New Horizons for Postdoctoral Researchers in

Nursing Science

Abstracts

8th – 9th of December 2022 Department of Nursing Science Faculty of Medicine University of Turku, Finland



Welcome



Welcome to the first postdoctoral symposium in nursing science in Turku, 8th – 9th of December 2022

We warmly welcome all postdoctoral researchers in nursing science and their mentors to join and network with colleagues. The symposium is organized with the aim to meet people, networking with researchers and building and support research careers. The event has been organized by the Department of Nursing Science and the Doctoral Programme in Nursing Science at the University of Turku.

This is the first international symposium for postdoctoral researchers in nursing science and health sciences in Finland. Postdoctoral period is a fundamentally important phase for early career researchers to establish a serious research career. This period usually takes around five years and can include internationality but especially active researcher life. This period is for showing the academic professionals that the education provided by the doctoral programmes has been inspiring and fruitful with the orientation for future scientists and development of the discipline. This post-doctoral career phase needs support from mentors, peers and all involved, but it is also own initiative in picking the best possibilities and believing in yourself to carry on your research work to the next level.

We hope this first post-doctoral symposium in nursing science in University of Turku will encourage you on your way in research and research career and offer fruitful discussions and networking with those in the same phase. This scientific event will follow the strategic landmarks of the University of Turku 2030 "Building a strong and sustainable future" and "Get inspired by science".

We hope you also will enjoy your stay in Turku, the ancient and today's Finnish Christmas city with all lights in the otherwise dark days here in the Nordic country.

I wish to thank all contributors for your work to make this event possibly. And thank you for all the presenters and speakers choosing to come to Turku.

On behalf of the team in University of Turku

Riitta Suhonen, professor University of Turku, Department of Nursing Science Director of the Doctoral Programme in Nursing Science

Table of Contents

Welcome2
Keynote speakers
Symposium Programme
Parallel Sessions Timetables10
Abstracts
Digitalization and artificial intelligence in psychiatry – researching the effects of digitalization and AI in experiences by patients and clinicians
The Effects of Breastmilk Temperature on feeding intolerance in Preterm Infants: A Randomized- Controlled Study
Examination of Individualized Nursing Care Practices: An Observational Study from Finland15
Expanded nursing roles for person-centered care for people with cognitive impairment in acute care – ENROLE-acute
Leadership and career development of doctorally prepared nurses
Activity of Daily Living Support in End of Life care: Evaluation of the education-based intervention program «AdKinPal» for palliative care nurses»
The effect of nursing students' COVID-19 knowledge on health anxiety levels
The relationship between nursing students' stress and their attitudes towards nursing profession during nursing education: A cross-sectional descriptive study in Turkey
Caring for Others under Precarious Employment Conditions
Do randomized trials reflect the clinical reality? Example of breastfeeding and in-hospital supplementation during the maternity ward stay23
The relationship between elderly patients' nursing needs and cognitive and physical functions24
Use of Delphi technique in instrument development
The Effect of Back and Breast Massage on the Amount of Milk and Anxiety Level of Mothers with Preterm Birth
Developing a revised pediatric pain curriculum and educational guide for healthcare providers: Evidence from the first round of a Delphi Study27
"A bitter sweet journey": Experiences of caregivers whose children undergo procedural pain29
Securing the continuity of care by means of advance care planning
LIVED EXPERIENCE OF AN ICU NURSE CARING FOR A COVID-19 PATIENT: A HERMENEUTIC PHENOMENOLOGICAL STUDY
HEAL project: AI-driven Gamified Intervention and Intelligent Support Module to Foster Health Equity for the Life of Children

Evidence-based nursing and its development needs in Finnish social and healthcare
organizations – a national survey with nursing professionals35
Patient Centred Sleep Support – Development and testing of the Individual sleep promotion intervention and evaluation of its impact on the quality of ICU patients' sleep
Increasing care dependency and/or the appearance of various nursing phenomena as predictors for entering into the end-of-life phase
Expanded nursing competencies in person-centred care (Expand-Care): developing a new nursing role profile in long term care using a multiple case study and stakeholder participation 38
The Effect of Active Warming Before Total Knee Arthroplasty on Body Temperature and Comfort 40

Scientific committee

Riitta Suhonen (chair of the committee) Anna Axelin Helena Leino-Kilpi Katja Joronen Sanna Salanterä Leena Salminen

Organisational committee

Hannakaisa Niela-Vilen (chair of the committee) Saija Inkeroinen Nella Laaksonen Johanna Nyman Jenny Paananen Riitta Rosio lina Ryhtä Jaakko Varpula

Cover Picture: Mika Kurkilahti

Keynote speakers

Professor Hugh McKenna

CBE, PhD, B.Sc(Hons), RMN, RGN, RNT, DipN(Lond), AdvDipEd, FFNMRCSI, FEANS, FRCN, FAAN



Hugh McKenna is a general and psychiatric nurse by background and, until recently, was Dean of Medical School Development and Pro Vice Chancellor Research and Innovation at Ulster University. He has over 250 publications, including 17 books. He was appointed Commander of the British Empire (CBE) and is a Fellow of four prestigious organisations.

In 2013, he was presented with the Outstanding Achievement Award by the Royal College of Nursing and in 2014, he was presented with a lifetime achievement Award at the Institute of Psychiatry in London. In a 2018 Government report he was named as one of the 70 most influential nurses in the 70 year history of the NHS.

Currently, he is a Visiting Professor in universities in Slovenia and Australia.

He has chaired a clinical health research quality panel for the Swedish Research Council and continues to chair panels for the Hong Kong Council for Accreditation. Recently he received Honorary Doctorates from Edinburgh Napier University and the University of Maribor. In 2019, he was appointed to the Academia Europaea, founded as an initiative of The Royal Society to be the official scientific advisory body for the EU. In March 2020, he was appointed Non-Executive Director of the Western Health & Social Care Trust and a Trustee of Alzheimer's Society UK.

He currently chairs an expert panel for Research England's Research Excellence Framework. Recently he received two Honorary Doctorates and had 7 adjunct professorships on 5 continents. In 2020, the European Academy of Arts and Sciences.

Professor Helena Leino-Kilpi

PhD, MEd, RN, FAAN, FEANS, FRCN, Member of Academia Europea



Helena Leino-Kilpi is a professor, University of Turku, Faculty of Medicine and Nurse director in Turku University Hospital.

She is internationally well-known expert in nursing and health sciences. Her research is in the fields of health care and nursing ethics, clinical nursing and nursing education. Most of her research groups are international, and her funding has been both international (e.g. European commission) and national (e.g. Academy of Finland). Altogether, she has published around 600 scientific, referee-based publications, mostly with international collaborators. She has developed several instruments for research purposes.

Leino-Kilpi has been active in PhD-education in nursing science. She has supervised 70 new PhDs in the field, most of them in influential positions in nursing academia, practice and leadership. For years, she was co-ordinating the Finnish Doctoral Education Network, and has for years taught research ethics in the European Academy of Nursing Science. She is a founding member and a current board member of the Baltic Sea Region Doctoral Network, and active in Nordic collaboration. Furthermore, for the improvement of nursing education, she is a member of the advisory board of European Federation of Educators in Nursing Science (FINE). In the University of Turku, she was initiating the establishment of the Post-doctoral Program in Nursing Science.

Leino-Kilpi has several academic duties. She has been a member of advisory boards of universities, made research evaluations in different countries, and for different funding organizations, and is a member of editorial boards. She is Honorary Doctor in the University of Klaipeda (Lithuania), Fellow of European Academy of Nursing Science and American Academy of Nursing, Member of multidisciplinary Academia Europea and a Honorary member of the Royal College of Nursing.

Dr. Leino-Kilpi received her nursing degree in the Turku Health Care Institute, Master in Educational Sciences in the University of Turku, Licentiate in University of Tampere and PhD in the Faculty of Medicine, University of Turku (nursing science), Finland. She made a postdoctoral period in New York University (USA) and University of Edinburgh (UK). In 2007, The President of Republic of Finland, awarded her the Order of the White Rose of Finland.

Professor Sascha Köpke

RN, PhD, FEANS, University of Cologne, UOC, Institut für Pflegewissenschaft



Sasha Köpke has been full professor for nursing research since 2011, first at the University of Lübeck and since 2020 at the University of Cologne, supervising several PhD students and post doc researchers.

His research interests cover quality of care in long term care settings and the development, evaluation and long-term implementation of complex interventions to improve care in different settings. Also, he has performed research on nurse-led decision support and evidence-based patient information.

Methodologically, he has performed a number of studies within the context of developing and evaluating complex interventions, including qualitative studies, mixed-methods studies, and randomised controlled trials using a variety of data collection and evaluation methods. Also, as an editor of the Cochrane Dementia Group, he has a strong interest in systematic review.

Symposium Programme

Thursday 8th December 2022

Alhopuro auditorium, Medisiina D, Kiinamyllynkatu 10, Turku, Finland

Chair: Professor Riitta Suhonen

Time

12:00–12:30	Opening ceremony Welcome to Turku and University of Turku Vice de Professor Markus Juonala, Faculty of Medicine, University of Turku, Finland & Professor Riitta Suhonen, Department of Nursing Science, University of Turku, Finland Practical issues Docent Hannakaisa Niela-Vilen, Department of Nursing	
	Science, University of Turku, Finland	
12:30–13:30	Keynote The ups and downs of postdoctoral nurse researchers Professor Hugh McKenna , School of Nursing, Ulster University, UK	
13:30–14:00	Coffee	
14:00–15:45	Parallel sessions A	
15:45–16:00	Refreshments	
16:00–16:45	Keynote Post-doc challenges and opportunities in an academically developing country Professor Sascha Köpke , University of Cologne, Germany	
16:45-17:00	Closing of the day	
Evening program		
18:30	Reception <u>Turku City Hall</u> , Aurakatu 2, 20100 Turku.	

Friday 9th December

Alhopuro auditorium, Medisiina D, Kiinamyllynkatu 10, Turku, Finland

Chair: Docent Hannakaisa Niela-Vilen

Time	
8:00–8:45	Registration
8:45–8:55	Opening of the Day Docent Hannakaisa Niela-Vilen, Department of Nursing Science, University of Turku, Finland
9:00–10:45	Parallel sessions B
10:45–11:15	Coffee
11:15–12:25	Parallel sessions C
12:30–13:00	Keynote Post doc period – important part of research career Professor Helena Leino-Kilpi , Department of Nursing Science, University of Turku, Finland
13:00–13:15	Closing of the Symposium <i>Professor Riitta Suhonen</i>, Department of Nursing Science, University of Turku, Finland

Parallel Sessions Timetables

Thursday 8th December

Parallel Sessions A, time: 14.00–15.45

Room 1 (Alhopuro auditorium)	Room 2 (Lauren 2 -lecture hall)
Research in acute care nursing	Research in nursing career development
Moderator: Maria Ameel	Moderator: Hannakaisa Niela-Vilen
Assistant: Johanna Nyman	Assistant: Jaana Lojander
Marita Ritmala	Marja Hult
Patient Centred Sleep Support – Development and	Caring for Others under Precarious Employment
testing of the Individual sleep promotion	Conditions
intervention and evaluation of its impact on the	
quality of ICU patients' sleep	
Maria Ameel	Nur Guven Ozdemir
Digitalization and artificial intelligence in	The relationship between nursing students' stress
psychiatry – researching the effects of digitalization	and their attitudes towards nursing profession
and AI in experiences by patients and clinicians	during nursing education: A cross-sectional
	descriptive study in Turkey
Hatice Özsoy	Heidi Parisod
The Effect of Active Warming Before Total Knee	Evidence-based nursing and its development needs
Arthroplasty on Body Temperature and Comfort	in Finnish social and healthcare organizations – a
	national survey with nursing professionals
Martin Dichter	Lisa van Dongen
Expanded nursing roles for person-centered care	Leadership and career development of doctorally
for people with cognitive impairment in acute care	prepared nurses
– ENROLE-acute	
Anni Pakarinen	Emilia Kielo-Viljamaa
HEAL project: Al-driven Gamified Intervention and	Use of Delphi technique in instrument development
Intelligent Support Module to Foster Health Equity	,
for the Life of Children	

Friday 9th December

Parallel Sessions B, time: 9.00–10.45

Room 1 (Alhopuro auditorium)	Room 2 (Lauren 2 -lecture hall)
Research in newborn and child nursing	Research in older people nursing and the quality
Ŭ	of nursing
Moderator: Hannakaisa Niela-Vilen	Moderator: Sanna Koskinen
Assistant: Jaana Lojander	Assistant: Jaakko Varpula
Riikka Ikonen	Katharina Silies
Do randomized trials reflect the clinical reality? Example of breastfeeding and in-hospital	Expanded nursing competencies in person-centred care (Expand-Care): developing a new nursing role
supplementation during the maternity ward stay	profile in long term care using a multiple case study
	and stakeholder participation
Şeyma Kilci Erciyas	Seyda Can
The Effect of Back and Breast Massage on the	Examination of Individualized Nursing Care
Amount of Milk and Anxiety Level of Mothers with	Practices: An Observational Study from Finland
Preterm Birth	
Abigail Kusi Amponsah	Agne Jakavonyte-Akstiniene
Developing a revised pediatric pain curriculum and	The relationship between elderly patients' nursing
educational guide for healthcare providers:	needs and cognitive and physical functions
Evidence from the first round of a Delphi Study	
Zühal Çamur	
The Effects of Breastmilk Temperature on feeding	
intolerance in Preterm Infants: A Randomized-	
Controlled Study	
Abigail Kusi Amponsah	
"A bitter sweet journey": Experiences of caregivers	
whose children undergo procedural pain	

Friday 9th December

Parallel Sessions C, time: 11.15–12.25

Room 1 (Alhopuro auditorium)	Room 2 (Lauren 2 -lecture hall)
Research in nursing during the COVID-19	Research in palliative and end-of-life nursing care
pandemic	
Moderator: Anni Pakarinen	Moderator: Johanna Wiisak
Assistant: lina Ryhtä	Assistant: Jaakko Varpula
Nur Guven Ozdemir	Gerhilde Schuttengruber
The effect of nursing students' COVID-19 knowledge on health anxiety levels	Increasing care dependency and/or the appearance of various nursing phenomena as predictors for entering into the end-of-life phase
Gloria Littlemouse	Heidrun Gattinger
Lived experience of an ICU nurse caring for a COVID-19 patient: A hermeneutic phenomenological study	Activity of Daily Living Support in End of Life care: Evaluation of the education-based intervention program «AdKinPal» for palliative care nurses»
	Anne Kuusisto
	Securing the continuity of care by means of advance care planning

Abstracts

Digitalization and artificial intelligence in psychiatry – researching the effects of digitalization and AI in experiences by patients and clinicians

Maria Ameel, PhD, RN, M.Soc, University of Turku & HUS Psychiatry, Finland

Introduction: Digitalization in health care has several advantages, including more flexible ways of providing care, enhanced quality of care due to the implementation of clinical decision-making support mechanisms, as well as more detailed information and understanding of personal health. Digitalization of health care information makes it possible to gather large amounts of data. With the help of artificial intelligence, the data could be turned into new knowledge that helps both clinicians and patients to better understand health risks and the effects of care interventions. At the same time, many clinicians find that digitalization increases work-related stress.

The aim of this research is to better understand how digitalization in health care changes work and the experience of care. The postdoctoral research project studies digitalization in psychiatric care through three separate studies: the use of video consultations, the integration of an evidence-based violence prevention protocol into the electronic patient health record system, and the use of health data from wearables for patients suffering long-term psychiatric illness. The research is planned to take place in 2021-2026 and the main partner in each phase is HUS Psychiatry.

Methods: The founding methodological principle in this research is that conducting research and development of new digital innovations needs to be carried out in co-operation with end users to make the digital processes meaningful and sustainable. In the separate studies, end-users include clinical professionals, patients and their family members, as well as data scientists. Co-design and participatory methods are included in all three studies. Research methods include qualitative methods such as ethnographic studies, interviews, focus groups as well as a large variety of statistical methods.

Findings: The findings will be summarized into a user-oriented theory on implementing new digital tools in the health care setting.

The Effects of Breastmilk Temperature on feeding intolerance in Preterm Infants: A Randomized-Controlled Study

Zühal ÇAMUR, Karabük University Faculty of Health Sciences, Department of Pediatric Nursing, Karabük, Turkey

Çiğdem ERDOĞAN, Pamukkale University Faculty of Health Sciences, Department of Pediatric Nursing, Denizli, Turkey

Aim: This study aimed to evaluate the effects of warming breastmilk with different methods in preterm infants hospitalized in the neonatal intensive care unit and tube-fed.

Method: A parallel, single-blind, prospective, and randomized-controlled study. The sample of the study was composed of 48 preterm infants at a gestational age of 30-34 weeks, including 24 infants in each group. The study was carried out in an III-level Neonatal Intensive Care Unit. The effects of breastmilk warm using two different methods on the variables related to feeding intolerance, discharge time, and weight gain in preterm infants were compared.

Results: There were statistically significant differences between the groups regarding the discharge days and gastric residuals of the infants (p<0.05). As a result of the logistic regression analysis, significant relationships were found between the method of warming breastmilk and the discharge times and gastric residual frequencies of the infants. The discharge time could be 1.1 as long in the infant given breastmilk that was warmed with the conventional method than in infants given device-warmed milk (Exp(B)/OR=1.166, CI=1.04-2.33). The infants who were given conventionally warmed milk were found 2.4 times as likely to have a gastric residual as those given device-warmed milk (Exp(B)/OR=2.405, CI=1.66-2.98).

Conclusion: It was determined that the infants in the experimental group had lower rates of gastric residual and were discharged more quickly. Therefore, it is necessary and beneficial to warm breastmilk to a certain temperature.

Examination of Individualized Nursing Care Practices: An Observational Study from Finland

Şeyda Can, PhD, RN, Assistant Professor, Faculty of Health Sciences, Fundamentals of Nursing Department. Yalova University, Yalova, Turkey

Riitta Suhonen, PhD RN, Professor, Department of Nursing Science, University of Turku, Turku, Finland

Introduction: Individualized care in nursing care practices is the actualization of the belief in human individuality, uniqueness and integrity in the practice area. However, studies conducted to compare the similarities and differences between individualized care perceptions of nurses in different countries reveal that Turkey is among the countries in which nurses support the individuality of the patients the least in their care practices. While studies show that my country is among the countries that least support individualized care practices they don't explain what needs to be done to support these practices or provide the practice differences in countries that support individualized care practices in countries that support individualized care practices well. Observational results to be obtained from the health care systems in the country where the research is planned to be conducted will contribute to the literature, guide the application area and new projects to be initiated on the development of individualized care practices in nursing care in my country.

Aim: The research is an observational case study in the qualitative research design which is planned to be carried out in order to determine the factors affecting the individualized care practices of nurses.

Method: The population of the research is all departments of Turku University Hospital. The sample of the research is the services and nurse employees who are voluntary and suitable to participate in the research in the relevant hospital. The "observation" technique, which is one of the most commonly used data collection techniques in qualitative research, will be used in the research.

Results: The obtained results can be shared on scientific platforms (workshops, in-service training, conferences, congresses) in different formats (articles, leaflets, brochures) and can widely contribute to the practice area.

Conclusions: Observational results to be obtained from the health care systems in the country where the research is planned to be conducted will contribute to the literature, guide the application area and new projects to be initiated on the development of individualized care practices in nursing care in Turkey.

Expanded nursing roles for person-centered care for people with cognitive impairment in acute care – ENROLE-acute

Martin N. Dichter, Ph.D, University of Cologne, University of Cologne Medical Faculty and University Hospital Cologne, Institute of Nursing Science, Cologne, Germany

Sascha Köpke Prof. Dr. University of Cologne, University of Cologne Medical Faculty and University Hospital Cologne, Institute of Nursing Science, Cologne, Germany

Introduction: The prevalence of people with cognitive impairment (PwCI) in hospital varies between 11 and 55 %. Person-centred (PCC) care concepts are promising to meet the needs of PwCI. Implementing PCC is challenging, with local change agents considered essential for the implementation process. This role can be performed within the context of expanded nursing practice.

Aim: The ENROLE-acute project aims to develop, implement and evaluate a complex PCC intervention based on the implementation of expanded nursing care roles. On the level of PwCl, the intervention aims to reduce delirium, changed behaviour, pain and length of hospital stay compared to usual care.

Methods: The complex intervention will be developed and modulated based on the recommendation of the MRC framework for complex interventions. The development will be based on several prestudies including two systematic reviews, two questionnaire surveys, participatory workshops for the intervention development and the development of a logic model as programme theory. The subsequent exploratory pilot cluster randomized-controlled trial (RCT) includes a process evaluation and will assess the intervention's feasibility and effectiveness.

Results: The ENROLE-acute study is currently in the intervention development phase. The reviews, surveys and participatory workshops are currently carried out. Based on these pre-studies, the new complex intervention will be available in December 2022. The subsequent cluster RCT will start in spring 2023.

Conclusions: The planned intervention will promote PCC for PwCI in hospitals. We aim to create a person-climate by improving the knowledge as well as the awareness of the entire interdisciplinary team in dealing with the specific needs of PwCI in hospitals. This is supposed to result in a shorter length of hospital stay and reduction of pain, delirium, and changed behaviour episodes in affected persons.

Leadership and career development of doctorally prepared nurses

Lisa van Dongen, MSc, doctoral candidate, University of Turku, Finland

Thóra B. Hafsteinsdóttir, PhD, senior researcher, Nursing Science Department, University Medical Center Utrecht, The Netherlands

Helena Leino-Kilpi, PhD, professor and chair, Head of the Department of Nursing Science, University of Turku, Finland

Riitta Suhonen, PhD, Professor and Director of the Doctoral Programme in Nursing Science, Department of Nursing Science, University of Turku, Finland

Introduction: Doctorally prepared nurses have the potential to be leaders within nursing science and the nursing discipline as they have a unique role in advancing nursing by conducting research, translating evidence into clinical practice and reform educational programs. Earlier studies identified barriers that prevent doctorally prepared nurses from developing strong careers including a lack of suitable positions and career perspectives. Doctorally prepared nurses need strong leadership skills to develop sustainable careers. Educational programmes are expected to have a positive impact on their leadership and careers. Therefore, the Nurse-Lead programme was developed.

Aim: To provide insight in the current knowledge on leadership and career development of doctorally prepared nurses and share our experiences with and outcomes the Nurse-Lead leadership and mentoring programme for doctorally prepared nurses and doctoral nursing students.

Methods: The presentation contains studies conducted by the research team including an interview study focusing on leadership and career experiences of doctorally prepared nurses working in hospitals, a systematic literature review on the career development of doctorally prepared nurses as well as a focus group and pre- posttest study focusing on the Nurse-Lead programme.

Results: There is limited insight in the leadership and career development of doctorally prepared nurses. Doctorally prepared nurses demonstrate leadership to advance nursing care by conducting research and quality projects. Leadership is also needed to develop strong careers. Both leadership and career development are influenced by various facilitators and barriers. Positive experiences were found towards educational programmes focusing at leadership and professional development, such as the Nurse-Lead programme,

Conclusions: Careful and ongoing investment is needed into the doctorally prepared workforce to support them in developing their careers by implementing career frameworks with suitable positions and supporting mentoring in all career stages. Also, doctorally prepared nurses should have access to opportunties to strengthen leadership competences.

Activity of Daily Living Support in End of Life care: Evaluation of the education-based intervention program «AdKinPal» for palliative care nurses»

Heidrun Gattinger, PhD, Eastern Switzerland University of Applied Sciences, Switzerland Carola Maurer, Dr, Eastern Switzerland University of Applied Sciences, Switzerland Stefan Ott, Dr, Eastern Switzerland University of Applied Sciences, Switzerland

Nurses in specialized palliative care units need competence to provide high quality ADL support. A training concept that enhances nurses' competence in daily activity support is Kinaesthetics.

The aim of this study was to evaluate the education-based program AdKinPal (Advanced Kinaesthetics in Palliative care) for nurses caring for patients in a specialised palliative care hospital setting. The AdKinPal program is an education-based training program conducted for six months.

A phase II exploratory study using a pretest-posttest repeated-measures design, including a process evaluation was applied. Data were collected using Kinaesthetics Competence Self-Evaluation (KCSE) scale, nurses' self-efficacy in ADL support in end of life care scale, the Nordic questionnaire for analysis of musculoskeletal symptoms and via interviews, observation and protocols. We analysed data using descriptive statistics and by repeated measurement ANOVA and by qualitative content analysis. The ethics commission Ostschweiz has approved the study protocol (EKOS 2017-00721).

From the eligible nursing staff (n=63), 59 nurses (95%) participated in the study. The participants' mean experience in palliative care was 6.79 years.

Nursing staff's level of kinaesthetics competence and self-efficacy in ADL support in palliative care significantly increased over time. There was no significant reduction of the musculoskeletal complaints over time.

Overall, the participants valued the workshops and practical support as beneficial. Nevertheless, there were also inhibiting factors, such as workshop scheduling and location as well as working material. The participants questioned sustainable skills development.

The first run of the education program was successful. Well-trained and competent staff can bring professionalism, compassion, and skills to the most difficult and delicate physical and psychological care for terminally ill patients. To ensure sustainable competence development, adjustments are necessary for further implementation.

The effect of nursing students' COVID-19 knowledge on health anxiety levels

Nur GUVEN OZDEMIR, PhD, Research Assistant; Zonguldak Bülent Ecevit University, Health Sciences Faculty, Fundamentals of Nursing Departmant, Zonguldak, TURKEY

Burak KARAGULLE, RN; Independent Researcher, Edirne, TURKEY

Munevver SONMEZ, PhD, Assistant Professor; Independent Researcher, Edirne, TURKEY

Introduction: The spread of information about COVID-19 pandemic through informal sources conduce to high levels of anxiety in the society.

Aim: The study aims to determine the effect of nursing students' COVID-19 knowledge on their health anxiety levels, and to identify factors influencing them.

Methods: A cross-sectional study with a descriptive design was carried out with 546 nursing students enrolled to nursing department of a health sciences faculty during the fall semester of the 2020-2021 academic year in Turkey. The data were collected with the Structured Questionnaire Form, the Knowledge Test for Prevention of COVID-19 Pandemic, and the Turkish Version of the Health Anxiety Inventory. The data were analyzed using IBM SPSS Statistics 23.0 and SPSS AMOS 24.0 (IBM Corp., Turkey) package program.

Results: A significant regression equation was found (F=2370.128, p<0.001) between COVID-19 knowledge and health anxiety, and COVID-19 knowledge explained 81.3% of the total variance. Lower level of COVID-19 knowledge (β = -0.902, p<0.001) were associated with students' higher level of health anxiety levels. According to path analysis results, the factors influencing COVID-19 knowledge were female gender (β = -2.021; p < 0.001), senior class (β = 1.408; p=0.003), presence of healthcare professional among family members (β = 1.567; p<0.001), and knowledge obtained from only scientific resources (β = 5.048; p<0.001), and these variables combined explain 27.1% of the total variance. Also, the factors influencing health anxiety were female gender (β = -2.147; p=0.002), and knowledge obtained from only scientific resources (β = -2.147; p=0.002), and knowledge obtained from only scientific resources (β = -2.147; p=0.002), and knowledge obtained from only scientific resources (β = -2.147; p=0.002), and knowledge obtained from only scientific resources (β = -2.147; p=0.002), and knowledge obtained from only scientific resources (β = -2.147; p=0.002), and knowledge obtained from only scientific resources (β = -2.147; p=0.002), and knowledge obtained from only scientific resources (β = -2.147; p=0.002), and knowledge obtained from only scientific resources (β = -2.147; p=0.002), and knowledge obtained from only scientific resources (β = -8.138; p< 0.001), and these variables combined explain 25.2% of the total variance.

Conclusions: The findings of the study reveal that higher level of COVID-19 knowledge had a significant negative effect on health anxiety. In addition to, female gender, senior class, presence of healthcare professional among family members, and knowledge obtained from only scientific resources were some predictors of COVID-19 knowledge and health anxiety level.

The relationship between nursing students' stress and their attitudes towards nursing profession during nursing education: A cross-sectional descriptive study in Turkey

Nur GUVEN OZDEMIR, PhD, Research Assistant; Zonguldak Bülent Ecevit University, Health Sciences Faculty, Fundamentals of Nursing Departmant, Zonguldak, TURKEY

Eda SEZEN, RN; Bolu Izzet Baysal State Hospital, Cardiology and Cardiovascular Surgery Service, Bolu, TURKEY

Munevver SONMEZ, PhD, Assistant Professor; Atılım University, Health Sciences Faculty, Nursing Department, Ankara, TURKEY

Introduction: Nursing students develop attitudes towards their profession in consequence of intellectual and emotional coping styles that they have developed against the stress factors during their education.

Aim: The study aims to determine the relationship between nursing students' stress and their attitudes towards nursing profession during nursing education, and to identify factors influencing them.

Methods: A cross-sectional study with a descriptive design was carried out with 389 junior and senior students enrolled to nursing department of a health sciences faculty during the fall semester of the 2020-2021 academic year in Turkey. The data were collected with the Structured Questionnaire Form, the Nursing Education Stress Scale, and the Attitude Scale for Nursing Profession. The data were analyzed using IBM SPSS Statistics 23.0 and SPSS AMOS 24.0 (IBM Corp., Turkey) package program.

Results: A significant regression equation was found (F = 73.321, p < 0.001) between stress and attitudes towards nursing profession, and stress explained 15.7% of the total variance. Lower level of stress ($\beta = -0.399$, p < 0.001) were associated with students' higher level of attitudes towards nursing profession. According to path analysis results, the factors influencing stress were female gender (β = - 6.866; p < 0.001), and occupational factors affected to prefer nursing (β = - 5.504; p= 0.002), and these variables combined explain 5.6% of the total variance. Also, the factors influencing attitudes towards nursing profession were female gender (β = 5.901; p = 0.019), senior class (β = 4.772; p=0.027), preferring to nursing department willfully (β = 16.403; p < 0.001) and occupational factors affected to prefer nursing explain 26.8% of the total variance.

Conclusions: The findings of the study reveal that higher level of stress had a significant negative effect on positive attitudes towards nursing profession. Other variables, such as female gender, senior

class, GPA, preferring to nursing department willfully, and occupational factors affected to prefer nursing were some predictors of positive attitudes toward nursing profession.

Caring for Others under Precarious Employment Conditions

Marja Hult, PhD, University of Eastern Finland

Introduction: Care work is in danger of becoming precarious employment (PE), characterised by poor wages, deficiencies in working conditions and management, a heavy workload, undeveloped career prospects and a high number of temporary contacts. On the other hand, care work is still sought because of a calling; people want to help others and do meaningful work.

Aim: The aim is to describe the change in PE, calling, health and occupational well-being between Fall 2020 and Spring 2022 among care workers. The hypotheses are 1. The experience of PE has increased. 2. The perceived calling has diminished. 3. The experience of health has deteriorated. 4. The occupational well-being has worsened.

Methods: The first data collection was conducted in the autumn of 2020 (n=7925) for care workers through trade unions and a workforce leasing company. Respondents worked in health care (n=2985), social services (n=2750) and the early education sector (n=2105). In the survey, those who volunteered in the follow-up survey left their e-mail address (n=3176). Data collection for the follow-up survey is ongoing until 15.5.2022 (1821 responses by 30.4.2022). The indicators used in the study were: The employment Precariousness Scale, Calling and Vocation Questionnaire, Salutogenic Health Indicator Scale, and Work Experience Measurement Scale. The data will be analysed with linear mixed-effects modelling.

Results: The results will show how care workers' PE, calling, health and occupational well-being have changed during a pandemic. According to the expected results, the hypotheses will be confirmed. Results from 2020 data collection showed that nurses perceived the lowest levels of calling and highest levels of experienced PE compared to the other care workers.

Conclusions: The proliferation of PE in the care sector is worrying and will not improve the industry's attractiveness. There is a lot of discussion about raising salaries, but decent working conditions, fair and inclusive leadership and the opportunity to participate in organisational decision-making may be more critical. Also, permanent employment plays a significant role in employee engagement.

Do randomized trials reflect the clinical reality? Example of breastfeeding and in-hospital supplementation during the maternity ward stay

Riikka Ikonen, PhD, Tampere University and Finnish Institute for Health and Welfare, Finland

Marja Kaunonen, PhD, Tampere University and Finnish Institute for Health and Welfare, Finland

Introduction: Breastfeeding is one of the most impactful determinant of health. Sociodemographic factors have been associated with breastfeeding rates. Furthermore, counseling interventions, such as Baby-Friendly Hospital Initiative (BFHI), have been identified to associate with better breastfeeding outcomes. According to BFHI, supplementation should be avoided during the maternity stay. The evidence toward this intervention is contradictory, as cohort studies have shown the association between supplementation and decreased breastfeeding rates, whether randomized trials have failed to do so.

Aim: To study whether supplementation during a maternity ward stay is associated with exclusive breastfeeding to the age of five months and any breastfeeding from discharge to the age of twelve months in full-term, normal-weighed singleton infants.

Methods: A secondary analysis of national-level, cross-sectional survey data. The data were collected from breastfeeding families visiting in child health clinics. Families attending to regular health examination with a child aged from 2 weeks to 12 months were eligible to participate. Electronic questionnaire was used. In this study, only parents with a full-term, singleton infant weighing 2500-4499 grams (n=3025) were included. Exclusive and any breastfeeding were asked using 24-hour recall and single questions. Multivariate logistic regression was used.

Results: After controlling associated socioeconomic factors, in-hospital supplementation was associated with decreased exclusive breastfeeding to the age of five months and with decreased any breastfeeding to the age of seven months.

Conclusion: Previous trials have shown that in-hospital supplementation does not cause failure in exclusive breastfeeding and breastfeeding. In those studies, supplementation was clearly indicated and the amount of supplementation, as well as other procedures, were rigorously determined. However, the present study suggests that non-controlled supplementation, without trial's rigorous procedures of care, is associated with breastfeeding patterns post-discharge. This result is supported by previous non-experimental studies.

The relationship between elderly patients' nursing needs and cognitive and physical functions

Agnė Jakavonytė-Akstinienė, asist., Vilnius University, Vilnius, Lithuania; Faculty of Medicine, Institute of Health Sciences, Department of Nursing

Natalja Fatkulina, prof., Vilnius University, Vilnius, Lithuania; Faculty of Medicine, Institute of Health Sciences, Department of Nursing

Introduction: Elderly self-reliance occurs when a person has difficulty with physical function, usually defined as a person's ability to perform a normal daily activity. Nursing needs are the main physiological, psychological, social needs of the patient, family and community, which require the help of a nurse.

The aim of the study was to identify the relationship of nursing needs with cognitive and physical functions of elderly patients.

Methods: The study was conducted in one of the largest Lithu¬anian city's hospital since it one of the biggest facility providing long term and supportive care services. A longitudinal research was conducted with 5 stages. The following questionnaires were used in the survey: Mini Mental State Examination, Barthel Index.The survey collected data on the nursing needs of patients treated in nursing wards. The nursing model of Roper, Logan and Tierney (1980) was applied in the treatment facility of our study, according to which nurses assessed the patients' needs by recording their current nursing needs in twelve vital activities.

Results: The number of nursing needs of the patients presenting to the facility varied widely, ranging from 1 to 12 nursing needs per patient. There was a statistically significant association between the number of care needs at T4 and Mini Mental State Examination and Barthel Index values (r=-0.711, r=-0.613, p<0.01): the number of care needs increases with severe cognitive impairment and complete patient independence. There was also a statistically significant association between the T4 stage of Mini Mental State Examination, Barthel index values and communication care needs (r=-0.843 at p<0.01, r=-0.388 at p<0.05) and eliminating care needs (r=-0.467 at p<0.01, r=-0.355 at p<0.05).

Conclusions: During hospitalisation, patients' needs for communication, defecation and urination, cleaning and grooming increase the most. The total number of needs is higher in patients who are fully dependent and have significant cognitive impairment. Nurses should firstly give the attention for increasing needs of elderly patients. However, more research in this field is needed.

Use of Delphi technique in instrument development

Emilia Kielo-Viljamaa, PhD, RN, Post doc researcher, Senior Lecturer; University of Turku, Department of Nursing Science; Novia University of Applied Sciences, Finland

Introduction: The Delphi technique was developed between the 1950s and 1960s to assess and reach a consensus on a specific topic among experts using controlled feedback. In nursing research, the Delphi technique has been used, for example, in curriculum development, identifying standards in nursing, and instrument development.

Aim: This abstract aims to present the use of the Delphi technique in instrument development in nursing research.

Methods: In instrument development, the Delphi technique can be used when assessing the instrument's content validity index (CVI). The Delphi panel consists of people who know and are experienced the topic under investigation. The panel can, for example, assess the clarity, relevance and significance of each instrument item and rate them numerally. The researchers then calculate the level of agreement among the experts by counting the number of experts who gave higher rates and dividing it by the total number of experts.

Results: The level of agreement tells how close the consensus among experts is. For example, a consensus higher than 0.7 (70%) is usually considered consensus in Delphi Studies. However, in instrument development, a suggested CVI for a new instrument is 0.8 (80%). If the consensus is not reached, the researchers modify the items and send the instrument for a second expert round. Rounds continue until a consensus has been reached.

Conclusions: The Delphi Technique is a flexible and convenient method to use as a part of instrument development. However, the technique can be sometimes time-consuming if several rounds are needed. The other main con is the so-called bandwagon effect, in which participants may alter their response to comply with what they view to be the majority view. It is also worth remembering that the Delphi technique is suitable for the early phase of instrument development and does not replace psychometric testing.

The Effect of Back and Breast Massage on the Amount of Milk and Anxiety Level of Mothers with Preterm Birth

Şeyma KİLCİ ERCİYAS, PhD student, Zonguldak Bülent Ecevit Unıversıty Health Science Faculty Obstetric and Gynaecology Nursing, Turkey

Oya KAVLAK, Professor, Ege University Nursing Faculty, Turkey

Objective: This study was conducted in a RCT manner to determine the effect of back and breast massage on the amount of milk and anxiety level of mothers with preterm birth.

Method: The study was carried out with 36 mothers who had preterm delivery between June 2021-May 2022 in Gynecology and Pediatrics Hospital. The "Personal Information Form", "State-Trait Anxiety Inventory Scale", "Breast Milk Evaluation Form", "Newborn Nutritional Status Evaluation Form" were used to collect the research data. Back massage was applied to intervention group 1, breast massage to intervention group 2. No intervention was applied control group. Independent ttest in the comparison of two independent groups, one-way analysis of variance in the comparison of more than two groups and in case of difference were used in the study. Bonferroni test was used to find which two groups caused the difference.

Results: No difference was found between the groups in terms of amount of expressed breast-milk in first (back massage: 35ml, breast massage: 42ml, control group:18 ml) and second day (back massage: 127ml, breast massage: 153 ml, control group: 69 ml). However, compared to the control group, the amount of expressed breast-milk was found to be significantly higher in mothers who received back and breast massage in the third (back massage: 314ml, breast massage: 398ml, control group: 185ml), fourth (back massage: 605ml, breast massage: 616ml, control group: 327ml), fifth (back massage: 850ml, breast massage: 774ml, control group: 424ml), sixth (back massage: 892 ml, breast massage: 905 ml, control group: 500 ml) and seventh day (back massage: 962ml, breast massage: 1134ml, control group: 559ml). Compared to the control group, the state anxiety level of the mothers in both massage groups continued to reduce until the sixth week. The state of anxiety scale mean scores of mothers in the back and breast massage groups at the sixth week were found to be significantly lower than the control group.

Conclusion: It was found that the amount of expressed breast-milk of the mothers with back and breast massage was higher than the mothers in control group and their state anxiety scores were lower.

Developing a revised pediatric pain curriculum and educational guide for healthcare providers: Evidence from the first round of a Delphi Study

Abigail Kusi Amponsah, Ph.D.; Department of Nursing Science, Faculty of Medicine (FoM), University of Turku, Finland; Department of Nursing, Faculty of Allied Health Sciences (FAHS), Kwame Nkrumah University of Science and Technology (KNUST), Ghana

Daniel Ba-Eebu Badengo, BSc.; Department of Nursing, Faculty of Allied Health Sciences, Kwame Nkrumah University of Science and Technology, Ghana; Nursing and Midwifery Training College, Techiman-Krobo, Bono East Region, Ghana

Victoria Bam, Ph.D.; Department of Nursing, Faculty of Allied Health Sciences, Kwame Nkrumah University of Science and Technology, Ghana

Charles Kumi Hammond, FWACP, FGCP; Department of Child Health, Komfo Anokye Teaching Hospital, Ashanti Region, Ghana; Department of Child Health, School of Medicine and Dentistry, Kwame Nkrumah University of Science and Technology, Ghana

Joana Kyei-Dompim, MPhil.; Department of Nursing, Faculty of Allied Health Sciences, Kwame Nkrumah University of Science and Technology, Ghana

Evans Oduro, BSc.; Nyinahin Government Hospital, Atwima Mponua District, Ashanti Region, Ghana

Anna Axelin, Ph.D.; Department of Nursing Science, Faculty of Medicine, University of Turku, Finland

Introduction: Lack of a well-structured continual professional education for post-registration healthcare providers has been cited as one of the major reasons for sub-optimal pediatric pain care in the hospital. Fortunately, different types of education have been shown to improve healthcare provider competencies for improved pain care and health outcomes for affected children and their families. Developing and validating an existing pediatric pain curriculum and educational guide for healthcare providers is the first step towards realizing the potential educational gains among the key stakeholders.

Aim: To develop a revised pediatric pain curriculum and educational guide for healthcare providers in a resource-limited setting.

Methods: Experts whose backgrounds are closely related with pediatric pain care, education and curriculum development were invited to participate in a web-based Delphi study. Thirty-five (35) pediatric pain-related topics were generated from relevant literature and findings of an educational needs' assessment. Using a four-point Likert scale options to assess the level of importance of each topic, consensus was set a priori as at least 70%.

Results: Out of the 25 experts who were invited, 22 participated in the first round yielding a response rate of 88%. Consensus of 72.7% – 90.9% was achieved on 34 out of 35 topics. Four new topics were also generated by the experts for consideration in the subsequent rounds namely: pain assessment for children who cannot communicate verbally, mechanism of action of different pain treatment for children, analgesic dose calculation for children, and social support for children in pain and their families.

Conclusions: Consensus was achieved among an expert group on almost all topics on which a revised pediatric pain curriculum and educational guide for healthcare professionals in a resource-limited setting could be based. It is hoped that prudent implementation of the revised curriculum and educational guide will serve as a spring board for improved pain care and health outcomes for vulnerable children and their families.

"A bitter sweet journey": Experiences of caregivers whose children undergo procedural pain

Abigail Kusi Amponsah, Ph.D.; Department of Nursing Science, Faculty of Medicine, University of Turku, Finland; Department of Nursing, Faculty of Allied Health Sciences, Kwame Nkrumah University of Science and Technology (KNUST), Ghana

Jerry Armah, BSc.; Department of Nursing, Faculty of Allied Health Sciences, Kwame Nkrumah University of Science and Technology, Ghana

Victoria Bam, Ph.D.; Department of Nursing, Faculty of Allied Health Sciences, Kwame Nkrumah University of Science and Technology, Ghana

Charles Kumi Hammond, FWACP, FGCP; Department of Child Health, Komfo Anokye Teaching Hospital, Ashanti Region, Ghana; Department of Child Health, School of Medicine and Dentistry, Kwame Nkrumah University of Science and Technology, Ghana

Faithful Annobil, BSc.; Department of Nursing, Faculty of Allied Health Sciences, Kwame Nkrumah University of Science and Technology, Ghana

Daniel Ba-Eebu Badengo, BSc.; Department of Nursing, Faculty of Allied Health Sciences, Kwame Nkrumah University of Science and Technology, Ghana; Nursing and Midwifery Training College, Techiman-Krobo, Bono East Region, Ghana

Joana Kyei-Dompim, MPhil.; Department of Nursing, Faculty of Allied Health Sciences, Kwame Nkrumah University of Science and Technology, Ghana

Evans Oduro, BSc.; Nyinahin Government Hospital, Atwima Mponua District, Ashanti Region, Ghana

Anna Axelin, Ph.D.; Department of Nursing Science, Faculty of Medicine, University of Turku, Finland

Introduction: Tissue breaking procedures such as venipuncture constitute a significant source of pain and discomfort for hospitalized children. Caregivers are uniquely positioned to provide optimal support as their children go through these procedures. As part of plans toward empowering family caregivers to provide optimal pain care support to their children during hospitalization, the current study sought to explore their experiences when their children are undergoing procedural pain.

Aim: To explore the experiences of caregivers whose children undergo procedural pain.

Methods: A descriptive qualitative study was conducted among 11 purposively sampled caregivers whose children had undergone procedural pain in the last 24 hours at the pediatric unit of a university hospital in the Ashanti region of Ghana. They were individually engaged in face-to-face interviews

which were audiotaped, transcribed and inductively analysed into themes that described their experiences.

Results: Participants were ten females and a male aged between 25 and 42 years. They were parents of children aged between 2 months and 12 years. Two themes were actively generated in the study namely "mixed emotions" and "comfort measures". 'Mixed emotions' described the varying emotions of happiness, indifference, and sadness that the caregivers experienced as they witnessed their wards go through procedural trauma. 'Comfort measures' described the strategies participants put in place to calm themselves and their wards as they underwent tissue breaking procedures. Some of these comfort measures included cuddling, words of affirmation, breastfeeding, and singing among others.

Conclusion: Caregivers experience a variety of emotions as they witness their wards go through procedural pain; implying that they need adequate education and preparation to provide optimum support during these tissue breaking procedures.

Securing the continuity of care by means of advance care planning

Anne Kuusisto, Postdoctoral Researcher, PhD, University of Turku, Finland, Department of Nursing Science, Turku, Finland, Satakunta Hospital District, Pori, Finland

Kaija Saranto, Professor, University of Eastern Finland, Department of Health and Social Management, Kuopio, Finland

Päivi Korhonen, Professor, University of Turku, Department of General Practice, Turku University Hospital, University of Turku, Turku, Finland

Elina Haavisto, Adjunct Professor, University of Turku Finland, Department of Nursing Science, Turku, Finland, Professor, Satakunta Hospital District, Pori, Finland, Tampere University, The Health Sciences Unit of the Faculty of Social Sciences, Tampere, Finland

Introduction: Advance care planning (ACP) allows patients to express their important personal wishes and values about life and dying. It includes both end-of-life care discussion and a written document. ACP helps guide patients' care in advance should they become unable to make decisions about their own care. ACP practices are not established and vary between continents and countries.

Aim: The purpose is to describe evidence-based practices of ACP in terms of data content, structure and quality. The aim is to ensure the continuity of care and improve the quality of care and patient safety by promoting the flow of information and preventing unnecessary emergency visits.

Methods: The study included two sub-studies: the first was a scoping review while the second used a descriptive qualitative study design. Data were collected from nurses, practical nurses, physicians and social workers working in palliative care. Purposively selected healthcare professionals participated in thematic interviews in three hospital districts in Finland in 2019. The data (n = 33) were analyzed using deductive and inductive content analysis.

Results: The data content of ACP, considered holistically, covered both patients' and family members' end-of-life wishes. The scoping review described ACP for patients with cancer in palliative care from professionals' perspective, showing that ACP included patient-oriented issues, current and future treatment and end-of-life matters. Healthcare professionals working in palliative care perceived assessment of need for patient care, preparing for changes in patient's state of health and proactive medication as central contents of ACP. The data structure of ACP was associated with a specific ACP template with a certain structure, i.e. subheadings. It allowed going through the contents of ACP, thus facilitating documentation and interoperability between care settings and healthcare providers. Data quality of ACP concerned informativeness, availability and usability of information coming from previous care unit to palliative care.

Conclusions: The results can be utilized to improve cross-border, informational, management and relational continuity of

LIVED EXPERIENCE OF AN ICU NURSE CARING FOR A COVID-19 PATIENT: A HERMENEUTIC PHENOMENOLOGICAL STUDY

Gloria Littlemouse, PhD Nursing, USA

Patricia Finch-Guthrie, USA

Understanding ICU nurses' lived experiences of caring for COVID-19 patients during the pandemic of 2019 has been a challenge. The aim of this qualitative, hermeneutic, phenomenological study was to understand ICU nurses' lived experiences caring for COVID-19 patients while maintaining self-care and caring for their families. Findings will help inform future hospital strategies for maintaining morale, retaining ICU nurse staff, adequately supporting nurses, and enhancing knowledge and understanding of the impact of COVID-19. Watson's (2008) theory of human caring guided the study. The theory conceptualizes an ordinary meaning for the discipline of nursing that applies to every work setting. Watson theorized that professional nurses, irrespective of specialty area, have an awareness of the interconnectedness of all people and thereby focus on caring rather than curing.

Using hermeneutic phenomenological qualitative methods, participants who met the selection criteria of an ICU nurse supporting COVID-19 patients participated in a 60-minute interview to share their experiences while working as an ICU nurse in a hospital in California during the COVID pandemic of 2019. Specifically, they were asked to share their experiences caring for COVID-19 patients, how they incorporated self-care techniques, and any challenges they faced while maintaining their home life. Using Van Manen's (2015) hermeneutic analysis approach and NVivo 12 software, interview data were analyzed.

The study's relevance allows for data emerging from the lived experiences of ICU nurses caring for COVID-19 patients to reveal the critical need for institutions to re-consider hospital strategies for effectively navigating through a pandemic, improving morale, and retaining staff. Results indicated that hospital administration might benefit from enhanced training in Watson's Caring Science to ensure that patients and staff feel cared for daily.

HEAL project: AI-driven Gamified Intervention and Intelligent Support Module to Foster Health Equity for the Life of Children

Anni Pakarinen, PhD, MHSc, RN, Department of Nursing Science, University of Turku, Finland

Introduction: Psychosocial factors influence the development and formation of child's health behavior. Health risks of the children e.g. obesity, sedentary behavior and lack of healthy eating have become a major global challenge. Global progress in these areas of health has been slow and largely due to a lack of awareness and investment. We need to expand our efforts to bring about change and help children achieve health equity by addressing their potentially unnoticed physical and psychosocial health needs.

Aim: The ultimate goal of the HEAL project is to foster the health equity of 6-13 year old children. Study aims to alleviate children's subjective nutrition, physical and psychosocial health disparities by developing a child-centered intervention with the combination of gamification and AI techniques. The study will further examine the effectiveness of the intervention, the validity and ethicality of digital health promotion methods.

Project implementation: Project is led by University of Turku and the collaboration is carried out with University of Tartu, University of Lleida, Hacettepe University and Peking University. The project is divided into two main stages: Development of the Intervention and Evaluation, with seven parallel sub-studies.

Results: The results will 1) further the scientific thinking behind gamification as a gainful method to affect children's knowledge, learning and behavior 2) provide insights in opportunities to maintain the balance of digital health promotion among children and the ethical issues 3) produce conclusive data on child's physical and psychosocial health needs to place precise and timely targeted interventions 4) explore the mechanisms behind the predict-prevent capabilities of AI and its applications for physical and psychosocial health risks of children 5) establish the empowerment with "Big data" and its relevance in the context of health promotion for children and their health equity.

Conclusions: The HEAL project will equip us with opportunities to inculcate healthy life choices, provide targeted health-promoting interventions and provide access to relevant resources that will help children to ultimately enjoy a healthy future.

Evidence-based nursing and its development needs in Finnish social and healthcare organizations – a national survey with nursing professionals

Heidi Parisod, PhD, Nursing Research Foundation/Department of Nursing Science, University of Turku, Finland

Hannele Siltanen, PhD, Nursing Research Foundation, Finland

Arja Holopainen, PhD, Nursing Research Foundation, Finland

Introduction: Finnish legislation requires that healthcare, including nursing, shall be based on evidence. Actualization of evidence-based nursing (EBN) has been recognized as inadequate based on previous studies despite of this strong obligation.

Aim: The aim of the national cross-sectional survey was to evaluate current actualization of EBN and its support structures in Finland based on nursing professionals' evaluations.

Methods: The data were collected with an electronic questionnaire in September-October 2021. A link to the questionnaire was distributed via nursing associations and unions to nurses in clinical practice (practical nurses, registered nurses, public health nurses, midwifes, paramedics), nursing specialists and nurse administrators and leaders working in social and healthcare organizations. The questionnaire included background questions and 5-point Likert-scaled items related to the actualization of EBN and organizational support structures. The data were analyzed with descriptive statistics.

Results: In total, 1595 nursing professionals participated to the survey (n = 1289 nurses in clinical practice (later "nurses"), n = 90 nursing specialists and n = 216 nurse administrators and leaders). Of the participating nurses 47,6 % (n = 613), nursing specialists 48,9 % (n = 44) and nurse administrators and leaders 58,8 % (n = 127) agreed that nursing practices in their organization are based on evidence. Respectively, 31,1% (n = 401), 27,8 % (n = 25) and 36,6 % (n = 79) of the participant groups agreed that evidence-based nursing is well executed in their organization. Of the different support structures, nurses gave the weakest evaluations for the nurse leaders' role in supporting evidence-based nursing (item mean 2,73; SD 0,93). The nursing specialists evaluated the structures for evidence transfer (item mean 2,90; SD 0,99) and nurse administrators and leaders the structures for development and implementation of evidence-based nursing practices (item mean 3,20; SD 0,84) with the lowest scores.

Conclusions: Evidence-based nursing still requires further attention to promote quality of nursing, patient safety and meaningful allocation of nursing resources.

Patient Centred Sleep Support – Development and testing of the Individual sleep promotion intervention and evaluation of its impact on the quality of ICU patients' sleep

Marita Ritmala, RN, PhD, Post doc researcher, University of Turku; MPD, Helsinki University Hospital, Finland

Introduction: Most ICU patients' sleep is poor, light and fractional. Sleep disturbing factors may relate to the ICU environment, patients' care, illnesses and related symptoms, or psychosocial factors. No one intervention studied has been proven superior or even effective to all patients.

The aim was to develop and test an Individual Sleep Support Intervention which is based on a patient's sleep hygiene interview and the execution of the individual care plan. The purpose is to improve ICU patients' sleep quality.

Methods: The Individual Sleep Support Intervention was developed with a sleep habit survey to home sleepers (n=114) and 15 ICU-RN focus groups. It was tested with an intervention ICU/control ICU design. Patients' sleep was evaluated with a Richards Campbell Sleep Questionnaire (RCSQ) by patients and their primary night nurse, and with an Emfit QS under mattress sleep tracker. A question of sleep disturbing factors was included in the RCSQ for patients. Light and sound were measured to validate the conditions in both ICU's, and to analyze the possible effect of the intervention. Data were analyzed statistically.

Results: The Individual Sleep Support Intervention consists of a sleep habit interview, a sleep support care plan with individual sleep support practices, and universal sleep support practices. A total of 186 patients participated in testing the intervention (50/50, 50/36). Due to the COVID-19 outburst, post intervention data collection ended prematurely in the control ICU.

Falling asleep in the evening and if woken during the night were estimated as best of the RCSQ sleep domains by patients and nurses. According to the sleep tracker data, patients slept an average of over eight hours with one hour of deep sleep. No differences in sleep quality were found between intervention and control ICU's before or after the intervention. The intervention had no effect on the light and sound conditions, or the number of disturbing factors described by patients.

Conclusions: Improvement of ICU patients' poor sleep quality requires diverse approaches. Sleep evaluation measures need further development to provide valid data besides patients' subjective evaluations.

Increasing care dependency and/or the appearance of various nursing phenomena as predictors for entering into the end-of-life phase

Gerhilde Schüttengruber, BSc, MSc; Medical University of Graz, Institute of Nursing Science, Austria

Introduction: The end of life is often characterized by the appearance of physical and psychosocial symptoms like pain or anxiety. The physical symptoms very often show themselves through nursing phenomena, e.g. falls, pressures ulcer, nutritional difficulties or urinary incontinence, and often lead to care dependency. Care dependency is defined as "...a process in which a professional offers support to a patient whose self-care abilities have decreased...". Care dependency can be measured with the psychometrically tested Care Dependency Scale (CDS).

Previously conducted studies could show that care dependency is high at the end of life and in particular in patients who are affected by dementia. On the other hand, the identification of the end-of-life phase in patients with dementia is particularly difficult. Nursing phenomena for entering the end-of-life phase might be helpful to timely identify the nearing end of life.

Aim: Therefore, the aim of this research project is to identify if an increasing care dependency and/or the increasing occurrence of falls, malnutrition, urinary incontinence and pressure ulcer might be related to the transition into the end-of-life phase.

Method:Secondary data analysis of data of cross-sectional study about the prevalence and correlations of specific phenomena like fall, malnutrition, urinary incontinence and pressure ulcer with the end of life.

Focus groups interviews about criteria for allocating patients and residents to the end-of-life phase.

Document analysis via a retrospective design to determine if an increasing care dependency or other phenomena had been recorded before an end-of-life allocation.

Results: None

Conclusion: None

Expanded nursing competencies in person-centred care (Expand-Care): developing a new nursing role profile in long term care using a multiple case study and stakeholder participation

Katharina Silies, Dipl.-Ges.-Wirt., Nursing Research Unit, Institute for Social Medicine and Epidemiology, University of Lübeck, Germany

Nadine Pohontsch, Dr., Department of Primary Medical Care, Center for Psychosocial Medicine, University Medical Center Hamburg-Eppendorf, Germany

Tilman Huckle, M. Sc., Nursing Research Unit, Institute for Social Medicine and Epidemiology, University of Lübeck, Germany

Katrin Schütz, M. Sc. PH, Nursing Research Unit, Institute for Social Medicine and Epidemiology, University of Lübeck, Germany

Dagmar Lühmann, Dr., Department of Primary Medical Care, Center for Psychosocial Medicine, University Medical Center Hamburg-Eppendorf, Germany

Katrin Balzer, Prof. Dr., Nursing Research Unit, Institute for Social Medicine and Epidemiology, University of Lübeck, Germany

Introduction: Complex care needs of older people suffering from multimorbidity and care dependency demand advanced skills of nurses to prevent exacerbation of chronic illnesses. In Germany, although academic nursing training has been established since 2003/2004, few academic nurses work in long-term care and role profiles are unclear.

Aim: To develop a role profile for nurses with expanded competencies to improve person-centred care for nursing home residents.

Methods: The intervention development was based on three methodological pillars: 1) literature searches, 2) a multiple case study and 3) stakeholder workshops. Literature searches focused on residents' complex care needs, hospitalisation and emergency service use, and context factors of transfer decisions. In the multiple case study (DRKS00025773), we explored processes preceding hospital admission or emergency service use from the perspectives of residents, families, nurses, nurse assistants, and physicians. Root-cause-analysis unravelled potential fields of action for nurses with expanded competencies. In stakeholder workshops, fields of action were enriched and the role profile specified through competence areas and tasks. We explored potential barriers and developed implementation strategies with stakeholders according to the CFIR/ERIC framework.

Results: The final intervention targets four competence areas: 1) managing chronic illnesses, 2) empowerment and communication with residents, 3) developing a person-centred care network and

4) organisational processes. Related competence domains, processes and instruments are described, and core and optional intervention components are defined. Main implementation strategy is a 300h training for academic nurses. Intervention and implementation strategies are depicted in a logic model and described according to the TIDieR template.

Conclusions: The development process yielded a well-defined and sound intervention tailored to the needs of residents and nurses. It will be piloted in a cluster-randomised controlled trial in 12 nursing homes regarding feasibility and potential effects. A process evaluation and an economic evaluation will be conducted alongside the main trial.

The Effect of Active Warming Before Total Knee Arthroplasty on Body Temperature and Comfort

Hatice ÖZSOY, Lecturer Dr. Burdur Mehmet Akif Ersoy University Gölhisar Vocational School of Health Services Department of Medical Services and Techniques/First and Emergency Aid Program, Turkey

Eda DOLGUN, Assoc. Prof. Dr., Ege University Faculty of Nursing Department of Surgical Diseases Nursing, Turkey

Aim: This study was conducted to determine the effect of active warming (forced-air system) on intraoperative body temperature and comfort before Total Knee Arthroplasty (TKA).

Method: This study is a randomized controlled experimental study designed according to the Consolidated Standards of Reporting Trials (CONSORT). The study was conducted with a total of 54 patients, 27 of whom were in the intervention group and 27 in the control group, who underwent bilateral Total Knee Arthroplasty between November 2021 and June 2022 in a State Hospital's Orthopedics and Traumatology Clinic and Central Operating Room. In the study, prewarming was applied to the patients in the intervention group for 30 minutes in the Preoperative Care Unit (PCU) before the surgical intervention. The prewarming was not applied to the patients in the intervention and control groups were warmed with a heating bed during the surgery.

Results: It was found that 61.1% of the patients were 65 years and older; 92.6% of them were female. The first entry temperature to the operating room, after induction of anesthesia and the mean body temperature of the patients in the intervention group at the 0th, 15th, 30th, 45th, 60th and 75th minutes of the surgical operation were found to be higher compared to the control group. It was found that the body temperature of the patients in the intervention group was higher than the control group, that the body temperature decreased as the age increased, and that the body temperature increased as the operating room ambient temperature increased. When the perianesthesia comfort scale scores of the patients were examined, the mean comfort score of the patients in the intervention group.

Conclusion: As a result of the study it was found that the combination of pre-operative pre-warming and intra-operative warming reduced the decrease in the patient's body temperature and increased the comfort.