin in je javnozdravstven problem 21. stoletja. Virus SARS-CoV-2 se lahko prenaša neposredno preko okuženih respiratornih kapljic ali posredno preko okuženih medijev, kot so okužene površine in predmeti. Namen sistematičnega pregleda literature je predstaviti katere površine so najbolj kontaminirane z virusom SARS-CoV-2.

**Metode:** Sistematični pregled literature je bil izveden po smernicah PRISMA v podatkovnih bazah PubMed, CINAHL, MEDLINE in SAGE. V pregled so bili vključeni članki v angleškem in slovenskem jeziku, objavljeni do marca 2022. Vsebinska analiza je bila narejena za pridobitev in prikaz glavnih ugotovitev sistematičnega pregleda literature.

**Rezultati:** Skupno je bilo identificiranih 88 virov, v končno analizo je bilo vključenih 18 zadetkov, ki temeljijo na kvantitativni metodologiji. Pri pregledu rezultatov smo ugotovili, da le v dveh identificiranih raziskavah niso zaznali prisotnosti virusa SARS-CoV-2 na površinah v zdravstvenih ustanovah. Virus SARS-CoV-2 je najpogosteje prisoten na kljukah vrat, pipah, delovnih telefonih in tipkovnicah, bolnišničnih posteljah in klicnih napravah.

Diskusija in zaključek: Virus SARS-CoV-2 je najpogosteje prisoten na površinah, ki so v neposredni bližini pacientov in ki se jih dotika veliko število posameznikov v bolnišnicah, ter tako predstavljajo možnost za nadaljnje širjenje okužbe. Poudarek na higieni rok in doslednem razkuževanju površin je izrednega pomena pri zaustavitvi nadaljnjega prenosa virusa SARS-CoV-2. Prav tako morajo zdravstveni delavci pridobiti znanje na katere površine v zdravstvenih ustanovah morajo biti pozorni v okviru zmanjševanja možnosti prenosa okužbe.

Ključne besede: SARS-CoV-2; COVID-19; zdravstvene ustanove; površine; predmeti; kontaminacija

Surfaces Contamination in Healthcare Settings with SARS-Cov-2 Virus: Systematic Literature Rewiev

**Keywords:** SARS-CoV-2; COVID-19; health institutions; surfaces; objects; contamination

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#### Perspektiva, izkušnje in zavzetost študentov zdravstvene nege do raziskovanja: pilotna študija

SABINA LIČEN, MIRKO PROSEN

**Uvod:** Raziskovanje oblikuje prakso zdravstvene nege, zato mora biti ključna sestavina izobraževalnega procesa in tudi socializacijskega procesa. V tem tisti, ki vstopajo v poklic razvijajo vrednote in sprejemajo norme povezane z raziskovanjem. Namen pilotne študije je bil pridobiti preliminarne rezultate o stališčih študentov povezanih z raziskovanjem.

**Metode:** Uporabljen je bil uporabljen priložnostni vzorec 73 dodiplomskih (n = 56) in podiplomskih (n = 17) študentov zdravstvene nege. Podatki so bili zbrani z vprašalnikom sestavljenih iz 22 trditev razporejenih v štirih sklopih (Cronbach  $\alpha$  = 0,91). Ocena trditev strinjanja je točkovana v razponu med 22 in 88 točkami, pri čemer višje število točk nakazuje bolj pozitiven odnos do raziskovanja. Podatki so bili analizirani z deskriptivno statistiko in neparametričnimi testi.

**Rezultati:** V vzorcu so prevladovale ženske (80,8 %) in starostna skupina 20–29 let (67,1 %). Študenti so v povprečju dosegli 49,38 točk (s = 10,25), kar kaže, da odnos do raziskovanja ni najbolj pozitiven. Študenti se najbolj strinjajo s trditvama, da je raziskovalno delo za profesionalno prakso neobvezen del ( $\bar{x} = 3,07$ , s = 0,770) in da za novo zaposlene medicinske sestre sodelovanje v raziskavah ni potrebno ( $\bar{x} = 3,07$ , s = 0,694). Študentke imajo bolj pozitiven odnos do raziskovanja kot študenti, podobno mlajši do 20 let in tisti, ki so predhodno obiskovali srednjo zdravstveno šolo. Študenti prvostopenjskega študija so bolj naklonjeni raziskovanju kot tisti na 2. stopnji (p = 0,021).

**Diskusija in zaključek:** Ugotovitve kažejo, da raziskovanju večina ni naklonjena, kar nakazuje na potrebne spremembe v izobraževanju že na prvi stopnji študija.

Ključne besede: znanost; profesionalni razvoj; izobraževanje; medicinske sestre; spremembe

Nursing Students' Perspectives, Experiences, and Engagement in Research: a Pilot Study

Keywords: science; professional development; education; nurses; change

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#### The Model of Spiritual Care for Older People Living with Dementia In Nursing Homes: a Qualitative Study

NATAŠA MLINAR RELJIĆ, ZVONKA FEKONJA, SERGEJ KMETEC, BLANKA KORES PLESNIČAR, MAJDA PAJNKIHAR

**Introduction:** Nursing care for older people living with dementia in nursing homes should be compassionate and person-centred. Spiritual care as part of a holistic approach to care in nursing homes is commonly neglected and overlooked. The purpose of this paper is to present a model of spiritual care for people living with dementia in nursing homes.

**Methods:** A qualitative research design with a phenomenological hermeneutical approach was used. The study was conducted in nursing homes in Slovenia in 2019 and 2020. Purposive sampling with in-depth individual interviews with older people living with dementia (n = 20), their family members (n = 21) were used and focus groups (n = 6) of nursing staff were conducted.

**Results:** Crucial elements in a model for the provision of spiritual care were identified as (1) Respect, (2) Kindness, (3) Sensitivity, (4) Dignity, (5) Empathy, (6) Compassion, (7) Individuality.

**Discussion and Conclusion:** The findings present the older people's, family members, and nursing staff's experience with providing spiritual care in nursing homes. It is important that nursing staff quickly recognize the spiritual needs of people living with dementia and respond appropriately. Findings from the study can serve as guidelines for

nursing staff for assessing, planning, and providing appropriate spiritual care for people living with dementia in nursing homes.

Keywords: spirituality; long-term care; elderly; family members; nurses

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#### Uporaba metod znanstvenega raziskovanja za sprejemanje sistemskih odločitev za področje zdravstvene nege

VESNA ZUPANČIČ

**Uvod:** Gibanje za uvajanje na dokazih temelječega odločanja v zdravstvu se je začelo z karakterizacijo problema – nesprejemljivega razkoraka med tem, kar vemo, in tem, kar počnemo pri zdravstveni obravnavi pacientov. Pri tem je bilo poudarjeno, da je za sprejetje in vzdrževanje takega načina odločanja nujna sprejetost in upoštevnost na vseh ravneh odločanja. Cilj raziskave je bil ugotoviti, kaj je glede uporabe metod znanstvenega raziskovanja za sprejemanje na dokazih temelječih sistemskih odločitev za področje zdravstvene nege mogoče povzeti iz objav znanstvenih člankov.

**Metoda:** Uporabljen je bil kvalitativni pristop. Izveden je bil pregled objav znanstvenih člankov in študija 8 zajetih primerov uporabe metod znanstvenega raziskovanja za sprejemanje sistemskih odločitev za področje zdravstvene nege.

Rezultati: Raziskave o odločanju na podlagi znanstvenih dokazov so se pojavile na različnih področij upravljanja in klinične prakse zdravstvene nege. Osredotočajo se na tri vidike kakovosti: storitve (intervencije), ciljno usmerjene zdravstvene rezultate in skladnost s trenutnim znanjem (raziskovalni dokazi). Poudarjen je pomen integracije najboljših raziskovalnih dokazov s kliničnim strokovnim znanjem in vrednotami pacientov ter izvajalcev zdravstvene nege.

Diskusija in zaključek: Še nikoli prej v zgodovini zdravstvenega varstva osredotočenost in formalizacija prenašanja dokazov v prakso ni bila tako ostra, kot je razvidno iz današnjih raziskav o prizadevanjih za preoblikovanje zdravstvenega varstva. Priporočilo, da izvajalci zdravstvene nege vodijo medsektorske ekipe pri izboljševanju sistema zdravstvenega varstva, postavlja v ospredje potrebo po novih kompetencah, ki presegajo sedanjo prakso, ki temelji na dokazih. Glavni cilj znanosti o izboljšavah je zagotoviti, da prizadevanja za izboljšanje kakovosti temeljijo toliko na dokazih kot na najboljših praksah.

Ključne besede: zdravstvena nega, na dokazih temelječe odločanje, sistemski ukrepi, znanstvene raziskave

Using Scientific Research Methods for Systemic Decision-Making in Nursing

**Keywords:** nursing, evidence-based decision making, systemic interventions, scientific research

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#### Missed Nursing Care: a Concept Analysis

Gregor Romih, Majda Pajnkihar, Dominika Vrbnjak

**Introduction:** Missed nursing care is defined as an error of omission and represents quality and safety issue across healthcare settings globally. It is estimated that nurses miss or omit 9–53% of standardized, planned, or necessary nursing activities in one shift. Many authors suggested the theoretical models of missed nursing care, which resulted in various definitions, and abstract interpretations of the concept. Therefore, the aim of this study was to analyse the concept of missed nursing care.

Methods: McKenna & Cutcliffe's (2005) method was used to guide quantitative concept analysis. Resources were identified in international databases PubMed, CINAHL, Medline, Web of Science and SpringerLink with predefined search strategy, inclusion and exclusion criteria and literature search limits.

**Results:** Synthesized attributes were nursing care process and nurses' inner processes, which include team norms, priority decision making, values, attitudes, beliefs, and habits. Antecedents are labour and material resources, demand for patient care, communication, and teamwork. Consequences of missed nursing care result in patients' and nurses' outcomes. Empirical indicators are identified. The concept has mainly been studied in hospital settings.

**Discussion and Conclusions:** The concept is universal and globally present in different cultures and healthcare systems. Multiple nomenclatures and models suggest a different structure of the concept. There is a need for further research, especially for the full concept operationalization and clarification of the antecedents and consequences. Connecting the concept with individual characteristics of nurses and healthcare system could determine its relationship with patients' safety and quality of healthcare.

Keywords: quality; patient safety; nurse; literature review

Izpuščene aktivnosti zdravstvene nege: analiza koncepta

Ključne besede: kakovost; varnost pacientov; medicinska sestra; pregled literature

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## Assessing Learning Outcomes in Massive Open Online Courses for Nursing Students

Lucija Gosak, Gregor Štiglic, Isa Raquel Brito Santos Pereira Felix, Ana Paula Boler Cláudio, Katja Braam, Mara Sofia Inacio Pereira Guerreiro, Mateja Lorber

**Introduction:** A Massive Open Online Course (MOOC) is used to reach a larger number of students using the internet. Multiple Choice Questions (MCQs) are often used to assess the achievement of learning outcomes in MOOCs. Learning outcomes (LOs) can be defined as the knowledge, skills, and behaviors that can be measured and that students are expected to have achieved in full or in part at the end of an educational program.

**Methods:** We conducted a preliminary literature review to identify different educational taxonomies for measuring LOs and guidelines for the preparation of MCQs.

Results: The MOOC uses questions based on Miller's model of clinical assessment (1990), known as the Miller Pyramid. The Miller Pyramid has made an important contribution to moving away from the traditional assessment model. At the lowest level of the pyramid is "knows", and the next level is "knows how". The subsequent levels cover problem-solving in the clinical setting and are 'show how' and 'do'. The fifth level 'is', represents the individual's attitudes, values and beliefs. In the Train4Health MOOC, we used MCQ type answers with four options, one best answer, and three distractors to assess LOs. To provide a solid basis for assessing achievement, the questions include all learning outcomes that are aligned to the curriculum, reflect the relative importance of the topic and follow the guidelines on technical features.

**Discussion and Conclusion:** Assessment should be aligned with learning outcomes and support students' progress. The learning objectives, the learning strategies used to implement the learning process and the assessment tools are interlinked.

**Keywords:** learning resources; assessment; learning outcomes; student learning

Ocenjevanje učnih izidov v množičnih odprtih spletnih tečajih pri študentih zdravstvene nege

Ključne besede: učni viri; ocenjevanje; učni izidi; učenje študentov

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#### Uporaba teorije King pri spreminjanju vedenja za razvoj srčno-žilnih bolezni v referenčnih ambulantah družinske medicine

Adrijana Svenšek, Majda Pajnkihar, Dominika Vrbnjak

**Uvod:** Teorija doseganja ciljev avtorice King ponazarja spoštovanje pacienta in izpostavlja pomen izmenjavi informacij, postavljanju ciljev in oskrbi, ki je osredotočena na pacienta. S pomočjo pregleda in analize znanstvene literature je namen opisati, analizirati in ovrednotiti teorijo ter ugotoviti njeno uporabnost pri spreminjanju vedenj za razvoj srčnožilnih bolezni.

**Metode:** Opis, analiza in vrednotenje teorije je bila izvedena po modelu avtorice Pajnkihar (2013). Literatura je bila iskana v CINAHL, MEDLINE ter PubMed. Vključitveni kriteriji so bili tematika izbrane teorije, znanstveni članki in izbrana poglavja v knjigah v angleškem jeziku, brez časovne omejitve. Pregled je predstavljen s PRISMA diagramom.

Rezultati: Teorija doseganja ciljev je srednjega obsega in je izpeljana iz konceptualnega sistema, ki vključuje 3 med seboj organizirane sisteme, ki so v nenehni interakciji. V teoriji so jasno definirani koncepti metaparadigme in 12. konceptov. Najbolj raziskan koncept je transakcija. King opisuje transakcije kot proces interakcije, v katerem posameznik komunicira z okoljem za doseganje ciljev, ki imajo zanj vrednost in pomen. Teorija je bila testirana in uporabljena v kliničnem okolju, predvsem v primarnem zdravstvenem varstvu.

Diskusija in zaključek: Vsebina teorije doseganja ciljev je skladna z delovanjem »referenčnih« ambulant družinske medicine, kjer je med najpomembnejši koncepti transakcija, s pomočjo katere lahko medicinska sestra skupaj s pacientom doseže zastavljene cilje. Ti vodijo do spremembe vedenja pri pacientu, ter zmanjšanje dejavnikov tveganja za razvoj srčno-žilne bolezni. Smiselno bi bilo raziskati uporabnost teorije pri izboljševanju vključenosti pacienta v lastno obravnavo ter spreminjanju pacientovega vedenja za ohranjanje zdravja.

**Ključne besede:** kardiovaskularne bolezni; teorija doseganja ciljev; sprememba življenjskega sloga; transakcija

Use Of King's Theory for Behavioral Change in Cardiovascular Disease Prevention in Family Medicine Practice

Keywords: cardiovascular disease; goal attainment theory; lifestyle change; transaction

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### Fermentirana živila kot del javne prehrane v slovenskih vrtcih

Sabina Fijan, Jasna Godec, Maja Strauss, Dušanka Mičetić Turk

Uvod: Zdrava prehrana je pomembna za otroke in mladostnike, saj je odraščanje obdobje intenzivnega fiziološkega, psihosocialnega in kognitivnega razvoja posameznika. Po najnovejši definiciji fermentirana živila "nastanejo iz sestavin hrane s pomočjo zaželenega delovanja mikroorganizmov in encimatskih pretvorb". Novejše klinične raziskave potrjujejo, da imajo fermentirana živila dokazane pozitivne učinke na zdravje, zato jih vključujejo v smernice za prehrano po svetu. Slovenska prehranska piramida v zdravo prehrano vključuje nekatera fermentirana živila, kot so kislo zelje, kisla repa, jogurt, manj mastna skuta in siri, med priporočena živila. Namen raziskave je bil ugotoviti uporabo fermentiranih živil v javnih vrtcih podravske in primorske regije.

**Metode:** Uporabljena je bila kvantitativna metodologija analize in sicer izvedli smo analizo zbranih prosto dostopnih jedilnikov v javnih vrtcih podravske in primorske regije. Analiza rezultatov je bila narejena s statističnim programom IBM SPSS 26, uporabljena je bila deskriptivna statistika in T-test.

**Rezultati:** Ugotovili smo, da obstajajo statistično pomembne razlike zastopanosti posameznih fermentiranih živil v jedilnikih glede na regije, in sicer pri jogurtu, skuti, kefirju (p=0,001) in kislem zelju (p=0,005). Obstajajo tudi statistično pomembne razlike med pojavnostjo posameznih fermentiranih živil glede na letni čas pri kislem zelju (p<0,001) in kisli repi (p=0,038).

Diskusija in zaključek: Ugotovili smo, da se v jedilnikih v dveh opazovanih regijah pojavljajo fermentirana živila, saj so del prehranjevalne kulture v obeh opazovanih regijah in kot takšna so uvrščena v jedilnike javnih vrtcev. Promocija zdrave prehrane, ki bi vsebovala tudi fermentirana živila, naj ne bi poudarjala samo uravnotežene prehrane, ampak tudi raznolikost hrane in izbiro svežih, zdravih sestavin.

Ključne besede: zdrava prehrana; predšolski zavodi; koristni mikroorganizmi

Fermented Foods as Part of Public Nutrition in Slovenian Kindergartens

Keywords: healthy foods; preschool institutions; beneficial microbes

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### Nursing Students' Academic Self-perception in Slovenia

LUCIJA GOSAK, NINO FIJAČKO, CAROLINA CHABRERA, ESTHER CABRERA, GREGOR ŠTIGLIC

**Introduction:** Students' academic self-perception is defined as the ability to acquire knowledge with the ultimate goal of educational attainment. Based on self-perception, students form an idea of themselves and their academic abilities. The aim of this paper is to analyze the academic self-perception of nursing students in Slovenia.

**Methods:** We conducted a cross-sectional study using the The Dundee Ready Education Environment Measure questionnaire among nursing students in Slovenia. We included a scale assessing academic self-perception, rated on a Likert scale. Students were invited to participate in the survey via email and their participation was voluntary.

**Results:** One hundred and seventy-fourth students took part in the study. The average students' academic self-perception score was 19.8/32. On average, students rated that they had learned a lot about empathy (M=3.1, SD=0.65) and acquired the necessary problem-solving skills and competencies (M=2.7, SD=0.74). Most students were confident that they would pass this academic year (M=2.9, SD=0.84). Students are less confident in their ability to memorize the information they need for their profession (M=2.2, SD=0.95).

**Discussion and Conclusion:** Most students were more positive in their assessment of their academic self-confidence. Based on the results obtained, we can see that the biggest discrepancies are in the area of memorizing information that is important for the smooth functioning of their work and profession. We see great oppurtunity in using mnemonic memory strategy to help nursing students remember new information in sequential order.

By improving students' academic self-perception we can influence their skills and ability for their professional and academic progress.

Keywords: academic performance; competences; learning strategies; education

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## Evaluating a Pilot Telehealth Intervention for Older Adults with Chronic Health Conditions (Phase 1)- a Collaborative Initiative

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Introduction: The challenges facing older adults living with chronic conditions during Covid (fear, loneliness, cut off from normal supports) have created an impetus to re-look at how to meet their healthcare needs. A meta-review identified telehealth as a safe option for delivering self-management support in long term conditions. Age Friendly Ireland, the HSE, Wexford Local Authority, Wexford Age Friendly Programme, Waterford Institute of Technology and Tunstall Emergency Response worked collaboratively to pilot and evaluate a remote health monitoring system.

Methods: Thirty two older patients with Diabetes, Chronic Heart Failure, or Chronic Obstructive Pulmonary Disease, from an acute hospital service, received a 12-week managed telehealth service intervention, which included daily monitoring of their condition with clinical oversight. The evaluation data included (i) patient interviews prior to, during and post the intervention, (ii) clinical data from the device, (iii) well-being assessment tool, (iv) interviews with referring clinicians and specialist nurses and (v) data on patients who declined to participate. Data was analysed using SPSS 26 using descriptive statistical tests and thematic analysis for qualitative data.

**Results:** Qualitiave findings included i) impact of the intervention on quality of care, ii) impact on quality of life and iii) clinician experience.

**Discussion and Conclusion:** A multi-sectoral partnership approach and listening to the older person's voice were central to the successful development and implementation of this pilot. The findings are now being incorporated into Phase 2, a demonstrator project with 250 patients across southeast Ireland.

**Keywords:** quality of care; telemonitoring; quality of life: older persons; chronic conditions

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#### Ocena zanesljivosti anketnega vprašalnika za medicinske sestre glede presejalnega programa raka dojk – pilotna raziskava

MARIJA HORVAT IN BRANKO GABROVEC

**Uvod:** Znanje in redno izobraževanje medicinskih sester na primarni ravni zdravstva je ključnega pomena za zgodnje odkrivanje raka dojk. Namen pilotne raziskave je bil testirati, analizirati in evalvirati vprašalnik ter ugotoviti primernost za glavno raziskavo v slovenskem in hrvaškem okolju v okviru doktorske disertacije.

Metode: Izvedena je kvantitativna raziskava, v katero smo vključili petdeset medicinskih sester zaposlenih v ambulanti družinske medicine in dispanzerju za ženske. Za zbiranje podatkov smo uporabili spletni vprašalnik. Za vsako lestvico smo izračunali koeficient Cronbach alpha in deskriptivno statistiko (število anketirancev, minimalni in maksimalni rezultat, aritmetična sredina, standardni odklon, indeks porazdelitve simetrije in indeks ukrivljenosti porazdelitve).

Rezultati: Zanesljivost lestvic je bila testirana za slovenski in hrvaški vzorec. Za slovenski vzorec izračunali smo Cronbach alpha za lestvico samoocene znanja medicinskih sester o raku dojk, ki znaša 0,91, za lestvico izvajanja preventivnih dejavnosti znaša 0,93 in za lestvico identifikacije potreb po izobraževanju znaša 0,89. Za hrvaški vzorec izračunali smo Cronbach alpha za lestvico samoocene znanja medicinskih sester o raku dojk, ki znaša 0.92, za lestvico izvajanja preventivne dejavnosti znaša 0,81 in za lestvico identifikacij potreb po izobraževanju znaša 0,87 in kaže na primerno zanesljivost vprašalnika.

Diskusija in zaključek: Zanesljivost lestvice samoocene znanja medicinskih sester o raku dojk in identifikacije potreb po izobraževanju glede presejalnega programa raka dojk v slovenskem in hrvaškem okolju je visoka medtem, ko je zanesljivost lestvice o izvajanju preventivnih dejavnosti višja v slovenskem kot v hrvaškem okolju. Zanesljivost vprašalnika v slovenskem in hrvaškem okolju je primerna vendar bo potrebno določena vprašanja korigirati za glavno raziskavo.

**Ključne besede:** veljavnost; zanesljivost; vprašalnik zdravstvena nega; medicinska sestra; rak dojk; izobraževanje

Assessing the Reliability of a Questionnaire for Nurses on the Breast Cancer Screening Program - a Pilot Study

**Keywords:** validity; reliability; nursing questionnaire; nurse; breast cancer; education

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## The History of Healthcare Professionals and Healthcare Systems in Central Europe

MARTIN ČERVENÝ, INKA KRATOCHVÍLOVÁ, VĚRA HELLEROVÁ, VALÉRIE TÓTHOVÁ, LUKÁŠ NOVOTNÝ, ANDREJ TÓTH

**Introduction:** Health and medical staff in Central Europe were once governed by laws and regulations of the former Austro-Hungarian monarchy. The aim of this study was to analyze the Generale normativum in Re Sanitatis and to map its impact on selected health professions in Central Europe.

Methods: This study used historical analysis of primary and secondary sources from the Czech and Slovak Republics and Hungary. The study also used a combination of direct and indirect, progressive, and retrospective methods. In this study was also utilized synchronous comparisons of historical data between the countries of the former Austro-Hungarian monarchy. This study obtained archival materials from state archives in Prague (Czech Republic), Bratislava (Slovak Republic), and Budapest (Hungary).

**Results:** The Generale Normativum in re Sanitatis was the first document what significant regulation concerning health care throughout the monarch. This document ordered the creation of the regional medical authorities and regulated the practice of doctors, surgeon, and midwives. Generale Normativum in Re Sanitatis was replaced by Imperial Law No. 68 of April 30, 1870.

**Discussion and conclusion:** Generalen Normativum in Re Sanitatis managed and maintained by the monarchy significantly impacted the health of Central Europeans. The systems created from this normative became a good model for the new states that arose after the disintegration of the old empire. They facilitate to run the transitions of newly independent health care system smoothly.

**Keywords:** history, healthcare professionals, Central Europe

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### Virtual Reality for Informal Carers in the Context of Health and Social Care

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**Introduction:** As part of long-term health and social care, informal care is one of the current European issues. Informal carers need support and help in health care and social work because caring for a loved one is challenging. One way to support informal carers is to use virtual reality as a new approach. In recent years, virtual reality has been used in the Czech Republic in health and social care and is becoming captured, leading to relaxation and activation of clients/patients.

**Methods:** Based on qualitative research, the goal was to create virtual reality software for informal caregivers and to bring them new stimuli and experiences. Virtual reality as technology allows informal caregivers to find themselves in a simulated environment, which is also accompanied by interaction with it.

**Results:** Virtual reality is about creating a visual, auditory and tactile experience that evokes the impression of reality. During the implementation of our project, five environments for informal caregivers were created in virtual reality: 1. toasting sausages while camping, 2. beach - sandy island, 3. building stone mounds in the mountains, 4. garden-like, 5. autogenous training.

**Discussion and Conclusion:** Our experience shows that virtual reality is an innovative approach and a new way to help informal carers.

**Keywords:** informal care; caregivers; long-term care; virtual reality; health care; social work

#### Acknowlegment

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#### Integrirana oskrba v Zdravstvenem domu Maribor: primer dobre prakse

Aleksandra Jančič, Barbara Kegl

**Uvod:** Zaposleni razvijajo, preizkušajo in implementirajo nova orodja ter nove storitve dolgotrajne oskrbe s ciljem, da se dolgotrajno bolnim omogoči čim dlje časa kakovostno in čim bolj samostojno življenje v svojem domačem okolju. Zdravstveni dom Maribor, kot eden izmed partnerjev, sodeluje v projektu Usmerjena integrirana oskrba doma od decembra 2019 v občinah Maribor, Hoče Slivnica, Miklavž na Dravskem polju in Duplek. Namen prispevka je predstaviti prednosti in slabosti izvedenih projektnih aktivnosti ter priložnosti in izzive.

**Metode:** Uporabljen je bil retrospektivni sistematičen pregled dokumentov 56.971 izvedenih projektnih aktivnosti ter 20 razgovorov z izvajalci integrirane oskrbe od decembra 2019 do decembra 2021. Podatki so bili analizirani z deskriptivno statistično metodo.

**Rezultati:** Opravljenih je bilo 566 ocen upravičenosti do dolgotrajne oskrbe, od tega 175 ponovnih ocen. Vključenih je bilo 310 uporabnikov, na dan 15.03.2022 je vključenih 185. Tekom razgovorov je bila izpostavljena velika potreba po storitvah dolgotrajne oskrbe. Zelo pomemben in zelo obremenjen člen dolgotrajne oskrbe je koordinator dolgotrajne oskrbe.

Diskusija in zaključek: Izkušnje kažejo, da je potrebno nujno vzpostaviti enotne vstopne informacijske točke ter uporabo enotnega ocenjevalnega orodja za oceno upravičenosti do storitev dolgotrajne oskrbe. Izkazala se je velika potreba po storitvah za ohranjanje in izboljšanje samostojnosti, po novih storitvah ter storitvah za centralizirano

pripravo zdravil. Izredno pomembno vlogo pri tem ima koordinator dolgotrajne oskrbe. Potrebno bo razmisliti o premostitvenem obdobju zagotavljanja storitev dolgotrajne oskrbe v času od oddaje vloge, ocene upravičenosti ter vključitve pri izvajalcu. Pridobljene izkušnje bodo v veliko pomoč pri vzpostavitvi mreže izvajalcev dolgotrajne oskrbe v domačem okolju.

Ključne besede: izvajalci dolgotrajne oskrbe; koordinator; ocenjevalno orodje

Integrated Care in the Health Center Maribor: an Example of Good Practice

**Keywords:** long-term care providers; coordinator; assessment tool

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# The Comparison Between Two Types of Educational Information in Reducing Nausea and Vomiting in Patients Undergoing Chemotherapy: Randomized Controlled Trial

CRISTINA MAZZEGA FABBRO, JERRY POLESEL, MARINA MANICONE

**Introduction**: Chemotherapy-induced nausea and vomiting (CINV) is a frequent adverse event occurring in patients undergoing chemotherapy, greatly impacting on quality of life. There is scanty evidence on patients' educational programs through written information on CINV.

**Methods**: An ongoing phase III randomized trial was planned to enroll 384 consecutive patients undergoing first-line chemotherapy in the Multidisciplinary Day Hospital at CRO Aviano. Patients are randomized 1:1 to either group A (written and verbal information on CINV) or group B (verbal information alone). Inclusion criteria: age 18-80 years; signed informed consent. Exclusion criteria: life expectation < 6 months; previous psychiatric or neurologic disease; visual impairment. Patients are trained to limit nausea and vomit according to arm procedure; the impact of nausea and vomiting on daily activities is evaluated after one infusion through the Functional Leaving Index – Emesis (FLIE) questionnaire.

**Results**: At this stage of the trial, 244 patients have been enrolled (65%). Severe nausea occurred in 3% of patients receiving the oral and written information compared to 11% of those with oral information (p=0.040). Compared to group B, in group A nausea impacted less frequently on leisure activities (2% vs 9%; p=0.011) and on the desire to

spend time with relatives and friends (1% vs 8%; p=0.020). At this stage, no significant differences emerge on the occurrence of vomiting.

**Discussion and conclusion**: These preliminary results suggest that written information helps patients to control nausea. These study findings, if confirmed at trial completion, will support the nurses' involvement in educational program to prevent CINV.

**Keywords**: oncology patients; educational programs; side effects of chemotherapy; quality of life

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## Involvement of Hospitalized Patients in the Drug Administration Process

HANA HAJDUCHOVÁ, IVA BRABCOVÁ, RADKA PROKEŠOVÁ, VALÉRIE TÓTHOVÁ, IVANA CHLOUBOVÁ

**Introduction:** Patient and family involvement is a critical factor for patient safety in a hospital environment. The involvement of patients in the drug administration process has not yet been investigated in hospitals in the South Bohemian Region in the Czech Republic.

**Aim:** The aim of the research study was to evaluate the involvement of hospitalized patients in the drug administration process.

Methods: A structured questionnaire of own design was used to obtain data. A total of 329 respondents from 4 hospitals in the South Bohemian Region in the Czech Republic were included in the research, including patients hospitalized in the internal medicine, surgical and follow-up and rehabilitation departments.

**Results**: Interest in participating in the administration of drugs varies between groups of patients. Women control the medication given to them by the nurse more than men. Patients under the age of 60, patients with higher than secondary education and patients from surgical departments would like to be more involved in deciding what medicines to take. Patients with a low level of education wish to involve their family members more in their treatment decisions.

**Discussion and Conclusion:** Patients need to be systematic and continuously guided by healthcare professionals to the involvement in the drug administration process during hospitalization.

**Keywords:** hospitalized patient, drug administration, nurse, patient involvement

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### Integration Approaches in Mixed Methods Research: Systematic Review

SERGEJ KMETEC, NATAŠA MLINAR RELJIĆ, MATEJA LORBER, ZVONKA FEKONJA

Introduction: A mixed-methods approach helps combine the advantages of quantitative and qualitative methodologies, thus compensating for any limitations of single methodologies to provide "multiple ways of seeing". An important element of mixed-method research is an integration that must be expressed in methods, reporting of the stages of the research process and the integration of results. The advantage of integration is its ability to generate knowledge beyond what could be generated from separate quantitative and qualitative research.

**Methods:** An umbrella review with the method of examination, analysis and synthesis of literature and the compilation of methods was applied. Relevant systematic reviews of papers that address the mixed-methods integration process in English, German and/or Slovenian language in PubMed, CINAHL, SAGE and Web of Science databases from 2012 to February 2022 were selected.

**Results:** Out of 2,075 records, we included ten reviews for thematic synthesis. Then through thematic analysis, we have identified and developed four integration pathways in mixed-methods research: (i) Integration from a research paradigm perspective; (ii) Integration from an interpretation and reporting perspective, and (iv) Integration from outcomes of studies perspective.

**Discussion and conclusion:** We concluded that integration pathways in mixed-methods research play an important role in comprehensively presenting results and participant views. Therefore, it is necessary to raise awareness among researchers about the four key elements of integration in mixed-methods research.

**Keywords:** integration; research design; quantitative method; qualitative method; triangulation

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## Health Care System in the First Czechoslovak Republic

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**Introduction:** The period of the First Czechoslovak Republic was an important phase in the history of our country. In this era, there were major changes both on the political and social level but also on the healthcare level. The objective of this article is to describe the specifics of healthcare of the First Czechoslovak Republic.

**Methods:** The analysis of the historical sources was made. Specifically, these were periodicals, documents and archival materials mapping the period 1918-1938. The gathered data offer us an insight into then healthcare system. This contribution was supported by the Grant Agency of the Czech Republic (registration number 20-09470S "Health System of the First Czechoslovak Republic in the Context of its National and Social Composition – center vs. periphery ").

**Results:** The healthcare during this era faced many challenges. One of them was the care for pregnant women and new-borns. Based on the reform of law, an adjustment of education and practice of midwives was made. There is an obvious effort to increase health literacy, for example by supporting family planning, prevention of venereal diseases or by education about neonatal/infant mortality.

**Disscussion and Conclusion:** Although it might seem that the period of the First Czechoslovak Republic is long past, it significantly contributed to the development of the healthcare system. The basics of perinatal care mentioned in this contribution has brought it over hundred years to its present form of very high quality and valued field.

### Keywords: first Czechoslovak Republic, health care, history

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# Perceived Level of Job Satisfaction and Workload in Healthcare Compared to Other Industries

Darja Korošec, Gregor Štiglic

**Introduction:** The workplace is where adults spend most of their time. Therefore, it is important, that employee is satisfied with the job and what the workload is. We aimed to determine the number of working hours by gender in different industries and compare job satisfaction and physically complexity in healthcare with other industries in selected European countries.

**Methods:** Data presented was derived from the Survey of Health, Ageing and Retirement in Europe (SHARE) study. Sample (n = 12.099) included participants aged 50 and above from 16 European countries. Inferential statistics, more precisely Pearson correlation coeficient calculations, were conducted using the R programming language for statistical analysis.

**Results:** We found out, that in all industries, except in education, men are working more than 40 hours per week. On the other hand, women in all industries, except in agriculture, hunting, forestry and fishing are working less than 40 hours per week. The most satisfied with their job, are those participants who work in education, followed by health and social workers and those in public administration and defence. 74% of participants, who work in agriculture, hunting, forestry and fishing responded, that their job is physically demanding.

**Discussion and Conclusion:** Data analysis showed differences in working hours and workload in individual industry. We also found out connections between job satisfaction and physically demanding industries.

**Keywords:** work environment; working hours, employee satisfaction; health professionals

Raven zadovoljstva pri delu in delovne obremenitve v zdravstvu v primerjavi z drugimi panogami

Ključne besede: delovno okolje; delovne ure; zadovoljstvo zaposlenih; zdravstveni delavci

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### Content Validity of Slovene Version of Caring Assessment Tool – Educational version

KASANDRA MUSOVIĆ, MAJDA PAJNKIHAR, DOMINIKA VRBNJAK

**Introduction:** There are no valid and reliable instruments measuring students' perceptions of faculty caring in Slovenia. Therefore, this research aimed to establish the content validity of the Slovenian version of the Caring Assessment Tool – Educational version (CAT-edu).

**Methods:** Translation and back translation of the Slovenian questionnaire version were performed. The content validity was computed based on the acceptance of nine experts with expertise in caring science. Item content validity indices and scale content validity indices were calculated using item-level content validity index (ICV-I) and scale content validity (S-CVI). The correction was calculated using modified Cohens' kappa statistics  $(\varkappa^*)$ .

**Results:** ICV-I scores for 91 items were 0.78 or above. Ninety-one items also showed excellent  $\kappa^*$  (over 0.740), indicating excellent content validity. Three items had a dissatisfactory content validity index of 0.667 and a good kappa index of 0.601. S-CVI/Ave for the whole questionnaire was 0.939.

**Discussion and conclusion:** Based on the results, the experts, who accessed the content validity, re-examined the items and agreed to keep them in the questionnaire for further testing. Due to some methodological limitations, the results should be interpreted with caution. Content validity was found to be acceptable. CVI-I and S-CVI/Ave meet the desired values. Further psychometric properties evaluation is needed in the form of reliability and construct validity.

### Keywords: validity; CAT-edu; faculty caring; back-translation

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## Lady Health Workers and Need of Psychiatric Nursing in Pakistan

REHANA SINDHO KABOORO

Introduction: Pakistan as a developing country facing many socioeconomic problems and mental health is one of them. Religion, superstitiousness, and magical rituals has seized many societies of under developing countries likewise Pakistan and the result is mental illness with poverty. 52% people of Pakistan live in poverty, 70% is rural population. There is one psychiatrist for 10,000 people with no psychiatric nursing care mostly. A program named Lady Health Workers introduced in 1993, and 125,000 Lady Health Workers are serving for Primary Health Care, 50% among them are serving for 70% of rural population.

**Method:** Agha Khan University hospital conducted research with help of department of health to analyze mental health care situation in Sindh region. We used descriptive method and Star.S methodological tactic used to evaluate the attitude of mentally ill people.

**Results:** The study shows psychological distress in rural community is increasing and they are ignored by health care providers. Hallucinations, Delusions and Schizophrenia and some are severe cases of Obsessive-compulsive behavior and adjustment disorders.

**Discussion and conclusion:** In most of rural communities of Sindh province people seek help and are dependent on lady health workers to initiate psychiatric nursing because health care system is unable to provide human resources in this field.

Keywords: mental illness; psychiatric nursing; primary care

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### Description, Analysis and Evaluation of Neuman Systems Model

Afërdita Lahu, Majda Pajnkihar, Dominika Vrbnjak

Introduction: The Neuman Systems Model views clients as open systems that respond to stressors in the environment. The theory could be used to evaluate how an individual, a family, a group, a community, or a social entity responds to actual or potential environmental stressors. However, prior to its use, theories should be critiqued. Therefore, this study aimed to describe, analyse, and evaluate Neuman Systems Model and determine whether it could guide a research study in paediatric surgical nursing.

**Methods:** The theory was described, analysed, and evaluated using a model for description, analysis, and evaluation by McKenna, et al. (2014). Literature was identified in international databases PubMed, CINAHL, Medline, and ScienceDirect with predetermined search strategy, inclusion, and exclusion criteria.

**Results:** The Neuman Systems Model is an abstract conceptual model which includes four metaparadigm concepts (environment, person, nursing, health). The reactions of individuals to stress and the conditions in the environment influence the reduction of stress and the restoration of health. The model cannot be tested directly; however, it has been extensively used as a conceptual framework in nursing research, and aspects of the model have been empirically tested.

**Discussion and conclusion:** The Neuman Systems Model can guide nursing practice, research, education, and administration. The Neumann model can support nurses in detecting and controlling clients' stress. The model is compatible with paediatric surgical nursing and can be used as a framework to research paediatric surgical clients' unique needs and responses to stressors and interventions for reducing fear and stress.

**Keywords:** nursing theory; client; stress; environment

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### An Advance Directive as a Resource for Nursing Practice: a Mixed Method Systematic Review

CHIARA BARZAN, LOREDANA PIN, LUCIA CADORIN

Introduction: Advance directives are written instructions with legal force that allow patients to express their wishes with respect to lifesaving treatments when they lose their capacity to make decisions on their own. Shared care planning is a process in which the patient and caregiver determine shared goals and preferences for future care, which facilitates decision-making about events during the course of an illness. The primary objectives of this study were to synthesize and analyze the literature available on the signing of advance treatment agreements and the way they may affect patients and nursing practice.

**Methods:** A mixed-method systematic review was conducted after searching the following databases: PubMed, CINHAL, and Scopus. Articles published in the last ten years in English or Italian, and related to a patient or nurse population were included.

**Results:** Twenty studies conducted in different countries and care settings were included in this review. The results showed directives' effects on the patient (preferences and wishes, influences, hospitalization, and place of death), the implications for nursing practice (concerns about legal implications, reduction of conflicts, acceptance of death, and discussions in favor of advance care planning), the relationship between patients and nurses, and the factors that limit advance treatment arrangements.

**Discussion and Conclusion:** Advance treatment dispositions and implementation of advance care planning were found to improve patient, family, and nursing satisfaction at the end of life, reduce conflict and fear, provide patients with greater peace of mind, and increase their comfort. Further, shared care planning supports ongoing communication among healthcare team members in active discussions of the goals of care and emotional experiences.

**Keywords:** advance care directives; advance care planning; end of life decisions; nursing; quality of nursing; end of life

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# INTERNATIONAL SCIENTIFIC CONFERENCE »RESEARCH AND EDUCATION IN NURSING«

MATEJA LORBER ET AL. (ED.)

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Abstract University of Maribor, Faculty of Health Sciences is organizing the International Scientific Conference »Research and Education in Nursing«, held on June 9th 2022. E-proceedings of the conference include most recent findings of domestic and foreign researchers and students in higher education, nursing and health sciences. The conference aims to explore explore advances in nursing and health care research as well as research-based education, in Slovenian and international arena. Furthermore, it provides an opportunity for practitioners and educators to exchange research evidence, models of best practice and innovative ideas.

#### **Keywords:**

higher education, nursing, health sciences, conference, research



# MEDNARODNA ZNANSTVENA KONFERENCA »RAZISKOVANJE IN IZOBRAŽEVANJE V ZDRAVSTVENI NEGI«

Mateja Lorber et al. (ur.)

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Povzetek 9. junija 2022 Univerza v Mariboru Fakulteta za zdravstvene vede organizira Mednarodno znanstveno konferenco z naslovom »Raziskovanje in izobrazevanje v zdravstveni negi«. Ob tej priložnosti je izdan e-zbornik izvlečkov mednarodno priznanih in domačih strokovnjakov ter študentov s področja visokošolskega izobraževanja, zdravstvene nege in zdravstvenih ved. Namen konference je predstaviti napredek na področju raziskovanja v zdravstvu in zdravstveni negi ter izobraževanja, temelječega na raziskovanju, v slovenskem in mednarodnem prostoru. Poleg tega je odlična priložnost za zdravstvene delavce in visokošolske učitelje da izmenjajo raziskovalne dokaze, modele dobrih praks in inovativne ideje.

### Ključne besede:

visokošolsko izobraževanje, zdravstvena nega, zdravstvene vede, konferenca, raziskovanje





