CARE4-2019 ABSTRACT BOOK
## Content

**Keynote speakers**  
Nurse Leadership through Research, Education and International Collaboration: The Case of Skin Integrity  
Dimitri Beeckman ___________________________________________ 12

Transitional Care in Gerontology: Interdisciplinary Myths and Truths _______________________________ 13
Veronique Boscart ___________________________________________ 14

Mastering Nursing and Midwifery Practice: Is the European Nursing Space ready for change? ____________ 14
Mary Gobbi ________________________________________________ 15

Service user involvement in mental health research: tensions, intentions and deductions ________________ 15
Agnes Higgins ______________________________________________ 16

Challenges in Nurse Executive and Midwifery Leadership: Administrative Practice and Research ________ 17
Karen S. Hill ________________________________________________ 17

A human factors approach to teamwork and patient safety ___________________________________________ 18
Tanja Manser ________________________________________________ 18

Measuring outcomes that are most important to the patient – ICHOM Standard Sets ______________________ 19
Andrea Srur _________________________________________________ 19

Taking leadership in midwifery - Implementation of midwife-led care in Germany ______________________ 20
Friederike M Sayn-Wittgenstein ________________________________ 20

Addressing interpersonal violence and abuse in health care __________________________________________ 21
An-Sofie Van Parys __________________________________________ 21

**Symposia**  
Mini-symposium: International Comparison of Midwifery Education _________________________________ 22
Bogaerts, Annick ____________________________________________ 23

The self-determination theory and its merits for self-management support in chronic care ___________________ 26
Duprez, Veerle _____________________________________________ 26

The bedside handover: the integrated results from a longitudinal, controlled, multicentred, mixed method study _______________________________________________________________ 29
Malfait, Simon _____________________________________________ 29

Restraint use and involuntary treatment in older persons with home care: current updates __________________ 32
Scheepmans, Kristien ________________________________________ 32

Mobile Health (mHealth) applications: A challenge in future health care. Experience from the NeoParent App research project ___________________________________________________________ 36
Tency, Inge _________________________________________________ 36

An innovative approach for future dementia care; setting up Community Areas of Sustainable Care And Dementia Excellence in Europe __________________________________________________________ 38
Timmermans, Olaf __________________________________________ 38

Basic Care Revisited; towards evidence base nursing ________________________________________________ 41
Zwakhalen, Sandra MG ______________________________________ 41
Oral presentations

Topic: Nursing

Integration of nurses in general practice: a qualitative study from the perspective of general practitioners, practice nurses and chronic patients .............................................
Naomi Aerts ..............................................................................................................
Independent risk factors for pressure ulcer development in a high-risk nursing home population receiving pressure ulcer prevention. ........................................
Charlotte Anrys ......................................................................................................
Quality of Life in Residential Care Facilities - A Metasynthesis of Qualitative Studies ..............................................................................................
Thomas Boggatz .......................................................................................................
The effect of blended learning on nurses’ delirium recognition and delirium knowledge: a pilot study .................................................................
Inge Boile ..................................................................................................................
Lean in Healthcare: reduce wastes to increase efficiency for stroke patients ..........................................................................................................
Bianca Buijck .............................................................................................................
Exploration and development of Person-Centered Leadership: A Participatory Action Research Study ...............................................................
Shaun Cardiff ..............................................................................................................
Self-medication in various professional groups ......................................................
Elyne De Baetselier ..................................................................................................
PROTECT–Trial: A RCT to study the effectiveness of a turning and positioning system and patient-tailored repositioning to prevent pressure ulcers ..............................................
Dorien De Meyer ......................................................................................................
Clinical leadership: defining, recognizing and facilitating leaders in bedside nursing care .....................................................................................
Nele De Roo ..............................................................................................................
The transition from patient to mental health peer worker: a grounded theory approach ...............................................................
Bart Debyser .............................................................................................................
Cross-sectional screening for insomnia and burnout in nurses ................................
Liesbeth Delesie ........................................................................................................
Hospital nurses’ knowledge regarding older patients and factors influencing the 1 knowledge level: A multicenter study ........................................
Christel Derks ...........................................................................................................
Unplanned Readmission prevention by Geriatric Emergency Network for Transitional care (URGENT): a prospective before-after study ........
Pieter Heeren .............................................................................................................
Digital skills of caregivers working in elderly and community care: a descriptive study. .........................................................................................
Régine Goemaes ......................................................................................................
The national early warning score improves patients’ observations and reduces mortality. ...........................................................
Filip Haegdorens ....................................................................................................
Crowding and nursing staffing in emergency departments. ................................
Steluta Iordache ........................................................................................................
Bedside shift report enhances patient satisfaction and improves the content of nurse-to-nurse communication. ..........................................
Birte Kimmerle .........................................................................................................
Advanced Nursing Process quality – relations with nurses’ knowledge, attitude, patient characteristics and organizational factors 
Claudia Leoni-Scheiber ...........................................................................................
A literature review of migrants’ experiences of healthcare in host countries; a meta-ethnography .................................................................
Marie-Louise Luiking-Martin ..................................................................................
Practice nurse support and task suitability in a general practice. ................................
Evi Matthys .................................................................................................................
A qualitative study of the experience of loneliness in community-dwelling older persons with reduced mobility ............................................
Marika Moeyersons ...................................................................................................
Implementation of an enhanced recovery program in esophagheal cancer surgery: changes in nursing care add to a reduction in postoperative complications .......................... 68
Johnny Moons .......................... 68
The struggle of the low anterior resection syndrome after treatment for rectal cancer: experiences and needs of patients ........................................... 69
Eva Pape .......................... 69
Associations of potentially inappropriate medication use with four year survival of an inception cohort of nursing home residents ..................................................... 70
Kristel Paque .......................... 70
A RCT in high risk nursing home residents to compare cost-effectiveness of a static air mattress and alternating mattress to prevent pressure ulcers ........................................ 71
Brecht Serraes .......................... 71
Urgency for Clarification of Concepts and Definitions related to Discontinuation of Follow-Up Care for Young People with Complex Chronic Conditions ........................................ 72
Sandra Skogby .......................... 72
Impact of nurse post-discharge telephone interviews on hospital readmission rates: a case-control study
Marco Tomietto .......................... 73
CoNEX as a new method to estimate the tip position of a nasogastric tube: A pilot study .............. 74
Tim Torsy .......................... 74
The effectiveness of the Tell-us Card communication tool for nurses to increase patient participation: a cluster randomized controlled pilot study ........................................ 75
Elise van Belle ........................................ 75
Absence at work or school is associated with illness identity in adults with congenital heart defects ............................. 76
Liesbet Van Bulck .......................... 76
Design and psychometric testing of the Attitude towards the Prevention of IAD instrument .......... 77
Nele Van Damme .......................... 77
The impact of resilience and alcohol use on alcohol related problems in community dwelling older adults in Belgium .......................... 78
Yannic van Gils .......................... 78
Predicting in-hospital functional decline in older patients who are admitted for acute cardiovascular disease: a prospective cohort study ........................................... 79
Bastiaan Van Grootven .......................... 79
Implementation of RNAO evidence based clinical guidelines: fidelity study .......................... 80
Danny Van heusden .......................... 80
The experience of nurses being confronted with tiredness of life in older persons: a qualitative study ........ 81
 Liesbeth Van Humbeeck .......................... 81
The knowledge and attitudes of Flemish geriatric nurses regarding tiredness of life (ToL) and euthanasia: a survey study ........................................... 82
The prevalence of skin tears and associated risk factors in Belgian nursing homes: a cross-sectional observational study ........................................... 83
Hanne Van Tiggelen .......................... 83
Mental health nurses’ perceptions of establishing contact with patients who are experiencing suicidal ideation ........................................... 84
Joeri Vandewalle .......................... 84
Adherence to oral anti-cancer agents in patients with multiple myeloma: a cross-sectional study .......... 85
Anneleen Vanhellemont .......................... 85
Self-management of medication during hospitalisation: Healthcare providers’ and patients’ perspectives .. 86
Toke Vanwesemael .......................... 86
The collaborative triangle of nurses, nurse managers and physicians: deeper insights in barriers and opportunities for improvements ........................................... 87
Martijn Verspuy .......................... 87
Prediction of fall prevention behavior of staff within nursing homes: a multicenter cross-sectional survey
Ellen Vlaeyen .......................... 88
Empowerment of nurse leadership in community care teams: a user-centered design .......................... 89
R.G.M. Vogel .......................... 89
Oral presentations

Topic: Midwifery

Antenatal depression, need for general screening? 90
The development of a postnatal care pathway for deprived families 91
Kathleen Biesmans 92
Effect of lifestyle interventions in obese pregnant women on the development and anthropometrics of preschool children 93
Marijke A.K.A. Braeken 93
Non-medical prescribing behaviour in midwifery practice: a mixed-methods review 94
Synchronous online learning for midwifery students – an engaging way to learn about midwifery in another country 95
Annette Dalsgaard 95
High prevalence of gestational diabetes mellitus in Kabul, Afghanistan, following introduction of routine screening in antenatal care services 96
Sarah De Block 96
Continuity of care in care models for vulnerable pregnant women 97
Women’s preferred and actual birth mode and postnatal health-related quality of life 98
Maaike Fobelets 98
"When your dreamjob can becomes a nightmare" – Midwives’ reports of work-related traumatic incidents: a sequential explanatory mixed-methods study 99
Yvonne Fontein-Kuipers 99
Frequent attendance in primary midwifery care in the Netherlands: a cross-sectional study 100
Janneke Gitsels - van der Wal 100
Prediction of inadequate en excessive gestational weight gain 100
Leen Keynen 100
Vulnerable pregnant women in Antwerp: designing and testing the detection tool EMBRACE 101
Inge Meyvis 101
Intrapartum factors involved in maternal birth satisfaction: A cross sectional study 102
Use of clinical practice guidelines and evidence-based practice among midwives in Flanders: practice, barriers and attitudes 103
Adverse events in a Swedish maternity ward – a record review 104
Annika Skoogh 104
Role of midwives during breastfeeding support: A qualitative study in hospital and primary care setting 105
Marlies Swerts 105
PREMOM: The Limburg project on remote monitoring for women at risk for gestational hypertensive disorders 106
Defining a mutual definition for vulnerable pregnant women: a Delphi study 107
Jantine van Rijckevorsel-Scheele 107
Cross-cultural adaption of the Perceptions of Empowerment in Midwifery Scale (PEMS) for German speaking countries 108
Andrea Villmar 108
The empowerment of pregnant women with a low-socioeconomic status in the northern part of the Netherlands. 109
Catja Warmelink 109

Oral presentations

Topic: Health and education

The Crew Resource Management-study: Results of a pre-post multicentric intervention study to improve teamwork in acute care settings 110
Sarah De Schepper 110
Higher neonatal blood pressure in association with air pollution exposure during last weeks of pregnancy: an ENVIRONAGE birth cohort study 111
Narjes Madhloum 111
The influence of blended learning on the knowledge about delirium of healthcare workers in long-term care facilities (LTCFs) 112
Kelly Sabbe 112
Poster presentations

**Topic: Nursing**

Participants of (in)patients during Multidisciplinary Team Meetings in Mental Healthcare ... 116
Kevin Berben ... 116

Integrated care issues: Transfer of patient care information ... 117
Blanca Bijjik ... 117

A scoping review of the association between patients’ preoperative expectations and outcome satisfaction in patients with total knee arthroplasty ... 118
Suttawan Chawengklaikitkul ... 118
Ann Claey ... 118

Protected Consumption of Energy Supplements (PROCES) in Care homes: Baseline Data of an Implementation Project ... 119
Marleen Corremans ... 119

Implementation and Evaluation of Dedicated Education Units in Europe ... 120
Frieda Corstjens ... 120

Daring to address the taboos. Overlooked aspects of quality of care ... 121
Damsma, Aliza ... 121

How the understanding and support of spirituality in sick children are fundamental for quality of life and quality of care ... 122
Aliza Damsma ... 122

EUPRON - A quantitative description of nurses’ role in interprofessional pharmaceutical care in Europe ... 123
Elyne De Baetselier ... 123

“What about you? How are you doing?” Impact of caregiving on primary caregivers of oncology patients during active treatment and follow-up ... 124
Ine Decadt ... 124

In-house IT development of the nursing care plan at the CHU de Charleroi (ISPPC) [Belgium] ... 125
Lionel Di Pierdomenico ... 125

High-Risk Medication in Community Care (HaRMonIC study): a Delphi consensus study ... 126
Irina Dumitrescu ... 126

Processes underlying nurses’ feelings of successfulness in self-management support - A qualitative study Veerle Duprez ... 127

Medication Management by Older People in Transition from Hospital to Home: preliminary study protocol ... 128
Isa Raquel Félix ... 128

Patient goals at the core of the interprofessional team : nurses in pole-position ... 129
Annelies Geeraerts ... 129

The burden of the frail elderly caregiver in southern Italy. Results of a survey ... 130
Francesco G. Germini ... 130

Low incidence of in-hospital unexpected death: a stepped-wedge, cluster-randomised controlled trial of a rapid response system in acute hospitals. ... 131
Filip Haegdorens ... 131

The relation between nurse staffing levels and death after serious adverse events in Belgian acute hospitals. ... 132
Filip Haegdorens ... 132

A qualitative research about the role of spirituality in lifestyle changing among people with chronic cardiac vascular diseases (CVD) ... 133
Leida Janssen ... 133

The Pain Catastrophizing in Older Adults with Knee Osteoarthritis: Scoped Review Study ... 134
Thanakrit Jeamjitvibool ... 134

The meaning of dignity in sick elderly women living at home ... 135
Kari Kaldestad ... 135

Delegation of Nursing Activities in Long-term Care Hospitals ... 136
Fout! Bladwijzer niet gedefinieerd.
Suicidal ideation and suicide attempts in older adults: Influences of chronic illness, functional limitations, and pain

Fou! Bladwijzer niet gedefinieerd.

SuHyun Kim

The ethical mandate of the new established German Nursing Boards

Andrea Kuhn

Stay@home with dementia: from needs assessment to assistive technology

Rynne Lemmens

Vital Signs: the Magic Key in Preventing Hospitalization and Death amongst Older Adults Living in Nursing homes?

Bedside handovers: 10 practical lessons learned

Simon Malfait

Is 'privacy' a problem during bedside handovers? A practice-oriented discussion

Simon Malfait

Dementia-Serice Lower Austria – A low-threshold offer to improve the situation of people with dementia und their relatives in the domestic setting

Hanna Mayer

Effect without evidence – the „scientific voicelessness“ relating to established nursing Interventions.

Facts – reasons - (potential) solutions

Hanna Mayer

The "Integrative Model of Person Centred Care" - a framework for nursing practice in longterm care

Hanna Mayer

The process of drug self-management - a qualitative study to empirically substantiate and develop the model of Bailey et al. (2013)

Hanna Mayer

Is preoperative anxiety related to postoperative delirium in older cardiac surgery patients?

Clinical leadership: defining, recognizing and facilitating leaders in bedside nursing care

Sabrina Nachtergaele

The meaning and visibility of care in a classic text

Dagfinn Nåden

Perception of patient safety culture among Slovene members of nursing teams

Majda Pajnkihar


K.E. Pani-Harreman

The conceptualization of ageing in place of older people: a scoping review

K.E. Pani-Harreman

Associations of care dependency and dementia symptoms with four year survival in an inception cohort of nursing home residents

Kristel Paque

A Scoping Review of Quality of Life in Older Adults with Osteoporotic Fractures

Fou! Bladwijzer niet gedefinieerd.

Yuwadee Phiboonleetrakul

The prevalence of delirium in Flemish long-term care facilities (LTCFs) as assessed with the Delirium Observation Screening Scale (DOSS)

Kelly Sabbe

The Comprehensive Health Education Program for Overweight and Diabetic Older Adults with Knee Osteoarthritis

Yuwadee Saraboon

Associated Risk Factors of Restraint Use in Older Adults with Home Care

Kristien Scheepmans

A RCT in high risk nursing home residents to compare cost-effectiveness of a static air mattress and alternating mattress to prevent pressure ulcers

Brecht Serraes

Nurses process of ‘becoming’ - a qualitative study, based on nurses’ existential experiences when working in the field of death and dying

Venke Ueland

Integration of simulation training in nursing education

Geert Van de Weyer
Effect of lifestyle-coaching including telemonitoring and telecoaching on gestational weight gain and postnatal weight loss. A systematic review. 179
Lotte Mertens 179
Factors determining selected difficulties of women in the postpartum period 180
Is knowledge about abortion more important than attitudes? Study on midwifery students’ opinions towards abortion in their future practice. 181
Anna Michalik 181
Homebirths in Poland - legal aspects, midwives reflection and statistics 182
Julia Nawrot 182
Management of the Second Stage of Labor in Women with Epidural Analgesia: a Qualitative Study on Midwives’ Experiences. 183
Antonella Nespoli 183
Midwifery students and conscientious objection. An observational study in Universities of Lombardy - Italy 184
Antonella Nespoli 184
The Birth Satisfaction Scale-Revised (BSS-R): process of translation and adaptation in an Italian context 185
Antonella Nespoli 185
Changes of the birth environment - experiences in the course of implementing the Be-Up trial 186
Rainhild Schaefers 186
Is there a connection between the number of midwives present through labor and delivery, and the objective and subjective birth experience? 187
Kinneret Segal 187
Development and validation of the Dutch version of the Mobile Application Rating Scale (MARS): A pilot study on pregnancy apps 188
Inge Tency 188
MetoWe: Inter- & postpregnancy support of life balance in Flemish mothers during their transition to motherhood. 189
Luka Van Leugenhaege 189
Being safe and feeling safe in maternity care: two sides of the same coin? 190
Therese Werner-Bierwisch 190

Poster presentations 191

Topic: Health and education 191

TRANSPARENTS: a longitudinal study on BMI, mental health and partner support during the transition to parenthood: study protocol 192
TRANSPARENTS: a longitudinal study on body weight, body composition and energy balance related behaviour during the transition to parenthood 193
Perceptions of physicians, medical and nursing students concerning shared decision-making: a cross-sectional study 194
Gabriel Cantaert 194
Design of innovative information, training and social support intervention to informal caregivers of people with dementia living at home: the INFOSA-D 195
Cindy Frias 195
Professionalization of health and nursing professions in Germany and the chances of scientific education 196
Hampel, Sarah 196
A participative empowering postnatal group programme in the first year after birth,"Sterke Start project". 199
Dorine Heynickx 199
Say What? Health Literacy! Current knowledge of the concept among nurses in general hospitals 200
Evi Lemmens 200
Say What? Health Literacy! Health Literate Health Care Organisations: From Policy to One-on-one Interactions 201
Sandra Martin 201
The development of blended learning about delirium for healthcare workers in long-term care facilities (LTCFs) ___________________________________________202
   Kelly Sabbe __________________________________________________________________________202
The link between delirium knowledge and care strain for healthcare workers in long-term care facilities (LTCF’s) __________________________________________________________________________203
   Kelly Sabbe __________________________________________________________________________203
Mapping the primary care process of women during the first 1000 days ___________________________________________204
   Sarah Van Haeken __________________________________________________________________________204
Criteria for reporting on development and evaluation of professional training interventions in health care (CRe-DEPTH) ___________________________________________205
   Ann Van Hecke __________________________________________________________________________205
   Teams Under Pressure __________________________________________________________________________206
   Valérie Vanceulebroeck __________________________________________________________________________206
Effect of fall prevention implementation on attitude, norms, self-efficacy, knowledge, barriers, intention and behavior in nursing home staff ___________________________________________207
Development and pilot evaluation of a training intervention to enhance nurses’ competencies for self-management support ___________________________________________208
   Dorien Wuyts __________________________________________________________________________208
Keynote speakers
List of abstracts

(In alphabetic order by presenting author)
The skin is the largest organ of the human body. Its main function is to protect humans from various external insults and to maintain the internal homeostasis and ultimately survival. Signs and symptoms of impaired skin integrity may include unpleasant sensory feelings, inflammation, cutaneous lesions, or loss of cutaneous substance (wounds). This may result in reduced quality of life, pain, disfigurement, disability and additional secondary risks including allergies and secondary infection. During the last years substantial advances have been made in many areas of skin research and innovative interventions to enhance skin integrity. Since a decade, the Skin Integrity Research Group (SKINT) at the University Centre for Nursing and Midwifery (Ghent University) focuses on research in this important area in nursing. Skin conditions related to pressure forces, shearing, friction and incontinence have been the focus of multiple large research projects, education, and policy making actions. Collaboration with national and international governments, universities and industries have led to in-depth research about interventions to prevent and treat pressure ulcers, incontinence-associated dermatitis (IAD) and (more recently) skin tears. The SKINT group was leading the design of the first global IAD severity categorisation tool (GLOBIAD), the adoption of IAD as a medical diagnosis in the ICD-11 coding, the global validation of the ISTAP skin tear classification tool, and many other innovations in the area of skin care. With prominent roles in international organisations such as the International Skin Tear Advisory Panel, the European Pressure Ulcer Advisory Panel and the International IAD Research group, the SKINT research group takes leadership in the development and implementation of best evidence impacting policy making and leading to global change in thinking about skin care in nursing. This presentation will outline the pathway followed by the SKINT team to gain influence and impact globally.

Keywords: Skin integrity, leadership, collaboration, policy making
Seniors presenting in today’s healthcare settings are often frail, with complex, multi-faceted conditions, and therefore require a well-organized, interdisciplinary team of healthcare professionals to adequately address their care needs and priorities. Transitions between healthcare settings and teams, and the unpredictable nature of chronic diseases often cause disruptions in care continuity, resulting in negative health outcomes, avoidable decline, treatment and medication errors, and unnecessary assessment and documentation burden. Throughout the years, Canada’s healthcare system has aimed to address these challenges by implementing an integrated standardized assessment and care planning system. Furthermore, a seamless healthcare system requires strong interdisciplinary teamwork to set priorities to deliver appropriate and timely care. This presentation will discuss myths related to interdisciplinary care, standardized assessments and care planning. Dr. Boscart will then present opportunities to optimize interdisciplinary care for seniors, including: integrated interdisciplinary education; standardized, multi-level assessments; evidence-informed care pathways based on best practices; and strategic decision-making, resource planning and policy. Given our aging demographics and limited healthcare resources, it is imperative to establish innovative processes to create sustainable care teams and deliver high-quality care.

Keywords: Gerontology, Interdisciplinary Care, Seniors, Standardized Assessments, Care Planning
Mastering Nursing and Midwifery Practice: Is the European Nursing Space ready for change?

Mary Gobbi*

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The aim of this presentation is to offer some reflections on the nature of ‘masters’ practice in nursing and midwifery within the European Space. In particular, the paper will focus on how the concepts of autonomy, competence, scope of practice, clinical specialism and advanced generic practice influence not only the enactment of Masters Level Competence in Practice, but also determine the extent to which Masters level courses actually develop ‘Mastery’ in practice. Indeed, I question whether this is their function. Is Mastery in the 21st Century now associated with doctoral level competence for example? Can ‘Mastery’ be achieved following a course of study alone? Hence, a critical review of the concept of ‘Mastery in Practice’. Is required together with a consideration of how this applies to the two quite different professions of Nursing and Midwifery.

Informed by experience, research and the most recent Tuning and CALOHEE projects, definitions of ‘mastery’ and masters level practice will be reviewed. This includes addressing thorny issues like curricula design, control, political drivers and the outcomes achieved by registrants who seek to acquire ‘mastery’ of their chosen profession and field.

Looking to the future, what changes are needed so that nursing and midwifery practitioners can develop and sustain their mastery in an ever evolving health care system with different health care needs? Are clients entitled to experience this expertise? How can, or will, we recognise and measure this Mastery? Does this depend upon the type of practice with which the practitioner engages? To what extent is nursing or midwifery constrained by its relationship with medicine? Within a European context of mobility and mutual recognition, how can we reconcile the differences between the practises in different member states? Indeed, should we? These are the issues to be debated in this paper.
Service user involvement in mental health research: tensions, intentions and deductions

Agnes Higgins*
Trinity College Dublin, Ireland

In the last three decades governments across the world have placed increased emphasis on patient and public involvement in the design, delivery and evaluation of mental health services, including their involvement in research. Involvement in research means doing research ‘with’ as oppose to ‘on’ or ‘about’ people and requires users to have a say in all aspects of the research process from design to dissemination, or thought to translation. Through the use of examples of differing forms of service user involvement across the trajectory of research, the presentation will focus on the tensions created as well as insights gained. The presentation will address “consumerist” versus “democratic” models and will ask the question: is involvement challenging embedded research practices and perspectives or is simply another way of co-opting the voice of service users into servicing the needs of the academic and research community?

Keywords: User involvement, Research, Participation
Challenges in Nurse Executive and Midwifery Leadership: Administrative Practice and Research

Karen S. Hill*

The Journal of Nursing Administration/Baptist Health Lexington/United States of America

The presenter will address the following objectives:

1. Discuss the changing role of nurses in executive practice and midwifery leadership

2. Identify the competencies that will be needed to address nursing leadership challenges in the future

3. Profile findings from the literature supporting leadership outcomes for nursing workforce and patient care with global application

The presenter, a Chief Nursing Officer from a 3-time Magnet designated acute care hospital and an Editor-in-Chief, will review changing roles and challenges for nurse executive and nurse midwifery leadership practice. Issues including system leadership, employee engagement, clinical practice leadership and healthy work environments will be discussed. Competencies supporting leadership for nurse executives in these areas will be identified. Findings from the literature supporting emerging work in the area of nurse executive and midwifery leadership will be reported.

Keywords: nurse executive, midwifery leadership, research
Human factors is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system aiming to optimize human well-being and overall system performance. This approach is particularly relevant to teamwork in healthcare as the interactions between team members, their work environments, their professional cultures, the technology they use to generate and share information about patients and their interactions with patients are extremely complex. This perspective is in stark contrast to many traditional views of teamwork that focus solely on the interpersonal relationships within the team. In healthcare, however, these interpersonal relations are often much less stable than in other work environments. Nevertheless, effective teamwork plays a key role not only for the safety of patients but also for the well-being of healthcare professionals. We thus need to leverage the potential of an optimal interplay of all system components to ensure the best possible healthcare system for everyone involved.

Keywords: teamwork, safety of patients, human well-being
Measuring outcomes that are most important to the patient – ICHOM Standard Sets

Matthew Joseph Salt*
ICHOM, United Kingdom

With increasing costs of healthcare, providers, governments and patients are looking for alternative ways to ensure we achieve better value of care. By quantifying value as the outcomes of care divided by the cost of delivering these outcomes, we can see improvements in value through improving outcomes, reducing costs or both. Outcome measurement can be used to inform patients on expectations of care, to allow comparison and improvement of clinician performance and to allow payers to negotiate contracts based on the results they achieve.

Formed in 2012, the International Consortium for Health Outcomes Measurement (ICHOM), an independent non-profit organisation creates Standard Sets of Outcomes that capture the first part of this equation. Over the course of 12 months, ICHOM puts together a working group of clinical, registry and patient leaders who participate in regular calls to identify the outcomes that are most important to the patient, as well as tools for measuring these and items for risk-adjustment, allowing like-for-like comparisons to be made.

With Standard Sets in more than 24 conditions, ICHOM facilitates the implementation and benchmarking of outcome measurement on a global basis. The Pregnancy and Childbirth Standard Set comprises 14 outcomes including survival, morbidity, patient satisfaction with care and patient-reported health and wellbeing. The Set has been implemented in a number of sites including in Nairobi, Kenya, emphasising the ability to use ICHOM Standard Sets in a variety of settings.
Taking leadership in midwifery - Implementation of midwife-led care in Germany

Friederike M Sayn-Wittgenstein*
Osnabrueck University of Applied Sciences, Germany

In Germany, the majority of women give birth in a hospital where the birth process undergoes intense medical control. Only 6.7% of all hospital births by low-risk women occur without any medical interventions. Results of international studies show that intervention rates in midwife-led units are lower than in obstetrician-managed units with a positive neonatal and maternal outcome. Furthermore, international findings demonstrate the importance of factors like continuity, control and choice for women giving birth and the influence on a positive birth experience. From 2009 – 2011 a prospective controlled multi-centre study was conducted in four obstetric hospitals in Germany. In total 1,238 pregnant women meeting the criteria for inclusion and agreeing to take part in the research chose either the midwife-led care or the standard maternity care. The women received posted questionnaires eight weeks and six months after birth. Women's views on the care they experienced during labour and birth relating e.g. to control as well as birth experience were obtained. Key aspects that are decisive for implementing the Midwife-led care model in Germany are the focus of the presentation.
Addressing interpersonal violence and abuse in health care

An-Sofie Van Parys*
Ghent University, Belgium

Interpersonal violence (IPV), defined by WHO (2002) as violence between individuals including child maltreatment, intimate partner violence and elder abuse, is a global public health problem with many negative consequences for the physical, mental, sexual health and well-being of women, men and children. There is a large consensus among clinicians and researchers that health care professionals play a crucial role in the detection/identification of the problem, and in pro-active offering tailored guidance, support and adequate referral if needed. Through the ratification of the Istanbul Convention, Belgium has committed itself to offer proper training to health professionals to tackle to problem within the health care context and the objective if this lecture is to provide a sneak preview of the content of such a training.

During the lecture, dr. Van Parys will provide an overview of the existing definitions and concepts that are needed to set the scene. She will briefly touch upon the prevalence and consequences of IPV. She will talk about how to recognize IPV and will go deeper into potential signs and symptoms. Continuing with more information on screening, specific ways of asking questions on IPV and tangible tools that can be used in daily practise will be offered. As a next step dr. Van Parys will explain how health care workers can respond when IPV is or is not being disclosed. She will explain the basic principles of emotional first aid and in conclusion say a few words on risk detection, safety measures and confidentiality issues.
Symposia
List of abstracts

(In alphabetic order by submitting author/chair)
Midwifery education changes continuously across Europe but major opportunities to design educational programs with uniform qualifications are unseen. Although the key competences of European midwives are determined in the European directives and international accepted competency frameworks are well-known, there are different educational/qualification levels developed for midwives across Europe. Some countries require midwives to be educated at master level, others demand a bachelor level. In more and more countries additional master programs for midwives on top of the existing bachelor of midwifery programmes focus on in-depth and academic midwifery master competencies. Furthermore, in some countries midwifery education programs are organised at university colleges, in others at a university.

Changes in society, legislation, national policy or health care reforms call for adjustments in midwifery education and training. These reforms should be related to the perinatal health care system as well as to new scientific and technological evolutions in midwifery care.

At our first mini symposium at the CARE4 ‘17 congress we mainly focused on exploring the existing differences between bachelor programmes for midwives throughout Europe. Views of different stakeholders, arguments and concerns on future development in midwifery education were discussed.

In this 2019 mini-symposium we will go further and focus on gaining insight in the specific content and organisation of existing master programmes relevant for midwives in five different European countries. Discussions will be organised with representatives from five different European countries. Benchmark between the different European educational programs could be a way to optimize implementation of European standards for midwifery practice and science. We will debate on (1) the minimum level of competences required as midwife to be a professional perinatal healthcare provider in this contemporary state of health care, (2) opportunities to improve midwifery education and training, (3) the value of both bachelor and master level of education for midwives.

Presenters:

Each presenter will give a short presentation about the organization and theoretical content of the master program available in their country. Both local challenges and opportunities will be elaborated. Discussions will be organized comparing the five different European countries. The competences reached through the master programs, content of the courses, teaching methods, relationship with the bachelor education will be compared across different European countries, all subjected to the European directives for midwives.

Keywords: Europe, Education, Midwifery, Master, Bachelor

Chairs: Annick Bogaerts, Katrien Beeckman, Eveline Mestdagh
Presentations of the Symposium:

Midwifery Education in Greece

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Bouroutzoglou, Maria (Alexandreio Technological Educational Institution);
Midwifery Lecturer - Alexandreio Technological Educational Institution (Thessaloniki)

Greece

Midwifery bachelor’s degree in Greece has a four year period of studies and consists of seven semesters of studies and clinical training. The last semester in an autonomous midwifery clinical placement (internship at a maternity hospital). There are three Midwifery departments at the public sector of education and one at a private University. Nowadays in Greece some changes occur at the field of higher education and the Technological Educational Institutions, where midwifery departments belong. University colleges become universities. Currently two masters are offered in the first university: Master of Science program of Midwifery with the title “Advanced and Evidence based Midwifery care” and “Research in human reproduction”. Ms Bouroutzoglou will present the Greece situation of midwifery education. This gives us input to compare their perspective of midwifery education with other programmes in Europe.

Midwifery Education in Ireland

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Lalor, Joan (School of Nursing and Midwifery (Trinity College Dublin));
Prof. in Midwifery - School of Nursing and Midwifery (Trinity College Dublin)

Besides a masters in Midwifery (M.Sc.) in Ireland (Trinity College), they also organise a postgraduate Diploma in Midwifery (H.Dip.). The Midwifery Practice programme from University College Dublin aims to develop knowledge and skills to critically examine and advance practice and decision-making, to grow in leadership capabilities, to build on capacity to effectively interpret research findings in practice, and to design and implement initiatives in practice. Prof Lalor will explain differences within their programmes. This gives us input to compare the Irish perspective of midwifery education with programmes in other European countries.

Midwifery Education in the United Kingdom

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Hopper, Heather (School of Nursing and Midwifery (University of Plymouth));
Academic Lead for Midwifery and Lead Midwife for Education – PhD student
School of Nursing and Midwifery (University of Plymouth)

In the UK, midwives complete a 156 weeks full time midwifery study on an undergraduate/bachelor( level 6) with entry requirements. Becoming a midwife means undertaking professional education at degree level. Some midwives are qualified nurses who have chosen to change career direction and undertaken the necessary extra study. Midwifery is a separate profession from nursing, although there is a shortened training route for
registered nurses. Others work their way up via a range of routes before going on to study for a registered midwifery degree. Midwives become an academic degree and professional qualification. Although in the UK, there is no existing master programme for midwives specifically, you can specialise in areas with special roles such as health visitor, neonatal nurse, antenatal screening specialist, mental health specialist, ... which might involve further qualifications. Mrs Hopper will present and discuss the perspective of midwifery education from the UK.

Midwifery Education in The Netherlands

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Engeltjes, Bernice (Hogeschool Rotterdam);

In The Netherlands, midwives are trained to provide obstetric care to women whereby pregnancy, delivery and childbirth proceeds physiologically in a four year bachelor program. In order to deliver good quality care, additional knowledge and skills are required. This means that midwives must be trained to provide responsible care in complex situations. The Master's program (Master physician Assistant: Clinical obstetrics) offers clinical midwives many possibilities in the field of deepening and broadening of medical knowledge and personal development. Midwives will be trained in the field of pathology, pharmacology, taking general anamnesis and performing general physical examination and clinical reasoning. Competences are also developed that are required for evidence based practice. The combination and integration of medical knowledge and skills will be trained at the higher professional education level. This presenter will focus on the perspective from the Netherlands and gives input for debate on comparison between different countries.

Midwifery Education in France

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Chantry, Anne (EPOPé et CRESS Paris);

All midwives in France have a master degree. The first year of the program is organized commonly with the Medical program. The following four years are focused on midwifery sciences. Theory is the focus of year two and three and includes gynaecology, obstetrics, midwifery, neonatology and paediatrics. Besides, anatomy, public health, pharmacology, general pathology and human sciences are included. Students receive a general degree in midwifery sciences (diplôme de formation générale en sciences maieutiques) after three years of education. In year four & five, 56 weeks in practice are put in place. Students can differentiate and focus on hospital care, independent midwife or research. After five years, students receive a master degree in midwifery sciences (diplôme de formation approfondie en sciences maieutique). The French perspective of midwifery education will feed the debate for a comparison of the organisation of midwifery education in different countries.
The self-determination theory and its merits for self-management support in chronic care

Duprez, Veerle*
Ghent University, Belgium

Chronic conditions are challenging to manage, both for the patient and the professional. Supporting patients towards self-management restores and strengthens the power and autonomy of the patient and ensures the integration of the condition into the patient's life. The Self-Determination Theory (SDT) (Ryan & Deci, 2000), a leading theory on human motivation and autonomy, provides a suitable framework to study the challenges of patients' self-management and professionals' self-management support. Theory-driven research is highly recommended to study complex topics in healthcare (Richards & Hallberg, 2015). The University Centre for Nursing and Midwifery (Ghent University, Belgium) and the Expertise Unit Healthy Living (University Colleges Leuven Limburg, Belgium) conducted research into self-management support from a Self-Determination Theory perspective.

Objectives. This symposium aims to (1) provide a comprehensive overview on the main premises of the SDT, and its possible merits for healthcare at the interpersonal and structural level; (2) present an SDT-based training intervention to enhance professionals' competencies for self-management support, (3) provide evidence on antecedents of nurses' interaction styles, while supporting patients towards self-managing their chronic condition, and (4) start a discussion in which participants explore possibilities to implement SDT-elements in their own practice both at an interpersonal or organizational level.

Keywords: chronic care, healthcare professionals, Self-Determination Theory, self-management, training and education

Chairs: Veerle Duprez, Dorien Wuyts

Presentations of the Symposium:
The Self-Determination Theory and its merits for chronic care

Duprez, Veerle (University Centre for Nursing and Midwifery, Ghent University, Belgium);

This session will elaborate on the main premises of the Self-Determination Theory (SDT) which is a leading theory on human motivation. The SDT holds the assumption that individuals are inherently proactive and have a natural tendency to develop. Many studies have elaborated on the contribution of SDT on patients' motivation, behavior and health outcomes (e.g., Ng et al., 2012; Van der Kaap-Deeder et al., 2014; Williams et al., 2002). This session will elaborate on the theoretical framework and will provide a comprehensive overview of the current body of knowledge on healthcare-related SDT-based research. The SDT is well suited to study domains where others find themselves in a motivating role, such as nurses in self-management support. This session will introduce why this is so, and sessions two and three will elaborate the body of knowledge at interpersonal level and organizational level.
Competencies for self-management support: lessons learnt from an SDT-based training intervention

Vandepoel, Ilse (University Colleges Leuven Limburg, Leuven, Belgium);

Facilitating patients with a chronic condition to take an active role in the management of their condition requires healthcare professionals to adopt a need-supporting interaction style (Deci & Ryan, 2000), as a foundation for self-management support (SMS). Healthcare professionals often experience difficulties when providing SMS to patients, report a lack of specific knowledge and training (Duprez et al. 2018). Given the advantages of a need-supporting interaction style on patients’ motivation and health-related behavior, professionals need to be trained to adopt such a need-supporting style, i.e. providing autonomy-support and structure. This session will elaborate on an SDT-based training intervention to enhance competencies of healthcare professionals for SMS. We used the 5A’s-model (Glasgow et al., 2003), the Self Determination Theory (Deci & Ryan, 2000) and the Presence Approach (Baart & Grypdonk, 2008) as theoretical frameworks to develop our training program.

Antecedents of nurses’ interaction style when supporting self-management in chronic ill patients: a Self-Determination Theory approach

Van Hecke, Ann (University Centre for Nursing and Midwifery, Ghent University, Belgium); Duprez, Veerle (University Centre for Nursing and Midwifery, Ghent University, Belgium);

What a (de)motivating interaction style involves has received considerable attention in the domain of teaching, parenting and sports coaching. However, little attention has been given to (de)motivating interaction styles within the patient-nurse encounter. SDT-based research has typically distinguished autonomy-supportive, controlling, structuring and chaotic styles. The present contribution will provide evidence on antecedents of nurses’ interaction styles, when supporting patients towards self-managing their chronic condition. A path model approach using cross-sectional data (N=484) was used. The Situations-in-Self-management support – HealthCare Providers (SIS-HCP) was used to measure nurses' interaction style (Duprez et al., 2018). Preliminary results indicate that more internalized motives to support patient towards self-management relate to more autonomy-supportive interactions, whereas a lack of motivation is the main reason for controlling or even abandoning patients. Nurses’ motives to provide self-management support are in turn driven by need-supportive elements in their own working context. The full results will be available by September 2018 and be presented at the congress.

Discussion platform: the Self-Determination Theory and my organization

Wuyts, Dorien (University Colleges Leuven Limburg, Leuven, Belgium);

This session will stimulate participants to translate the principles of SDT to their personal working context. By means of interactive formats we will encourage participants to discuss on the possible merits of SDT for nursing leadership, as well as for the individual nurse-patient
encounter. This reflective session might provide participants with new insights for future research, implementation or change projects in their institution.

Conclusion
This symposium will illustrate how the Self-Determination Theory provides a suitable framework to develop theory-driven research and theory-driven interventions, which are highly recommended to study complex topics. The possible merits of the SDT at interpersonal and organizational level will be discussed.
The bedside handover: the integrated results from a longitudinal, controlled, multicentred, mixed method study

Malfait, Simon*
Ghent University Hospital, Belgium

Introduction: Bedside handovers, in which the nurse-to-nurse handover is performed at the patient’s bedside, is an upcoming method in nursing due to the many advantages it is expected to offer. Still, the body of knowledge on this topic is limited because of the lack of longitudinal, multicentred, mixed methods studies. Most likely, many failed initiatives remain unreported, resulting in a distorted perception and lack of knowledge on the implementation process, meaningfulness and effects of bedside handover. Therefore, a more firm body of knowledge was needed. In this symposium, the results from a longitudinal, controlled, multicentred, mixed method study will be discussed and analyzed in depth, and finally be summarized in comprehensive and practical advice for nursing practice.

Objectives: The symposium objectives are to inform the nursing profession about the implementation, use and effects of bedside handovers by providing new evidence-based insights.

Concluding section: The learning outcomes for the audience are twofold. On one hand, the symposium aims to provide in evidence concerning the bedside handover which was based on rigorous, longitudinal research following the MRC-framework for complex interventions. On other hand, by using an interactive discussion with the audience, this symposium aims to translate the findings into practice-oriented recommendations.

Keywords: complex intervention, implementation, mixed methods, bedside handover

Chairs: Ann Van Hecke

Presentations of the Symposium:

A longitudinal, mixed methods, mutlicentred study on bedside handovers: an introduction.

Malfait, Simon (Ghent University hospital); Van Biesen, Wim (Ghent University Hospital); Eeckloo, Kristof (Ghent University Hospital); Van Hecke, Ann (Ghent University, Faculty of Medicine and Public Health, University Centre for Nursing and Midwifery);

An introduction to the topic of bedside handovers and an introduction to the outline of the matched, controlled, mixed-methods, longitudinal study design to assess the feasibility, appropriateness, meaningfulness and effectiveness of bedside handovers will be presented. The study process of development, implementation and evaluation of the intervention is based on the Medical Research Council framework for complex interventions in health care. Unannounced and non-participatory observations (n=1661), interviews and focus groups (n=195), questionnaires for nurses (n=165) and patients (n=799), and clinical outcomes of patients (n=599) were collected on three different moments (baseline, after 6 months, after 12
months) on 14 nursing wards in eight hospitals in the Flemish Region of Belgium. In this introduction, the three following sessions concerning the quantitative, qualitative and observational part of the study will be introduced.

The patients' and nurses' perspective on bedside handovers: results from qualitative studies

Malfait, Simon (Ghent University Hospital); Eeckloo, Kristof (Ghent University Hospital); Weemaes, Isabel (Ghent University, Faculty of Medicine and Public Health); Van Biesen, Wim (Ghent University Hospital); Van Hecke, Ann (Ghent University, Faculty of Medicine and Public Health, University Centre for Nursing and Midwifery);

This session focusses on the results from the qualitative part of the study. The sessions comprises the results of the interviews with nurses (n=107) and patients (n=48) before implementation and the interviews with patients (n=31), nursing supervisors (n=16) and focus groups with nurses (n=9) after implementation of bedside handovers. On the one hand, the results will focus on the barriers and facilitators for using bedside handovers experienced by nurses and patients. On the other hand, the results will focus on the meaningfulness, appropriateness and feasibility of bedside handovers for nurses and patients. Concerning the latter group, there is explicit attention for the group of ‘silent voices’. This is the group of patients that are seemingly not actively involved during the bedside handover.

The longitudinal effects of bedside handovers on nurse-related, patient-related and clinical outcomes

Malfait, Simon (Ghent University Hospital); Eeckloo, Kristof (Ghent University Hospital); Heip, Tine (Ghent University, Faculty of Medicine and Public Health); Van Hecke, Ann (Ghent University, Faculty of Medicine and Public Health, University Centre for Nursing and Midwifery); Van Biesen, Wim (Ghent University Hospital);

In this session the effects of bedside handovers on patients (=799), nurses (n=165) and clinical indicators (n=599) will be elaborated. Data were collected in a longitudinal design at three points. For nurses, nurse-patient communication, individualized care, coordination of the care process, job satisfaction, intention to leave, patient participation and work interruptions were measured. For patients, patient activation, individualized care and quality of care were measured. The clinical indicators in the study were the duration of hospital stay, unplanned readmission, hospital acquired pressure ulcers, patient falls, unnecessary replacement of intravenous catheters and pain-free days. Additionally, the differences between nurses from wards that adhered to the intervention will be compared with nurses from wards that did not adhere to the intervention.
The process of bedside handovers: insights from a longitudinal observational study

Malfait, Simon (Ghent University hospital); Van Hecke, Ann (Ghent University, Faculty of Medicine and Public Health, University Centre for Nursing and Midwifery); Van Biesen, Wim (Ghent University hospital); Eeckloo, Kirstof (Ghent University hospital);

During this session, we will focus on the process of the bedside handover and the nurses’ protocol adherence to the method in order to determine the compliance rates with a structured bedside handover protocol, determine differences between wards and looking at the evolution over time of compliance. Furthermore, when presenting the results on compliance, omitted steps and flaws in the process will be discussed in detail. Also, the most reported reasons for not executing the bedside handover will be elaborated. Data from 1661 observations will be used.

Implementation bedside handover: four lessons learned

Malfait, Simon (Ghent University Hospital); Eeckloo, Kristof (Ghent University Hospital); Van Biesen, Wim (Ghent University Hospital); Van Hecke, Ann (Ghent University, Faculty of Medicine and Public Health, University Centre for Nursing and Midwifery);

The concluding session comprises of an interactive discussion between the audience, prof. dr. Ann Van Hecke (supervisor of the study) and dr. Simon Malfait (senior researcher of the study). In the interactive discussion, the goal is to guide the audience in the process of interconnecting the results of the different studies presented. Doing so, the chairperson and presenter aim to provide insights to the audience on how the authors came to usable and practical advices in order to enrich the evidence-based knowledge on bedside handovers.

Within the conclusion, there will be particular interest for the main lessons:

• The implementation of bedside shift report in the nursing practice is a valuable and suitable opportunity and is superior to more traditional handover procedures without the patient

• The implementation entails profound changes in attitude, daily practice and organizational performance in order to generate the best results.

• It is essential that patient participation is a key element when using of bedside handovers.

• Above all, the bedside handover revealed itself as a method to achieve a more patient-centered organization of nursing care.
Restraint use and involuntary treatment in older persons with home care: current updates

Scheepmans, Kristien
KU Leuven, Belgium

Traditional patterns of care are changing due to the demographic, epidemiological, social and cultural trends in Europe. These trends affect the demand and supply of home care and results in a growing number of frail older persons living at home and the assumption that the vulnerability of these persons can be associated with increased risk of restraint use and involuntary treatment (e.g. due to increased dependence, cognitive impairment and poor mobility). Health-care professionals will increasingly be confronted with the negative consequences of restraints and involuntary treatment, and as a consequence make the prevention of these aspects an important target in future home care. Insights in recent research about this topic is necessary to deal with these challenges.

Objectives:
At the end of the symposium, participants will be able to:

- Differentiate the different roles of persons involved in restraint use and involuntary treatment in older persons with home care and clarify both concepts
- Understand the complexity of restraint use and involuntary treatment in older persons with home care
- Describe principles to deal properly with restraint use and involuntary treatment in older persons with home care
- Understand how intervention mapping can contribute to the development and evaluation of complex interventions in practice

Keywords: Restraint use, Involuntary treatment, home care

Chairs: Koen Milisen

Presentations of the Symposium:
Restraint use in older adults in home care: a systematic review

Scheepmans, Kristien (Department of Public Health and Primary Care, Academic Centre for Nursing and Midwifery, KU Leuven, Leuven, Wit-Gele Kruis van Vlaanderen, Nursing Department, Brussels, Belgium); Dierckx de Casterlé, Bernadette (Department of Public Health and Primary Care, Academic Centre for Nursing and Midwifery, KU Leuven, Leuven, Belgium); Paquay, Louis (Wit-Gele Kruis van Vlaanderen, Nursing Department, Brussels, Belgium); Milisen, Koen (Department of Public Health and Primary Care, Academic Centre for Nursing and Midwifery, KU Leuven, Leuven, Division of Geriatric Medicine, Department of Internal Medicine, Leuven University Hospitals, Leuven, Belgium);
A systematic review was conducted to gain insight into restraint use in older adults receiving home care and more specifically about the reported definitions of restraint, prevalence of use, types of restraint, reasons for use or the people involved. Four databases were systematically searched from inception to end of April 2017. Qualitative and quantitative studies written in English, French, Dutch and German were considered. An integrated design was used to synthesize the findings.

Eight studies were included ranging in quality from moderate to high (Mixed Method Appraisal Tool). The review indicated that there was no single, clear definition of restraint. The prevalence of restraint use in home care ranged from 5% to 24.7%, with various types of restraint being used. Families played an important role in the decision-making process and application of restraints; general practitioners were less involved. Specific reasons, other than safety for using restraints in home care were noted. The results of the systematic review have contributed to the development of a new evidence based practice guideline to reduce restraint use in home care. The basic principles of this guideline will be presented briefly.

The Use of Involuntary Treatment among Older Adults with Cognitive Impairment Receiving Home Nursing in Belgium, a Cross-Sectional Study.

Moermans, Vincent (Department of Health Services Research, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, Netherlands, White Yellow Cross Limburg, Genk, Belgium); Bleijlevens, Michel (Department of Health Services Research, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, Netherlands); Verbeek, Hilde (Department of Health Services Research, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, Netherlands); Tan, Frans (Department of Methodology & Statistics, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, The Netherlands); Milisen, Koen (Department of Public Health and Primary Care, Academic Centre for Nursing and Midwifery, KU Leuven, Leuven, Division of Geriatric Medicine, Department of Internal Medicine, Leuven University Hospitals, Leuven, Belgium); Hamers, Jan (Department of Health Services Research, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, Netherlands);

The application of involuntary treatment (including physical restraint, psychotropic drugs and non-consensual care) has a negative impact on the quality of life of cognitive impaired older adults living at home. Research on this topic is recent. This study analysed data from 1194 randomly selected older adults with a cognitive impairment receiving nursing care at home in Belgium. We measured the application of measures of involuntary treatment, who request and apply it and the associated factors. We found that involuntary treatment was used in 52% of the sample. The use of involuntary treatment was associated with ADL-dependency, cognitive impairment and informal caregiver burden. Informal caregivers, followed by general practitioners mostly requested and nurses mostly applied it. This study confirms that involuntary treatment is commonly used in home nursing. The insights of this study, will help home care nurses and other professionals to develop an approach to prevent and reduce involuntary treatment.
Professional and family caregivers’ attitudes towards involuntary treatment use in community-dwelling people with dementia

Mengelers, Angela (Department of Health Services Research, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, Netherlands); Bleijlevens, Michel (Department of Health Services Research, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, Netherlands); Verbeek, Hilde (Department of Health Services Research, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, Netherlands); Capezuti, Elizabeth (Hunter College of City University of New York, New York, United States); Tan, Frans (Department of Methodology & Statistics, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, The Netherlands); Hamers, Jan (Department of Health Services Research, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, Netherlands);

The number of people with dementia with complex care needs living at home is increasing rapidly. In some situations caregivers provide care against the will of people with dementia, referred to as involuntary treatment, which includes non-consensual care, psychotropic medication and physical restraints. A total of 228 professional (general practitioners, nurses and other professionals) and 77 family caregivers of people with dementia completed the Maastricht Attitude Questionnaire – Home Care. This questionnaire measures attitudes towards involuntary treatment and perceptions of restrictiveness and discomfort. Informal caregivers and general practitioners accepted the use of all involuntary treatment types more than nurses and other professionals. Besides, they perceived physical restraints and non-consensual care as less restrictive and indicated feeling more comfortable when applying these measures. Acceptance of involuntary treatment was associated with higher perceived caregiver burden. It is important to foster dialogue between professional and family caregivers to find common ground regarding prevention of involuntary treatment.

Development and evaluation of a multicomponent program for implementing a guideline to reduce physical restraint use in home care

Vandervelde, Sara (Department of Public Health and Primary Care, Academic Centre for Nursing and Midwifery, KU Leuven, Leuven, Belgium); Scheepmans, Kristien (Department of Public Health and Primary Care, Academic Centre for Nursing and Midwifery, KU Leuven, Leuven, Wit-Gele Kruis van Vlaanderen, Nursing Department, Brussels, Belgium); Milisen, Koen (Department of Public Health and Primary Care, Academic Centre for Nursing and Midwifery, KU Leuven, Leuven, Division of Geriatric Medicine, Department of Internal Medicine, Leuven University Hospitals, Leuven, Belgium); van Achterberg, Theo (Department of Public Health and Primary Care, Academic Centre for Nursing and Midwifery, KU Leuven, Leuven, Belgium); Dierckx de Casterlé, Bernadette (Department of Public Health and Primary Care, Academic Centre for Nursing and Midwifery, KU Leuven, Leuven, Belgium);

As mentioned in the first presentation, a new guideline to reduce restraint use has been developed and needs to be implemented. Implementation however is a complex process, coming with practical and methodological difficulties. It is necessary to carefully develop and evaluate a program to support this implementation. Intervention Mapping (IM) provides a protocol for the development and evaluation of multicomponent programs. To tailor such a program to what is needed, target group involvement is crucial.
IM is used for the development of a multicomponent program to support the implementation of a guideline for reducing the use of physical restraints in home care. The multicomponent program uses a website and social media, as well as a flyer, a summary of the guideline, tutorials for healthcare workers and a promo film. The program contains also a training for opinion leaders, so they can learn to motivate, educate and support colleagues in guideline use.

A pilot test of the multicomponent program is performed in seven care regions in Belgium. In this presentation, the development of the multicomponent program and the first results from its pilot test will be presented.
Mobile Health (mHealth) applications: A challenge in future health care. Experience from the NeoParent App research project

Tency, Inge*
Odisee Hogeschool, Belgium

Introduction: Pregnant women/parents have access to a large amount of digital information, which is easy and conveniently available. Mobile technology (mHealth) forms a rapidly growing, influential source of information, particularly in healthcare, where the number of health apps is steadily increasing. A search of pregnancy, birth and parenthood apps found 1200 apps in the Apple-store and 700 in the GooglePlay-store. A majority of women download an average of three pregnancy apps. However, health professionals are concerned about the quality and reliability of online sources. There is a potential for pertinent information not to be included, to be unclear, inaccurate, misleading or out-of-date and consequently non-evidence based of low quality. Nevertheless, the quality of health apps is a crucial parameter, since it may affect health-related decision making and outcomes among end-users.

Objectives: This symposium will address different aspects of mHealth from a wide-ranging, holistic point of view, based on the experience of the development of the NeoParent-app, a personalised mobile application to promote information, communication and parent participation on a neonatal intensive care unit. Presentations will focus on online access, technological preferences and app use of pregnant women, IT user experience and contextual design research, quality (assessment) of health apps.

Keywords: mHealth, mobile-health applications, mother and childcare, quality assessment

Chairs: Inge Tency

Presentations of the Symposium:
Technology access and use, needs and expectations on digital information and communication of women during pregnancy and postpartum

Tency, Inge (Odisee University College);

Inge Tency is midwife, lecture and researcher at Odisee University College, Department of Midwifery and principal investigator of the NeoParent project. She is also guest professor at Ghent University, Master in Nursing and Midwifery. As a chair person of this symposium, she will briefly introduce the topic of mHealth based on literature review and own research on Internet, computer and mobile technology access and use of women during pregnancy and postpartum. Also women’s needs, expectations and preferences on digital information and communication will be addressed. Additionally, the background of the NeoParent project will be outlined.
This presentation is intended to increase the participant’s awareness of the growing use of mobile technology by women during pregnancy and early motherhood, which is inherently associated with the evolution towards a technology integrated health care.

Human-centred design and user experience research in app development

De Winne, Davy (Odisee University College);

Davy De Winne is lecture and researcher at Odisee University College, Department of ICT, involved in the NeoParent project. He has particular expertise in web and app development and IT user experience. He will explain the principles and life-cycle of human-centred design of interactive systems which forms the basis principle for the development of the NeoParent app. The importance of user experience research and involvement of users (namely in co-creation with parents and caregivers) will be highlighted.

This presentation is intended to enhance the knowledge of participants on IT user experience of mothers/parents and to demonstrate the importance of app development in health care, with focus on optimizing, strengthening and maintaining patient experiences.

Quality of mHealth applications and tools for quality assessment of health apps

Coorevits, Pascal (Ghent University);

Pascal Coorevits is professor at Ghent University, Faculty of Medicine and Health Sciences, Department of Public Health, Unit of medical informatics and statistics and expert in Electronic Health Records (EHRs) en mHealth apps, in particular criteria, labelling, certification and evaluation of EHR and app quality. He is involved in several (European) research projects on quality of apps, data and software and is a member of the European Working Group on mHealth Assessment Guidelines. His presentation will focus on the importance of quality of apps, data and software for research and policy purposes and an overview of existing tools to assess the quality of health apps will be given (e.g. Mobile App Rating Scale or MARS of which a Dutch version has been validated during the NeoParent project).

This presentation is intended to provide tools for critical appraisal of health applications, which can be used in practice and to motivate participants to discuss digital tools in pregnancy and childbirth with the women and to refer to high-quality digital information.
An innovative approach for future dementia care; setting up Community Areas of Sustainable Care And Dementia Excellence in Europe

Timmermans, Olaf*
HZ University of Applied Sciences, The Netherlands

To radically transform dementia care in the future, there is a need to build care models on the perspectives of people living with dementia (PLWD). The European project CASCADE develops an innovative model of integrated care enabling PLWD to remain in their own community in an all-inclusive form, with targeted care-delivery, dementia-friendly leisure activities and services. This symposium highlights projects’ findings, reflecting studies on EU policies & practices, perceptions of PLWD themselves on their abilities and needs, innovative strategies and overall reflection on the projects emergent possibilities.

Keywords: integrated care, dementia, inclusive society

Chairs: Olaf Timmermans, Carrie Jackson

Presentations of the Symposium:
Community Areas of Sustainable Care And Dementia Excellence in Europe: an innovative integrated care model developed from the perspective of people living with dementia.

De Wachter, Leentje (Flemish Expertise Center on Dementia);

In 2030, dementia is estimated to effect 13.42 million people in Europe. This creates a strongly increasing demand for dementia care services, currently unmet appropriately. To avoid overwhelming health systems, new approaches are needed for dementia care. To date new developments have focused on removing people living with dementia to a safe place rather than providing a continuum of care that enables them to stay in their own home as long as possible. The challenge is to provide sustainable person-centred programmes of care support in local communities.

The objective of the CASCADE-project is to develop a financially sustainable approach to dementia care that can be replicated across the 2Seas area and potentially further across Europe. The facilities created will provide short term respite and longer term care and will fully engage with the local community. This will be the basis for a cascade of shared learning and cross border excellence in dementia care for the future. On the CARE4 Congress we will present the innovative integrated care model and the bottom-up process of development in which people living with dementia were closely involved.
Innovating Dementia Care in Flanders

Dely, Herlinde (Flemish Expertise Center on Dementia);

Quality of care and quality of life for people with dementia is a constant aim for care professionals, policy makers and a hot topic for researchers. The Flemish Centre of Expertise on Dementia developed, on request of the Flemish Government, a reference framework for quality of care & quality of life for people with dementia. This framework will be launched on 25th October 2018.

The reference framework describes six foundations of good care and illustrates them with best practices from all over the world. With this document, the authors want to innovate dementia care across the different healthcare sectors in Flanders. The reference framework encourages conscious thinking about quality of care, inspires health care organizations and care professionals and stimulates them to optimize the care and support they give to people with dementia and their relatives. The framework will be relevant to hospitals, nursing homes and home care organizations. Together with the book/publication we launch an educational package for health care students and a brochure for informal caregivers. On the CARE4 Congress we would like to share the reference framework with its six foundations and how we will put it into practice in Flanders.

Dementia friendly leisure activities in society

Mattijsse, Mathilde (HZ University of Applied Sciences, The Netherlands); Van De Velde, Iris (HZ University of Applied Sciences, The Netherlands);

The CASCADE project will enable targeted care-delivery, dementia-friendly leisure activities and services. Continued participation in society for People living with dementia (PLWD) can be stimulated by leisure activities. This study explored, throughout a social participatory action research design, the experiences and perspectives of PLWD (n = 12) and entrepreneurs (n = 10) on dementia-friendly leisure in Belgium and the UK. Results show PLWD want to continue participation in society, but they often receive negative reactions. Leisure activities that are suitable for PLWD need to offer structure, a welcoming atmosphere and a tranquil environment. Informal caregivers need support to undertake activities with and without their family member with dementia. Entrepreneurs are interested in providing dementia friendly activities. There are many initiatives around leisure for PLWD, but this information is hard to find. Moreover, misunderstood behaviour often leads to negative reactions, resulting in feelings of anxiety in PLWD and to their withdrawal from society. With small adaptations, the -already extensive- current leisure offer can be made more dementia-friendly. More collaboration is needed to make it easier to find suitable activities. At the same time, a more supportive and understanding society needs to be created to enable continued participation of PLWD.
Transforming the future of dementia care in Europe- insights into emergent possibilities

Jackson, Carrie (Canterbury Christ Church University);

The aim of this presentation is to highlight some of the CASCADE project findings from an EU policy gap analysis identifying areas for development and improvement, synthesized with data gathered from partners to illuminate best practice models of care, and the findings of an e-Delphi study of EU experts identifying strategies for delivering new models and services for the future. Consideration will be given to what aspects of community care need to be further developed in order to deliver care close to or in people's homes that involve the wider community in supporting each other to live well with dementia and enhance quality of life. Findings will be considered through community, carer and professional lenses and applied to implications for person centered relationship based care, service design and delivery, workforce transformation, social and technological innovation and policy development. If we are to radically transform our approach to dementia care in the future, we have to break free from the silo'd medically focused models of care and approaches currently used, and put the person and their family truly at the heart of new types of policies and strategies driven by the needs of communities and what matters most to them.
Basic Care Revisited; towards evidence base nursing

Zwakhalen, Sandra MG*
Maastricht University, The Netherlands

Although essential nursing care serves nearly all people in their lifetime, it is poorly informed by evidence. A growing body of evidence demonstrates that whenever essentials of care are lacking, it directly affects the quality of care provided in terms of patients’ satisfaction and clinical outcomes. The need for evidence on essential nursing care led towards an unique interuniversity collaboration between three Dutch Universities under the name of ‘Basic Care Revisited’. The aim of this research program is to develop and evaluate interventions focusing on essential nursing care themes (i.e., bathing and dressing, communication, mobility, nutrition intake) in three nursing care settings (i.e., hospital, at home and institutionalized long-term care). This evidence is essential to optimize patient outcomes and to improve the quality of care nursing practice. In this presentation the need for evidence-based nursing care will be discussed based on the available evidence and theory. After the outline of the ‘Basic Care Revisited’ program, the results of 6 illustrative intervention studies will be presented. Finally, our discussant will wrap-up the session.

Keywords: essential nursing, nursing care, evidence based practice

Chairs: Sandra MG Zwakhalen

Presentations of the Symposium:

Experiences with Reablement in Dutch home care: results of a qualitative study.

Metzelthin, Silke F (Maastricht University);

Reablement aims to empower people to age in place with the highest degree of self-reliance. However, this requires a behavioural change in professionals who are used to do things for instead of with their clients. Therefore the “Stay Active at Home” programme was developed. To explore the experiences of professionals with this programme 21 interviews were conducted. The program was perceived as valuable to implement reablement in practice. Self-efficacy raising activities, like peer discussions and role plays, were considered as important components. Nevertheless, some professionals still experience challenging situations, e.g. when clients show resistance. Several programme improvements were suggested and a need for more structural support from colleagues and management was expressed. These experiences were used to fine-tune the programme.
Function Focused Care in Hospital, preliminary of an effect evaluation

Verstraten, Carolien JMM (University Medical Center Utrecht);

Function Focused Care in Hospital (FFCiH) is an approach supporting nurses to stimulate hospitalized patients in active engagement in daily activities to enhance functional ability. In a stepped wedge cluster trial conducted in geriatric and stroke patients, the effect of FFCiH compared to usual nursing care (UNC) has been evaluated. In 901 patients (FFCiH=427, UNC=474) bathing & dressing and mobility, measured with the Barthel Index and Elderly mobility scale at hospital admission and discharge, were analysed using mixed-model multilevel method. Alongside, a process evaluation was conducted. Preliminary results show no difference between the groups on both outcomes. However, the process evaluation revealed a low compliance with FFCiH. This likely explains the lack of effects of FFCiH on patients' outcomes.

First experiences with an intervention to improve communication with people with dementia living in nursing homes.

van Manen, Annick (Maastricht University);

To provide adequate nursing care it is important for nursing staff to communicate effectively with people with dementia. To enhance the communication between nursing staff and nursing home residents with dementia a intervention was developed. During its developmental phase, the intervention was tested at a psychogeriatric ward of a long-term care home in order to evaluate its feasibility and identify barriers/facilitators for implementation. A researcher was present to gather field notes and monitor attendance. Participants were invited in interviews to share their experiences.

The intervention was adapted to the team schedule, resulting in an overall intervention period of 13 weeks. Only a minority of the participants were present at all meetings. Participants found the content understandable and acceptable, although the aim of the intervention program was not clear for everyone at the beginning. Overall, participants reported a raised awareness of their communication with residents. Team cohesion and managerial attitude were identified as external barriers. Input from this evaluation will be used to further develop the intervention before a full-scale pilot evaluation.

Patient participation in fundamental care

van Belle, Elise (Radboud universitair medisch centrum);

Fundamental nursing care gains more attention, but little is known about how nurses involve patients in their care, which is regarded an important element as also described in the fundamentals of care framework. Patient participation includes informing and involving patients in their care. This ethnographic observational study (n=30) gives insight in when and how patient are involved during fundamental care delivery in hospitals. Nurses appear to be working rather task oriented, informing patients about their care. Little attention was paid to
the psychosocial aspects of nursing care. Hindering factors seem to be high work pressure, patient characteristics and unfamiliarity with patient participation with nurses and patients.

An outpatient nursing nutritional intervention for undernourished patients planned for surgery

van Noort, Harm (Radboud universitair medisch centrum);

The objective of this study was to develop and evaluate an outpatient nursing nutritional intervention for undernourished patients planned for surgery.

The Intervention Mapping approach structured the development of an outpatient nursing nutritional intervention. Its feasibility and effectiveness were evaluated in a multicentre cluster-randomized controlled pilot study. Outcomes for feasibility were extent of patient participation, intervention delivery, patient satisfaction. Effectiveness was evaluated on nutritional intake and nutritional risk. The intervention contained general and tailored advice, monitoring food intake and follow up. Patients participation was 72%. Mean difference in energy intake was 1018 kcal (95%CI 783-1252) (p<0.000) and in protein intake was 39 grams (95%CI 29-49) (p<0.000). Nutritional intake was higher in patients receiving essential nursing nutritional support.

Desired behaviour of nurses to prevent malnutrition among community-dwelling older adults, before and after hospitalization: a Delphi study

ten Cate, Debbie (University of Applied Science Utrecht, The Netherlands);

Less research is carried out into current behaviours of nurses to prevent malnutrition. This study aims to reach consensus with experts on relevant and feasible current behaviour of nurses that, if changed in desired behaviour, has the potential to maximally reduce the probability of occurrence of malnutrition in community-dwelling older adults, in the period before and after their hospitalization. A Delphi study, where nine predetermined current behaviours of nurses were rated. Results. Experts (n=26) rated eight current behaviours of nurses as relevant and feasible. This study has provided insight into expert opinion on the most relevant and feasible current behaviours of nurses. These results confirm the complexity in nutritional care but also in behavioural change to prevent malnutrition.
Oral presentations
Topic: Nursing

List of abstracts
(In alphabetic order by presenting author)
Integration of nurses in general practice: a qualitative study from the perspective of general practitioners, practice nurses and chronic patients

Naomi Aerts*, Peter Van Bogaert, Hilde Bastiaens, Lieve Peremans

University of Antwerp, Belgium

Background: Interdisciplinary collaboration by integrating nursing skills and competences in primary care is a current transition in Belgium, in response to an overburdened general practitioner (GP) workforce. This evolution requires careful consideration of all key stakeholders. The aim of this study was to: 1) explore the views of GPs, practice nurses (PN) and chronically ill patients on shifting to an interdisciplinary approach in general practice; 2) understand to which extent this PN-GP partnership could meet key stakeholders’ individual and joint needs and expectations.

Methods: Four descriptive, qualitative studies were conducted independently. Data were collected through individual, semi-structured interviews with 7 GPs, 19 PNs, 2 practice assistants and 21 chronically ill patients in 26 primary care centers with different PN integration levels, and a descriptive, thematic analysis was used. In this report, the results of these primary studies were triangulated and integrated using a thematic synthesis approach.

Results: Four overarching themes emerged from the data triangulation and synthesis. Health care providers (HCP) need to share and communicate practice vision and mission alike. Respondents emphasized the importance of trust-based professional relationships between patient and GP or PN. The PN role is evolving from being instrumental to a thorough integration at different speeds and levels. In interdisciplinary collaboration, GP and PN competences and responsibilities should be complementary and transparent to patients.

Discussion: The challenge of combining data from different sources requires a critical reflection. Data triangulation increases the internal validity and allows a fresh interpretation of the phenomenon. In retrospect however, a stronger consistency in methodology across the primary studies could have contributed to the synthesis process.

Conclusion: Clear vision and mission in practices encompass the different tasks of the PN. Interprofessional collaboration and accurate integration of clinical and organizational nursing skills and competences are needed in a patient-centered model in general practice.

Keywords: primary health care, interdisciplinary collaboration, practice nurse
Independent risk factors for pressure ulcer development in a high-risk nursing home population receiving pressure ulcer prevention.

Charlotte Anrys*, Hanne Van Tiggelen, Sofie Verhaeghe, Ann Van Hecke, Dimitri Beeckman

Ghent University, Belgium

Background: Despite the application of evidence-based pressure ulcer prevention, some high-risk patients still develop pressure ulcers. Specific risk factors in residents at risk should be identified to monitor the effectiveness of preventive measures.

Aim: To identify independent risk factors for pressure ulcer development in high-risk nursing home residents receiving pressure ulcer prevention.

Design: This study was part of a randomized controlled trial examining the (cost-)effectiveness of static air support surfaces compared to alternating pressure air mattresses.

Methods: The study was performed in a convenience sample of 26 Belgian nursing homes. The sample consisted of 308 residents with a high-risk for pressure ulcer development (presence of non-blanchable erythema, Braden score ≤ 12 or Braden subscale ‘mobility’ ≤ 2). Pressure ulcer incidence was monitored for 14 days. Demographic variables, functional, physical and psychological characteristics and data on skin assessment were collected. Independent risk factors were identified using a multiple logistic regression analysis.

Results: The overall pressure ulcer incidence (category II-IV) was 8.4% (n = 26) and 1.9% (n = 6) of the residents developed a deep pressure ulcer (category III-IV). Pressure ulcers (category II-IV) were significantly associated with non-blanchable erythema, a lower Braden score and pressure area related pain in high-risk residents even if preventive care was provided.

Discussion: The identified risk factors were in accordance with results from other studies. The results can be seen as representative for a high-risk population in nursing homes. However, our results cannot be generalized to other populations. Risk factors on organizational and staff level were not explored in this study.

Conclusion: The results of this study highlight the need of a systematic risk assessment including pain assessment at the pressure points and skin observations in order to determine and tailor preventive care to the needs of high-risk individuals.

Keywords: high-risk population, nursing home, pressure ulcers, prevention, risk factors
Quality of Life in Residential Care Facilities - A Metasynthesis of Qualitative Studies

Thomas Boggatz*

Salzburg University of Applied Sciences, Austria

Background: Admission to residential care facilities is often accompanied by a series of adversities. Chronic diseases, frailty, loss of a spouse, or loss of the familiar environment are experiences that are difficult to overcome and make quality of life an issue of central concern for residents. Despite a variety of theoretical approaches to determine quality of life in residential care facilities, there is no agreement about its dimensions. Because quality of life is at the core of older persons’ lived experience, a person-centred approach is required to understand it. It was the aim of this study to identify the dimensions of quality of life from the perspective of older persons living in residential care facilities.

Methods: A literature research was conducted in the databases Pubmed, CINAHL, Embase and Gerolit. Inclusion criteria were: qualitative studies investigating the experience of staying in residential care facilities worldwide, publications since 1990 in English or German. Identified papers were analysed by qualitative metasynthesis.

Result: 124 studies were identified. Quality of life can be defined as a balanced satisfaction of opposite orientations of action according to individual abilities and external circumstances. There are four complementary levels of orientations where such a balance should be achieved: body-related orientations of action for physical well-being, social orientations of action for social well-being, identity related orientations of action for personal integrity, and development related orientations of action for personal growth.

Discussion: Because participants may have responded according to social desirability, some dimensions of quality of life like sexual desire, unconventionality or self-centredness are likely to be underrepresented in the findings. Nevertheless, such hidden dimensions have to be considered when providing care.

Conclusion: The results provide a framework for person-centred care that allows identifying individual needs of care recipients in a care process aimed at achieving and maintaining quality of life.

Keywords: Quality of Life, Older Persons, Residential care facilities, Person-centered care
The effect of blended learning on nurses’ delirium recognition and delirium knowledge: a pilot study

Inge Bolle*, Lara Meuris, Elke Detroyer, Koen Milisen

*KU Leuven, Belgium

Background: Studies investigating the effect of delirium e-learning or blended learning are scare. The aim of this study was to determine the effect of delirium education by using a blended learning approach on nurses’ delirium recognition and delirium knowledge.

Methods: A pilot pre-posttest study recruited a convenience sample of 17 nurses at the University Hospitals of Leuven, Belgium. The blended learning approach entailed a 2-month self-active e-learning program (www.deliriummodule.be) combined with interactive group sessions (e.g. discussions about how to apply delirium knowledge in clinical practice and clinical case discussions). Before and at the end of the educational intervention, case vignettes and the Delirium Knowledge Questionnaire were used to measure nurses’ delirium recognition and delirium knowledge, respectively. Finally, the nurses’ experience and opinion about the blended-learning approach was evaluated via a questionnaire.

Results: Posttest compared to the pretest phase, there was a significant improvement in the delirium recognition score (mean 4.4 ±SD 0.8 vs. 3.2 ±SD 1.2 vs; p= 0.007) and the delirium knowledge score (mean 30.8 ±SD 2.5 vs. 28.1 ±SD 3.5; p= 0.004). All nurses (100%) judged the blended learning approach to be of added value for their clinical practice. For 58.8% to 64.7% of the nurses, the educational program was difficult to combine with professional and personal activities, respectively.

Discussion: This is the first study investigating the effect of blended learning on delirium recognition and delirium knowledge. Further investigation should consider if the improvement on the delirium recognition and knowledge is owing to the e-learning program, the interactive group sessions or the combination of both (blended learning). Given the small sample size, large studies are warranted to confirm our promising results and test the effect of a blended learning approach on patient outcomes (e.g. prevention of delirium).

Conclusion: Blended learning improves nurses’ delirium recognition and delirium knowledge.

Keywords: Delirium, Education, Blended learning
Lean in Healthcare: reduce wastes to increase efficiency for stroke patients

Bianca Buijck*, Maud Heijndermans

Rotterdam Stroke Service, The Netherlands

Background: Many health care organizations are looking for methods to reduce their costs and increase the productivity of their professionals. The Lean method looks at every step in every process to assess if this step adds value for the customer or not. If not, the step should be removed. The aim of this study was to explore the value adding and non-value adding process steps in stroke patient admission in an integrated care stroke service in the Netherlands.

Methods: This study was executed in the Rotterdam Stroke Service (RSS), a collaboration of 19 health care organizations, and focused on discharge of stroke patients from hospital acute treatment, and were admitted for rehabilitation. The grounded theory approach was used. Interpretative knowledge from professionals was used (normative approach, explorative research, naturalistic inquiry) and also value stream mapping, current protocols, application forms, available beds, were added to the research.

Results: In expert-meetings, professionals discussed the findings and created an improvement plan. According to the RSS protocol, the majority of the patients were discharged within 5 days. More than 100 wastes were discovered during this research. The most reported issues concerned 1) slow internal logistics in the hospital, 2) lack of medial readiness of the patient, 3) missing or delayed medical patient information transfer, 4) multiple discharge interviews, 5) lack of safely transfer of delicate information, 6) waiting lists and queuing up in rehabilitation facility.

Discussion/Conclusion: A critical note is that no research was found about failed attempts to implement Lean. Therefore, we should be careful with marking Lean as the definite success for the entire healthcare industry. Reducing wastes is an ongoing process in 2017, and the assumption is that there will be a significant improvement.

Keywords: Lean, stroke, reduce wastes, efficiency
Exploration and development of Person-Centered Leadership: A Participatory Action Research Study

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Background: Increasingly, research, theory and opinions are showing that person-centredness fosters healthful relationships and effective workplace cultures in healthcare. Relationship orientated leadership has also been shown to promote better care. However, person-centeredness within healthcare leadership relationships has not been discussed or researched and most leadership models were developed outside of nursing.

Method: A 3 year participatory action research study explored and developed nurse leadership from a person-centred perspective, in the clinical setting of a general hospital. An orientation phase was followed four action spirals: 1) regular critical and creative reflective inquiries into leadership practice; 2) leading the implementation and evaluation of primary nursing; 3) facilitating storytelling sessions with staff; 4) collective and critical annual reflections of personal development. Multiple data gathering techniques offered insight into changing perceptions and enactment of nurse leadership in the clinical environment.

Results: Thematic analysis of the data revealed a set of attributes, relational processes and contextual factors influencing the being and becoming a person-centred leader.

Discussion: Although this was a relatively small study, it was intense and longitudinal. Comparing the findings with nursing and nursing leadership literature supported some themes whilst others were new to (nursing) leadership literature. A conceptual framework of person-centred leadership was developed from the findings.

Conclusion: Front-line leadership is incredibly influential on workplace culture and care. Person-centred leadership is a complex, dynamic, relational and contextually embedded practice that fosters healthful relationships and growth of both leaders and practitioners, an outcome most welcome in the current healthcare climate.

Keywords: Person-centredness, clinical leadership, participatory action research
Self-medication in various professional groups

Elyne De Baetselier*, Toke Vanwesemael, Filip Haegdorens, Hans De Loof, Bart Van Rompaey, Tinne Dilles

University of Antwerp, Belgium

Background: Self-medication (SeM), defined as the use of medicines to treat self-recognized illnesses or symptoms, can positively influence self-management and avoid healthcare consumption for minor problems. However, SeM carries risks such as misdiagnosis, treatment delay, incorrect medicines use, abuse, interactions and adverse reactions. Therefore, we aim to examine prevalence and nature of SeM in nine professional groups, as health problems and health seeking behaviour may be related to profession.

Methods: In a cross-sectional survey design (January-March 2017) a convenience sample of professionally active respondents was questioned on personal and professional characteristics, lifestyle, medicines handling and SeM use. All products perceived as medicinal products by the respondents were reported.

Results: 3244 respondents participated: 694 nurses, 216 midwives, 664 teachers, 675 administrative assistants, 179 construction workers, 203 factory workers, 231 hospitality and catering workers, 205 police officers and 177 military personnel. In the last month, 54% of the respondents used SeM. Of all products, 81% were officially registered medicines, addressing the nervous (46%, 44% analgesics), the muscular-skeletal (24%, propionic acid derivate 22%), the respiratory (16%) and the gastro-intestinal system (12%). A link with the job was reported in 23% of all SeM products. Construction workers reported most frequently SeM for a job related complaint (46.3%, p<.001).

Discussion: A considerable part of professionally active people needs medication to fulfill their jobs in a more comfortable way. Our research has great value since we were able to identify professionals more at risk for job-related health problems, inextricably linked to productivity loss and associated economic losses to society.

Conclusion: SeM is a common practice in professionally active people. More than one in five SeM products are used for job related complaints. Most products are registered medicines, and predominantly analgesics and anti-inflammatory medicines. However, a broad range of products with various risks was used.

Keywords: self-medication, medicines, profession, job-related
PROTECT–Trial: A RCT to study the effectiveness of a turning and positioning system and patient-tailored repositioning to prevent pressure ulcers

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Universiteit Gent, Belgium

Background: Patient tailored systematic repositioning (frequency and posture) is key in pressure ulcer prevention. To date, a clinical decision making tool is lacking and compliance to pressure ulcer prevention guidelines is low. Research about commercially available turning and repositioning systems is lacking. The aim of this multicentre, cluster, three-arm, randomised, controlled pragmatic trial was to study the effectiveness of tailored repositioning and a turning and repositioning system on (1) nurses’ compliance to repositioning frequencies; (2) the body posture of patients after repositioning; (3) the incidence of pressure ulcers and incontinence-associated dermatitis; (4) nurses’ and patients’ preferences, comfort and acceptability and (5) the budget impact.

Methods: 227 patients at risk of pressure ulcer development were recruited at 29 wards in 16 Belgian hospitals between February 2016 and December 2017. Wards were randomly assigned to two experimental groups and one control group. Data were collected daily by the nurses and at two unannounced visits by a trained researcher.

Results: Nurses’ compliance to repositioning frequencies increased significantly in the experimental groups when patients were cared for in bed (94.6% versus 69% and 84.9% versus 71.4%). Applying the turning and repositioning system was associated with significantly more correctly positioned patients (30°–45° tilted side-lying position) (69.6% versus 34.6%). Few pressure ulcers and incontinence-associated dermatitis incidents occurred in all groups. Both patients and nurses were positive about the intervention. Labour costs related to repositioning in bed were higher in the control group compared to the experimental care groups.

Discussion: This was the first study investigating the effect of tailored repositioning and the use of a repositioning device to increase nurses’ compliance to repositioning. The results were in favor of the interventions, yet demonstrating the importance of follow-up and education.

Keywords: pressure ulcer, prevention, compliance, repositioning
Clinical leadership: defining, recognizing and facilitating leaders in bedside nursing care

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Arteveldehogeschool, Belgium

BACKGROUND: Nurses have a considerable role in coordinating and implementing interdisciplinary care in hospitals in order to guarantee the quality of care. Therefore every nurse has to possess leadership qualities, including nurses without a formal leadership role.

The aim of this study was to define the concept of clinical leadership and to understand how clinical leaders can be recognized within a nursing team. This includes how nurses can become aware of their own leadership skills and what they need to grow within their role as clinical leader.

METHODS: This research was conducted using the methodology of human centered design. In the first phase exploratory interviews with experts and semi-structured focusgroups were held. This was followed by a systematic literature review and in-depth interviews with key stakeholders such as bedside nurses, senior nurses, hospital managers and nursing students. Qualitative content analysis of the gathered data was done.

RESULTS: The concept of ‘clinical leadership’ involves bedside nurses who deliver daily care, act as a role model and influence, motivate and inspire others with their values and beliefs to improve patient care, without having formal authority. Characteristics as creativity, clinical expertise, effective communication, flexibility, responsibility and vision towards the future are linked to this concept. There is a positive correlation between the presence of these clinical leaders and the quality of the nursing care. Senior nurses acknowledge and recognize these leadership qualities in bedside nurses, but nurses do not recognize this within themselves.

DISCUSSION AND CONCLUSION: Understanding of this concept is necessary to raise leadership-self-awareness in bedside nurses, which has a positive impact on the quality of care. Further research is being conducted.

Keywords: clinical leadership, nursing, bedside care
The transition from patient to mental health peer worker: a grounded theory approach

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5: University Hospital Ghent; University Centre for Nursing and Midwifery Ghent;
6: University Centre for Nursing and Midwifery Ghent; University College Roeselare

Background: Peer workers are increasingly being engaged in contemporary mental healthcare. To become a peer worker, patients must evolve from having a patient identity to a peer worker identity. This study aims to understand how mental health peer workers experience their transition and how it affects their view of themselves and their direct working context.

Methods: A grounded theory approach was used. Seventeen mental health peer workers in Belgium were recruited through theoretical sampling. Semi-structured interviews were conducted and analysed according to the constant comparative method.

Results: The results indicate that novice peer workers experience peer work as an opportunity to liberate themselves from the process of mental suffering and realise an acceptable form of personal self-maintenance. As peer workers become more experienced, they are confronted with external factors that influence their self-maintenance and personal development. Experiencing clarity in their duties and responsibilities, equality, and transparency in the workplace reinforce their experience of self-maintenance and positively influence their self-development. Experiencing a lack of clarity in their duties and responsibilities, inequality and lack of openness discourage peer workers' self-development process. This is because these experiences challenge their personal motivations to become peer workers, which are usually linked to building a meaningful life for themselves. A dynamic model was developed that illustrates the core processes in the transition of becoming a peer worker.

Discussion and conclusion: These insights can encourage organisations to build up a supportive environment collaboratively with peer workers and ensure that peer workers can exert their authentically unique role in mental healthcare.

Keywords: Peer worker, Mental Healthcare, Qualitative Research, Transition, Lived experience
Cross-sectional screening for insomnia and burnout in nurses

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1: UZ Ghent, Belgium; 2: Ghent University

Background: Sleep disorders and burnout can affect job performance (efficiency, productivity, task execution speed, supervision) and job satisfaction. The aim of the study was to investigate relationships between sleep disorders, burnout and job performance in nurses with and without shift-work.

Methods: A cross-sectional questionnaire study was conducted from March till May 2018 across 10 wards in one Belgian hospital. Validated questionnaires were used to assess insomnia (Insomnia Severity Index, ISI), daytime sleepiness (Epworth Sleepiness Scale, ESS), shift work related sleep problems (Shift Work Sleep Questionnaire, BSWSQ), burnout (Maslach Burnout Inventory) and job performance (Job Performance Scale).

Results: Out of 226 eligible candidates, 175 nurses have completed the questionnaires (response rate: 77.43%, female: n=149 (85.1%), age: range 20-65 years). The majority performed shift work in a rotation schedule (n = 119, 68 %), 45 (25.7%) nurses only did day shifts and 11 nurses (6.3%) exclusively performed nightshifts. Insomnia according to ISI criteria was detected in 38.3%. Almost half of the sample (n=84, 48%) has symptoms of daytime sleepiness (ESS > 10), whereas 9.1% (n=16) used sleep medication (according the PSQI). Increased risk for burnout was observed in 32% (n=56) of the nurses; 16.6% (n=29) has a clinical burnout. Sleepiness was significantly correlated with burnout (r=0.31, p<0.01).

Discussion: In nurses, sleepiness and burnout were positively correlated. Female gender and burnout were significantly associated with insomnia, while working a long cycle shift pattern and experiencing daytime dysfunction were significantly associated with burnout. A significant negative association was observed between patient-related burnout and job performance.

Conclusions: Specific characteristics of shift work can directly affect sleep characteristics and burnout and indirectly job performance in nurses.

Keywords: shift work, insomnia, burnout, nurses
Hospital nurses’ knowledge regarding older patients and factors influencing the 1 knowledge level: A multicenter study

Christel Derks* (1), Marjo Elsen (2), Lysette Hakvoort (3), Marielle Mersbergen (1), Jeroen Dikken (4), Marieke Schuurmans (5)


Background: Because of demographic changes, more hospital nurses encounter older patients. Insufficient knowledge influences the quality of care older patients receive and implementation of education and quality improvement programs can help to improve nurses’ knowledge about older patients. To study the knowledge of nurses regarding the care for older patients in Dutch hospitals and identify predictors for differences in knowledge levels.

Measurements: A cross-sectional; multicenter study. Knowledge levels were measured using the Knowledge about Older Patient-Quiz (KOP-Q). The KOP-Q contains 30 dichotomous items measuring general knowledge regarding older hospitalized patients. Potential predictors for knowledge levels considered were age, education level, work experience, opinions and preferences. Opinion and preferences were measured by three questions.

Results: Ten tertiary medical teaching hospitals in the Netherlands, representing 91 wards (2902 nurses). 1743 registered hospital nurses were included. On 79.8% of all wards participating, a large range in knowledge levels was observed with 36% of nurses presenting knowledge levels comparable with first/final year students. A significant relation was found between knowledge levels and age (p<.001), gender (p=.004), preparatory secondary education (p<.001) and nurses education level (p=.012). 55% of nurses find it difficult to take care of older patients and most of them (77.6%) prefer to take care of patients within the age of 19-69 years. Lower knowledge levels were found in nurses who do not prefer taking care of older patients and who find it difficult.

Discussion: The knowledge levels of 36% of the Dutch nurses were below norm-groups. This is congruous with prior studies of Liu and Dikken. It is therefore important for nurses to share their knowledge with colleagues on a regular basis, and develop a continues learning attitude. However, to understand the relation between these constructs and knowledge, more research is highly recommended.

Conclusion: This study implies that nurses in the Netherlands have a large diversity in knowledge and a majority demonstrate negative opinions and preferences. These findings show the need for investing in (continuing) education regarding care for hospitalized older patients.

Keywords: KOP-Q, Knowledge, Attitude, Older patients, Registered nurses
Unplanned Readmission prevention by Geriatric Emergency Network for Transitional care (URGENT): a prospective before-after study

Els Devriendt (1,2), Pieter Heeren* (1,2,3), Steffen Fieuws (1), Nathalie Wellens (1,4), Mieke Deschodt (1,5), Johan Flamaing (1,2), Marc Sabbe (1,2), Koen Milisen (1)

1: KU Leuven, Belgium; 2: University Hospitals Leuven, Belgium; 3: Research Foundation Flanders, Belgium; 4: Government Canton Vaud, Switzerland; 5: University of Basel, Switzerland

Background. The URGENT care model was developed to improve the care for older ED patients. The study aim was evaluating the effectiveness of the care model.

Methods. A quasi-experimental study (sequential design with two cohorts) was conducted in the ED of University Hospitals Leuven.

Dutch-speaking, community-dwelling ED patients aged 70 years or older were eligible for enrolment.

Patients in the control cohort (CC) received usual care. Patient in the intervention cohort (IC) received the URGENT care model.

URGENT is a nurse-led, comprehensive geriatric assessment (CGA) based care model in the ED with geriatric follow-up after ED discharge.

The interRAI ED Screener© and clinical judgement of ED staff were used to identify patients at risk for unplanned ED readmission. A geriatric nurse conducted CGA in at risk patients. Subsequently, a personalized interdisciplinary care plan was made. Discharged at risk patients were offered case manager follow-up. Hospitalized at risk patients received follow-up on a geriatric ward or by the inpatient geriatric consultation team if necessary.

The primary outcome was 90-day unplanned ED readmission rate. Secondary outcomes were hospitalization rate, ED length of stay (ED LOS), in-hospital LOS, 90-day higher level of care, 90-day functional decline and 90-day mortality.

Results. On average, an at risk patient (n=404) received seven advices. Adherence rate on the ED was 86%. Unplanned ED readmission occurred in 170 of 768 (22.1%) CC patients and in 205 of 857 (23.9%) IC patients (P=.11). Statistically significant secondary outcomes were ED LOS (CC: 19.1 versus IC: 12.7 hours; P=.0003) and hospitalization rate (CC: 67.0% versus IC: 70.0%; P=0.0026)

Discussion. This nurse-led care model initiated trajectories during and after ED admission, which affected care processes positively (e.g. more comprehensive and proactive care, better continuity of care).

Conclusions. URGENT shortened ED LOS and increased hospitalization rate, but did not prevent unplanned ED readmissions.

Keywords: Geriatric Emergency Medicine, Care Model, Comprehensive Geriatric Assessment, Case Management, Unplanned Readmission
Digital skills of caregivers working in elderly and community care: a descriptive study.

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Background: In order to provide qualitative care to residents, communication between caregivers and coordination and continuity of care is required. To achieve this, information technology is increasingly being used as a supporting tool in healthcare, including community and elderly care. This requires that caregivers are expected to be sufficiently digitally skilled. The aim of this study is to get insight in the digital skills of caregivers in elderly and community care.

Methods: The ‘digital skills in care and welfare’ questionnaire (De Vries & Gielen, 2014) was used for a cross-sectional measurement of the level of digital skills of 534 caregivers in 7 Flemish nursing homes and 6 centres for day and community care services.

Results: A total of 424 caregivers participated in this study: 38% nurses, 45% nurse-assistants and 17% caregivers with another function. The mean age was 40 years and 94% of them were female. Still 21% of the caregivers had difficulties with basic skills such as searching for information and printing documents. Only 28% of the caregivers knew how to find protocols in the electronic system. Almost half (48%) of the caregivers did not have sufficient skills to use functions in the electronic patient record, to create basic documents and to send emails. Caregivers younger than 45 years (p<0.001), with a higher function (p=0.001) and a positive attitude towards digitalization (p<0.001) had significant higher levels of digital skills.

Discussion: However, this is the first study that describes the digital skills of caregivers in elderly and community care. Therefore these results must be interpreted with some caution. More research is recommended to confirm the results.

Conclusion: Caregivers in elderly and community care are insufficient prepared for the growing digitalization in healthcare. If nurses and other caregivers will take the lead, it’s necessary to support them in obtaining digital skills.

Keywords: Digital skills, elderly and community care, digitalization in healthcare
Where is leadership in nursing and midwifery: activities and associated competencies of advanced practice nurses and advanced midwife practitioners.

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Background: Advanced practice nursing and advanced midwifery practice roles are increasingly implemented internationally. Research examining advanced practice nurses’ and advanced midwife practitioners’ task performance, competency levels, and factors associated with task non-execution integrated in one study is lacking. Research regarding leadership activities of advanced practitioners is also scarce, despite leadership being an important part of these roles. This study examined these.

Methods: A survey was undertaken among advanced practice nurses and advanced midwife practitioners in hospitals in Belgium. Tasks were categorized in seven domains: clinical expertise/expert guidance/coaching, consultation/consultancy, research, change management/innovation, multidisciplinary cooperation/care coordination, ethical decision-making, and clinical/professional leadership. Task performance and competency level frequencies were calculated. Regression analysis identified factors associated with task non-execution.

Results: Advanced practice nurses and advanced midwife practitioners (n=63) executed tasks in all domains. Task non-execution was associated with work setting, years of work experience, position appointment percentage, perceived competency level, financing source, and type of hierarchical supervisor. Regarding leadership activities, participants mainly focused on guideline and care protocol development within the hospital, maintaining contacts with colleagues in other healthcare organizations and participating in policy development meetings regarding domain-specific topics. A minority of advanced practitioners participated in hospital policy meetings and (inter)national advisory boards, or maintained contacts with international professional and patient associations. Non-execution of several leadership activities was associated with advanced practitioners feeling incompetent.

Discussion and conclusion: As feeling incompetent was associated with task non-execution, optimization of advanced practice nurses’ and advanced midwife practitioners’ training, especially regarding leadership activities, should be considered. Leadership competencies are essential for the advancement and further professionalization of nursing and midwifery on a national and international level. Only a limited number of variables possibly associated with task non-execution were collected in this study. Therefore, more profound research into barriers hindering advanced practitioners in reaching their full potential is recommended.

Keywords: advanced practice nursing, leadership, midwifery, professional competency, task performance and analysis
The national early warning score improves patients’ observations and reduces mortality.

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BACKGROUND: Clinical guidelines including Early Warning Scores are being adopted in hospitals worldwide without knowing their impact on nurses’ clinical performance or patient outcomes. The aim of this study was to investigate the impact of the National Early Warning score on the frequency and on the quality of the registration of vital signs and to study the association between protocol compliance and patient mortality.

METHODS: A post-hoc analysis of data of a stepped wedge cluster randomised controlled trial in Belgian acute hospitals was conducted. All adult, non-pregnant patients admitted to 24 wards in six hospitals over 20 months were included. The intervention comprised a standardised observation protocol using the National Early Warning Score combined with a pragmatic medical response strategy. Patient comorbidity scores and vital signs were sampled once every four months on each ward. All vital signs in the 24 hours before a serious adverse event were collected.

RESULTS: 60,956 patients were included of which 32,722 in the intervention group. Comorbidity scores were sampled in 3600 patients and vital signs in 2951 patients. In 668 patients, vital signs were collected before a serious adverse event. The mean number of vital signs per observation increased significantly. Patients in the intervention group without an event were observed less frequent while patients with an event were observed more frequent. Protocol compliance was negatively associated with patient mortality controlled for comorbidity and age.

DISCUSSION: In contrast with previous research but in accordance with our intervention, we found an overall decrease in the observation frequency. We could only make a statement about the effect of protocol compliance on patient outcomes on the ward level since patient-linked data were not available.

CONCLUSION: Our intervention improves nurses’ clinical performance in observing patients and protocol compliance is negatively associated with patient mortality.

Keywords: national early warning score, rapid response system, patient observation, vital signs, mortality
Crowding and nursing staffing in emergency departments.

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Background. Reform initiatives concerning the emergency care system require data on current state of supply and demand. This study aimed to describe crowding and nursing staffing in emergency departments (EDs) and the relation between objective crowding, nursing staffing (in)adequacy and nurses' perception of crowding.

Method. Cross-sectional multicenter data was collected during seven consecutive days in each involved ED. We described comparatively the 24-hour cycle of occupancy rate, patient-to-nurse ratio and nurses’ perception of crowding and performed benchmarking between EDs on occupancy rate, nursing staffing and boarding time.

Results. Thirteen EDs including 340 nurses and 6785 patients were involved. The hourly occupancy rate, patient-to-nurse ratio and nurses’ perception of crowding had sinusoidal patterns with higher wave in the afternoon until early night when bed and staff capacity was systematically exceeded. Nurses perceived the crowding about two hours after its onset.

Seventy-seven percent of the EDs were frequently overpopulated, 58% had regularly high patient-to-nurse ratio and 15% faced delayed access to inpatient beds.

Discussion. Crowding is primarily a function of patient volume, ED bed and staffing capacity, and boarding of the admitted patients. These factors vary largely by ED and only their interplay in terms of demand and supply within individual unit determines the each one’s contribution to crowding. In this study, we described the 24-hour patterns of crowding and nurse staffing in EDs and tracked the relative contribution of the primary crowding factors at individual unit. This method enabled identifying the problems within the units where these occurred and provided with a broad view of crowding and its causes at regional level.

Conclusions. The nurse staffing was insufficiently adapted to the patient volume. Results suggest a common practice of staffing the ED beds regardless the activity. The analysis method may support both local and system-wide improvements.

Keywords: emergency department crowding, emergency nurse staffing, crowding perception, patient-to-nurse ratio, benchmarking emergency departments
Bedside shift report enhances patient satisfaction and improves the content of nurse-to-nurse communication.

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Introduction/objectives: Bedside shift reports are viewed as an opportunity to ensure patient safety and to empower patients to communicate with the nursing staff. Although models of bedside shift report have been developed, the practice is not yet commonly adopted in Flemish hospitals. The aim of this study was to evaluate the implementation of an adapted protocol for bedside shift report based on the ISBARR-protocol (Identification, Situation, Background, Assessment, Recommendation, Readback) on the content of nurse-to-nurse communication, patient satisfaction and nursing perceptions on shift handover, patient safety and quality of care.

Methods: A pre- en post implementation mixed methods design was used. First the ISCAP-model was developed: a Flemish model of bedside shift report. Six medical or surgical units in 4 different hospitals were trained in using this ISCAP-model before implementing bedside shift report. Baseline patient satisfaction scores, nursing perceptions on patient safety, quality of care and shift handover and content of nurse-to-nurse communication were collected. Three months after the implementation the same outcomes were measured and observed again.

Results: Statistically significant improvements were found in overall patient satisfaction scores, with emphasis on items like involvement in care, short and long-term care plans and patient education. Nursing perceptions improved significantly in the area of quality of care and nursing staff satisfaction with shift handovers. Communication content increased post implementation from a mean score of 6 to 11 items.

Discussion/implications: The present study documented several positive outcomes. Bedside shift reports can result in improved patient and nursing satisfaction and increased communication content in shift handovers. Although the transition to bedside shift report was accompanied with limited resistance, the use of a structured protocol and communication tool (ISCAP-model) in combination with extensive planning, training and organisational support during the implementation made this project a success.

Keywords: bedside shift report, implementation, protocol
Family Health Care and Child’s Welfare - a Field of Specialization for Pediatric Nurses

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Background: The federal foundation of early prevention ("FRÜHE HILFEN") is a preventive care program in Germany made up of multidisciplinary networks, in which health care professionals provide home visits aimed at strengthening families and parenting skills. This service is available to families with young infants (0-3 years old).

Although (about 650) pediatric nurses have been involved in this program since 2006, knowledge about their exact role and contribution within these cooperation networks is limited. Questions regarding their responsibility, professional development, and relationship with other professions, families, and institutions remain open.

Methods: The Grounded Theory approach allows an exploration of pediatric nurses’ situation in this new professional field. Pediatric nurses with additional training in child and family care were interviewed (n=9). Consultations were conducted using semi-structured face-to-face interviews and discussion groups. The project was approved by the Ethics Committee, Witten/Herdecke University.

Results: Pediatric nurses perceive the monitoring of children’s health and development as their primary role. Assuring parents’ emotional health and building a trusting relationship is seen as being equally important.

Pediatric nurses struggle to find their place within different professional groups as they work on the border between the health and the social care systems. They often have to negotiate with both care givers and other professionals to define the nurses’ possibilities for action, specify their field of activity and fine-tune their work objectives, procedures, conditions and individual role within the cooperation network.

Discussion and Conclusion: Pediatric nurses are skilled professionals who play a key role in limiting health risks. Their contribution is extended by providing additional information, psychosocial support and health promotion activities for vulnerable families, effectively providing continuity in psychosocial care. As pioneers they will be required to create their own area of expertise whilst facing difficulties of continuous self-development within this cross-disciplinary field.

Keywords: family health care, child’s welfare, pediatric nurses, early prevention, multidisciplinary networks
Advanced Nursing Process quality – relations with nurses’ knowledge, attitude, patient characteristics and organizational factors

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Background: The Advanced Nursing Process includes valid concepts of nursing diagnoses, interventions, and outcomes that are rooted in scientifically based Standardized Nursing Languages (SNLs). In SNLs, accurately formulated diagnoses are the starting point for effective interventions to achieve high quality patient outcomes. However, its application is often insufficient due to interactions of nurses’ lack of knowledge, positive attitudes and hindering organizational factors. The purpose of this study was to investigate these relationships.

Methods: In a Swiss hospital, a cross-sectional study was performed. All registered nurses (N = 92) and a random sample of nursing records (N = 90) from six wards were included. A knowledge-test, an instrument for measuring nurses’ attitude, and the Q-DIO-instrument for record audits were used. Correlations between nurses’ knowledge, attitude, patient characteristics, organizational factors and Q-DIO-scores were analysed.

Results: Nurses demonstrated limited knowledge and positive attitudes. The document analyses revealed an average Advanced Nursing Process quality. Diagnoses were strongly related to interventions and outcomes: the more accurate the nursing diagnoses the more effective the interventions [r = 0.528 (p < 0.0001)] and the better nursing-sensitive patient outcomes [r = 0.622 (p < 0.001)]; and higher numbers of registered nurses correlated with better nursing outcomes [r = 0.354 (p = 0.001)].

Discussion and Limitations: Nurses’ positive attitudes were high compared to other European studies. Our results on strong correlations between the quality of nursing diagnoses, interventions, and outcomes are the first of this kind but are supported by similar findings. Generalisation of study results is limited due to small sample sizes in this single center study.

Conclusions: Nurses’ diagnostic competencies should be fostered to reach better nursing outcomes. Higher proportions of registered nurses demonstrate better nursing outcomes and are a prerequisite for today’s elderly patients with multimorbidities.

Ethical considerations: The cantonal ethics committee authorised this study (PB_2016_00990).

Keywords: Advanced Nursing Process; Nursing knowledge; Nurse attitude; Instrument Quality of Nursing Diagnoses, Interventions, and Outcomes (Q-DIO); record audit
A literature review of migrants’ experiences of healthcare in host countries; a meta-ethnography

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Background: Worldwide, more than 214 million people have left their country of origin (United Nations 2016). This paper explores and synthesizes literature on the health care experiences of migrants in host countries.

Methods: A meta-ethnography review of qualitative research regarding migrant healthcare. Eight databases (MEDLINE, CINAHL, PsychInfo, EMBASE, Web of Science, Migration Observatory, National Health System Scotland Knowledge Network, ASSIA and the Cochrane Library were searched for relevant articles in English, published between January 2006 and June 2016. Search terms used included ‘migrant’, ‘migrant patient’ ‘immigrants’, ‘quality of care’, ‘nursing care’, ‘satisfaction with nursing care’, ‘experiences of care’. Included articles were assessed for quality using the Critical Appraisal Skills Programme (CASP) Oxford and analysed using Noblit and Hare’s seven step meta ethnography process.

Results: 27 studies were included. Five key contextualization dimensions were identified: a) Personal factors, defining a migrant’s personality and health seeking behaviour; b) Healthcare system, the healthcare model provided and its difference with the home country’s; c) Access to healthcare, barriers and enablers to access healthcare; d) The encounter, the actual meeting with the healthcare worker and e) Healthcare experiences, patient’s needs were met or unmet.

Discussion: This review of migrant experiences was hampered by host countries’ different definitions of what defines a migrant. From the findings a model of the migrant healthcare experience, in the form of a flow diagram has been designed using the five dimensions and grounded in a person-centred care approach. This model may help identify and address antecedents to poor quality migrant healthcare and help healthcare professionals to provide person-centre care to migrant patients. For the nurse in her encounter with migrants the model shows the personal and healthcare factors that shape the encounters.

Conclusion: A model of migrant healthcare experience can help improve health outcomes for migrant patients.

Keywords: Migrant, HealthCare, Experiences
Practice nurse support and task suitability in a general practice.

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Background: In Belgium, new integrated care models based on multidisciplinary group practice have recently been developed by primary care physicians. This in order to become more responsive to the changing health needs, to offer a more integrated care and to increase the efficiency of provision of health care. Due to the recent nature of multidisciplinary group practices, it is unclear who is currently supporting general practitioners, and to what extent practice nurses are found suitable to provide support in the practices. In addition, it would be useful to know how practice nurses look at their current and potential roles in general practices.

Methods: A mixed method approach was premised. A quantitative cross-sectional study and a descriptive qualitative research design were combined.

Results: 271 General practitioners were included through an online questionnaire and 20 practice nurses through focus groups. 30% of the general practitioners were supported by a practice nurse. Nurses were found most suitable to take on tasks concerning patient education and technical nursing skills. Practice nurses declare similar experiences. General practitioners entrust them with technical nursing tasks, but appear uncertain about which other tasks can be performed by practice nurses.

Discussion and limitations: General practitioners have taken the initiative to employ practice nurses, despite a lack of governmental incentives. We were able to reach 3% of Flemish general practitioners. Selection bias might be present when general practitioners who are already supported in their practices, are more likely to complete a survey concerning practice support.

Conclusion: General practitioners have positive attitudes concerning practice nurse support in their practices, but remain hesitant and uncertain towards the job profile and ethical framework of practice nurses. Practice nurses confirm these hesitations through their experiences where physicians seemed uncertain about which tasks nurses were able and allowed to perform in their practices.

Keywords: Interprofessional collaboration, primary care, general practitioner, practice nurse, task suitability.
A qualitative study of the experience of loneliness in community-dwelling older persons with reduced mobility

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Background: One out of ten older persons in Belgium experiences feelings of loneliness on a regular basis. Loneliness is associated with severe consequences on both physical and mental health for older persons. Research has shown that mobility limitations are an important risk factor for the emergence and maintenance of feelings of loneliness. The aim of this study was to explore and explain community-dwelling older persons’ experiences of loneliness and its underlying dynamics.

Methods: This study has a qualitative, grounded theory approach. Participants were purposively recruited in collaboration with home care nurses. The main inclusion criteria were: aged 75 years or older, being mobile impaired, experiencing feelings of loneliness and living at home. Data-analysis of semi-structured, in-depth interviews (n=16) were conducted based on the Qualitative Analysis Guide of Leuven (QUAGOL).

Results: Feelings of loneliness can be expressed explicitly or implicitly, and are accompanied with negative emotions. The experience of loneliness was dominated by feelings of loss associated with the process of aging. Especially loss of functional capacities, mobility and meaningful interactions, which often appear jointly, give rise to a profound experience of loneliness. Loneliness is experienced as a feeling of limitation, of constantly reaching one’s limits without being able to address the situation. It seems as if their world is shrinking. Differences in the experience of loneliness can partly be explained by contextual and personal factors.

Discussion: The results of this study can contribute to raise sensitivity for the implicit signals of loneliness among professional caregivers. Being alert for experiences of loss is crucial to address this complex phenomenon.

Conclusion: This study shows that loneliness among community-dwelling older persons is embedded in experiences of loss related to aging. Further research is necessary to refine the results and to further explore the role of reduced mobility in the experience of loneliness.

Keywords: loneliness, mobility limitation, community-dwelling older persons, qualitative research
Implementation of an enhanced recovery program in esophageal cancer surgery: changes in nursing care add to a reduction in postoperative complications

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Background: Enhanced recovery programs (ERP) are well established in several surgical specialties and have the potential to improve clinical outcome after complex procedures, such as esophagectomy. A newly developed ERP, with major adaptions to the perioperative nursing care protocol, was implemented in May 2017. Purpose of this study was to determine the impact of this ERP on perioperative results as compared to traditional care (TC) after esophagectomy.

Methods: A cohort study based on prospectively collected data was conducted in a tertiary centre for esophageal cancer surgery from January 2015 till September 2017. Major adaptions to the ERP nursing care protocol included: intensified early active mobilization, comprehensive preoperative patient information and -education, avoidance or early removal of catheters and drainages, a shift from postoperative parenteral to enteral nutrition and resuming early oral feeding. Primary endpoints were postoperative complications, defined according to the Esophageal Complications Consensus Group (ECCG) criteria. Secondary endpoints were postoperative length of stay (LOS) and patient satisfaction.

Results: There were 160 TC and 50 ERP patients. No differences were found neither in demographics, comorbidities, tumor characteristics nor treatment types. A significant decrease in postoperative complications was found, especially pneumonia and respiratory failure (38% in TC and 16% in ERP; p= 0.0007 and 16% versus 4%; p= 0.026 respectively). Consequently median LOS was significantly shortened from 13 days in TC to 9 days in ERP patients (p= 0.009). Patient satisfaction scores tend to be higher in ERP patients. Higher compliance rate to the set goals in the ERP-protocol correlated with a decrease in LOS.

Discussion: Compliance to the ERP-protocol is of paramount importance in order to substantially decrease postoperative complications and LOS.

Conclusion: ERP for esophagectomy is associated with significant decrease in postoperative (respiratory) complications, which results in a significant decrease of LOS and has a positive effect on patient satisfaction.

Keywords: evidence based practice, outcomes research, perioperative nursing
The struggle of the low anterior resection syndrome after treatment for rectal cancer: experiences and needs of patients

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After an intensive treatment for rectal cancer, patients believed their life will return to normal again afterwards. However a great number of patients experience bowel problems called low anterior resection syndrome (LARS) which has a large negative impact on their quality of life. Symptoms of LARS consider a large variety of bowel problems: frequency, incontinence, urgency and clustering. These symptoms can improve however some patients experience lifelong difficulties. There is no clear view of the experiences and needs of the patients with LARS and their informal caregiver.

A qualitative approach based on the grounded theory is used. Individual semi structured interviews were conducted. Participants were asked to narrate their experiences after treatment for rectal cancer. Patients were recruited by the nurse consultant through purposive sampling and later through theoretical sampling. Research triangulation is used during analysis.

The overwhelming symptoms of LARS have a major impact on the life of several rectal cancer survivors. Three main concepts emerge. First, ‘Being alone’ implies that the patient’s experiences loneliness because of the symptoms, trial and error and taboo and shame about bowel problems in society. The caregiver cannot always provide useful advice. Second ‘hope’ to fit bowel problems into their daily lives. For many patients this is a continuous search. Third, ‘loss of control’ because of the unpredictability and the large variety of symptoms.

Often rectal cancer survivors are still struggling because of the low anterior resection syndrome. It is crucial that care providers have a good view of the problems that patients and their environment can experience. The caregiver has an important role in counseling LARS.

Keywords: ‘rectal cancer’, ‘cancer survivorship’, ‘QOL’
Associations of potentially inappropriate medication use with four year survival of an inception cohort of nursing home residents

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Background: Survival in older adults has a high variability. The possible association of length of survival with potentially inappropriate medication (PIM) use remains unclear. Our aim was to examine the four-year survival rate, the prevalence of polypharmacy and PIM use at admission, and the association between the two, in an inception cohort of newly admitted nursing home (NH) residents

Methods: Data were used from ageing@NH, a prospective observational cohort study in NHs. Residents (n=613) were followed for four years after admission or until death. PIM use was measured at admission, using STOPPFrail. The Kaplan-Meier method was used to estimate survival, using log-rank tests for subgroup analyses. Cox regression analyses was used to explore associations with PIM use and polypharmacy, corrected for covariates

Results: Mean age was 84, 65% were females. After one, two, three and four years the survival rates were respectively 79%, 60.5%, 47% and 36%. At admission, 47% had polypharmacy (5-9 chronic medications) and 40% excessive polypharmacy (10 and more), 11% had no PIM use, and respectively 28%, 29%, and 32% used one, two and three or more PIMs. No difference in survival was found between polypharmacy and no polypharmacy, and PIM use and no PIM use at admission. Neither polypharmacy nor PIM use were associated with mortality.

Discussion: Residents using PIMs at admission can be considered as prevalent users who probably tolerate their medication, and benefit from it, which increased the risk of healthy-user/sick-stopper bias, and may explain the null results. Another explanation can be the applicability of only 11 out of 21 STOPPFrail criteria that led to an underestimation of PIM use. Confounders such as underuse and comorbidities were not measured.

Conclusion: Residents survived a short time after admission. Polypharmacy and PIM use at admission were high in this cohort, although neither was associated with mortality.

Keywords: survival, potentially inappropriate medication use, polypharmacy, nursing homes
A RCT in high risk nursing home residents to compare cost-effectiveness of a static air mattress and alternating mattress to prevent pressure ulcers

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Background: Pressure ulcers are a worldwide health concern. To prevent pressure ulcers, a variety of support surfaces is available to reduce pressure. The evidence about the difference in effectiveness between static air support surfaces and alternating air pressure support surfaces is lacking because of methodological limitations and large heterogeneity in published studies. Present trial aimed to compare the efficacy and cost-effectiveness of the two support surface types to prevent pressure ulcers in a nursing home population at risk.

Methods: A multicentre RCT was performed in a convenience sample of 26 nursing homes between April 2017 and May 2018. A consecutive sample of 308 patients were included. Patients were allocated to the experimental group (n=154): static air support surfaces (Repose®: mattress overlay, cushion and wedge, Frontier Medical Group, New South Wales, UK) and control group (n=154): alternating air pressure mattress, alternating cushions. The primary outcome was pressure ulcer incidence category II-IV within a 14-day observation period. Health economic measures from an organizational perspective are a secondary endpoint based on purchase cost of support surfaces.

Results: The cumulative incidence of pressure ulcers category II–IV was 8.4% (n=26/308). A significant lower incidence was found in the experimental group (n=8/154, 5.2%) compared to the control group (n=18/154, 11.7%)(p=0.04). The median time to develop a pressure ulcer category II-IV was significant longer in the experimental group (10.5 days, IQR 1-14) compared with the control group (5.4 days, IQR 1-12), Mann-Whitney U=37.00, p=0.05). The probability to remain pressure ulcer free did significant differ between the two groups (log-rank X=4.051,df=1, p=0.04). The overall purchase cost of the experimental group was lower compared to the control group.

Conclusion: A static air mattress was significantly more effective and had a lower financial burden compared to alternating air pressure mattress to prevent pressure ulcers in a nursing home population.

Keywords: alternating air pressure mattress, pressure ulcer, static air mattress overlay, efficacy, cost-effectiveness
Urgency for Clarification of Concepts and Definitions related to Discontinuation of Follow-Up Care for Young People with Complex Chronic Conditions.

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Background: Patients with complex chronic conditions (CCC´s) need lifelong follow-up care, yet discontinuation of follow-up care is frequently reported in published literature. Concepts such as “lost to follow-up” and “lapses in care” are frequently used in literature in order to describe this phenomenon. No consensus on conceptual definitions of these concepts exists and the heterogeneity in operational definitions used is large. As a first step towards clarification, this study describes the variety of terms used when describing discontinuation of follow-up care.

Methods: The study was designed as a narrative overview of concepts used when describing discontinuation of follow-up care. Ten publications from a previous systematic review on predictors for care gaps were included. Additionally, 9 articles were added using the snowball technique. Terms describing discontinuation of follow-up care were extracted as well as the operational definitions provided. A thematic analysis of the extracted terms and definitions was performed with the purpose of describing the core aspects addressed in each article.

Results: Ten different terms were identified. “Lost to follow-up” was used most frequently (6/19 articles), followed by “Lapse in care” and “Successful transfer/transition”, each of which occurred in 3 articles. Six core aspects that characterizes the phenomenon were identified: “Attendance”, “Time intervals”, “Contact”, “Cessation”, “Untraceability” and “Level of care”. “Attendance” at the clinic and “Time intervals” between appointments were most frequently addressed. Six out of the ten terms addressed the issue of “Attendance”.

Discussion: Use of different terms when investigating the same aspects could make comparability and direction of future research difficult. Consensus in operational definitions is needed to enhance comparability of future study findings.

Conclusion: The six core aspects represents the central aspects of discontinuation of follow-up care. A variety of terms were used when describing the same aspects, indicating the need for consensus and uniform definitions.

Keywords: Discontinuation, Follow-up Care, Definitions, Concepts, Complex Chronic Conditions
Impact of nurse post-discharge telephone interviews on hospital readmission rates: a case-control study.

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Background: Hospital-home transition exposes patients to many uncertainties and potential harms: e.g. medication errors, the management of new devices, continuity of care, lack of communication with healthcare providers, caregivers’ education. Research highlights the benefits of a telephone call in preventing hospital readmissions. In particular, a telephone call post hospital discharge has been shown to decrease 30-day hospital readmission rates (OR=0.71 95% CI=0.55-0.91). This study aims to determine the impact of a telephone call post-discharge on hospital readmissions in surgical patients.

Methods: A case-control study was conducted in surgical wards of a 696 bed hospital. 2481 patients were recruited. All patients >18 yy, discharged to home after elective surgery, were included. A telephone interview was carried out in the first 5 days after discharge by nurses. Contents of the interview included: medication and device management, surgical wound condition, pain, temperature, autonomy, follow-up information. Hospital readmission rates were calculated in the 2-14 day period after discharge and compared to the same period in the previous year. A preventable readmission rate was estimated.

Results: Of 2481 patients, 403 patients (16.3%) declared pain > 4 (NRS scale) and in 59 (2.3%) it was suggested to contact healthcare services. Interviews detected the need for support in 180 patients (7.2%) and provided useful information to manage health conditions at home. The preventable readmission rate estimated was 28.45% (95% CI=3.93-42.99) and OR was 0.40 (95% CI=0.16-1.03).

Discussion: Follow-up was useful in the early detection of potential harms. The intervention prevented hospital readmissions and can be an effective strategy to improve patient safety. A more detailed analysis is necessary to compare cases and controls: this study assumed that the control period is comparable in terms of patient case-mix.

Conclusion: Follow-up telephone call is a sustainable intervention that can enhance patient safety, improve continuity of care and reduce hospital readmissions.

Keywords: Nursing, patient safety, telephone follow-up, hospital readmissions, continuity of care
CoNEX as a new method to estimate the tip position of a nasogastric tube: A pilot study

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Background: The NEX-method (nose-earlobe-xiphoid process) is widely used to predict internal nasogastric tube length in adults. A possible alternative is the Hanson formula: \((\text{NEX} \times 0.38696)+30.37\text{cm}\). Recent research revealed that, when using one of both methods, the tip position was located too close or even not beyond the lower esophageal sphincter (=LES) in > 20% of all patients. Assessment of the internal tube length by 3 radiologists in 183 patients suggested a correction of the Hanson formula: \((\text{NEX} \times 0.38696)+30.37\text{cm}+6\text{cm}\). Aim of this current study was to determine whether this correction can be a valuable alternative to the other methods.

Methods: A 3-month pilot study was conducted in a Belgian general hospital. External measurement to define the internal tube length was performed by 2 nutrition support nurses. The CoNEX method used to determine the internal tube length was \((\text{NEX} \times 0.38696)+36.37\text{cm}\). After (re)positioning, 58 tubes were eligible to be assessed through X-ray by 2 independent radiologists. A correct tube position was defined as a tube placed with the tip 3 cm or more under the LES.

Results: There is a significant difference between the use of the CoNEX method and the two other described methods to become an ideal tip position. The use of the CoNEX method \((N=58)\) led to 100% of correctly positioned nasogastric tubes in all patients. It also resulted in a significantly higher probability to aspirate gastric contents after insertion of the tube: 69% of all patients vs. ≤56% in both two other methods.

Discussion and Conclusion: The CoNEX method can be a valuable alternative to predict the internal tube position of a nasogastric tube but needs further research because of the small study population. It also makes it possible to obtain gastric aspirate in a higher amount of cases than the other two described methods.

Keywords: Adults, CoNEX, Internal tube length, Nasogastric tube, Enteral nutrition
The effectiveness of the Tell-us Card communication tool for nurses to increase patient participation: a cluster randomized controlled pilot study

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Background: Patient participation is a new subject in care with various beneficial effects in patient safety, adherence and patient satisfaction. Patient participation is often lacking in essentials of nursing care during hospitalization. There appears to be little dialogue between patients and nurses on ways in which patients want or can participate. This study investigates the use of the ‘Tell-us Card’ communication tool: an intervention to improve patient participation during hospital admission.

Methods: Cluster randomized controlled pilot with patients and nurses of two intervention wards and matched control wards. Patients and nurses received a questionnaire with the Individual Care Scale and the Quality from the Patients Perspective. Mixed method analysis and descriptive statistics were used.

Results: Results show significant improvement on the Individual Care Scale for patients on one of the intervention wards. Nurses and patients are satisfied about the amount of information given to patients about their care, and about asking how patients want to be involved in care; however nurses also state to have trouble integrating this involvement in care.

Discussion: Even though some effect is visible, the Tell-us Card intervention was not used as often and extensively as intended. After implementation, nurses often stated that they already talk with their patients about involvement in care, and that they do not to need the intervention. However, the questionnaire shows that nurses rate themselves higher than their patients score them, and both patients and nurses report lacking incorporation of the personal life situation of patients in care.

Conclusion: The study gave a lot of insight in the complexity of introducing patient participation to hospitalized patients and their nurses. The authors believe that the intervention could be further improved to assist the nurses and patients, as the study shows that there is still a lot to gain in patient participation.

Keywords: Patient participation, essential nursing care, hospital, pilot study
Absence at work or school is associated with illness identity in adults with congenital heart defects

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Introduction: Absence at work or school greatly affects patients and society. To enable nurses and other healthcare professionals to reduce work/school absence as much as possible, modifiable predictors should be identified. Illness identity, which assesses the degree to which the disease is integrated into one's identity, could be of relevance as a modifiable predictor. Hence, we tested the predictive value of illness identity on absence at work/school in adults with congenital heart defects (ConHD).

Methods: This ambispective observational cohort study has included 149 adults (mean age=36y; 49% men; NYHA Functional Class 1=75%;2=22%;3=1%;4=2%) with ConHD in Belgium, all working or studying full- or part-time. The Illness Identity Questionnaire was used to assess the four illness identity states: engulfment, rejection, acceptance, and enrichment at baseline. After one year, patients were asked if they have been absent at work/school for at least one day over the past six months. Data were stratified for absence because of the heart disease and absence because of other reasons. Binary logistic regression analyses were conducted, adjusting for age, sex, and functional status.

Results: Because of the heart disease, 15 (10%) patients have been absent at least one day. Because of other reasons, 69 (46%) patients have been absent. Patients who rejected their illness as part of their identity (i.e., rejection) were more likely to have at least one day of absence related to the heart disease (OR=2.4; 95%CI=1.1-5.1). Acceptance and engulfment also presented odds ratios above 2, but did not reach statistical significance. Absence because of other reasons was not associated with illness identity.

Discussion and conclusion: Illness identity, more specifically rejection, predicted absence at work/school related to the heart disease in adults with ConHD. Intermediating factors of this association and the predictive value of illness identity on longer periods of absence should be investigated in future studies.

Keywords: Congenital heart defect, Illness identity, Rejection, Sick leave
Design and psychometric testing of the Attitude towards the Prevention of IAD instrument.

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Introduction: Skin care is part of fundamental nursing care. At the same time, skin care is subject of missed nursing care. Inadequate skin care is associated with complications, such as incontinence-associated dermatitis (IAD). Prevalence figures of IAD vary between 5.6% and 50.0%. Nevertheless, a wide range of products and procedures for the prevention of IAD are available. One of the major determinants of preventive behaviour is nurses’ attitude. The aim of this study was to develop and psychometrically test an instrument measuring nurses’ attitude towards the prevention of IAD.

Methods: A prospective psychometric instrument validation study was performed. In a first phase, the Attitude towards the Prevention of IAD instrument (APrIAD) was designed, based on literature review and focus group interviews with nurses. In a second phase, the APrIAD was psychometrically tested (construct validity, internal consistency, stability) in a sample of 217 nurses.

Results: The exploratory factor analysis revealed a model consisting of four factors, and 14 items: (1) believes about the impact of IAD on patients, (2) believes about team responsibility to prevent IAD, (3) believes about personal responsibility to prevent IAD, (4) believes about the effectiveness of IAD prevention products and procedures. Cronbach’s α was 0.72 for factor 1, 0.65 for factor 2, 0.63 for factor 3, and 0.47 for factor 4. The intraclass correlation coefficient was 0.689 (95% CI 0.477-0.825) for the total instrument, 0.591 (95% CI 0.388-0.764) for factor 1, 0.587 (95% CI 0.080-0.626) for factor 2, 0.640 (95% CI 0.406-0.795) for factor 3, and 0.768 (95% CI 0.597-0.872) for factor 4.

Discussion: The APrIAD is the first instrument measuring the attitude of nurses towards the prevention of IAD and consists of four theoretically sound themes.

Conclusion: Results from the application of the tool can be used in quality improvement strategies aimed at reducing IAD incidence.

Keywords: Attitude, barrier, implementation, incontinence-associated dermatitis, nursing
The impact of resilience and alcohol use on alcohol related problems in community dwelling older adults in Belgium

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Background: Research has shown that older adults are capable of high resilience despite the presence of negative life circumstances. Little is known about the association between resilience, alcohol use and alcohol related problems among older adults. Therefore, the aim of the study is to investigate if older adults with a lower resilience will report more alcohol related problems than older adults with high resilience, in both moderate and risky drinking groups.

Method: Alcohol use was defined by NIAAA guidelines categorizing participants as moderate drinkers (≤3 units/day and ≤7 units/week) or risky drinkers (>3 units/day or >7 units/week). Information on resilience and alcohol related problems was gathered by respectively the MAST-G and CD-RISC. The cut-off score of ≥5 on MAST-G was used to define hazardous drinking. A convenience sample of 1360 adults aged 65+ completed these questionnaires.

Results: The mean age of the participants was 73.24 and 55.6% were women. Moderate drinkers with a lower resilience reported a mean score of 3.17 on the MAST-G. Those with higher resilience scored lower (M=2.96). Risky drinkers with lower resilience reported a mean score of 5.90 on the MAST-G. Those with a higher resilience scored lower (M=4.32). These differences were significant on a level p<.05. In logistic regression analysis, resilience was negatively associated with hazardous drinking, controlled for alcohol use (OR=0.997; 95% CI=0.979-0.997; p=.012).

Discussion: Resilience might be a protective factor against hazardous drinking. Hazardous drinking may be due to a lower resilience instead of higher quantities and frequencies of alcohol use. Limitations: Self-reported alcohol consumption is susceptible to socially desirable answers. Secondly, the cross-sectional design prevents forming causal relationships.

Conclusion: Most researches focused on quantity and frequency of alcohol use to predict alcohol related problems among older adults. This research emphasize the importance of factors like resilience in the protection against alcohol related problems.

Keywords: resilience, older adults, alcohol use, alcohol related problems
Predicting in-hospital functional decline in older patients who are admitted for acute cardiovascular disease: a prospective cohort study

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Background: The purpose of this study was to develop and evaluate a clinical prediction model that identifies patients who are at risk for developing functional decline during hospitalization.

Methods: A prospective cohort study was performed on two cardiology units between September 2016 and June 2017. Patients were recruited on admission if they were admitted for non-surgical treatment of an acute cardiovascular disease and were aged 75 years or older. Hospitalization-associated functional decline was defined as any decrease on the Katz Index of Activities of Daily Living between hospital admission and discharge. Predictors were selected based on a review of the literature and were included in a multivariate logistic regression model.

Results: A total of 189 patients were recruited after screening 968 patients. In total, 33% of the patients developed functional decline during hospitalization. A prediction score chart was developed: use of ambulatory device = +9 points, cognitive impairment = +7 points, decreased appetite = +6 points, depressive symptoms = +5 points, use of physical restraints = +5 points. This model discriminated adequately between patients with and without functional decline (C-index = 0.75, 95% CI (0.68 – 0.83)), was well calibrated (Hosmer-Lemeshow p = 0.499) and was clinically useful as a screening tool: negative predictive value = 85%, sensitivity = 71%, positive predictive value = 54%, specificity = 70%.

Discussion: The prediction model can easily be administered by geriatric nurses and can be used to identify patients who are at high risk for functional decline and who would benefit from tailored geriatric interventions. A follow-up assessment may be needed to deal with the false positive predictions.

Conclusion: The presence of geriatric syndromes on hospital admission can adequately predict functional decline during hospitalization in older patients admitted for acute cardiovascular disease.

Keywords: cohort, cardiac, decline, ADL, prognosis
Implementation of RNAO evidence based clinical guidelines: fidelity study

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Background: Worldwide healthcare settings are struggling to implement evidence based practice (EBP). Despite the enormous available research, implementation of interventions or guidelines often does not get translated to the real world.

The uptake of EBP interventions is a complex phenomenon that involves many factors. To advance the uptake of EBP, studies are needed to test evidence based strategies to move research findings more timely to the real world.

The Registered Nurses Association Ontario (RNAO) Canada has a specific approach named “Best Practice Spotlight Organization” (BPSO) to implement their clinical Best Practice Guidelines (BPG). The study aims fits in the validation of the BPSO implementation strategy and focused on program fidelity, ‘the degree to which programs are implemented as intended by the program developers. Implementation fidelity is important because it can act as a potential moderator of the relationship between interventions and their outcomes. The barriers for implementing EBP are well known so the study focusses on implementation fidelity.

Methods: This presented research is part of a larger research project. This project consists of several phases using the mixed methods methodology. The first phase investigates in the literature the uncertainty around the concept fidelity. This knowledge will support the search for a method which is most appropriate to assess fidelity and the evaluation of the degree of fidelity.

Results: Implementation and fidelity are an essential part of the BPSO strategy. Based on the literature we present a conceptual framework for implementation fidelity that can be used to capture and follow-up the degree of fidelity. This method and insights will help us to understand fidelity and support advancement of better implementation EBP.

Conclusion: The method we describe for evaluating fidelity is important because it has the potential to reveal which implementation strategies may work and can advance implementation and adoption of EBP.

Keywords: EBP, fidelity, implementation
The experience of nurses being confronted with tiredness of life in older persons: a qualitative study

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Background: Nurses frequently encounter older persons who are tired of life (ToL). Studies on the nurses’ perspective are virtually non-existent. Therefore, the aim of this study was to gain insight in what it is to be a nurse (in home care or nursing home) taking care of older persons being tired of life.

Methods: A qualitative design, based on the principles of the Grounded Theory approach (Charmaz, 2014).

Results: 25 nurses (20 female), with an average age of 38.4 years (range: 22-56 years) participated. The semi-structured interviews had a mean duration of 49 minutes (range 30-62 minutes). Powerlessness and uncertainty were the dominant feelings experienced by nurses as ToL is challenging one’s capacity to help. Nurses experienced tensions between comprehension and incomprehension, between confirming and disconfirming, between mastering and remitting. Key was their ability to reframe their feelings of helplessness and powerlessness as this influenced the way they responded to the ToL. Participants attested of an acknowledgment continuum, ranging from not discussing tiredness of life (a procedural, action-oriented perspective) to open acknowledgment (a presencing and more-dialogue focused perspective).

Discussion: The nurses’ feelings of powerlessness should trigger individual and team-based reflexivity on appropriateness of care and the meaning of good care in case of ToL. Strengths of this study are the data analysis method and researcher triangulation. However, this study also has some limitations. First, findings of this study cannot be generalized to speak for all nurses’ experiences, nevertheless, nurses other than those in these contexts may, however, be expected to have similar experiences. Second, the study relied on nursing staffs’ verbal accounts and not on observation of actual practices (data triangulation).

Conclusions: Our findings indicate that nurses aim to provide good care, sensitive to the older person’s needs, but this process is devoid of ambivalence.

Keywords: qualitative study, tiredness of life, nurses, home care, nursing home
The knowledge and attitudes of Flemish geriatric nurses regarding tiredness of life (ToL) and euthanasia: a survey study

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Background: The prevalence of death wishes increases with age from 6.4% in 80-years old to 13.4% in 90-years old. Nurses frequently encounter euthanasia requests in older persons being tired of life (ToL), although euthanasia is not legalized for this indication in Belgian law. This study aimed to explore the knowledge and attitudes of Flemish nurses regarding euthanasia and tiredness of life.

Methods: A survey, consisting of four case vignettes and five multiple choice questions, was send to nurses employed in acute (2 hospital wards) and chronic care setting (1 nursing home and 1 home care organisation).

Results: A sample of 151 nurses (92.7% female, median age 42 years) was obtained. Nurses in chronic care were significantly more confronted with tiredness of life (n=76; 32% at least once a week) than nurses in acute care (n=75; 20%) (p=0.02). For the majority the definition of tiredness of life remained unclear. Respondents disagreed on the necessity of having a terminal, life-limiting illness and the absence of depressive symptoms as preconditions of ToL. The mean knowledge score was 62.1% ± 24.4 in chronic care and 73.6% ± 21.6 in acute care (p=0.01). Although 79.5% of the nurses was aware of the fact that euthanasia was legally not an option, 43 % would agree upon the act. No significant differences were noticed between settings and level of education.

Discussion: Euthanasia law is rather well known among Flemish nurses. However, a discrepancy is noticed between their actual knowledge of the illegality and their positive attitude to proceed to euthanasia in older people experiencing ToL. Individual and team-based reflexivity on the meaning of good care in case of ToL seems crucial.

Conclusion: Physicians should be aware of this attitude of nurses and enhance ongoing interdisciplinary discussion on this topic. More education is needed on this topic.

Keywords: tiredness of life, euthanasia, older persons, knowledge, attitude
The prevalence of skin tears and associated risk factors in Belgian nursing homes: a cross-sectional observational study

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Background: Although skin tears are among the most prevalent acute wounds in nursing homes, their recognition as a unique condition remains in its infancy. Elderly patients have a major risk of developing skin tears due to increased skin fragility and other contributing risk factors. In order to provide (cost-) effective prevention, patients at risk should be identified timely.

Objectives: (1) To determine the point prevalence of skin tears and (2) to identify independent risk factors for the development of skin tears in nursing home residents.

Methods: A cross-sectional observational study was set up, including 1153 residents from 10 Belgian nursing homes. Data were collected by trained researchers and study nurses using patient records and skin observations. A multiple binary logistic regression model was designed to identify independent risk factors (significance level α<0.05).

Results: The final sample consisted of 795 nursing home residents of which 24 presented with skin tears, resulting in a point prevalence of 3.0%. Most skin tears were classified as category 3 (defined as complete flap loss) according to the International Skin Tear Advisory Panel (ISTAP) Classification System and 75.0% were located on the lower arms/legs. Five independent associated factors were identified: age, history of skin tears, chronic use of corticosteroids, dependency for transfers, and use of adhesives/dressings.

Discussion: Our findings may enable benchmarking, contribute to timely identification of patients at risk, and support the selection of specific preventive interventions. Further research across the continuum of health care settings is needed to determine the true extent of skin tears and factors that contribute to their development.

Conclusions: This study revealed a skin tear prevalence of 3.0% in nursing home residents. Age, history of skin tears, chronic use of corticosteroids, dependency for transfers, and use of adhesives/dressings were independently associated with skin tear development.

Keywords: Skin tear, Prevalence, Risk factor, Elderly, Prevention
Mental health nurses' perceptions of establishing contact with patients who are experiencing suicidal ideation

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Mental health nurses’ perceptions of establishing contact with patients who are experiencing suicidal ideation

Background: Guidelines for suicide prevention strongly recommend nurses to establish contact with patients wherein they can feel safe, and feel free to talk about their suicidal thoughts and feelings. To inform nursing practice and education, there is an urgent need for an enhanced conceptual understanding of what constitutes such contact, how it is established in practice, and how this contact can be improved for the benefit of suicide prevention.

Methods: A qualitative research design was adopted. Semi-structured interviews were conducted with 17 nurses working in Flemish psychiatric hospitals. Inspired by core principles of grounded theory, data collection and data analysis interacted iteratively in order to develop the concepts and processes reflecting the nurses’ perceptions of establishing contact with patients who are experiencing suicidal ideation.

Results: By using constant comparison analysis, the understanding emerged that nurses strive towards establishing a ‘protective contact’ by means of three key processes; creating conditions for open and honest communication, developing an image of the patient and patient safety, and promoting patient safety. In addition, the study provide insight on how nurses embed these key processes in the interpersonal relationship they build with patients.

Discussion: The insights support a growing body of knowledge which highlights that establishing contact with patients is a basic principle of suicide prevention. The findings indicate that the nurses efforts might be compromised when formal, legal, and technical aspects of care overshadow the particular need of patients for relational and emotional care.

Conclusion: The developed conceptual framework can be applied to enhance and monitor the quality of contact that mental health nurses establish with patients who are experiencing suicidal ideation.

Keywords: suicidal ideation, mental health nursing, suicide prevention
Adherence to oral anti-cancer agents in patients with multiple myeloma: a cross-sectional study.

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Background: Multiple myeloma (MM) is the second most common hematologic malignancy, which is treated with complex and expensive oral treatments. A correct intake of this medication is very important for achieving optimal disease control. The present study investigated the risk of non-adherence to oral anti-cancer agents in patients with MM.

Methods: The present cross-sectional study included 89 patients with MM treated with an oral anti-cancer agent in two different hospitals. Patients were categorized by the 8-item Morisky Medication Adherence Scale (MMAS-8) score (8 vs. ≤ 8). In addition, influencing factors were measured via various validated scales, such as the BMQ, HLS-EU-Q16, CPS, EORTC-QLQ-C30 and the PRO-CTCAE.

Results: 48 of the 89 participants (54%) scored a high degree of adherence. Significant differences in adherence were found in marital status, beliefs about medicines, health literacy and perceived symptom burden (p <0.05). A logistic regression model showed that the perceived symptom burden and the perceived necessity for oral anti-cancer agents had an important predictive value to adherence.

Discussion: Non-adherence to oral anti-cancer agents is a very complex phenomena determined by a multitude of influences. However, there is considerable uncertainty about the key determinants of non-adherence in MM. In this study a small difference in the perceived symptom burden and necessity seems to have an important impact on adherence to oral anti-cancer agents. These factors need to be included in future longitudinal studies.

Conclusion: This study indicates that myeloma patients treated with oral anti-cancer agents have an increased risk of reduced adherence. Furthermore, this research gave us a deeper insight into possible impeding and promoting factors. It is important to paid attention to these factors in a multidisciplinary, patient-centred context.

Keywords: Multiple myeloma, adherence, oral anti-cancer agents, cancer
Self-management of medication during hospitalisation: Healthcare providers' and patients' perspectives

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Background: Self-administration of medications relates to the process in which hospitalised patients—instead of healthcare professionals—prepare and consume medications by themselves. Literature suggests possible advantages of medication self-management such as increased patient satisfaction, adherence to pharmacotherapy and self-care competence.

Aim: To explore healthcare providers’ and patients’ perspectives on self-management of medication during the patients’ hospital stay.

Methods: A qualitative descriptive study design was adopted, using semi-structure interviews and qualitative content analysis to examine data. Six physicians, 11 nurses, six hospital pharmacists and seven patients were recruited from one regional hospital and two university hospitals, situated in Belgium. Interviews were conducted between October 2014–January 2015.

Results: Strengths of medication self-management were described by participants, relating to benefits of self-management for patients, time-saving benefits for nurses and benefits for better collaboration between patients and healthcare providers. Weaknesses were also apparent for patients as well as for nurses and physicians. Opportunities for self-management of medication were described, relating to the organisation, the patient and the process for implementing self-management. Threats for self-management of medication included obstacles related to implementation of self-managed medications and the actual process of providing medication self-management. A structured overview of conditions that should be fulfilled before allowing self-management of medication concerned patient-related conditions, the self-managed medication and the organisation of self-management of medication.

Conclusions: This study provides new insights on the strengths, weaknesses, opportunities and threats from the perspectives of key stakeholders. Interpretation of these findings resulted in an overview of adaptations in the medication management process to facilitate implementation of self-management of medication. Relevance to clinical practice: A medication management process for self-management of medication was proposed. Further interventional studies are needed to test and refine this process before implementing it in daily practice.

Keywords: hospital, inpatients, medication, qualitative, self-management
The collaborative triangle of nurses, nurse managers and physicians: deeper insights in barriers and opportunities for improvements

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Background: Interprofessional collaboration has a strong relevant impact on quality of care and nurse work environment. Two out of thee reported incidents were based on incorrect collaboration and communication. Hence it’s important to get a deeper insight in the interprofessional collaboration of nurses, nurse managers and physicians. Therefore, the Core Competencies for Interprofessional Collaborative Practice (IPEC) framework will be used to understand this collaborative triangle. The framework consisting of five domains: Communication, Teams & Teamwork, Roles & Responsibilities, Leadership and Values & Ethics. The aim of this study was to describe and compare nurses, nurse managers and physicians’s perceptions, expectations of interprofessional collaboration and provide insights in improved interprofessional collaboration.

Methods: Generic qualitative study. 30 In-depth interviews were held with nurses, nurse managers and physicians.

Results: Nurses expressed to be more involved in their patients’ care plans and goals. They mentioned a delay and/or absence of communication with the nurse manager and physician after their ward rounds. There was also ambiguity about the availability and role of physicians. Nurse managers mentioned their paradoxical role as care coordinator versus quality manager. Physicians gave statements about the incomplete communication of nurses. Also the way nursing wards were organized did not facilitate optimal interprofessional collaboration. Physicians experienced delay in their orders carried out by nurses.

Discussion: Perceptions and expectations of the collaborative triangle are still unmet. When linking the results to the IPEC-framework, communication is still not optimal, roles and responsibilities aren’t clear and teams don’t work efficient. Nevertheless the triangle alludes to the flat hierarchical structure as an opportunity to improve interprofessional collaboration.

Conclusion: Unclear structures, processes and collaboration on nursing wards are challenges to overcome. Only by adapting them to the complex context and the collaborative triangle is it possible to achieve excellent patient care and create a healthy work environment.

Keywords: IPEC-framework, nurse-nurse manager-physician triangle, quality of care, work environment
Prediction of fall prevention behavior of staff within nursing homes: a multicenter cross-sectional survey

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Aim: To investigate which factors predict whether healthcare workers in nursing homes perform fall prevention strategies based on the Integrative Model of Behavioral Prediction (IMBP).

Methods: A multicenter cross-sectional survey in nursing homes was conducted. Fall prevention behavior was assessed by self-report. Factors potentially influencing fall prevention behavior (intention, knowledge, barriers, attitudes, norms and self-efficacy) were derived from the IMBP. In addition, head nurses’ leadership and nursing home characteristics were taken into account.

Results: 196 nursing homes participated and 1,896 clinical staff members completed the questionnaires, being 39.6% nurses’ aides, 26.3% nurses, 13.5% occupational therapists, 15.4% physiotherapists and 5.2% physicians. The IMBP had good predictive values for the behavior of performing fall prevention strategies with a C-index of 0.728 (95% CI: 0.704-0.753). The final model showed that a better attitude towards fall prevention (p=0.0002), higher self-efficacy (p<0.0001), higher scores on social norms (p<0.0001), having less work experience in the nursing home setting (p=0.0292), and working more hours per week (p=0.0465) were associated with a higher likelihood of performing fall prevention strategies. In addition, physiotherapists were more likely to perform fall prevention strategies compared to physicians, occupational therapists, nurses and nurses’ aides (p<0.0001).

Discussion & conclusion: This first study comprehensively assessed prediction of fall prevention behavior, using a theory-based approach. Our results highlight a need for interventions aiming to improve attitude, skills, capability and self-efficacy. Staff with low self-efficacy, for instance, might focus on the difficulties in fall prevention and the negative consequences of failure, which can subsequently lead to a reduced motivation to initiate or persist in performing fall prevention strategies. By offering hands-on training, for example, their mastery experience can be improved, which might spin off in a higher use of fall prevention strategies. Prospective studies are needed to confirm causal relations between potential predictors and fall prevention behavior.

Keywords: Fall prevention behavior, nursing home staff, Integrative Model of Behavioral Prediction, survey
Empowerment of nurse leadership in community care teams: a user-centered design

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Introduction: The Netherlands is facing an ageing population and health care reforms are focused on promoting self-management in older adults. This requires new competencies of health care professionals. District nurses are expected to serve as professional leaders by bringing the best scientific evidence into direct patient care and coaching colleagues in this process. However, for most district nurses this leadership role is quite new. The aim of this study is to empower district nurses in their leadership competencies. This is targeted at stimulating functional activities of community-dwelling older adults.

Methods: In a user-centered design, a previous developed toolbox for nursing homes was adapted to an intervention for empowerment of nurse leadership in community care setting, between March-July 2017. In collaboration with district nurses (N=7), healthcare experts (N=5), vocationally trained nurses and certified nurse assistants (N=18), the components of the nursing toolbox were systematically analyzed and adapted for community care setting.

The intervention was implemented within seven community care teams (N=7 district nurses and N=85 team members).

Results: The developed intervention consists of three components, namely an overview of six steps that district nurses can undertake to develop an implementation plan, training sessions in practice to support leadership competences and provision of supportive theory to strengthen their leadership competences.

Conclusion and discussion: In this study, an available nursing toolbox is adapted for community care, resulting in an intervention to empower district nurses in their leadership. The intervention was implemented in practice. However, qualitative and quantitative data should be collected to evaluate the feasibility and effects of the intervention. The focus of the evaluation is on changes in leadership competences of the district nurses and use of evidence based tools of their team members.

Keywords: Community care, nurse leadership, multi-component intervention
Oral presentations
Topic: Midwifery

List of abstracts
(In alphabetic order by presenting author)
Antenatal depression, need for general screening?
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Background: The prevalence of antenatal depression is augmenting worldwide. Numbers vary between 9 and 45% depending on the country and pregnancy trimester when the Edinburgh Postnatal Depression Scale (EPDS) is filled out. Effects of antenatal depression are important. Besides low involvement in care and worse birth outcome, women are at higher risk for postnatal depression.

Methods: This cross sectional study aims to analyse the prevalence of antenatal depression in one university hospital in Brussels. Risk factors for developing an antenatal depression are examined using logistic regression analysis.

Results: 131 (29.7%) of all women (n=401) scored 10 or higher on the EPDS Scale. The risk was higher in women with low educational level, low levels of self esteem (Rosenberg Self Esteem Scale), a low level of social support (Oslo Social Support scale) and not being satisfied (Consultation satisfaction scale) with care received.

Discussion/conclusion There is a need for a systematic screening for antenatal depression. When integrating this form of screening into antenatal care pathways, attention must be paid at the timing of the screening in pregnancy, the screenings tool and the organisation of a follow-up trajectory when a woman has a positive screening test. Furthermore lack of social support is the major risk factor for developing an antenatal depression, health care providers should systematically evaluate the network available in pregnancy.

Keywords: antenatal depression, social vulnerability, antenatal care
The development of a postnatal care pathway for deprived families

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BACKGROUND: The postnatal hospital stay is being shortened in Belgium due to governmental changes. Consequently mothers will receive more care in their communities. However, concerns are raised by professionals on the (lack of) care which families in deprived conditions might receive following their hospital stay. Therefore this study will focus on exploring the postnatal care provided for these families and develop a specific care plan for deprived families with a shortened hospital stay after birth.

METHODS: This project applied a mixed method design. In the quantitative phase, mothers were approached during their hospital stay and asked to complete a survey on deprivation criteria. Six weeks later a second survey mostly evaluating the postnatal care criteria was provided. The data of these two surveys were used to develop a topic list focusing on the postnatal care criteria in relation to the deprivation of the families.

The second, qualitative, phase was based on this topic list. Interviews with deprived mothers and focus groups with professional experts were held to explore what a specific care path for these mothers should look like.

RESULTS: 234 Participants were included. The survey analysis proved that certain postnatal criteria differed significantly when taking the deprivation criteria into account. It concerns specific care items such as information needs, breastfeeding support and the weight of the baby. Additionally, criteria concerning the access to health care facilities and the costs proved to be important. These criteria were included in the topic list for further exploration in the qualitative phase.

DISCUSSION AND CONCLUSION: Qualitative data collection is currently ongoing. Final results are expected in autumn 2018.

Keywords: perinatal care, deprived families, care pathway
Effect of lifestyle interventions in obese pregnant women on the development and anthropometrics of preschool children

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Background and objectives: Maternal obesity and excessive gestational weight gain are related to adverse outcomes in women and children. Lifestyle interventions during pregnancy showed positive effects on decreasing weight gain during pregnancy, but effects on offspring’s health and wellbeing are unclear. We aimed to assess the effect of lifestyle intervention programs on offspring mental health, temperament, eating habits, anthropometric and cardiovascular measures.

Methods: 96 offspring of pregnant women with a BMI greater than or equal to 29 kg/m² who were randomly assigned into three intervention groups during pregnancy (routine antenatal care, a brochure group, or a prenatal session group) and 77 offspring of pregnant women with a normal BMI (between 18.5 and 24.9 kg/m²) were used as an additional control group in this analysis. When the children were between 3 and 7 years old, anthropometric and cardiovascular measurements were conducted and various questionnaires about offspring mental health, temperament, eating habits, anthropometric and cardiovascular characteristics.

Results: Children of mothers who received a brochure-based lifestyle intervention programme showed significantly less surgency/extraversion compared to children of mothers who received routine antenatal care (p = .02, 95% CI [-6.66, -.06]) and prenatal lifestyle intervention sessions (p < .01, 95% CI [-.74, -.18]), after adjusting for potential confounders including child’s age, sex, offspring birth weight and mother’s educational level. The lifestyle intervention could not be associated with any significant differences in offspring mental health, eating habits, anthropometric and cardiovascular characteristics. Children of mothers with a normal BMI showed less emotional problems, internalizing and externalizing problems when compared to children of mothers in the obese group.

Discussion/Conclusion: The results suggest a brochure-based lifestyle intervention programme might affect the offspring temperament in such a way, i.e. decreased surgency/extraversion, that the risk for future obesity development is decreased.

Keywords: pregnancy, lifestyle interventions, obesity, offspring development
Non-medical prescribing behaviour in midwifery practice: a mixed-methods review

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Aim: To explore and report on the utility of behavioural aspects of prescribing among midwives to estimate the likelihood of the available evidence.

Methods: A mixed-methods review using an integrated methodology combining methodologically diverse data into a single mixed-methods synthesis. A systematic search of the literature was conducted in online databases. Data was categorized using the Feasibility-Appropriateness-Meaningfulness-Effectiveness (FAME) scale and thematised using the Attitude-Social influence-self-Efficacy (ASE) model. We performed a Bayesian descriptive analysis of the categories and themes and Bayesian Pearson correlations to establish the strength of the relationship between the F.A.M.E categories and ASE themes.

Results: Seven studies, showing moderate to good quality, were included for synthesis. Preliminary analysis showed that most of the studies reported on the feasibility, appropriateness, effectiveness and attitude of midwife prescribing and to a lesser extent on meaningfulness and self-efficacy. The FAME categories, feasibility and appropriateness showed a tendency towards affecting the utility of midwife prescribing, while meaningfulness and effectiveness were related to non-utility of prescribing. The ASE themes attitude and social influence showed a tendency towards affecting the utility of midwife prescribing, while self-efficacy, intention, barriers and supporting factors and perceived knowledge were related to non-utility of prescribing. Bayesian Pearson correlations showed moderate positive correlations between feasibility and barriers and supporting factors; positive correlations between appropriateness and social influence and intention; a weak negative correlation between appropriateness and perceived knowledge; weak positive correlations between meaningfulness and social influence and intention; a weak negative correlation between meaningfulness and perceived knowledge; moderate positive correlations between effectiveness and social influence and intention; and a weak negative correlation between effectiveness and barriers and supporting factors.

Conclusion: When implementing, developing or evaluating midwife prescribing, considering the findings might benefit practice or education. Further research is warranted.

Keywords: non-medical prescribing behaviour, Attitude-Social influence-self-Efficacy (ASE) model, a mixed-methods review
Synchronous online learning for midwifery students – an engaging way to learn about midwifery in another country

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Background: Erasmus and other student exchanges deepen understanding of different healthcare settings and practices, but some students are not able to travel abroad. We developed a synchronous online learning session in a web conferencing software to enable Danish and Irish midwifery students to discuss midwifery practices in their respective countries.

Methods: The learning session comprised a 45-minute lecture, a 30-minute full-group discussion and sub-group chat room discussions. 27 Danish and 37 Irish midwifery students attended. The chat room discussions were downloaded. An online anonymous survey was distributed to the students to evaluate the session. Data was analysed from content analysis.

Results: Key discussion areas: age of women birthing, birth outcomes and data availability and transparency, and one-to-one midwifery care during labour. Almost all of the interactivity was between students themselves, and questions raised by students from one country were answered by students in the other country. Students described it as a ‘social’ way of ‘expanding knowledge’ with ‘very interesting and engaging topics for discussion’. They found it ‘cool’ to talk with ‘real students’ from another country. Any negative feedback related to technological issues.

Discussion: The students were actively engaged in the chat room discussions during the lecture and the group discussions. Other studies support that synchronous online systems empower students to engage in conversations in ways other than face-to-face lectures. The session gave the midwifery students a sense of being part of a wider ‘midwifery student’ learning community. Limitations relate to technological issues; it took time to become familiar with the technology at the start, and internet connection problems occurred in the latter part of the session.

Conclusion: This synchronous online session stimulated students’ curiosity about midwifery in another country. The students’ experiences show that online international sessions can offer a real, engaging, interesting and positive learning experience.

Keywords: Midwifery education, synchronous online learning, distance learning, chat room discussions, evaluation of online session
High prevalence of gestational diabetes mellitus in Kabul, Afghanistan, following introduction of routine screening in antenatal care services

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Background: Gestational Diabetes Mellitus (GDM) increases the risk for adverse pregnancy outcomes and for the development of type 2 diabetes, but data on prevalence and management of GDM in resource-constrained settings are scarce. In 2018, Médecins Sans Frontières introduced standard screening for GDM in the antenatal care (ANC) service in a district hospital in Kabul, Afghanistan. We aimed to evaluate the prevalence of GDM and the feasibility of the screening implementation in this context.

Methods: Screening for GDM among pregnant women between 24-32 weeks gestational age was done on capillary blood, following a 75g oral glucose tolerance test (OGTT), using either the 2013 WHO criteria (fasting two-hour glucose tolerance test) or the Diabetes in Pregnancy Study group in India (DIPSI) criteria of non-fasting two-hour glucose tolerance test (depending on whether women presented fasting). A semi-structured questionnaire was administered to 13 ANC staff.

Results: A total of 755 women were enrolled. DIPSI criteria for GDM diagnosis were applied for 609 (81%) and WHO criteria for 146 (19%) of all women screened. A GDM prevalence of 25.9% [DIPSI: 24.8%; WHO: 30.6%] was observed. In terms of feasibility, 42% of the questioned midwives stated that screening increased the workload, yet 100% felt that the workload was still feasible. Most (92%) felt comfortable applying the protocol.

Discussion: An alarming prevalence of GDM was found among pregnant women attending ANC in Kabul. While the screening protocol was found to increase the workload, all staff found it to be manageable. Limitations of the study included the accuracy of the OGTT, the use of capillary blood for testing, and the high number of non-fasting participants, all of which are non-standard (albeit acceptable) procedures for GDM diagnosis.

Conclusion: Given the high prevalence and feasibility of screening, we recommend routine GDM screening in ANC in settings such as Afghanistan.

Keywords: Gestational diabetes, prevalence, feasibility, resource-limited setting
Continuity of care in care models for vulnerable pregnant women

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Background: Continuity of care is essential for high-quality patient care in the perinatal period, in particular for vulnerable groups. To our knowledge, no previous review examined the adaptation of continuity of care in existing care models for vulnerable pregnant women.

Methods: A systematic review was performed in PubMed and Ebib Search. Inclusion criteria were the following: (1) vulnerable pregnant women; (2) the study included the antenatal period; (3) (quasi) experimental or observational studies and (4) at least one of the three continuity of care types (management, informational and relationship) was identified in the intervention.

Results: Fifteen articles met the inclusion criteria. Management, informational and relational continuity of care were the most frequently applied types. Care models with a small group of core professionals, multidisciplinary teams and supplementary health education, are more suitable for vulnerable pregnant women.

Discussion (including limitations): Barriers to perinatal care for vulnerable women can be reduced by offering primary care in a multidisciplinary team. Primary care midwives can serve as a first point of contact. In addition, a care coordinator is of great importance for the organisation of their care. In our multicultural society, attention should be given to culturally responsive care.

Conclusion: One should strive to antenatal integrated and collaborative care models, with attention for management, information and relational continuity of care. None of the included care models in this review satisfies these two conditions. Future research should aim at adapting existing care models to these two requirements. These care models should also be responsive to the needs of specific vulnerable populations.

Keywords: continuity of care, vulnerable women, perinatal care
Women’s preferred and actual birth mode and postnatal health-related quality of life

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Problem: Women who have had a caesarean section are confronted with a process of deciding on the birth mode during their subsequent pregnancy. A mismatch between the preferred and actual birth mode may result in an impaired postnatal Health Related Quality of Life (HRQoL).

Objectives: This study examined the association between antenatal birth mode preferences, the actual birth mode and postnatal HRQoL in women with one previous caesarean section in three European countries.

Methods: Data were collected during a prospective longitudinal survey, as a part of a cluster randomised trial (OptiBIRTH) which aimed to improve women’s empowerment, engagement and involvement in their care and decision-making. Women’s preference for birth mode was assessed at inclusion to the trial and HRQoL was assessed three months postpartum using the Short-Form Six-Dimensions. Associations between the preferred and actual birth mode were examined using univariate and multivariate analyses.

Results: The sample consisted of 866 women with a complete data. A mismatch between the preferred and actual birth mode resulted in a lower HRQoL (p < 0.01). Poor antenatal HRQoL scores (p < 0.01) and maternal readmission postpartum (p = 0.03) are cofounding factors for poorer postnatal HRQoL scores. Participating in the OptiBIRTH intervention (p = 0.01) contributed to improved HRQoL scores.

Conclusions: The results suggest that a mismatch between the preferred and actual birth mode results in an impaired postnatal HRQoL. The long-term consequences and psychological health of women who do not achieve their preferred birth mode require further consideration and research.

Keywords: Quality of Life, Pregnancy, Vaginal birth after cesarean, Perinatal Care, Midwifery
“When your dreamjob can becomes a nightmare” – Midwives' reports of work-related traumatic incidents: a sequential explanatory mixed-methods study

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Aim: To explore the self-reported nature and the effects of midwives' work-related traumatic incidents.

Methods: A sequential explanatory mixed-methods study, consisting of a survey and face-to-face interviews.

Participants/ settings: Midwives (23-63 years of age; 1-38 years of practice experience) who practiced or who had practiced in the Netherlands or Flanders.

Results: A number of 106 questionnaires were completed. We coded various work-related traumatic incidents: witnessing birth trauma/ complications (34%), death (28.3%), (mis)management of care (19.8%), incidents related to the perceived social norm of maternity services’ practitioners (9.5%), to environmental and contextual issues (5.6%) and (mis)communication (2.8%). Sharing the experience with colleagues, family and friends, supervisor or the woman involved in the incident, was the most utilised coping response. 74.5% of the participants still experienced influence of the work-related incident in daily practice and 37.5% still experienced effects in their personal life. Three participants (2.8%) had scores that indicated the likelihood of PTS. Twenty-four interviews were conducted. Four themes emerged from the content analysis: (1) Timeline; (2) Drawing up the balance of relations with others; (3) Fretting and worrying; (4) Lessons learned.

Conclusion: Various work-related traumatic incidents can impact on midwives' professional and/or personal life. Although not all midwives reported to experience (lasting) effects of the incidents, impact was sometimes far-reaching. Therefore, the responses, effects and impact of work-related traumatic incidents cannot be ignored in midwifery practice and education and supervision or mentoring.

Keywords: Traumatic experiences, Midwifery work-related incidents, Midwives
Frequent attendance in primary midwifery care in the Netherlands: a cross-sectional study

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Background: An adequate number of prenatal consultations are beneficial to the health of the mother and fetus. In the Netherlands, guidelines recommend an average of 13 to 15 consultations in full-term pregnancies. Daily practice, however, shows that particularly vulnerable women with e.g. psychosocial problems attend the midwifery practice more frequently. This study examined the factors associated with frequent attendance (FA) in primary midwifery care.

Methods: We conducted a cross-sectional study in a midwifery practice in a medium-sized city near Amsterdam. The number of consultations was categorized by the revised Kotelchuck Index. Logistic regression models were fitted to estimate the likelihood of FA compared to the recommended number of consultations, adjusted for all significant factors. Separate models were fitted on the non-referred and referred group of obstetric-led care, as referral was found to be an effect modifier.

Results: The prevalence of FA was 23% (243/1105), mainly caused by worries or vague complaints 44% (106/243). Among non-referred participants, 53% (560/1105), FA was significantly associated with consultation with an obstetrician (OR=3.99 (2.35-6.77)), and exposure to sexual violence (2.17 (1.11-4.24)). Among referred participants, 47% (493/1105), FA was associated with a consultation with an obstetrician (2.75 (1.66-4.57)), psychosocial problems in the past or present (1.85 (1.02-3.35) or 2.99 (1.43-6.25), respectively), overweight (1.88 (1.09-3.24)), and deprived area (0.50 (0.27-0.92)).

Discussion: Our exploratory study was conducted in one midwifery practice and not all results might be generalizable to the underlying population in prenatal care. Further research in a larger population as well in obstetric-led care is needed to confirm our findings.

Conclusion: Our study indicates that FA is mainly due to sexual violence and psychosocial problems instead of medical issues. In our study, almost a fourth of the clients received more than the recommended number of consultations and were thus frequent attenders.

Keywords: frequent attendance, prenatal, sexual violence, midwifery care
Vulnerable pregnant women in Antwerp: designing and testing the detection tool EMBRACE

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Background: Vulnerable pregnant women need appropriate care as soon as possible to ensure optimal pregnancy and neonatal health. In this study, a detection tool “EMBRACE” and its flowcharts are developed to detect vulnerability in pregnancy as early as possible.

Method: Initially, a Delphi method study was conducted among midwives and social workers to build consensus on the concept of vulnerability and to identify vulnerability characteristics to develop a detection tool. EMBRACE was tested in a pilot study, after which the instrument was optimized. Finally, flowcharts were developed and tested by an expert panel.

Results: Eight characteristics of vulnerability have been identified in the Delphi study, namely poverty, adaptability to pregnancy, health and wellbeing, access to health care, lifestyle, abuse and neglect, social network, the wish to have children, experiences of previous pregnancies and communication.

In the pilot study, 288 screenings were performed. In 56.7% of the pregnant women 1 or more characteristics of vulnerability were indicated in a first use of EMBRACE.

The characteristics “health and wellbeing” (24%), “social network” (18.9%) and “abuse and neglect” (18.9%) were scored the most. The characteristic “abuse and neglect” (6.4%) was scored the least.

Data on the use of the flowcharts are currently being collected so that no results can be mentioned in this abstract.

Discussion: EMBRACE is the first instrument to detect a vulnerability in pregnant women, after which a prenatal pathway is initiated in order to provide customized care. Disadvantage is that EMBRACE cannot yet be implemented in an electronic patient record. The flowcharts that have been developed are aimed at the Antwerp health care situation.

Conclusion: EMBRACE is an instrument that detects vulnerabilities in pregnant women in order to be able to offer them customized care as soon as possible.

Keywords: Vulnerability, detection, prenatal
Intrapartum factors involved in maternal birth satisfaction: A cross sectional study

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Introduction: Maternal satisfaction with birth is considered one of the most relevant indicators in the evaluation of the quality of maternity services and should be an integral component of the quality of maternity care. In Italy there is no published evidence focusing on women’s satisfaction with birth, hence the aim of this study was to evaluate mothers’ satisfaction with their childbirth experience and to identify relation between satisfaction and socio-demographic, obstetric and intrapartum factors.

Design: A correlational cross-sectional study was conducted between May 2017 and July 2017, at I level Maternity Unit Vittorio Emanuele III Hospital (Carate Brianza, Italy).

Sample: 300 mothers were recruited postnatally.

Method: Data were collected through the Birth Satisfaction Scale Revised (BSS-R). Socio-demographic, obstetric and intrapartum data were available from the birth register and asking the woman before filling out the Survey.

Result: Average satisfaction score was 26.82 ± 5.24 (range from 6 to 39) and the three main themes assessed throughout the Scale (Quality of care provision, Women’s personal attributes, Stress experienced during labour), contributed differently to the score. Parity was the only statistically significant predictor (multiparous 27.6 vs nulliparous 26.1); Length of active phase of labour was a significant intrapartum factor related to maternal satisfaction. Women labouring less than 12 hours reported a higher satisfaction than mothers who experienced longer labour (27.6 vs 23.31; p<0.10). All intrapartum interventions resulted as significantly decreasing maternal satisfaction. Mother’s satisfaction varied significantly in relation with mode of birth, women who had a spontaneous birth reported significant greater maternal satisfaction than participants who experienced a caesarean section (24.73 vs 27.06; p=0.021) or an assisted vaginal birth (23.27 vs 27.05; p=0.004). Discussion: Intrapartum intervention were related to maternal satisfaction. To promote normal birth and a positive experience of birth is necessary to understand factor involved in maternal satisfaction.

Keywords: Birth satisfactionIntr, Woman’s satisfaction, Birth experience, Quality of care
Use of clinical practice guidelines and evidence-based practice among midwives in Flanders: practice, barriers and attitudes

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Background: Evidence-based practice (EBP) leads to improved health outcomes and reduces variability in quality of care. However, health professionals struggle to incorporate EBP in daily practice. Little is known about EBP use among midwives. Therefore, this study investigated knowledge, practice, attitudes and barriers on EBP and clinical practice guidelines among Flemish midwives.

Methodology: A cross-sectional study was conducted (May - October 2017) using an online semi-structured questionnaire, which was developed after an extensive literature review and a single Delphi procedure for content validation. A total of 251 midwives working in hospitals, primary care and midwifery education, were included.

Results: Midwives with a master's degree (57.7% vs. 37.8%; P=0.004), less than 15 years of experience (50.8 vs. 35.5%; P=0.015) and younger than 40 years (49.7 vs. 34.6%; P=0.02) had better knowledge of the EBP-definition. The majority searched for literature (80.1%), mainly EBP guidelines (50.6%), RCTs (45.0%) and systematic reviews (43.0%). Midwives found EBP necessary, realistic to apply in daily practice, and supportive in decision making. They are willing to improve EBP-knowledge and skills, but assumed to be competent in providing evidence-based care. Most respondents were convinced about the importance of clinical guidelines for qualitative care, but did not believe guidelines facilitate their caregiving and enable them to consider patient preferences adequately. More than half of midwives (55.8%) experienced barriers for guideline use, mainly lack of time (35.9%), lack of access (19.5%) and lack of support (17.9%).

Discussion and conclusion: Although participants showed positive attitude towards EBP, education programs are needed to promote EBP and to improve midwives' skills and knowledge. Future efforts should focus on the development of strategies for overcoming barriers and enhancing the consistency of EBP implementation. Further research is necessary to confirm our results on a larger sample size and to determine the psychometric properties of the questionnaire.

Keywords: Evidence-based practice, midwifery, attitudes, barriers, clinical practice guidelines
Adverse events in a Swedish maternity ward – a record review

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Background: There are few studies of adverse events in obstetric care. Measurements in combination with gynaecology or surgery is common. The aim of this study was to describe the prevalence of adverse events in connection to childbirth with focus on the woman.

Methods: The study had a descriptive and retrospective design. Record review with the Swedish version of the Global Trigger Tool was performed at a Swedish maternity ward. 311 women who gave birth between January 2015 and February 2016 (14 months) consented to have their birth records reviewed.

Results: In 34 (10.9 %) of the birth records, adverse events were identified. Two adverse events were identified in four of the records, giving a total of 38 adverse events. Third- and fourth-degree perineal tears (26.3 %), distended urinary bladder (18.4 %), other lacerations (13.2 %) and postdural puncion headache (7.9 %) were most prevalent. Most of the adverse events resulted in temporary harm (31.6 %) and prolonged hospital care (63.2 %).

Discussion: In most of the birth records no adverse events were found. Most frequent were perinatal adverse events, distended urinary bladder and anaesthesia-related adverse events. The study was conducted at a single site and barely 40 % of the women consented to participate.

Conclusions: Healthcare personnel have to be aware of common adverse advents to reduce harm in obstetric care. It is important to measure obstetric adverse events to improve patient safety.

Keywords: Adverse event, Global Trigger Tool, Obstetric care, Patient safety, Record review
Role of midwives during breastfeeding support: A qualitative study in hospital and primary care setting

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Background: In Flanders 77.8% of women starts exclusive breastfeeding. After three months 32.8% of the infants is breastfed exclusively which is in contrast with the WHO recommendations of six months exclusive breastfeeding. Studies reveal that women are not always satisfied with the breastfeeding support they receive from the midwife. Dissatisfaction with the support can lead to early cessation of breastfeeding.

Methods: We performed a qualitative study with observations of midwives-mothers care interactions during breastfeeding support (BFS) (midwives, n=21; mothers, n=59) in hospital and in primary care. Additionally, two focus groups with midwives (n=10) and two with mothers (n= 9) were done to gain in-depth understanding of the supporting role of midwives in BFS for mothers during the first two weeks after birth, and to investigate whether that role corresponds to the mothers’ needs. Observations and focus groups were analysed using thematic analysis.

Findings: The analysis showed both midwife and mother want the breastfeeding to be a success story. The production of breastmilk is a priority, for both midwives and mothers. For midwives, the wellbeing of the mother is also important although it is not her main focus. Overall there is a hands on approach regarding BFS, this is seen more often in the hospital setting than in primary care setting and often happens without asking the permission of the mother. During the breastfeeding support a professional relationship between the midwife and the mother is fostered. In the hospital setting care is often fragmented, and this results in a relationship that is more superficial, in primary care, the relationship is more personal because of the one – to – one support.

Conclusion: BFS is influenced by personal and external context factors. Overall we see a more technical approach, but the midwife should adjust her BFS to the needs of the mother.

Keywords: breastfeeding, support, midwife
PREMOM: The Limburg project on remote monitoring for women at risk for gestational hypertensive disorders

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Background: A prenatal remote monitoring (RM) follow-up program for women with gestational hypertensive disorders (GHD) is ongoing since 2015. We aimed to compare the clinical outcomes and the costs of a RM group versus the conventional care (CC) group.

Methods: Clinical and financial data was collected from the patients electronic files and patient-specific hospital bills at Ziekenhuis Oost-Limburg (Genk, Belgium) in 2015 – 2016.

Results: The mean gestational age (GA) of women delivered before 34 weeks was 30w 1/7 in CC group, versus 31w 3/7 in RM group. Women who delivered after 34 weeks of GA were more likely to develop preeclampsia (CC: 40.25% versus RM: 15.07% (p < 0.01)) and less likely to develop gestational hypertension (CC: 53.21% versus RM: 83.56% (p < 0.01)) in CC group versus RM group. Also, a reduced number of prenatal visits (RM: 6.83 versus CC: 7.62 (p < 0.01)), prenatal hospitalizations (RM: 26.82 versus CC: 69.23% (p < 0.01)) and inductions (RM: 32.60% versus CC: 46.50% (p < 0.01)), and an increased number in spontaneous births (RM: 50.00% versus CC: 32.10% (p < 0.01)) is reported. Neonates born before 34w of GA were €8930 less expensive in RM group versus CC group. Neonates born on a later GA are still more cost-effective in RM group versus CC group, but this difference decreased (€652 when born between 34w GA – 37w GA and €102 when born >37w GA).

Discussion: The use of RM for women with GHD will lead to a delay in the medical interventions and a cost reduction for the healthcare society. Before RM can be implemented in the Belgian healthcare system is a multicenter randomized controlled trial (RCT) necessary.

Conclusion: RM for women with GHD improves neonatal, maternal and economic outcomes but a RCT is still needed for further implementation.

Keywords: Remote monitoring, gestational hypertension, telehealth
Defining a mutual definition for vulnerable pregnant women: a Delphi study

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Background: vulnerability is a key issue in birth care worldwide, but there is no international definition for ‘vulnerable pregnant women’. As part of an international, European project aimed to exchange knowledge and best practices concerning vulnerable pregnancies between midwifery practices and midwifery curricula in several European countries, we define a mutual definition for vulnerable pregnant women.

Methods: A three-round Delphi study had been performed with midwifery teachers, researchers and midwives of participating European countries. Round one of this Delphi study consists of a questionnaire with existing definitions for vulnerable pregnant women and aspects related to vulnerability. The questionnaire was developed based on definitions used by the participants and definitions described in literature. Participants were asked to rank these definitions and to determine whether the selected aspects were indeed related to vulnerability. In survey round 2 all partners received the results of round one and were asked to fill in the questionnaire again in order to achieve (partial) consensus. Third, a consensus meeting was organized in order to achieve a mutual definition for vulnerable pregnant women.

Results: Survey round one was sent in June 2018. The results of the survey will be analyzed in July. Survey round 2 will be send in August 2018. The consensus meeting is planned in October 2018. The results will be present before the conference.

Discussion: It is important to define a mutual definition for vulnerable pregnant women, not only in this project ‘to exchange knowledges and best practices concerning vulnerable pregnant women’, but also in a broader spectrum. It makes communication easier, prevents misconceptions and makes it possible to better compare countries.

Conclusion: pending

Keywords: vulnerable pregnant women, Delphi study, definition
Cross-cultural adaption of the Perceptions of Empowerment in Midwifery Scale (PEMS) for German speaking countries

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Background: Developing midwives’ empowerment is a critical element to recruitment and retention. International studies have shown a correlation between low perceptions of empowerment and the intention to leave the profession. In Germany there is a lack of data on the number of midwives and their services rendered. No instrument exists, which can measure the perceptions of empowerment of German midwives. Additionally an increasing birthrate and vacant positions in labour departments indicate a high demand for working midwives.

Methods: The Perceptions of Empowerment in Midwifery Scale (PEMS) [2] was revised and validated by Australian researchers at the Griffith University in 2015. The translation of the German PEMS was carried out according to the guidelines for the cross-cultural adaption of self-reported measures of Beaton et al. The guideline recommends four stages of cross-cultural adaption including informed and uninformed translators and experts. The German PEMS is used as part of a quantitative explorative survey of practicing midwives in Germany. The survey captures additional aspects like socio-economic data, workplace and the intention to leave the profession. Ethical approval is obtained.

Results: The cross-cultural adaption of the PEMS took six months. A pretest with 40 midwives of different working fields in Germany demonstrated a general understanding of the German PEMS, but self-employed midwives couldn’t value the subscale “manager support”.

Discussion: The translation process showed existing cultural differences between midwifery care in Germany and English speaking countries. The expert group discussed terms as caseload or scope of practice.

Conclusion: It is necessary to develop culturally appropriate instruments for self-reporting measures based on national health care systems and other cultural aspects even if it is an elaborative process. The pretest shows that the German PEMS is able to measure the perceptions of empowerment of German speaking midwives.

Keywords: Empowerment in Midwifery, Quantitative research, Midwifery workforce
The empowerment of pregnant women with a low-socioeconomic status in the northern part of the Netherlands.

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Background: The Dutch perinatal mortality rate is relatively high viewed in a European perspective. Low socio-economic-status (SES) could partly be associated with the higher mortality risk in Groningen.

Empowerment strategies can improve health and reduce health disparities in and prenatal care provided by the primary care midwife can strengthen the pregnant women's capabilities in particular. However, it is unknown what the term ‘empowerment’ implies for maternity care and how pregnant women with a low SES can be strengthened in their choices about their own health and their infants.

The research question was: What are the views of primary care midwives in northern part of the Netherlands on the concept of empowerment and and how they empower women with a low-SES in group or one-to-one care?

Method: This qualitative descriptive study is based on an interpretivist-constructivist paradigm using grounded theory design. Semi-structured individual and focus group interviews with 19 primary care midwives working with pregnant women with low SES and/or facilitating group care in the northern part of the Netherlands were conducted between February and March 2017, then later transcribed, coded and analysed.

Results: Although the participants are not representative for all midwives, our study highlight that they find it important meet the needs of pregnant women with a low SES. There are a lot of tailored care interventions, but the target group is hard to reach or to talk into it. Sometimes there are also too many care providers. This makes it difficult for both the caregivers and pregnant woman herself to maintain an overview and the women tend to withdraw.

Conclusion: We would like to identify and improve tailored care interventions for vulnerable pregnant women living in persistent poverty by doing Participatory Action Research. This innovative research involves a learning community including healthcare professionals, pregnant women, researchers and students.

Keywords: empowerment, low SES, pregnant women, qualitative study
Oral presentations
Topic: Health and education

List of abstracts
(In alphabetic order by presenting author)
The Crew Resource Management-study: Results of a pre-post multicentric intervention study to improve teamwork in acute care settings

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Background: Most adverse events in acute healthcare can be attributed to poor non-technical skills of teams. Team training, such as crew resource management, addresses these skills. The aim of this study was to 1) develop a generic CRM-training that can be used for all wards that regularly experience emergency situations, and 2) evaluate the effectiveness of the training.

Methods: Mixed method pre-post intervention study design was used to assess participant’s satisfaction, learning and change in behavior, according to Kirkpatrick’s evaluation framework for training programs. Participants took part in CRM-based team training which enveloped 1) a theoretical part, and 2) a simulation part followed by debriefing. We used standardized questionnaires, observation and interviews. Fourteen wards (591 healthcare workers) were trained (5 OB, 8 ER and 1 ICU).

Results: Participants valued the experience highly (mean 7.4/10 for satisfaction). The part of the survey testing for participant’s learning demonstrated a better understanding of non-technical skills. Observation showed significant improved teamwork skills (6.5 versus 5.5 on the Clinical Teamwork Scale, p=0.003). Safety attitudes were unaffected. The outcomes on four levels did not differ between different types of wards.

Discussion: The most important strengths of our study are the generic character and ‘in situ’ format of the training, the large sample size and the assessment of the training covering all four levels of Kirkpatrick. We found no change in safety attitudes using the SAQ survey. This may be related to the emphasis of the training on teamwork skills; other aspects such as job satisfaction may not have been affected. Furthermore, the timing of assessment immediately after training and the onetime CRM-training may have been insufficient for changing safety culture.

Conclusions: The implementation of a CRM-based team training was well accepted and contributed to a significant improvement in teamwork skills in all acute care wards.

Keywords: crew resource management, team training, non technical skills, simulation, patient safety
Higher neonatal blood pressure in association with air pollution exposure during last weeks of pregnancy: an ENVIRONAGE birth cohort study

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Blood pressure over time they may track and lead to excess morbidity and mortality from cardiovascular causes in later life. Air pollution exposure has been associated with increased blood pressure in adults and children. Despite the importance of early-life exposure, the contribution of prenatal air pollution exposure has been rarely assessed. We therefore investigate the association between prenatal air pollution and newborn blood pressure. We enrolled 427 mother-newborn pairs from the ENVIRONAGE (ENVIroNmental influence ON early AGE) birth cohort study. Newborn blood pressure was measured using an automated device within 4 days after birth. Daily maternal residential air pollutants during pregnancy including particulate matter with an aerodynamic diameter ≤ 2.5 µm (PM2.5) and ≤ 10 µm (PM10), nitrogen dioxide (NO2), and black carbon (BC) were modelled using a high-resolution spatial-temporal model. Distributed lag models were applied to associate newborn BP with average weekly exposures to air pollutants during the last 15 weeks of pregnancy. Each 5 μg/m3 increment in prenatal PM2.5 exposure was associated with a 2.4 mm Hg higher (95%CI, 0.5 to 4.2) systolic and a 1.8 mm Hg higher (95%CI, 0.2 to 3.5) diastolic blood pressure at birth. The corresponding estimates for a 0.5 µg/m3 increment in BC were 1.4 mm Hg for systolic and 1.1 mm Hg for diastolic blood pressure. The associations were most pronounced in the last four to five weeks of pregnancy. In conclusion, healthy air during pregnancy has a protective effect against blood pressure elevations from birth onwards.

Keywords: air pollution, blood pressure, newborn, pregnancy
The influence of blended learning on the knowledge about delirium of healthcare workers in long-term care facilities (LTCFs)

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BACKGROUND: Previous studies have shown that e-learning tools improved healthcare workers’ delirium knowledge, but the effect of the tool was less explicit after controlling for potential confounders and directly linked to its level of completion. The aim of this study is to determine the effect of blended learning on healthcare workers’ knowledge about delirium.

METHOD: A pre-posttest study with a convenience sample of 289 healthcare workers, recruited from 19 long-term care facilities was conducted. The intervention consisted of blended learning, including an e-learning tool and an in-service training. The Delirium Knowledge Questionnaire (DKQ) was used to assess the knowledge about delirium. Subgroup analyses were performed for healthcare workers completing only the e-learning, the in-service training and the blended learning.

RESULTS: There was a significant improvement of the DKQ score after the intervention (before: mean 26.0, SD 3.6, min-max 15-33, after: mean 29.0, SD 3.1, min-max 19-34, p<0.001). The degree of the participants had a significant influence on the DKQ score (p=0.008). The mean delirium knowledge increased the most for nurse assistants (from 23.6 to 28.2, p<0.001), then health care workers (level 5) (from 25.7 to 30.6, p=0.042) and with a bachelor degree (from 27.0 to 29.4, p<0.001). The e-learning tool had the lowest impact (p=0.043), the in-service training and the mixed method approach the highest (p<0.001).

DISCUSSION: The intervention was open to all health care workers, not only nurses (assistants). Of the 289 participants, only 79 completed an intervention. Because of time limitations, only four in-service trainings were provided.

CONCLUSION: Blended learning was the most effective to increase delirium knowledge. Nurse assistants had the most benefit of this intervention. They play a crucial role in the residents’ care in LTCFs. Therefore, sufficient delirium knowledge is necessary.

Keywords: Delirium education, delirium knowledge, long-term care facilities, nurse assistants, nurse
The role of the diabetes nurse educator in the care of a diabetes patient

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Background: World wide more and more people suffer from diabetes. Diabetes, being a complex disease, asks for a multidisciplinary approach; involving amongst others a general practitioner, a nurse, a dietician, an endocrinologist, a podiatrist. However, it is unclear what the role of each specific caregiver is in the multidisciplinary approach for diabetes patients.

Methods: A literature search was performed to obtain evidence about the role of the nurse diabetes educator. Pubmed, SumSearch and Cochrane Library where consulted. The literature results were discussed extensively in several peer sessions with nurse diabetes educators.

Results: There is a lack in clear evidence about the role of the diabetes nurse educator. So a vision of the role of the nurse diabetes educator in Belgium was made, based on the literature and expertise of nurse diabetes educators. Through their education nurses learn to analyze and estimate a situation and formulating nursing diagnosis coupled with an individualized care plan. They take care of those patients and review on regular basis the care plan. The nurse diabetes educator is well positioned to educate the patient to promote self-management and to learn techniques to take care their selves. In situations where self-management isn’t possible the nurse take over the care. The nurse diabetes educator participate in multidisciplinary consultation.

Discussion: The literature search was done to formulate a vision about the role of nurse diabetes educator. But there is a lack of literature. A new literature search will be followed by 5 focus groups: 3 with caregivers and 2 with patients and their family in 2018.

Conclusion: The nurse diabetes educator acts as an expert, educator, consultant, innovator and entrepreneur.

Keywords: diabetes, nurse, educator, role
Poster presentations
Topic: Nursing

List of abstracts
(In alphabetic order by presenting author)
Participation of (in)patients during Multidisciplinary Team Meetings in Mental Healthcare

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Alexianen Zorggroep Tienen / Universiteit Gent, Belgium

Background: Patients are increasingly being invited to participate during multidisciplinary team meetings in mental healthcare. There is quiet some evidence about this research topic in elderly and palliative care but little is known about the research topic in mental healthcare. This study aims to develop a questionnaire that measures the overall perception of (future) caregivers and patients about this research topic.

Methods: A Delphi-study was used. In total 29 experts panellists (21 health workers in mental healthcare and 8 patients) completed a two round Delphi process. Data was collected and analysed by a main researcher and independently reviewed by 3 other researchers.

Results: In our final PaPaT-Questionnaire, we identified 49 items that may be associated with the overall perception of caregivers about patient participation during multidisciplinary team meetings in mental healthcare. The experts agreed on 93,8% of all items that were presented to them in the final Delphi round, and the mean expert consensus of all items in the final questionnaire was 78,5%. We are therefore confident that our findings adequately represent a robust consensus of the expert opinions about the statements in the PaPaT-Questionnaire.

Discussion and conclusion: The provisional questionnaire created via this Delphi study has achieved considerable content validity, yet requires further face, criterion-, and construct validity as well as test-retest and reliability testing before it may be clinically used. We are therefore currently conducting such study for the Dutch language version of the questionnaire. After this process, the questionnaire will be used for a cross-sectional research in Flanders (Belgium). These insights can encourage other organizations to translate the PaPaT-Questionnaire and to repeat a cross-sectional research in their own system of mental healthcare.

Keywords: Patient Participation, Mental Healthcare, Multidisciplinary Team Meeting
Integrated care issues: Transfer of patient care information

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Background: Transfer of patient care information between organizations is usually done by means of a transfer by paper: the patient himself hands the information over from the multidisciplinary team from one organization to another. Organizations from the Rotterdam Stroke Service (n=19) in the Netherlands started a collaboration with “Care-portal Rijnmond”, a safe gateway where health care organizations can exchange information in an easy, safe and reliable way via Cross-enterprise Document Sharing (XDS). The assumption is that health care will be delivered in a more efficient and effective manner when ICT is used, even when organizations have different electronical patient file systems.

Methods: In 2013, a panel of experts in stroke care (stroke nurses, neurologists, rehabilitation specialists, elderly care physicians) from the collaborating organizations reached consensus about the content of patient information that is necessary for a qualitative good, timely and correct information transfer. They used the Delphi method, a structured communication technique to reach consensus.

Results: The information about the project was shared with multiple stakeholders. The initial developed dataset was translated to the general information “building bricks” from Nictiz. Software was chosen and ICT systems were adjusted to the new working method. A viewer for viewing patient information was installed. Tests showed that information was received earlier and was more complete available for example for the rehabilitation unit after the patients’ discharge. The professionals were able to develop a rehabilitation plan for an individual patient, even if the patient was not transferred yet.

Discussion/conclusion: Information is quickly available and therefore treatment can start earlier. It is assumable that the patient will profit and have better (rehabilitation) outcomes. There were multiple new parties and it was therefore a challenge to reach consensus.

Keywords: Stroke, XDS, information transfer
A comparison between protocol and nursing practice on bedbathing a patient in the hospital

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Bathing the patient in bed is one of the oldest, most interpersonal nursing techniques and is central in maintaining the hygiene of the bedridden patient. It is also a crucial moment for the nurse to communicate with and to observe the patient.

Although the bed bath is one of the largest tasks in the time allocation of nurses, there is very little research done. Central to this study is a comparison between theoretical guidelines for the bed bath, and the daily nursing practice of this technique.

This study used a structured questionnaire to survey RN’s on how they perform a bed bath. 172 Dutch-speaking hospital RN’s completed the questionnaire.

The results of the survey show that a majority of the nurses positively face participation of the patient, communication with the patient, the patient’s comfort and hygiene during the bed bath. Nevertheless a number of acts was not marked as a standard activity, for example refreshing water for intimate toilet and washing body part by body part.

The results are only 1 indication of performing a bed bath in hospitals in Flanders and Brussels. There is also a large group of RN’s who perform bed baths (f.e. in nursing homes and home care) and were not included in this study. The results of the study are not based on observations, but self-reported survey, taking into account a bias on socially desirable answers.

We can conclude that the daily practice of the traditional bed bath differs at various points from the theoretical guidelines. Although there isn’t shown a great lack of hygiene, communication and respect for the patient, the results make clear that continuous protocols need to be present in a hospital setting and that further explanatory research is recommended. Additional qualitative research on the differences between practice and theory is appropriate.

Keywords: bed bath, nursing practice, protocol
Protected Consumption of Energy Supplements (PROCES) in Care homes: Baseline Data of an Implementation Project

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Malnutrition in care home residents is a known problem. In case of anorexia and low food intake residents might benefit from energy supplements (ES). In practice prescription and administration modalities of ES are known to be highly variable and unclear. ES are expensive and might become a burden for care homes and residents involved. Aim of this project is to improve intake of ES.

MNA was used to measure nutritional status of all non-palliative residents in two different care homes. In case of regular consumption of ES, energy need and daily intake was calculated during two weeks. Medical records were screened for relevant data. SANN-scale and focus groups were used to determine staff attitudes and knowledge towards nutritional care.

Out of 197 residents 22% were malnourished and 47% were at risk. In total, 10% of all residents used ES. However, 30% of them did not reach their daily energy needs and another 40% doubled the intake of daily recommended calories. ES prescription did not match with MNA-scores. Calorie intake was not automatically compensated by ES in case of low food intake. According to the SANN 7.5% of staff (N = 40) demonstrated a positive attitude. The majority (82.5%) scored mean attitude while 10% scored negative attitude. Focus groups revealed good awareness of the importance of food; lack of knowledge and protocols about nutritional screening and monitoring of food intake; ES administration modalities and ES prescription policy.

These are cross sectional data before in-service training and implementation of the intervention PROCES. Medical records must be adapted to the required screening and monitoring. Current consumption of ES is complicated by a limited choice of flavors.

Prevalence of malnutrition is high and administration of ES is not adequate. Implementation of PROCES has to face improvement of SANN-scores and lack of knowledge of staff.

Keywords: Malnutrition, Care Homes, Energy Supplements, Food Intake, Staff Attitude
Implementation and Evaluation of Dedicated Education Units in Europe

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Background: The literature and the perceptions of nurses and teachers notice that nursing graduates are not fully prepared to adequately assume their role in real practice. The traditional clinical education model is no longer sufficient in competencies based education. To create a powerful learning environment at the clinical practice place, new education models are needed.

This project – funded by the European Commission – 1) modified the innovative Dedication Education Unit (DEU) model (Edgecombe et al., 1999) to the European higher education framework, 2) developed a DEU-Smart Mentorship train-the-trainer for nurses and teachers and 3) implemented and evaluated the DEU model in five European countries (Belgium, Poland, Portugal, Spain and Turkey).

The project is designed in three phases between September 2015 and August 2018. In the first phase (2015-2016) the European DEU model and corresponding implementation guideline and the Smart mentorship train-the-trainer program were developed. An European expert panel performed a literature study to develop the guide and the train-the-trainer program.

Secondly, the European DEU model is implemented in five EU countries (2016-2017) on a pediatric, cardiovascular, emergency, surgical and midwifery unit.

Method: At baseline and at the end of the implementation the CLES+T was administrated to all actors of the DEU for evaluation. Additionally, focus group interviews were conducted with actors in the DEU to discuss their perceptions and recommendations for future implementation.

To identify factors that could influence in DEUs implementation and results of 6 European organizations the consolidated Framework for Implementation Research was used.

Finally, the evaluation outcomes will lead to an optimized state-of-the-art European DEU model.

Results, discussion and conclusion: The results are being analyzed at this moment but will be ready to present at the congres in Februari.

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Keywords: clinical, learning, nursing, students
EUPRON - A quantitative description of nurses’ role in interprofessional pharmaceutical care in Europe

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Background: Nurses’ role in interprofessional pharmaceutical care (PC) is not transparent and varies throughout Europe. The lack of transparency and recognition in nursing practice, together with the variation between countries, has a major impact. Interprofessional collaboration in clinical practice is hindered. The aim of this study is to describe nurses’ role in PC, from the viewpoint of nurses, doctors and pharmacists, in different European countries. Also, experiences in interprofessional collaboration with nurses in PC are examined.

Methods: In a cross-sectional survey design (December 2017 - May 2018) a convenience sample of pharmacists, doctors and nurses with an active role in PC for patients was questioned on nurses’ involvement in PC, their experience in interprofessional collaboration and communication on PC and their experience with nurses’ competences in PC. Sixteen European countries participated in the study.

Results: 6822 respondents participated: 4984 nurses, 984 doctors and 854 pharmacists. The majority of all participants were convinced of the positive impact on care quality if nurse involvement would increase in monitoring side/therapeutic effects (95%), monitoring medication adherence (95%), prescribing medication (53%) and providing patient education about medication (91%). The mean score for interprofessional communication on PC was 5,1/10 (SD 2,4), for collaboration in PC between nurses and doctors 5,9/10 (SD 2,4) and for the collaboration in PC between nurses and pharmacists 3,5/10 (SD 2,8).

Discussion: The EUPRON data clearly described clinical practice in Europe today, and the context in which nurses work. The alarming score on interprofessional communication in PC indicates patient safety is threatened.

Conclusion: Today’s nurses in clinical practice have a moderate role in PC, but from a multidisciplinary viewpoint this role should be extended. Collaboration between nurses and doctors and between nurses and pharmacists on PC is limited. Given the link between interprofessional communication and patient safety, interprofessional communication is alarming low.

Keywords: nurses’ role, pharmaceutical care, interprofessional
“What about you? How are you doing?” Impact of caregiving on primary caregivers of oncology patients during active treatment and follow-up

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Background: Improved cancer survival and the shift to ambulatory cancer care has increased the number of informal cancer caregivers and their responsibilities. This study aims at evaluating caregiver distress and quality of life (QoL) in primary caregivers of cancer patients during active treatment and follow-up.

Methods: We performed a cross-sectional descriptive study targeting primary caregivers of patients with different cancer diagnoses in the University Hospitals of Leuven. The main outcomes of this study were caregiver distress and quality of life.

Results: Overall, 50-60% of 1551 caregivers reported (more than) moderate distress levels. Nearly 1 out of 4 caregivers (23.8%) of patients received radiotherapy and more than 1 out of 4 caregivers (27.9%) of patients with systemic treatment indicated severe levels of distress. In follow-up, more than 1 out of 5 caregivers (22.8%) reported severe distress.

Higher caregiver distress was significantly correlated to poorer QoL. The extent of both emotional and practical support for the caregiver were significantly correlated to the main outcomes (p < 0.05), with lower levels of support relating to higher distress and worse QoL. Caregivers of patients with head-and-neck, skin, lung or brain cancer reported the highest distress and lowest QoL.

Discussion: The results of this study call upon healthcare professionals to better address the burden of cancer caregiving. Active screening of caregiver distress, both during treatment and follow-up, could help at detecting those caregivers in need for more support. The main strength of our study is the large sample size. A longitudinal and multi-center study is recommended to improve our understanding of the impact of cancer caregiving.

Conclusions: This study involving more than 1500 primary caregivers of patients with cancer, demonstrates that 30-35% and 20-25% of caregivers report moderate and severe distress, both during treatment and in follow-up and with negative effect on caregivers’ QoL.

Keywords: Informal caregiver, caregiver distress, quality of life, oncology
In-house IT development of the nursing care plan at the CHU de Charleroi (ISPPC) [Belgium]

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The contents and the structure of the nursing records of the Belgian hospitals are governed by laws. If until recently, we only talk about the digital archiving of the paper document, the computerization of the data themselves was boosted by complementary financing. The electronics patient's data of the CHU Charleroi (1,374 beds) is integrated in the Medical Information System (SIM), internal software written in '.Net'. The nursing care plan was not yet developed while this part can be used as a real quality management tool. This article shares the different stages of construction and implementing of our electronic nursing care plan.

A committee composed of nurse-practitioners (4) and IT-developers (3) began to work in April 2017. The usual implementation methodology has been simplified to cover half of the beds in the end of 2017 and all of them before March-2018. The tests were performing in the production environment on fictitious patients. In a second time, pilot units tested the application. After, we have deployed the application to all units of a sector. Finally, we have repeated the process in each sector. All users were trained in one of the 200 one-hour workshops.

The care’s items are grouped into sub-families themselves regrouped in families. All existents electronics’ data are injected in the application. There is a direct link to writing nursing observations. Standardized care plans can be used. A ‘manager view’ provides access to the different applications and offers a global view of care performed or not for all unit patients.

An in-house development of an application is a rewarding experience. Even if this method requires a larger direct investment, this allows greater flexibility. Many improvements are yet planned as our tool of nursing’s workload and the automatic extraction of the nurse data to help piloting quality of nursing care.

Keywords: Electronics Nursing Records, Quality of nursing care, Care software, In-house IT development
High-Risk Medication in Community Care (HaRMonIC study): a Delphi consensus study

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This study aims to reach consensus on which medication (groups) can be considered as bearing a heightened risk of (serious) harm in a community care setting; for which medication (groups) additional monitoring or interventions are needed from home care nurses; and for which medication (groups) specific procedures for home care nurses are needed.

The Delphi consensus method is used in this study. (Inter)national researchers with extensive knowledge and/or experience with (high-risk) medication were recruited. A systematic review identified a list of HRM, which were used to shape the assessment document for the first round. Additional items were included in the second round, based on the panel’s feedback in round 1. Please note that the second round of this study is currently still running. The study is slightly delayed due to the multitude of information received in the first round and the summer holidays which have to be taken into account. The results of the study will be available in September 2018.

Consensus is defined as at least 80% agreement on an item. Of the 29 items presented to the panel members in round 1, consensus was reached on 20 to include them from the HRM list in community care. Experts suggested possible interventions or monitoring by a home care nurse for each item specifically.

Consensus was not reached for 6 items. Additionally, 30 new medicine (groups) were suggested by the experts. These items are included for assessment in the second round.

The goal of the study is to identify a list of high-risk medication in community care. More specifically, agreement is sought to which items need to be supported by clinical home care nursing procedure to improve safe medication management and thus maximize patient safety.

Keywords: high-risk medication, medication management, nursing, community care, interdisciplinary cooperation
High-Risk Medication in Community Care (HaRMonIC study): a systematic review

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The University of Antwerp and the organization for home care nursing, White-Yellow Cross of Flanders, are collaborating to develop a policy on high risk medication (HRM) in community care. HRM should be managed with care as the risk for adverse drug reactions and harm for patients is higher. Health care institutions should identify HRM and use specific safety measures and guidelines in dealing with HRM.

A first step in the context of this collaboration is a systematic review to examine the existing literature about HRM in community care. The literature search was conducted in the following electronic databases: MEDLINE (PubMed); Scopus; Web of Science; Cochrane; and CINAHL. Additional literature was manually searched. Data extraction and analysis was completed on all included studies by independent reviewers. As the purpose of the study was to find out the use and meaning of HRM in community care, articles were primarily assessed with regards to their view on HRM and the way in which they reported on this subject.

Our review highlights the paucity of studies in community care, more specific about HRM. Only 18 articles met the inclusion criteria. Despite this limitation, 33 HRM or overall categories were identified as bearing a high-risk for patient harm in a community setting. Most researchers rely on the ISMP (Institute for Safe Medicine Practice) list of HRM, literature or reported incidents. The HRM (categories) most frequently identified in community care were anticoagulants, opioids, warfarin and digoxin.

The findings of this review suggest that additional research is needed to identify high-risk medication in community care. Improving (high-risk) medication care is a crucial aspect that involves all healthcare settings on a worldwide basis.

Keywords: medication management, nursing, community care, interdisciplinary cooperation, pharmacotherapy
Processes underlying nurses’ feelings of successfulness in self-management support - A qualitative study

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Background: Nurses play an important role in supporting patient towards self-managing their chronic condition. Research indicates that nurses might rely on their patients’ (non)adherent behaviour to benchmark their own professional success in self-management support. This study investigated the processes underlying nurses’ feelings of successfulness in supporting patients towards self-management.

Methods: A grounded theory study was performed. Nurses were purposely sampled from internal hospital wards, outpatient clinics and home care organisations. Data were collected through 15 semi-structured individual interviews, through an iterative process of data collection and data analysis. Constant comparative method was used to analyse data within and between interviews. Researcher triangulation was used.

Preliminary results: Self-management is defined as patients being competent to handle self-care deficits concerning their chronic illness. Nurses’ main purpose seems to make sure that patients follow the prescribed treatment. Nurses act according to an interactive process to make sure patients are compliant. When patients follow the prescribed regimen, nurses felt successful, and proud about the way they fulfill their job. However, when patients make choice which does not coincide the prescribed regimen, nurses try to convince or to control patients. Feelings of failure become present. Sampling will go on until data saturation is achieved.

Discussion: The preliminary results made clear that nurses’ feelings of successfulness or failure get interwoven with patients’ behaviour in self-management. It will be crucial that nurses consider self-management not only as ‘being compliant’ or as ‘handling on their own’. Nurses should be supported to reflect on the influence of patients’ behaviour on their professional feelings of successfulness.

Conclusion: Full results will be available by October 2018 and be presented at the congress. An in-depth understanding of the processes underlying nurses’ feelings of successfulness in supporting patients towards self-management will be meaningful to consider in training in self-management support.

Keywords: compliance, self-esteem, self-management support, qualitative research
Medication Management by Older People in Transition from Hospital to Home: preliminary study protocol

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Background: Medication adherence is vital to ensuring optimal older people outcomes particularly amongst those who take multiple medications. Transition from hospital to home may lead to non-adherence.

Interventions targeting adherence often lack a theoretical underpinning and this may impact on effectiveness. A minority of trials reported improvements in both medication adherence and clinical outcomes in the intervention group. However, specific components were poorly described in published reports. There remains a paucity of evidence on the effectiveness of the interventions.

This project aims to develop a theory and evidence-based complex intervention to improve medication adherence by older people in transition from hospital to home.

Methods: This is a mixed-method study, grounded in the Medical Research Council framework to develop and evaluate complex interventions and in the Behaviour Change Wheel theoretical approach to design interventions.

The intervention development will comprise the identification of the effective component on medication adherence as Behaviour Change Techniques, through a systematic review.

A cross-sectional study will collect detailed information about the determinants of adherence to multiple medication in older people (≥65 years), through a quantitative and qualitative approach.

Focus group with nurses will be conducted to gain a better understanding of the most appropriate intervention components and how could it be delivery.

In the second stage will be a non-randomised, non-controlled feasibility trial. Eligible subjects admitted in hospital and living at home will be invited to participate. Main outcome measures include adherence, knowledge and capability to management the medication. Acceptability will be researched through focus groups.

Results: Data collection started in November of 2017. The data analysis of the cross-section study is now being performed for designing the intervention.

Conclusion: The study is expected to yield new insights on the components of an intervention to change medication adherence, with potential to become an effective intervention.

Keywords: medication adherence, intervention, behaviour change, older people, transition
Patient goals at the core of the interprofessional team: nurses in pole-position

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Context: Goal oriented care has been suggested as an approach to refocus from disease-oriented to person-focused care but the concept challenges providers in the field who want to adopt the theory into practice. In 2015 Community Health Centre (CHC) Botermarkt introduced the concept of goal oriented care (GOC) into the interprofessional meetings for complex patients. This presentation illustrates the key role of the nurses in this reform.

Methods: In this presentation we integrate qualitative interviews with providers on the implementation and operationalisation of goal oriented care in the CHC, a review of documents on the implementation process and a focus group with the nurses.

Results: A central aim was to have the patient and their caregivers to be present at the meeting. To systematically introduce the patient’s perspective, patient goals were explored with the patient prior to the meeting. This conversation with the patient was performed by one of the nurses. To shift the focus of the team from the diseases to the person, the International Classification of Functioning, Disability and Health (ICF) was used as a framework for the discussion in the meeting.

Discussion: The implementation process introduces a common perspective on the patients’ overall functioning and personal goals. The nurses play a leading role in initiating the process of exploring the patients’ goals: they organize and conduct the patient interview and introduce the patients’ perspective in the interprofessional meeting. This position acknowledges their role as patients’ advocate, their relationship of trust, reinforces their position in the team, and supports them in their increasing role of coordination of care for complex patients.

Conclusions: Goal-oriented care supports providers to focus on the patients’ personal goals, enhances patient participation and supports teams to develop a common philosophy. Nurses take a leading role in introducing and guarding the patients’ perspective.

Keywords: goal oriented care, home care, community health centre, interprofessional team
The burden of the frail elderly caregiver in southern Italy. Results of a survey

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Background: Care for the frail elderly is mainly home care. Therefore, the function of the caregiver, which is facing a very heavy physical and psychological burden, if not properly evaluated and dealt with, becomes important.

In ASL Bari, assistance to the frail elderly is carried out through the structure "Assistential Fragility", with a team of nurses who manages over 400 patients in the province of Bari.

Aim: Evaluate the burden of the home caregiver of the frail elderly patient

Methods: The assessment of the burden was carried out through the Caregiver Burden Inventory. Maximum score 96, maximum score in the individual domains of 25, except for the domain of the physical load, equal to 20. The administration of the questionnaire took place at home. Data collection October - December 2017.

Results: The subjects involved in the study 72, Females 75%, Males 25%. Mean age 57.26, SD 12.8, Min 24, Max 79. 91.7% Italian, 90.3% relatives of the patient. Caregiver activity ranges 1 to 32 years, mean 7.49, DS 7.53. The results of the evaluation shows a burden between 5 and 77, mean 47.32, SD 17.28. For individual domains: objective burden, 5-20, mean 18.15, DS 2.37; psychological burden, 0-20, mean 12.07, SD 6.20; physical burden, 0-20, mean 10.51, SD 6.3; social burden, 0-20, mean 5.74, DS 5.26; emotional burden, 0-14, mean 1.94, SD 2.94. There are no significant differences to sex, relationship or level of education.

Discussion: The data show that the burden most tested by caregivers is objective, related to the time limitations that they suffer because of the need for assistance. Psychological and physical burden is a medium level, social and emotional burden is a low level.

Conclusion: The results suggest activating organizational models able to lighten the objective burden of caregivers, in order to normalize their social life

Keywords: caregiver, frail elderly, nursing home

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BACKGROUND: There is evidence that clinical deterioration on hospital general wards is often missed, misinterpreted, and mismanaged. Rapid Response systems (RRSs) have been proposed to solve this problem. The aim of this study was to investigate the effect of an RRS on the incidence of unexpected deaths, cardiac arrests, and unplanned intensive care unit (ICU) admissions.

METHODS: We conducted a stepped wedge cluster randomised controlled trial including 14 acute care hospitals in Belgium with two internal medicine and two surgical wards each. Wards were randomly paired per hospital and assigned to four groups. Over the course of 20 months, each group of wards shifted from the control group to the intervention group. The intervention comprised a standardised observation and communication protocol including a pragmatic medical response strategy. The primary outcomes were unexpected death, cardiac arrest and unplanned ICU admission. Comorbidity and nursing staff levels were collected as potential confounders.

RESULTS: Seven hospitals with 28 wards were included in the final analysis between October 1st until May 31st 2015. In total 34267 patient admissions were assigned to the control group and 35389 were assigned to the intervention group. We found no difference in unexpected death rates (1.5 vs 0.7 /1000, OR 0.82, 95% CI 0.34 to 1.95), cardiac arrest rates (1.3 vs 1.0 /1000, OR 0.71, 95% CI 0.33-1.52) or unplanned ICU admissions (6.5 vs 10.3 /1000, OR 1.23, 95% CI 0.91-1.65) between the control and intervention group when adjusted for clustering and study time.

DISCUSSION: We found a lower than expected baseline incidence of unexpected death and cardiac arrest rates. This reduced the statistical power of this study significantly.

CONCLUSION: Introduction of our intervention did not change the incidence of unexpected death, cardiac arrest or unplanned ICU admission when adjusted for clustering and study time.

Keywords: early warning score, rapid response system, patient outcomes
The relation between nurse staffing levels and death after serious adverse events in Belgian acute hospitals.

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BACKGROUND: There is growing evidence indicating that improved nurse staffing in acute hospitals is associated with low hospital mortality. The objective of this study was to explore the relation between nurse staffing levels and unexpected death rates on medical and surgical wards.

METHODS: We included all adult patients admitted to 14 medical and 14 surgical wards in seven Belgian hospitals. Patient’s age, comorbidity, crude ward mortality, unexpected death, cardiac arrest with CPR and unplanned admission to the ICU were collected. A combined mortality indicator was constructed including unexpected death and death up to 72 hours after cardiac arrest with CPR or unplanned ICU admission. The amount of nursing hours per patient days (NHPPD) were calculated for each participating ward. Data were aggregated to the ward level for regression analysis.

RESULTS: This study included in total 34,267 patient admissions. The combined mortality rate was 2.8 per 1000 admissions. No significant correlation was found between the NHPPD and ward crude mortality. Nurse staffing levels showed a significant negative association with unexpected death (B: -1.455, p: 0.042) and cardiac arrest (B: -1.410, p: 0.030) controlled for age and comorbidity. We found a significant negative association between the NHPPD and the combined mortality rate controlled for age and comorbidity (B: -2.292, p: 0.023, adj.R2: 43%).

DISCUSSION: The average comorbidity index was estimated by sampling at least 30 consecutive patient admissions across all wards. Furthermore, nurse staffing levels were also estimated by averaging a 15-day collection period. This could have influenced our results.

CONCLUSION: In this study we showed an association between nurse staffing levels and death after serious adverse events while controlling for important patient related contributing factors. We estimated, using the regression equation, that the minimum nurse staffing levels in wards with low comorbidity (CCI ≤ 0.5) should be 2.89 NHPPD to provide safe care.

Keywords: Safe care, nurse staffing levels, serious adverse events, unexpected death
The meaning of dignity in sick elderly women living at home

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Background. A literature review showed that there are few studies that investigate how older women experience dignity. An empirical study was therefore conducted in which there was searched for testimony of dignity of elderly sick and frail women living at home.

The purpose of the study is to understand what dignity means in older women who are sick and helpless. The overall research question was: What is the nature of dignity in the light of transcribed texts from research conversations with older women? The sub-questions were: What is dignity in light of aging and failing health? What is dignity for women when looking back on their lives? What do women themselves do to maintain dignity?

Methodology. The study’s theoretical framework was the caring science theory developed by the Finnish theoretician Katie Eriksson. The collection of data and the interpretation of results were in line with Hans-Georg Gadamer’s philosophical hermeneutics.

Results. Four themes emerged. 1. To create and shape oneself and one’s life; 2. The alleviating power of reconciliation; 3. Confirmation; and 4. To exist for one’s fellow human beings.

Discussion. Dignity of the older women is something that is given by the human being’s holiness and something that human beings must strive to be in touch with. Human dignity rests on a fundamental possibility of freedom to push the limits and create his life fully. In a constant struggle in which man lives ones unique life in the basic conditions of suffering, with contemporary and cultural ties and limitations, human dignity can be renewed when man discovers his great freedom to live out his own truth.

Conclusion. There is a need to understand older women both based on the specific everyday life they live and their longings to come home in themselves.

Keywords: dignity, elderly, woman, struggle, hermeneutic
The ethical mandate of the new established German Nursing Boards

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Background: Nursing boards are currently discussed in Germany and established in several federal states. Their political scope is to assure safe and competent nursing care. In the context of the boards' mandate, ethics support is seen as an important element.

Methods: The paper presents a dissertation work in progress. A preliminary scoping study was conducted. Beyond peer-reviewed studies, also position papers, books and grey literature etc. were included, analysed and interpreted.

The aim of the contribution is to show the going-in position in Germany. How concrete are the general norms? Which structures and processes are already provided to handle with ethical questions in health care? How is the nurses' outcome? Where are the vacancies that the boards' ethical mandate should fill?

Results & discussion: In these days, German counties are passing laws to establish Nursing Boards. Ethics is being regulated in different general norms with divergent obligations, but overarching purposes and contents remain vague. Stakeholders are filling these gaps with ethical fragments. Therefore “ethics” seems to be used as a “ wildcard”.

Mapping the landscape of German ethics consultation shows inconsistency. Ethical complexity is perceived as morally burdensome in nurses' everyday professional life. Studies improve high moral burden, even higher than among physicians. That can lead to impaired health. But the nurses' perspectives are marginalised nor they appear as a target population for ethical support. A systemic solution is needed.

Conclusions: Nursing Boards are considered as legally accountable corporate actors for national health care. Therefore, registered nurses become moral agents who fulfil this political obligation. Conversely, Nursing boards also carry responsibility for the nurses' health and wellbeing that is essential for the provision of high-quality, ethical care.

To fulfil the boards’ ethical mandate a public health framework offer the systemic support of health-promoting, ethical nursing work and gives nurses a voice.

Keywords: German nursing boards, ethical mandate, nurses’ moral burden, healthy ethical workspaces
Background. The number of patients with dementia is still increasing. With about 70% living at home, the need for homecare nurses will increase. Assistive technology (AT) can support home care personnel, resulting in high quality care. However, most AT is not adapted to the needs of persons with dementia. This study aims to investigate the specific needs of persons with dementia and their (in)formal caregivers in relation with AT and aging in place.

Methods. To investigate the most important problems patients with dementia experience, patients (n=18), informal caregivers (n=72) and healthcare professionals (n=93) filled in the FINAH and AmsterdamseIADL questionnaire. Detailed information about the problem activities, their bottlenecks and requirements for AT were inventoried with focus groups and semi-structured interviews with 6 informal caregivers and 20 healthcare professionals.

Results. Problem activities mentioned by all three groups were: make payments, using household appliances, using remote control, using a phone, shopping, making appointments, complete forms, understanding finance and preparing meals. Learning new things, being depressed, uncontrolled behaviour and toileting was mentioned by two groups. Bottlenecks of these problem activities were within the following categories: insight/perception, structure, habits, behaviour/emotions, disorientation, complexity, forgetfulness, learning new things, safety, not performing, social participation, co-morbidity and distraction. These bottlenecks were translated into functional requirements of assistive technology.

Discussions and conclusion. This exploratory study gives an overview of the most important problem activities for patients with dementia, their bottlenecks and the requirements for assistive technology. There was much overlap between clients, and (in)formal caregivers regarding the problem activities, but the number of clients was limited. The results are reported to companies specialized in assistive technology, to support user-centred-design and to develop/adapt products or services for persons with dementia living at home. The challenge is to convince these companies to incorporate the needs and requirements into product development.

Keywords: Home-care nursing, dementia, assistive technology
Vital Signs: the Magic Key in Preventing Hospitalization and Death amongst Older Adults Living in Nursing homes?

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Background: Yearly, 10% of nursing home (NH) residents are hospitalized, implying an impact on the resident, his environment, society and healthcare costs. Furthermore, these hospitalizations are often avoidable. No validated instrument exists to detect acute physical deterioration of NH residents. The purpose of this project is to study the relation between (changing) vital parameters and negative health outcomes, and to develop an instrument able to detect early signs potentially giving rise to physical decline.

Method: In this cohort study, vital signs were weekly assessed in 170 NH residents aged 65 and older. Vital signs included blood pressure, heart rate (HR), respiratory rate, saturation and body temperature. The medical records were consulted to register hospitalizations and deaths that occurred during a follow up (8 weeks). This abstract was based on preliminary baseline data.

Results: Seventeen residents were hospitalized (10%) and 5 died during follow up (3%). There was a significant weak positive correlation between HR and hospitalization ($r=0.152; p<0.05$), between HR and death ($r=0.214; p<0.05$) and a significant negative (moderate) correlation between saturation and death ($r=-0.353; p<0.001$). Those who were hospitalized had a significantly higher HR than those who remained in the NH ($p<0.05$). The same trend was observed for residents who died during follow up ($p<0.05$).

Discussion: Literature supports the proportion of hospitalized NH residents (10%) and confirms that higher HR gives rise to elevated risk for hospitalization and death. However, this has mainly been studied in people with increased cardiovascular risk and in hospitalized populations. Limitations of the current study are a small sample size and possible confounders, such as infection without hospitalization.

Conclusion: HR positively correlates with hospitalization and death in NH residents. A negative correlation was found for saturation and death. We recorded a significantly higher HR in NH residents who were hospitalized or died during follow up than those who remained at the NH. Expansion of the cohort and further research on the optimization of a screening tool is foreseen within this project in order to make more profound pronouncements on the topic.

Keywords: Vital signs, nursing home residents, hospitalization, death, prediction
Bedside handovers: 10 practical lessons learned

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Background: During the bedside handover, the nurses’ clinical handover is given at the patient’s bedside. The method has gained interest of the nursing community due to acclaimed positive outcomes. Still, questions regarding the process, its implementation and the effects remain due to a lack of large scale, multicentred studies. These questions lead to failed or hindered implementation, depriving patients of more person-centered care.

Methods: During the last three years, a multi-centred, longitudinal, mixed method study on bedside handovers was conducted. The results and analyses from observations (n=1661), questionnaires (=964), interviews and focus groups (n=195) were integrated in order to provide 10 practice-oriented recommendations concerning the implementation and use of bedside handovers.

Results: Practical recommendations on handover duration, privacy in semi-private rooms, the attitude of nurses towards the method, compliance to the method, patient safety, applicable nursing wards, nurse-related and patient-related outcomes, the development of the method and the organizational approach for implementation are given.

Discussion: The translation of scientific evidence to practice-oriented advice is needed to bridge the distance between research and practice in order to enable the correct use of innovative methods in practice as soon as possible.

Conclusion: Based on the results of the overall study, ten practical insights for nursing practitioners and nursing managers are given in an accessible infographic to assist them in future implementation processes of the bedside handover.

Keywords: nursing, bedside handover, practice-oriented, infographic
Is ‘privacy’ a problem during bedside handovers? A practice-oriented discussion

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Background: Bedside handover is the delivery of the nurse-to-nurse handover at the patient’s bedside. Although increasingly used in nursing, barriers for delivering the bedside handover are reported. Amongst these barriers is the possibility of breaching the patient’s privacy in semiprivate rooms. By referring to this issue, nurses add a legal/ethical dimension to the delivery of bedside handovers, impeding its implementation.

Methods: Patient’s privacy during handovers in semi-private rooms is analyzed by use of observations (n=638), interviews with nurses (n=107), interviews with patients (n=48), and a narrative review on the topic.

Results: Patients report a need for more information and regard bedside handovers an adequate medium for meeting their needs. Moreover, patients indicate that bedside handovers are not the only situation in practice where infringements of privacy are possible. Nurses regard privacy as paramount, while observations show that actions to protect patient privacy are often forgotten. While much literature on nurses’ opinions concerning the topic could be found, information on the patient’s perspective was almost non-existent.

Discussion: As nursing guidelines and codes of ethics do not provide an answer, two mutually exclusive possibilities about privacy during bedside handovers are discussed. First, if bedside handover does pose problems concerning privacy, this situation is not unique in healthcare and measures can be taken during the bedside handover to safeguard the patient. Second, if bedside handover does not pose problems concerning privacy, privacy is misused by nurses to hide professional uncertainties and/or a reluctance towards patient participation.

Conclusion: A possible breach of privacy -whether a truly argument or not- is not a reason for not delivering the bedside handover. In view of the increased emphasis on the individual patients’ perspectives in daily nursing practice, similar questions will further challenge the the sustainability and validity of the current guiding frameworks of the nursing profession.

Keywords: nursing, bedside handover, ethics, privacy
Dementia-Service Lower Austria – A low-threshold offer to improve the situation of people with dementia und their relatives in the domestic setting

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Background: In Lower Austria, a federal state of Austria, about 22,000 people suffer from dementia, until the year 2050 the number will probably double. Embedded in the Lower Austria dementia strategy, the pilot project „Dementia-Service Lower Austria“ was developed and started in January 2018. People with dementia and their relatives, living in the test region, can contact the free low-threshold service when they have any questions or need support. Essential are counsellings at home or at dementia info-points by carers with special knowledge about dementia. During the pilot phase a scientific evaluation is carried out to generate recommendations for a scientific foundation of the programme and for a higher feasibility of the planned broadening throughout Lower Austria.

Methods: The evaluation focuses on counselling, therefore questionnaires and semi-structured interviews with relatives are conducted. According to the local guidelines no ethic vote is needed. The analysis of the questionnaires is made by using the statistics programme SPSS and the interviews by content analysis.

Results: During the first five months 68 counsellings with people with dementia and their relatives including an assessment were conducted. Counselling topics were e.g. „behaviors caused by illness“, „medical clarification“, „optimisation of care“ and „family members burdens“. Initial tendencies of the evaluation show that counsellings can reduce problems of the relatives and the quality of advice is very positively perceived. The importance of the service for this group of family caregivers is emphasised.

Discussion: Due to the counsellings important informations and support can be granted with regard to existing problems in everyday life. Moreover the mediation to other services in the health care system can be done. A consistent and guideline-based approach is necessary.

Conclusions: This service contributes to close a gap in the local care system. First recommendations can be made relating to structural and content related issues.

Keywords: people with dementia, relatives, counselling, domestic setting
Effect without evidence – the „scientific voicelessness“ relating to established nursing Interventions. Facts – reasons - (potential) solutions

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To test nursing interventions to provide scientific evidence for nursing practice is one of the main challenges of nursing research. Whereas in some areas (e.g. prevention of decubitus ulcer) there is satisfying scientific evidence, there is poor or no evidence in other fields of nursing interventions (more communication- or interaction related interventions). But often this scientific diagnose is in contrast to the perceived effect in nursing practice. This paper aims on the discussion of the possible reason of this discrepancy and will develop potential solutions for nursing research. The nursing intervention „Validation“ and its scientific evidence (versus the practical effects) will be the example, which leads this debate.

Validation is a model which was developed in the 1960th in the USA by Naomi Feil. Its aim is to improve and foster the communication and interaction with people suffering on dementia. Validation therapy as a nursing Intervention is used for more than 20 years in Europe as well as in the US. Nurses are reporting a visible benefit of this intervention. In contrast to that, the results of a systematic review, carried out by the institute of nursing research at the University of Vienna, showed that there is no scientific evidence of the effect of Validation.

The question about the reason behind this discrepancy is the central focus in this paper and it will be worked out on the basis of further detailed questions: Can this discrepancy be explained up to methodological reasons (an ineffective approach for measurement of effects of nursing interventions in general)? Or is it more up to the state of people with dementia, which makes it impossible to generate evidence? Can this be explained by the model (and its „non – scientific“ development process) itself? Or is Validation a nursing intervention which has no objective effect?

Keywords: scientific evidence versus practical effect, validation, theory based evaluation, realist evaluation
The "Integrative Model of Person Centred Care" - a framework for nursing practice in longterm care

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As part of a initiative of the federal state Lower Austria the development of a framework for all 48 Nursing Homes was commissioned. Two perspectives - that of science and practice - should ensure that both the current scientific debate as well as regional practical knowledge and innovative ideas of the nurses were considered. The aim was the development of a framework that meets regional conditions, cultural diversity and different forms of care and guarantees innovation, feasibility and long-term sustainability.

For development the process has been designed action-oriented (in alternating phases of developing, feedback, reflection) and participatory to actively incorporate the expertise and experience of the nurses. In addition to the continuous literature research, focus groups (4/n = 47), 9 site visits in selected nursing homes, 2 expert rounds and 2 panel sessions were conducted. First results of the literature research structured the focus groups. They were analysed thematically and merged with the theoretical findings. Site visits and expert discussions were conducted to gain a closer look at specific practices. To develop a first concept, the structure of W.K. Kellog Stiftung (2004) was used. At the end of the process, 2 panel sessions took place, to validate the first construct. Since the core concept was person centredness, the concept was merged with the Person Centred Practice Framework (McCormac & McCance 2017).

The result is the "Integrative Model of Person Centred Care" that describes person centredness at different levels and provides a basis for all care and support processes as well as for organizational, strategic and structural measure. It also provides the theoretical framework for evaluation. In an implementation process based on the principle of action-oriented learning, it was introduced in all state nursing homes. Additionally a 4-year research project for theory based evaluation has begun.

Keywords: model development, person centered care, long term care
The process of drug self-management - a qualitative study to empirically substantiate and develop the model of Bailey et al. (2013)

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For the correct intake of drugs a variety of skills and knowledge are necessary, which are subsumed under the term drug self-management. Bailey et al. (2013) have developed a first descriptive model. The aim of the project is to create a basis for the development of a counselling concept for the improvement of drug self-management through the empirical deepening of the model.

The methodological approach is based on the idea of responsible science, so that a participatory and action-oriented design for the development was chosen.

Together with patients and nursing experts, a semi-structured questionnaire on drug self-management based on the model of Bailey et al. (2013) was developed and validated. The data were collected via a hospital, pensioner clubs, self-help groups and through snowball system. For data analyses, open and axial coding was used.

Results: The sample consists of 447 questionnaires. The average age of the participants is 63, the average number of medications taken daily is 4.5. The process of drug self-management turns out to be much more differentiated than described in the previous model. Factors such as health behaviour, subjective theories of illness or the social environment have a major impact on drug self-management. The steps have been extended by an additional (reacting). "Understanding" is no longer seen as an isolated component, but as a superordinate factor that acts on "get", "ingestion", "self-observation" and "react". The experience leads to the integration into the everyday life and requires the maintenance.

Conclusions: This first version of the revised model is a good basis for the development of counselling processes and for assessment and evaluation procedures. However, a further validation of the model is needed, in which it should be checked whether the processes as well as the identified influencing factors are durable or require further revision.

Keywords: drug-self management, model development, participatory approach
Is preoperative anxiety related to postoperative delirium in older cardiac surgery patients?

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Background: Delirium is a common neuropsychiatric condition after cardiac surgery. A possible relationship between preoperative anxiety and postoperative delirium would open opportunities for a preventive approach. This study aimed to explore the relationship between preoperative anxiety and postoperative delirium in older cardiac surgery patients.

Methods: Secondary data analysis comprising data from the control group of a randomized controlled trial. The study included 94 patients aged 65 years and older, scheduled for elective cardiac surgery with the use of cardiopulmonary bypass. Preoperative anxiety was measured using the Amsterdam Preoperative Anxiety and Information Scale (APAIS) and the Visual Analogue Scale for anxiety (VAS). Postoperative delirium and its severity were measured using the 3-minute Diagnostic Confusion Assessment Method, the Confusion Assessment Method for the Intensive Care Unit and the CAM Severity short form.

Results: Thirty-seven (39.4%) patients developed delirium postoperatively. Thirty (31.9%) patients had state anxiety symptoms prior to surgery. No association was found with anxiety and severity of postoperative delirium: based on multivariable logistic regression analysis, only the EuroSCORE II (OR=1.14, 95% CI=1.00-1.29, P=0.043) was found an independent predictor of delirium, whereas APAIS fear (OR=1.02, 95% CI=0.85-1.22, P=0.861), APAIS info (OR=0.90, 95% CI=0.72-1.14, p=0.378), VAS anxiety for surgery (OR=1.02, 95% CI=0.99-1.06, p=0.207); and VAS anxiety for anesthesia (OR=0.98, 95% CI=0.95-1.01, p=0.201) were not.

Discussion: Despite no relationship was found between preoperative anxiety and postoperative delirium, a clinical difference could be observed between delirious and non-delirious patients for VAS anxiety for surgery (median 39, (IQR = 44) vs median 28 (IQR = 39)). Lack of power can be explained by the wide interquartile range. EuroSCORE II (a measure of baseline vulnerability) as an independent predictor of delirium is not aberrant from previous findings in literature.

Conclusion: This study could not identify a statistically significant relationship between preoperative anxiety and postoperative delirium. Further research is advisable because of inconclusive results in this domain.

Keywords: Preoperative anxiety, postoperative delirium, cardiac surgery
Clinical leadership: defining, recognizing and facilitating leaders in bedside nursing care

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BACKGROUND: Nurses have a considerable role in coordinating and implementing interdisciplinary care in hospitals in order to guarantee the quality of care. Therefore every nurse has to possess leadership qualities, including nurses without a formal leadership role.

The aim of this study was to define the concept of clinical leadership and to understand how clinical leaders can be recognized within a nursing team. This includes how nurses can become aware of their own leadership skills and what they need to grow within their role as clinical leader.

METHODS: This research was conducted using the methodology of human centered design. In the first phase exploratory interviews with experts and semi-structured focusgroups were held. This was followed by a systematic literature review and in-depth interviews with key stakeholders such as bedside nurses, senior nurses, hospital managers and nursing students. Qualitative content analysis of the gathered data was done.

RESULTS: The concept of ‘clinical leadership’ involves bedside nurses who deliver daily care, act as a role model and influence, motivate and inspire others with their values and beliefs to improve patient care, without having formal authority. Characteristics as creativity, clinical expertise, effective communication, flexibility, responsibility and vision towards the future are linked to this concept. There is a positive correlation between the presence of these clinical leaders and the quality of the nursing care. Senior nurses acknowledge and recognize these leadership qualities in bedside nurses, but nurses do not recognize this within themselves.

DISCUSSION AND CONCLUSION: Understanding of this concept is necessary to raise leadership-self-awareness in bedside nurses, which has a positive impact on the quality of care. Further research is being conducted.

Keywords: clinical leadership, nursing, bedside care
The meaning and visibility of care in a classic text

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The background of this study is an uneasiness that love and what is the natural and original care can be covered, forgotten and lost in a time of increased individualism and self-centering.

The purpose of the study is to explore the meaning and visibility of care in the encounter with suffering in a classic text. The chosen text is ‘Ivan Ilijit’s death’ by Leo Tolstoy.

Methodology. Hermeneutic reading of text was employed as a methodological approach.

Results. Throughout the hermeneutic reading, three main themes emerged: a) Being self-sufficient – when independent and not vulnerable; b) Being oneself is not enough – when dependence and vulnerability are actualized; To become oneself – when dependence and vulnerability encounter care.

Discussion. The classic text shows that care may have poor growth conditions in humans. It shows how man can become self-sufficient in his efforts of enjoyment and pleasure. When the human pleasurable life is disturbed and vulnerability awakes, independence becomes insufficient, which leads to an appeal to be seen and met with care. Care is timeless in time.

Conclusion. The appeal from the other to be seen and met with care might be answered or ignored. When the appeal is answered by responsibility, reconciliation might be reached. Awareness of protecting the basic conditions of life gives the care the opportunity to reach out and realize independent of time.

Keywords: Meaning of care, suffering, classic text
Perception of patient safety culture among Slovene members of nursing teams

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Background: Safety culture is an important quality care indicator, however, there is little known about patient safety culture in Slovene acute hospitals from nursing team members’ perspective. The aim was to research patient safety culture in Slovene acute hospitals among nurses and nursing assistants.

Methods: A cross sectional study using self-reported Safety Climate Survey (SCS) was conducted in April 2015 on a sample of nurses and nursing assistants working in medical and surgical wards (n = 386) at one university clinical centre in Slovenia. Data were analysed using descriptive and inferential statistics (IBM SPSS Statistics, Version 22.0 for Windows).

Results: The response rate was 77% (294/386). The internal consistency of the SCS was 0.86. Respondents perceive their concerns about patient safety is not listened by senior leaders (M=2.40, SD=1.2) and that their suggestions about safety are not taken into consideration (M=2.62, SD=1.1). Out of a maximum score of 5, the Overall mean and the Safety Climate Mean (SD) scores of the SCS were 3.3 (0.5) and 3.2 (0.6), respectively. No statistically significant differences were found between medical and surgical wards.

Discussion: The findings show that safety culture in Slovenia is still developing. Nurse managers should actively include members of nursing teams in establishing patient safety and they should be able to learn from the mistakes and errors in a blame free environment. Findings should be interpreted with caution. The generalization of the results is limited due to convenience sampling and inclusion of only one health care institution. Data were gathered using self-reported questionnaire therefore social desirability bias is possible.

Conclusion: Study provides an assessment of perceived safety culture among members of nursing teams. Strategies for creating blame free learning culture should be implemented.

Keywords: safety culture, cross-sectional survey, nursing

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Background: The Gold Standard of development and evaluation of complex interventions is specified by the Medical Research Councils (MRC) -Framework. The framework emphasizes to base every evaluation on a theory that explains WHY an intervention works instead of focusing exclusively on the identification IF an intervention works. Theory-based evaluation approaches, such as realist evaluation (RE), may be suited to understand active ingredients of complex nursing interventions and their impact on outcomes. It is the aim of the present ongoing state-of-the-art review to examine current scientific literature with regard to the use of RE in studies that evaluate complex interventions in nursing. We also seek to answer the question if RE studies of complex nursing interventions are embedded in the MRC Framework.

Methods: A systematic database search was performed in MEDLINE and CINAHL between January and February 2018. Title/Abstract and the full-text of results from the database search were screened independently by both authors to finally select the studies. Snowballing techniques and hand search are performed after final selection. Selection criteria were the explicit use of RE and a focus on the development or evaluation of a complex nursing intervention.

Preliminary results: The initial database search resulted in n=254 hits. From these, n=35 full-texts were screened. Reasons for further exclusion were: no explicit use of RE (n=9), focus was not on evaluation of complex nursing interventions (n=12). Finally, n=14 studies from the database search were included. RE was used in the following nursing disciplines: Midwifery, Geriatrics, Intensive care, Long term care / Forensic care. Mixed- or multi-methods approach was used in n=8 studies; others were qualitative studies. The studies varied with respect to the reporting of core elements of RE. None of the studies referred explicitly to the MRC Framework. Further results are expected after finalizing the literature search.

Keywords: Realist evaluation, complex nursing intervention, state-of-the-art review, MRC-Framework
The conceptualization of ageing in place of older people: a scoping review

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Introduction: The term “Ageing in Place” is increasingly mentioned in the literature; however, there are many different definitions and descriptions available. To understand the term better it is therefore necessary to create a definition that includes all different aspects and viewpoints from the literature. Understanding the concept of ageing in place may be helpful for health care professionals to set up meaningful and effective interventions around older people and their network, which can be of complementary interest for the quality of life of older people.

Aim: The purpose of this scoping review is to give an overview of the extent, range, and nature of existing definitions, concepts and characteristics of the term “Ageing in Place” and to identify research gaps in the existing literature.

Methods: The Arksey and O'Malley's scoping review methodology with its six phases was used. This review uses several electronic databases (PubMed, PsychInfo, EMBASE, CINAHL, SAGE) and search engines (Google scholar). Inclusion and exclusion criteria were formulated to ensure the focus on ageing in place. Two reviewers did data selection and charting separately. A qualitative content analysis approach was used.

Results: Out of 3308 retrieved articles 30 met the inclusion criteria. The following concepts related to ‘Ageing in place’ were identified: physical place and attachment to place (n=20), technology (n=5), support (n=2), social networks (n=2) and personal characteristics such as being resilience or independency of older people (n=1). Ageing in place is a term with a broad and holistic perspective of hardware elements (physical place and technology), software elements ((in)formal support, available infrastructure, facilities and services) and mindware elements (attachment to place, personal characteristics, culture).

Conclusion: Healthcare professionals should take into account hardware, software and mindware as a holistic integrative approach in order to achieve support that really contributes to the quality of life of older people.

Keywords: ageing in place, independent living, liveability, scoping review, older people
Associations of care dependency and dementia symptoms with four year survival in an inception cohort of nursing home residents

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Background: Survival in older adults has a high variability. The possible association of length of survival with care dependency and dementia symptoms is debated. Our aim was to examine the four-year survival rate, the prevalence of care dependency and dementia symptoms at admission, and the association between the two, in an inception cohort of newly admitted nursing home residents.

Methods: Data were used from ageing@NH, a prospective observational cohort study in nursing homes. Residents (n=613) were followed for four years after admission or until death. Care dependency and dementia symptoms were measured at admission. The Kaplan-Meier method was used to estimate survival, using log-rank tests for subgroup analyses.

Results: Mean age was 84, 65% were females. The main reasons for admission were physical decline (63%), increasing care needs (58.5%), and cognitive decline (36%). After one, two, three and four years the survival rates were respectively 79%, 60.5%, 47% and 36%. At admission, 38% were highly care dependent, and 34% had dementia symptoms. Survival rates were lower in residents with high care dependency and dementia symptoms compared to residents who were less care dependent and without dementia symptoms. A higher survival rate was also associated with younger age and female gender.

Discussion: These findings support the assumption that, generally, older adults are frail at nursing home admission, and their health has deteriorated to an extend that long-term survival becomes exceptional. However, the absence of clinical information limited our findings regarding ‘care dependency’ to KATZ-ADL and ‘dementia symptoms’ to screening of cognitive impairment and disorientation.

Conclusion: Residents survived a relatively short time after admission. Residents with high care dependency and dementia symptoms died sooner after admission.

Keywords: survival, dementia, nursing homes
The prevalence of delirium in Flemish long-term care facilities (LTCFs) as assessed with the Delirium Observation Screening Scale (DOSS)

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BACKGROUND: Expectedly, delirium often occurs in residents of LTCFs, but it is unknown what (point) prevalence rate, profiles and risk factors are in Flanders. The aim of this study was to give further insight into occurrence and risk profiles of delirium in LTFC’s in Flanders.

METHODS: A multisite, cross-sectional study was conducted in six LTCFs in the province of Antwerp, Belgium. Residents of age 65 years and older were included. The residents were screened for delirium with the DOSS and the Confusion Assessment Method (CAM) by three trained researchers. The Montreal Cognitive Assessment (MoCA) was used to determine the level of cognitive impairment. Resident characteristics and risk factors were obtained from resident assessments, nurse interviews and chart reviews.

RESULTS: For 338 residents' delirium assessments were completed. Delirium prevalence using the DOSS and the CAM was 14.2% and 10.1%, respectively. Multiple logistic regression showed that the MoCA score (OR: 0.08; CI: 0.03-0.21), the use of antipsychotics (OR: 3.05; CI: 1.20-7.77), a fall incident in the last 90 days (OR: 2.56; CI: 1.21-5.45), the loss of a significant person during the last year (OR: 2.61; CI: 1.14-5.98) and the use of restraints (OR: 2.89; CI: 1.14-7.35) were all associated with the prevalence of delirium (R2 = 41.1%).

DISCUSSION: The screening was conducted by trained researchers and not the staff itself, because the staff are mainly nurse assistants who don’t receive delirium education during their training. The screening only took place at one moment during the day, not considering fluctuation.

CONCLUSIONS: Delirium is an important clinical problem affecting at least 10% of the residents in LTCFs. Health care workers should be aware of the relatively high risk of delirium and the risk factors that were shown to be associated with delirium. Therefore, delirium education and regular delirium screening in LTFC’s is necessary.

Keywords: Delirium, long-term care facilities, DOSS, prevalence, risk factors
Associated Risk Factors of Restraint Use in Older Adults with Home Care

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Aim: To gain insight into the associated risk factors for restraint use in older adults with home care.

Methodology: A secondary analysis of a cross-sectional survey about restraint use was conducted in a randomized sample of older adult home care patients completed by the patients’ primary care nurses. A binary logistic regression model with generalized estimating equations was used to evaluate associations with the presence of restraints. Additional analyses focused on the subgroups with and without an informal caregiver and living alone / with others. Data from 6397 participants were analyzed in detail.

Results: Patients had a mean age of 80.6 years, 66.8% were females and 46.4% lived alone. 24.7% was restrained. Multivariate regression indicates that restraint use was associated with supervision [OR = 2.433, 95% CI = 1.948 - 3.038]; dependency in ADL-activities (i.e. eating [OR= 2.181, 95%, CI= 1.212 – 3.925], difficulties in transfer [OR= 2.131, 95%, CI= 1.191-3.812] and continence [OR= 1.436, 95%, CI= 0.925 – 2.231]); perceived risk of falls by nurses’ clinical judgement [OR= 1.994, 95%, CI= 1.710 – 2.324], daily [OR 1.935, 95%, 1.316-2.846] and less than daily [OR= 1.446, 95%, CI= 1.048-1.995] behavioral problems; decreased well-being of the informal caregiver [OR= 1.472, 95% CI= 1.126 - 1.925]), the informal caregiver’s dissatisfaction with the support of family [OR= 1.339, 95% CI= 1.003 - 1.788]; cognitive impairment [OR= 1.398, 95% CI= 1.290 - 1.515], and polypharmacy [OR= 1.415, 95% CI= 1.219 - 1.641]. The nurses’ perception of risk of falling, cognitive impairment (observed with the Cognitive Performance Scale) and supervision are the only constant associated variables with restraint use across all the analyses.

Conclusion: Restraint use in home care is very common. The results may support the development of interventions to reduce restraint use in home care

Keywords: Restraint use, Home care, Associated risk factors
A RCT in high risk nursing home residents to compare cost-effectiveness of a static air mattress and alternating mattress to prevent pressure ulcers

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Background: Pressure ulcers are a worldwide health concern. To prevent pressure ulcers, a variety of support surfaces is available to reduce pressure. The evidence about the difference in effectiveness between static air support surfaces and alternating air pressure support surfaces is lacking because of methodological limitations and large heterogeneity in published studies. Present trial aimed to compare the efficacy and cost-effectiveness of the two support surface types to prevent pressure ulcers in a nursing home population at risk.

Methods: A multicentre RCT was performed in a convenience sample of 26 nursing homes between April 2017 and May 2018. A consecutive sample of 308 patients were included. Patients were allocated to the experimental group (n=154): static air support surfaces (Repose®: mattress overlay, cushion and wedge, Frontier Medical Group, New South Wales, UK) and control group (n=154): alternating air pressure mattress, alternating cushions. The primary outcome was pressure ulcer incidence category II–IV within a 14-day observation period. Health economic measures from an organizational perspective are a secondary endpoint based on purchase cost of support surfaces.

Results: The cumulative incidence of pressure ulcers category II–IV was 8.4% (n=26/308). A significant lower incidence was found in the experimental group (n=8/154, 5.2%) compared to the control group (n=18/154, 11.7%)(p=0.04). The median time to develop a pressure ulcer category II–IV was significant longer in the experimental group (10.5 days, IQR 1-14) compared with the control group (5.4 days, IQR 1-12), Mann-Whitney U=37.00,p=0.05). The probability to remain pressure ulcer free did significant differ between the two groups (log-rank X=4.051,df=1, p=0.04). The overall purchase cost of the experimental group was lower compared to the control group.

Conclusion: A static air mattress was significantly more effective and had a lower financial burden compared to alternating air pressure mattress to prevent pressure ulcers in a nursing home population.

Keywords: alternating air pressure mattress, pressure ulcer, static air mattress overlay, efficacy, cost-effectiveness
Nurses process of ‘becoming’- a qualitative study, based on nurses’ existential experiences when working in the field of death and dying.

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Background: Encountering the vulnerability of patients and relatives actualizes the vulnerability of care providers. To the extent that nurses have insight into their own existential reality makes them aware and open to patient vulnerability and suffering, for the purpose of alleviating suffering. There seems to be a lack of studies focusing on nurses’ inner existential world. This study searches for an in-depth understanding of how nurses are existentially affected and the impacts on their process of becoming when working closely with suffering and dying patients.

The caring science tradition of Eriksson and the philosophical thinking of Kierkegaard, has proven to be a framework for universal knowledge and is the theoretical basis for this work.

Methods: The study has a qualitative and explorative hermeneutic design based on four focus-group interviews of 22 nurses in total. The interpretation is done with a hermeneutic approach. Kvale’s self-perception, the ‘common sense’ level, and theoretical levels were applied.

Results: Witnessing terminal suffering causes nurses existential suffering. They are powerless witness to suffering and it creates bonds of love to patients and relatives. The nurses experience an awakening for existential questions, and seek refuge and appreciation.

Discussion and conclusions: The process of becoming depends on self-understanding according to Kierkegaard. In this discussion we look at the impact of those life changing experiences on processes of becoming Through Bonds of Love and Becoming through Confirmation at a Deeper Level. The result of our study points to two areas of importance for practice: Nursing leaders should provide for conditions that allow nurses to be confirmed as persons, and give space for existential processes of becoming. The focus-group interviews used in the study generated rich and complex data. However, qualitative in-depth interviews may have enriched the sensitive data further.

Keywords: Existence, palliative care, professional development, becoming
Integration of simulation training in nursing education

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Background: Simulation based learning is an activity learning paradigm that re-enacts the clinical environment in order to improve technical and non-technical skills. Due to a theory-practice gap, nursing students often experience stress and anxiety during their clinical practice internship. Since professional self-confidence is important to provide high quality patient care, simulation training is considered to improve professional self-confidence. Yet, research on the impact of simulation training on professional self-confidence of nursing students is sparse.

Purpose: The aim is to examine the level of anxiety and professional self-confidence in a longitudinal study among nursing students before and after simulation training in order to evaluate and improve simulation education.

Methods: An explanatory sequential mixed method design is used. The combination of quantitative and qualitative research helps to examine data more extensively. Students' opinions on simulation education will be measured using six different scales. In the qualitative part, data from a focus group will be used and discussed to improve simulation education.

Results: After the simulation training, students (n= 230; RR: 97,8%) gained professional self-confidence (p < .001) yet also experienced higher levels of anxiety than before the simulation training (p < .001). Results of second year study will be presented.

Discussion: The rise in level of anxiety after the simulation training may be caused by students being confronted with their lack of knowledge. The fact that students may feel obligated to participated in the study, because it was organized by their own lectors, could be defined as a limitation.

Conclusion: Simulation training is an effective way to improve students professional self-confidence, but we have to be aware of higher levels of anxiety immediately after the simulation.

Keywords: simulation training, mixed methods, nursing students, anxiety, professional self confidence
Oral health in surgical patients: a cross-sectional observation and validation study

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Background: Oral health is essential for general health, especially for surgical patients. Bad oral health increases risk for hospital-acquired pneumonia and postoperative wound infections. The aim of this study was to evaluate 1) oral health status in surgical patients and 2) to evaluate agreement between two observers of the Oral Health Assessment Tool (OHAT).

Methods: Oral health was observed with the OHAT in 88 patients of orthopedic, traumatologic, vascular, and abdominal surgical units in a cross-sectional single-centre observational study. In 52 of these patients oral health was assessed by two observers, a nurse and a final-year bachelor ‘Oral Care’ student. The Oral Health Assessment Tool evaluates oral health on eight categories in scores of zero (healthy), one (deviations) to two (unhealthy), and total scores ranged from zero to 16. Descriptive statistics were used to describe the OHAT-items.

Results: Mean total OHAT-score was 6.7 (2-13). The categories ‘teeth’ (n=35, 51%), ‘dentures’ (n=27 79%) and ‘dental pain’ (n=78, 89%) were most frequently healthy. The categories ‘gums and tissues’ (n=52, 59%), ‘saliva’ (n=40, 45%) and ‘oral cleanliness’ (n=72, 82%) were most frequently unhealthy. Agreement of total OHAT-scores between both observers was bad (0.11). The categories ‘saliva’ (0.71) and ‘dental pain’ (0.65) had the highest agreement.

Discussion (including limitations): Only one measurement of oral health was performed during hospitalization after surgery. The oral cleanliness (82% unhealthy) may be affected by no available toothbrushes during hospital stay for most of the patients. Observers did not discuss on forehand how they independently interpret the assessment tool which may influenced the evaluation of the agreement.

Conclusion: Oral health problems in surgical patients are unclean mouths, dry mouth due to few saliva, and unhealthy gum and tissues. Evaluation on agreement is needed.

Keywords: Oral Health, Nursing, Surgery, Validation
The development and validation of a tool to measure the quality of contact between mental health nurses and patients who experience suicidal ideation

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Background: Reflecting one of the basic principles of suicide prevention, mental health nurses should establish contact with patients who are experiencing suicidal ideation. Qualitative studies revealed several barriers to establish contact including a reluctance of nurses to talk with patients about suicidal ideation, and their failure to recognize and respond to the needs of patients. No tool exists to obtain specific quantitative data about the content and quality of the nurse-patient contact on psychiatric wards.

Methods: A multi-staged study was conducted in Flanders (Belgium) to develop and validate the tool, and to analyse its psychometric properties.

Results: The study constitutes a multi-staged process to develop and validate the tool. First, a literature review was conducted to produce items for the preliminary construct. A steering group ‘mental health nursing’ adapted the items, identified new items, and reviewed the tool’s comprehensiveness. Then, the tool’s content was validated by means of a Delphi-procedure and cognitive interviews with patients who are experiencing suicidal ideation. The reliability of the tool was assessed by means of a test-retest.

Discussion: The first results in determining the validity and reliability of the tool are promising. A large-scale data collection is needed in order to further determine the psychometric properties of the tool and to perform statistical analysis. The tool is initially developed for use on psychiatric wards. More research is needed to explore the opportunities of the tool for use in community mental health settings.

Conclusion: The tool will enable researchers and practitioners to obtain quantitative data about the content and quality of nurse-patient contact and to develop tailored interventions.

Keywords: suicidal ideation, mental health nursing, suicide prevention

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Background: Self-management of medication allows patients to self-manage their medication in a controlled and supportive hospital environment. Although, this practice is not exceptional evidence-based procedures concerning self-management of medication are still lacking. Aim: To develop and validate a procedure for self-management of medication by patients whilst in hospital.

Methods: An evidence-based procedure for self-management of medication was developed. It was validated by several healthcare providers and a multidisciplinary expert meeting. Questions within the procedure that could be biased, were tested for interrater reliability.

Results: The developed SelfMED procedure, consists of a stepped assessment of patients’ competences for self-management performed by healthcare providers (nurses, physicians and hospital pharmacists) and the patient. When self-management is allowed, a monitoring tool monitors the patients’ intake of self-managed medication. If medication errors occur, interventions can be provided.

Conclusions: The SelfMED procedure has the potential to guide and support self-management of medication in hospital. It distinguishes itself from previously described tools because of its evidence-based approach, fit with the current regulation and combined aspects within. Further refinements and validation in daily practice are advised, also a tool for providing tailor made interventions for medication related problems during self-management should be developed and validated.

Keywords: hospital medicine, medication management, medication self-management, inpatients
The willingness and attitude of patients towards self-administration of medication in hospital

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Background: Literature suggests a positive impact of self-administration of medication during hospitalization on medication adherence and safety, and on patient satisfaction. However, self-administration is not a common practice in Belgian hospitals. The aim of this study was to describe patients’ willingness towards self-administration of medication while in hospital.

Methods: A cross-sectional observational study was conducted in three Belgian hospitals in November and December 2015. All patients of 14 randomly selected wards were asked to participate. The structured questionnaire comprised patient characteristics, their willingness and attitude towards self-administration of medication, perceived ability to self-administer during hospitalization, and prerequisites and perceived consequences.

Results: In total, 124 patients participated (36% of all eligible patients). The main reasons not to participate were the patients’ physical and mental condition (30%) and the absence of patients during the time of data collection (23%). The majority of the 124 participating patients had a positive attitude towards the implementation of self-administration; 83.9% were willing to self-administer their medication while in hospital. Most important prerequisites were self-administration at home before and after hospitalization, patients’ motivation, and a regular evaluation of the patients’ competences. Patients acknowledged benefits such as an increase in autonomy, independence and medication knowledge. Patients did not expect self-administration would cause important safety issues.

Conclusion: The majority of patients, capable of participating in the study, would want to self-administer medication during hospitalization. They had a positive attitude towards self-administration of medication. Nevertheless, patients stated important conditions which need to be considered in order to implement self-administration.

Keywords: hospital, nursing, inpatient, medication, self-management
Experiences of parents whose adolescent child has cancer, basis of a psychosocial support booklet ‘The Loving Manager’

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Background: Adolescent and young adults (AYAs) with cancer often rely primarily on their parents for support; emotionally, practically as well as financially. To offer parents adequate psychosocial care during the cancer trajectory of their adolescent child, insight in the experiences, unmet needs and expectations of parents is vital.

Methods: In a qualitative research, based on the principles of grounded theory, semi-structured interviews were conducted with both mothers and fathers of AYA’s between 15 and 25 years of age. Thirty-one participants were recruited in the University Hospital of Ghent, Belgium, at different times in the cancer trajectory of the AYA, starting from the time of diagnosis until 5 years after the end of the treatment.

Results: From the diagnosis onwards, parents focus entirely on their ill child. Most of them offer unconditional all-round care in which they find it crucial to ‘be there’ for their child. Parents express important needs regarding involvement in the cancer trajectory and communication.

Parents act as ‘Loving managers’ and fulfill simultaneously the role of representative, gatekeeper, advocate, and caregiver of the AYA. They feel challenged to find a balance in relation to the AYA, in relation to the other parent and romantic partner, to other children, and in relation to their network (family, friends, colleagues etc.) and express difficulties in holding everything together. Many parents express a severe lack of self-care and have a need for support from healthcare professionals.

Discussion and conclusion: Based on the findings of this research, a psychosocial support booklet was developed for parents of AYAs with cancer. This booklet describes the experiences of parents, using illustrative quotes of the interviewed parents, as well as tools for parents to cope with their experiences. Worksheets are included which also give recommendations to enhance the support given by healthcare professionals, for instance nurses.

Keywords: Parents, Adolescent with cancer, Psychosocial support tool
Psychiatric nursing in older adults with psychotic depression

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Psychotic depression in older adults is a severe and debilitating condition. Up to half of all older patients presenting with a depression in a psychiatric hospital show psychotic symptoms. Psychotic depression is characterised by severe depressive symptomatology, delusions often concerning disease, guilt, impending disaster, cognitive decline and somatic symptoms (e.g. dehydration, malnutrition, psychomotor retardation).

Because of the severe nature of psychotic depression, psychiatric nurses play a vital role in its management. The role of a psychiatric nurse in older adults with psychotic depression is not restricted to psychiatry, but also, and sometimes more so on the somatic dimension. Also nurses can play a role in measuring the severity of psychotic depression and cognitive decline.

In this presentation we will present the result of two substudies conducted at the University Psychiatric Hospital of Duffel. We validated the Psychotic Depression Assessment Scale in Dutch and in older adults. We also compared measures of severity assessed by nurses and psychiatrists/psychologists. Also we present results on the cognitive effects of psychotic depression in older adults in relation to patients with a major depression.

Keywords: psychiatry, nursing, psychotic depression, older adults
Statistical Process Control Charts: Explaining process variability of Nurse Sensitive Outcomes and Serious Adverse Events in a University Hospital

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Background: Healthcare organizations are constantly focusing on improving and guaranteeing the quality of care. Professionals are daily engaged in measuring and monitoring care-related outcomes. Measuring nurse sensitive outcomes (NSO) and serious adverse events (SAE) therefore yields a large amount of clinical data, which can be used for quality improvements to adjust structures and/or processes. A method for gaining insight into development of a process is to statistically analyze the outcome of a process with Statistical Process Control (SPC). The results of a process can be shown chronologically in a graph by means of control charts, so that the variation and thus the stability of a process becomes visible. A certain degree of variation always occurs in the outcomes of a process, which can be heard and accepted in the process. The aim of this study was to explore the possibility of explaining process variability of NSO’s and SAE’s on medical and surgical wards.

Method: Quantitative observational descriptive design with retrospective data-analysis. 13 nursing wards were included; NSO: CAUTI,CLABSI,HAPU2+,Falls; SAE: cardiac arrest, unplanned ICU admissions and unexpected death.

Results: Control Charts of NSO’s and SAE’s can be used to explain process variability on medical and surgical wards.

Discussion: Although control charts can be used for clarification of process variability on nursing wards, clinical nurses do not often have the knowledge and skills to interpret control charts. Therefore the question arises: if you want to engage nurses to be owners of their processes are control charts the right instrument? Also the fact that nursing processes continuously are influenced by contextual factors makes prudence necessary when interpreting control charts.

Conclusion: Control Charts can be used to explain process variability on nursing wards. However training is needed amongst nurses to interpret control charts and using them to adjust structures and processes.

Keywords: Statistical Process Control Charts, Process Variability, Quality of Care, Nurse Sensitive Outcomes, Serious Adverse Events
Poster presentations
Topic: Midwifery

List of abstracts
(In alphabetic order by presenting author)
Schoolchildren visit midwives

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Background: Midwives are sought-after experts when it comes to the teaching of pregnancy, birth and postpartum topics in primary schools. The Institute of Midwifery at ZHAW in Winterthur therefore offers a corresponding range of 3-4 teaching units in their own skills rooms.

Project goal: By getting to know the midwife and her work, children learn that pregnancy, childbirth and the postpartum period are primarily healthy and natural processes that are handled by the midwife.

Methods: The didactic design of the lessons is based on principles of skill-based and age-appropriate teaching such as storyline method, mini-simulations and exploratory learning which are accompanied by realistic and age-appropriate in-house simulation models.

Implementation: Within the framework of a pilot project, three teaching lessons are offered to schoolchildren between 8 to 11 years of age covering the topics of pregnancy, childbirth and the postpartum period. Involved in the project are sixth semester midwifery students from ZHAW who teach selected sequences. The schoolchildren who participated in the pilot project showed great interest in the subject. They vigorously participated in conversations about their own birth, contributed to the workshop discussion entitled "From Conception to Birth" and became involved in the mini-simulation "The Birth of a Baby".

Evaluation: All teaching units were evaluated in a multi-step process. Primary class teachers described the lessons as level-appropriate, varied and well-balanced. The midwifery students were proud when they realised how much knowledge they have acquired during their studies and were able to pass on. From the schoolchildren's interest in the course and their questions, the teaching staff concluded that the topics covered during the lessons have a lasting impact on a further discussion of these subjects.

Outlook: It is intended to officially include these teaching units in the BSc in Midwifery course syllabus.

Keywords: work, midwife, schoolchildren, teaching units
Perinatal health care models in Europe for low risk women. Comparison of funding systems, care facilities and health care professionals involved.

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Background: Variations in birth outcome or intervention rates during childbirth across Europe cannot be fully understood without clear insight in the organisation of the health care systems. This study aims to provide an overview of the different perinatal health care systems that are currently available in Europe.

Methods: A structured online questionnaire is sent out through the European Midwives Association and the European Board of Obstetrics and Gynecologists asking the board members to appoint a country expert for filling out. When discrepancies between responders for one country are observed, the experts are contacted to validate the right answers.

Results: General information about the funding system is gathered. Furthermore for each care episode: pregnancy, childbirth and postpartum in low risk women, the survey offers information on:

(1) the health care professionals that are formally/legally allowed to provide care
(2) the health care professionals that in general are most involved in the care provision
(3) the lead health care professional(s) that is/are responsible for the care provided when more than one professional category is involved
(4) available types of health care facilities

Discussion: Insight in the differences between the perinatal health care models for low risk pregnancies adds to the understanding of how birth can result in health.

Conclusion: Our findings are an added value in understanding how models of health care organisation interplay with perinatal and maternal health. This way this research adds to the body of knowledge toward sustainable childbirth and high quality care 4 the future.

Keywords: health care models, childbirth, European survey, care facilities, health care professionals
Women’s satisfaction with the care received at the maternity ward of the University Hospital Brussels and at home: a cross-sectional study

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Currently, the length of a hospital stay after childbirth in Belgium is reducing. This reduction should impact on costs but not on health care quality and satisfaction. Therefore it’s crucial to measure women’s satisfaction with the care provided at the maternity ward and at home, in the postpartum period before and after this reform.

A cross-sectional study in one university hospital in Brussels was set up. Information was gathered using medical records and two satisfaction questionnaires: the ‘Maternity Satisfaction Questionnaire’ (MSQ) and the ‘Home Satisfaction Questionnaire’ (HSQ).

235 women responded. Women were more satisfied with care at the maternity ward than at home. At the maternity ward the satisfaction was higher for care during labour (M=4.68, SD=.717) and delivery (M=4.74, SD=.58) compared to postpartum care (M=4.59, SD=.661). Characteristics related to satisfaction with care during the maternity stay and at home are type of delivery, employment, educational level, nationality, arranged home care by a midwife and knowledge of the length of stay. When looking at dimensions of satisfaction in hospital from highest to lowest scores we found for ‘Privacy’, ‘Provision of information’ and ‘Midwives time investment’. With regard to home care, time investment scored over provision of information and social vulnerable women had lower satisfaction scores.

Although maternity care satisfaction is positive, there is room for improvement: antenatal information about maternity length of stay, arrangement of an independent midwife for home care including an antenatal home visit to evaluate the physical environment and discuss the home care in the postpartum.

Keywords: length of stay, postpartum care, satisfaction with care, organisation of care
What are the postnatal needs of mothers without legal residence after a short hospital stay in Brussels - Capital

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Social inequality in terms of health and early hospital discharge is more common among women without insurance status. Mothers with financial difficulties leave the maternity clinic earlier than mothers with a normal insurance status and they live more often below the poverty line. This research took place in Brussels, where concern about rising perinatal poverty and where the pilot projects 'shortened hospital stay' also started. This research maps the postnatal needs of mothers without legal residence (WLR) and describes their current perinatal care trajectory in Brussels.

This is qualitative, descriptive research. Nine mothers WLR participated in individual in-depth interviews, based on semi-structured topic lists, generated using a thematic analysis technique. The respondents were recruited through five first-line organizations in Brussels.

During the analysis process, four themes emerged: (1) stressors of mothers WLR, (2) needs, (3) coping strategies and (4) the organization of health care and its influence on the perinatal care trajectory. Housing stressed mothers most, in addition to financial shortages and administrative complex procedures. In addition, mothers desired employment and low-threshold, free, empathic care. Their coping strategies mainly relied on solidarity of relatives and their belief in God.

Mothers WLR in Brussels need basic needs such as housing, food, safety and work. Besides, their need for low-threshold, culture-sensitive care with a confidential adviser who guarantees continuity is much greater than the need for medical consultations. While most mothers were satisfied with the postnatal period in the maternity ward, they felt the need to stay longer. The postnatal home care was fragmented and the first and second line were not coordinated, except when the mothers were staying in an asylum center. Nevertheless, despite their agony, the mothers showed resilience.

Keywords: Postnatal needs, uninsured mothers, short hospital stay, at Brussels Capital
Weight loss at 6 weeks postpartum in women with excessive gestational weight gain

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Background and methods: We have studied the weight loss at 6 weeks postpartum in 466 women who had excessive gestational weight gain (GWG) in their singleton pregnancy. Excessive GWG is defined as GWG of >18kg in women who start their pregnancy with underweight, >16kg if starting with normal weight, >11.5kg if overweight and >9kg if obese at start. We examined the Relative Weight Loss at 6 weeks postpartum (RWL6), defined as (weight at 6 weeks postpartum - weight at delivery)/GWG.

Results: Of the 466 women, 49% started their pregnancy with a normal weight, 34% with overweight, 16% with obesity and <1% with underweight. The RWL6 was median 63%, i.e. more than half of the women had already lost two thirds of their GWG at 6 weeks postpartum.

Women who were overweight/obese at start pregnancy seemed at 6 weeks postpartum closer to the weight they had at start pregnancy: RWL6 was median 66% compared to median 62% in normal starting weight: P-value 0.02

RWL6 was borderline related to their BMI at start of pregnancy: correlation of 0.09 (95% CI, 0.00 to 0.18, P-value 0.05).

Breastfeeding status at 6 weeks postpartum: 54% gave exclusive breastfeeding, 14% combined breastfeeding and bottle feeding, 16% gave bottle feeding but breastfeeding before and 15% gave bottle feeding and never gave breastfeeding before. Exclusive breastfeeding at week 6 postpartum was given in 58% of women with a normal weight at start pregnancy, 49% in overweight and 53% in women who were obese at the start of pregnancy.

Conclusion: During the first six weeks postpartum, women with excessive GWG lose already two thirds of their gained weight.

Keywords: excessive gestational weight gain, postpartum weight retention, obesity
INTER-ACT: prevention of pregnancy complications through an e-health driven interpregnancy lifestyle intervention – study protocol multicentre RCT

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Background: Excessive maternal pre-pregnancy and gestational weight gain are related to pregnancy- and birth outcomes. The interpregnancy time window offers a unique opportunity to intervene for a healthy lifestyle before the start of a new pregnancy.

Methods: INTER-ACT is an e-health driven multicentre randomised controlled intervention targeting women at risk. Eligible women are recruited at day 2 or 3 postpartum. At week 6 postpartum, participants are randomised into the intervention or control arm. The intervention focuses on weight, diet, physical activity and mental well-being, and comprises face-to-face coaching, in which behavioural change techniques are central, and use of a mobile application, which is Bluetooth-connected to a weighing scale and activity tracker. The intervention is rolled out postpartum (4 coaching sessions between week 6 and month 6) and in a new pregnancy (3 coaching sessions, one in each trimester of pregnancy); the mobile app is used throughout the two intervention phases. Data collection includes data from the medical record of the participants (pregnancy outcomes and medical history), anthropometric data (height, weight, waist- and hip circumferences, skinfold thickness and body composition by bio-electrical impedance analysis), data from the mobile app (physical activity and weight; intervention group only) and questionnaires (socio-demographics, breastfeeding, food intake, physical activity, lifestyle, psychosocial factors and process evaluation). Medical record data are collected at inclusion and at delivery of the subsequent pregnancy. All other data are collected at week 6 and month 6 postpartum and every subsequent 6 months until a new pregnancy, and in every trimester in the new pregnancy. Primary outcome is the composite endpoint score of pregnancy-induced hypertension, gestational diabetes mellitus, caesarean section, and large-for-gestational-age infant in the subsequent pregnancy.

Discussion: INTER-ACT is a unique randomised controlled lifestyle intervention trial in its implementation between pregnancies and during the subsequent pregnancy, with an e-health driven approach.

Keywords: maternal obesity, life style interventions, M-Health, RCT
Professional learning online – midwives’ learning for clinical practice in a
Massive Open Online Course

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Background: Midwives need to continuously update their knowledge, skills and competencies to be able to provide evidence-based care. However, many midwives are constrained from attending face-to-face continuing professional development (CPD) activities. The ‘Evidence-Based Midwifery Practice MOOC’ was the first international MOOC to provide open online learning for midwives. This study aims to investigate midwives’ learning in a MOOC and how they relate their learning to their professional practice.

Methods: An adapted version of the validated survey instrument Self-Regulated Learning MOOC Questionnaire (SRLMQ) was distributed to all enrolled participants. Descriptive data analysis and an exploratory factor analysis was performed. Participant interviews were conducted to gain a deeper understanding how midwives learn in open online environments. Data was analysed from content analysis.

Results: Seven distinct factors emerged representing how midwives self-regulate their learning in a MOOC. The participants were motivated from being able to learn about evidence-based practice and to implement evidence-based care and having direct access to a midwifery knowledge base in the course. The midwives reported that they were able to integrate their learning in clinical practice i.e. to search for and to use the best available evidence to support women and families in making informed choices.

Discussion: MOOCs offer an opportunity for professionals in an international context to learn online for CPD. Other studies have not found strong evidence of professional learners in MOOCs can relate their learning to own practice. This study shows that the participants were able to relate what they learned to clinical practice and their ways of learning are connected to their professional practice.

Conclusion: The ways midwives learn in a MOOC seems to be connected to how midwives approach their practice. The midwives feel able to integrate their learning in practice to implement changes in maternity care and to support women and families’ choices.

Keywords: Professional learning, continuing professional development, open online learning, MOOCs, midwifery practice
High prevalence of gestational diabetes mellitus in Kabul, Afghanistan, following introduction of routine screening in antenatal care services

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Background: Gestational Diabetes Mellitus (GDM) increases the risk for adverse pregnancy outcomes and for the development of type 2 diabetes, but data on prevalence and management of GDM in resource-constrained settings are scarce. In 2018, Médecins Sans Frontières introduced standard screening for GDM in the antenatal care (ANC) service in a district hospital in Kabul, Afghanistan. We aimed to evaluate the prevalence of GDM and the feasibility of the screening implementation in this context.

Methods: Screening for GDM among pregnant women between 24-32 weeks gestational age was done on capillary blood, following a 75g oral glucose tolerance test (OGTT), using either the 2013 WHO criteria (fasting two-hour glucose tolerance test) or the Diabetes in Pregnancy Study group in India (DIPSI) criteria of non-fasting two-hour glucose tolerance test (depending on whether women presented fasting). A semi-structured questionnaire was administered to 13 ANC staff.

Results: A total of 755 women were enrolled. DIPSI criteria for GDM diagnosis were applied for 609 (81%) and WHO criteria for 146 (19%) of all women screened. A GDM prevalence of 25.9% [DIPSI: 24.8%; WHO: 30.6%] was observed. In terms of feasibility, 42% of the questioned midwives stated that screening increased the workload, yet 100% felt that the workload was still feasible. Most (92%) felt comfortable applying the protocol.

Discussion: An alarming prevalence of GDM was found among pregnant women attending ANC in Kabul. While the screening protocol was found to increase the workload, all staff found it to be manageable. Limitations of the study included the accuracy of the OGTT, the use of capillary blood for testing, and the high number of non-fasting participants, all of which are non-standard (albeit acceptable) procedures for GDM diagnosis.

Conclusion: Given the high prevalence and feasibility of screening, we recommend routine GDM screening in ANC in settings such as Afghanistan.

Keywords: Gestational diabetes, prevalence, feasibility, resoucre-limited setting
Climacteric symptoms during (peri)menopause in Flanders and The Netherlands.

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Every woman is transiting towards menopause at a given moment in life. The start of menopause is defined by the absence of menstrual activity for a period of one year. The transition period itself lasts approximately four to eight years. In general menopause occurs at the average age of 51 years old. Given the fact that life-expectancy is raising, the assumption is made that a Western woman spends more than 30 years in menopause, or one third of a woman’s lifespan (British Menopause Society, 2017; U.S. department of Health and Human Services, 2017; World Health Organization, 1996).

The menopausal period can affect the quality of life significantly, particularly in terms of vasomotor and sexual dysfunction symptoms. Climacteric symptoms can influence women’s physical and mental health and overall well-being. Different sociodemographic and life style factors can be related to the gravity of experienced symptoms. Therefore health counseling can improve the quality of life in (peri-)menopausal women. (Abedzadeh-Kalahroudi, 2013)

This study aims to determine if a tailor-made, evidence based health promotion and lifestyle change plan, based on an assessment using the Greene Climacteric Scale in a menopausal consult (with a student midwife), influences (peri-)menopausal symptoms in Flemish and Dutch women. This project aims to incorporate research and evidence based midwifery in the Midwifery Bachelors program. Student midwives were assigned to gather data on menopausal women, using a structured interview. They were supported by lecturers qualified as researchers. Currently lecturers-researchers are analyzing the first data to gather information and further insights on menopausal women in Belgium and the Netherlands. Also midwife-led menopausal consults will be tested and studied, in order to examine the impact of health promotion and counseling during (peri-)menopausal period.

Keywords: menopause, Flanders, The Netherlands, health counseling
Brooz, an experience-based board game to develop essential skills and competencies in working with vulnerable families.

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Background: Barriers in the access to health care lead to poorer pregnancy outcomes and prevent a healthy child development. Students, volunteers and professionals need essential skills and competencies in working with vulnerable families. Experience-based learning is a good method to develop these competencies.

Method: A literature study brought insight into the determinants of vulnerable pregnancies that influence outcomes for the mother, the (unborn) child and child development. In focus groups with students, teachers and healthcare professionals, potential gaps in health care utilization were mapped. This resulted in a prototype of a board game. After elaborating tests, the prototype was improved and the personas in the game came to life. The final version was embedded within the bachelor of midwifery programme and the training of buddies who coach vulnerable families during pregnancy, birth and infancy. Recently, the board game was further refined with experts in poverty and social exclusion.

Result: This resulted in the development of ten board games that enhance awareness and knowledge of the problems vulnerable mothers face. By becoming one of the personas in the game, the players learn to communicate on a higher level with vulnerable families. Through reflection and feedback, the game leader helps them to gain a deeper understanding.

Discussion and conclusion: The strength of Brooz is that it challenges the players to broaden their perspective. Throughout the game, the players experience what it means to be pregnant in a vulnerable situation. For students, volunteers and professionals Brooz helps to develop essential skills and competencies in working with vulnerable families.

Keywords: experience-based boardgame, vulnerable families, competencies, communication skills
Dutch midwives’ views on and experiences with woman-centred care – A Q-methodology study

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Background: Woman-centred care is a philosophy for midwifery care management of the childbearing woman. There is no mutually recognised internalised way in midwifery to provide woman-centred care.

Objective: To reveal midwives' distinctive perspectives about woman-centred care.

Methods: A Q-methodology study amongst 48 Dutch community-based midwives who rank-ordered 39 statements on woman-centred care, followed by semi-structured interviews to motivate their ranking. By-person factor analysis was used to derive latent views, representing profiles of midwives with similar attitudes towards woman-centred care. The qualitative data was used to aid interpretation of the profiles.

Results: Four distinct profiles emerged: (1) the co-human midwife, containing two twinning profiles: The co-human philosophical midwife (1+), who is the woman's companion during childbearing in being an authentic individual human being; the co-human rights midwife (1-), who is the woman’s advocate for achieving autonomy and self-determination regarding care during the childbearing period. (2) The quality-of-care midwife, who regards good perinatal health outcomes, responsive care and positive maternal experiences as benchmarks for quality of woman-centred care. (3) The job-crafting midwife, who focuses on self-organisation while seeking balance between the woman, herself as a professional and an individual and as a colleague.

Conclusion: Each profile reflected specific perspectives feeding into woman-centred practice. Although the co-human midwife seems to represent the dominant and preferable perception of woman-centred care, awareness and exploration of and reflection on the thoughts patterns presented by all four different midwife profiles, should be considered in education and professional development of (student)midwives of be(coming) a woman-centred midwife.

Keywords: midwifery, q-methodology, woman-centred care
I-Poems – Listening to the voices of women with a traumatic birth experience

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Background: One in every five women has a negative recall of childbirth and one in every nine women has experienced birth as a traumatic event, with sometimes detrimental implications for women and their families.

Methods: This qualitative study, utilizing a feminist perspective, aimed to explore and articulate women's recall of self-identified negative, distressing and traumatic childbirth experiences. Thirty-six individual narrative interviews with Dutch-speaking women were conducted. Consent was obtained and interviews were audiotaped and fully transcribed. Sentences with the 'voice of the 'I'' were extracted from the transcripts and were constructed into I-poems. Additionally, thematic analysis was performed, presented by the I-poems.

Results: Four key themes: (1) The journey - unmet hopes and expectations of women during pregnancy, birth and thereafter; (2) The ‘I’ – women's notions of painful memories; (3) The other – women's responses to the interaction with healthcare professionals; (4) The environment - constraints related to the birthing environment.

Discussion: The results described and showed the rawness and desolation of women's experiences reflected in their narratives of self, context and in relation to others, maternity care providers in specific. The results showed that acknowledging and listening to women’s voices are of merit to inform (student)midwives and other healthcare professionals who are involved with childbearing women so that the significance of this experience can be understood.

The I-poems are constructed in a short animation film that will be shown during the presentation (in English and/ or Dutch).

Keywords: Traumatic birth experience, Midwifery, Narratives, I-poems
'ISeeYou': a Woman-centred Care Education and Research Project in Bachelor Midwifery Education

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Background: For student midwives in higher education, learning how to become a competent and confident woman-centred practitioner can be affected by limited learning experiences during clinical practice. The ISeeYou project was developed aiming to equip first year bachelor midwifery students to support them in their learning of providing woman-centred care.

Methods: The project has an ethnographic design. First year midwifery students buddied up to one woman throughout her continuum of the childbirth process and accompanied her during her antenatal and postnatal care encounters. Participant-observation was utilised by the students. The Client Centred Care Questionnaire (CCCQ) was administered to collect data about women's care experiences. The project was evaluated using the SWOT model.

Results: 54 first year students completed the project and observed and evaluated on average eight prenatal visits and two postnatal visits. Students reported that this was meaningful and supported and enhanced their comprehension of women-centred care. Logistic issues (lectures, travel, time) and being conscious of their role as an 'outsider' sometimes constrained, but never hindered, the students in meeting the requirements of the project. Overall, the project provided students with opportunities to expand competencies and to broaden their outlook on midwifery care.

Conclusion: Students gained insight into women’s lived experiences during the childbirth process and of received care throughout this period. The project offers students unique and in-depth experiences using a participant observation design and a ‘buddy’ approach - equips Bachelor midwifery students with competencies to support them in their learning of providing woman-centred care. The project offers students unique and in-depth experiences supporting and augmenting their personal, professional and academic development. This is achieved through the student's relational continuity and active engagement with the woman, completed with participant-observation and structured interview techniques - as methods of active learning.

Keywords: Student midwives, woman-centred care, higher education
There’s no crying in midwifery. Development of a program and education for midwife support groups

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Background: Midwives often experience traumatogenic events, such as stillbirth, bad outcome or conflict of values. Additionally, they indicate that they are unable to share this emotional and psychological load with their peers, family or friends. As a consequence, there is a growing need for a safe platform– such as support groups facilitated by an educated peer- to support each other and unload this emotional burden. The aim of this study is threefold: 1) map how midwife support groups can provide psychological support ; 2) develop a program for midwife support groups and an education to train facilitators; 3) evaluate the effectiveness of these support groups.

Methods: We used a descriptive qualitative design involving focus groups with Flemish midwives. Thematic analysis was used to analyze the transcripts. By combining these data, literate review and the input of experts, we developed a program for support groups and an education to train the facilitator. In a later stage, we will optimize the program in a pilot project and evaluate it using a RCT design and focus groups.

Results: At this point the first and second aim of the study have been completed. Seventeen midwives participated in a total of 3 focus groups between November 2017 and January 2018. Five key themes emerged from the data: 1) experienced stressors; 2) the need for a safe culture; 3) psychological impact of an event; 4) expectations of a support; 5) processing an event. A program for the support groups and a facilitator training were developed.

Discussion: Achieving the predetermined sample size proved difficult, due to the taboo surrounding psychological and emotional support.

Conclusion: Support groups for midwives can be used to process traumatic events. The program and facilitator training , as well as the preliminary results of the third aim will be presented at the conference.

Keywords: support group, peer support, emotional wellbeing, traumatic events, midwife
Final year midwifery students' career expectations and job preferences: preliminary results of a cross-sectional study

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Background: Midwives assume a variety of roles in complex and increasingly demanding work environments that require well prepared professionals to provide quality healthcare services. Therefore, midwifery educators are faced with the challenge of stimulating students to take an active role in their individual careers and in shaping the future of the profession. However, little is known internationally about midwifery students’ career expectations and job preferences.

Methods: A cross-sectional survey design with a self-administered paper-based and online questionnaire was used to examine the career expectations and job preferences of final year midwifery students in Flanders (Belgium). The survey was executed between March and June 2018 in university colleges organizing a three-year direct-entry midwifery programme leading to a professional bachelor's degree.

Results: Preliminary results show that 83.9% of final year midwifery students (n=223) had actively thought about career preferences. Participants were mainly informed about clinical midwifery positions during the bachelor’s programme. Working as a midwife in a hospital setting was preferred by 75.6% of participants. However, only 36.2% deemed it likely to find a job as a midwife within one year from graduation. Helping people, an interesting job, and human contact were important job motives. Participants had the following plans for further education after finishing the bachelor programme in midwifery: 39.4% of participants were interested in taking additional specialist courses in midwifery, 23.2% considered following another bachelor’s programme (mainly nursing), and 33.0% were interested in a master’s programme.

Discussion and conclusion: As participants were mainly informed about clinical positions and several students want to continue their education, midwifery educators should inform future midwives about all career options. A structural integration of career planning and development in the midwifery curriculum might be helpful. However, these preliminary results should be treated with some caution. Final results will be available at the conference.

Keywords: career needs, career planning and development, job expectations, midwifery education
Pregnant women's preferences for mode of delivery in Poland

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Background: The aim of modern midwifery is high level of satisfaction with maternity care. Every woman wants to give birth in a way which meets her expectations. A positive attitude towards birth experience may influence labour process. The aim of this study was to evaluate the preferences of pregnant women for mode of delivery.

Material and methods: A total of 105 low-risk pregnant women were included in the study conducted in spring 2017 in Kraków, Poland. The cross-sectional study was conducted using the author's questionnaire to collect information about respondents' socioeconomic status and their opinions about vaginal deliveries and caesarean sections. The test by C. Łepecka-Klusek and G. Jakiel was used to assess the perception of pregnant women towards their pregnancy.

Results: The findings showed that 51.1% of pregnant women prefer vaginal birth, while 32.3% caesarean section. The main reason for the choice of vaginal delivery was the stronger relationship with the newborn baby (28.6%) and for the choice of cesarean, faster and less tiring for both mother and baby (43.8%). We found no correlation between attitude to that pregnancy, and the preferred delivery mode (p=0.31). There was a statistically significant correlation between the education degree (p=0.02), the place of residence (p=0.007), the mode of previous deliveries (p=0.012), the source of information on pregnancy and childbirth (p=0.009) and the delivery mode preferences.

Discussion and conclusion: Although most women expressed preferences for vaginal delivery, there is a big group which prefers cesarean section. Considering the increasing trend in caesarean sections rates in Poland it is crucial to ensure high quality midwife-led education about labor and delivery for every pregnant woman. However, further studies are needed with the stronger psychometric properties of the questionnaire.

Keywords: mode of delivery, preferences, pregnancy
Prediction of inadequate and excessive gestational weight gain

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Introduction: Excessive weight gain during pregnancy is an important factor in female obesity. Gestational lifestyle interventions could be of crucial importance. It’s essential to identify those women which are most at risk, because lifestyle interventions are not possible in every pregnancy. The purpose of this study is to determine whether specific cut-offs of weight gained by trimester or week could predict whether pregnant women stay within the Institute of Medicine (IOM) guidelines for adequate weight gain at the end of pregnancy.

Methods: In a retrospective cohort study, 1675 files were analysed and searched for gestational data. Patients were classified into BMI categories according to WHO criteria: underweight, normal weight, overweight and obesity and subsequently divided into three groups: inadequate (IGWG), adequate (AGWG) and excessive gestational weight gain (EGWG) according to IOM guidelines. Multivariate logistic regression was performed to determine which factors influence IGWG or EGWG.

Results: IGWG was shown in 23.9% of the population. 38.3% had AGWG and 38.3% EGWG. With every kilogram of weight gained in the first and second trimester, the risk of EGWG rises by 69.4% and 79.6% respectively. The study revealed that women with pregestational BMI ≤25kg/m² are 92.3% less likely to have EGWG compared to women with BMI >25kg/m².

Discussion: The way weight is measured can influence the outcomes of total weight gain. There was no notification whether weight was measured by the physician or by the patient herself. It was not possible to find out whether the attending physician had already given lifestyle advice to the patient. This could affect the data obtained.

Conclusion: Based on this model, predictions can be made about the risk of EGWG. EGWG is particularly seen in woman with pregestational overweight and obesity and with a spontaneous pregnancy. First and second trimester weight gain is strongly correlated with EGWG.

Keywords: pregnancy, weight gain, lifestyle intervention
Effect of lifestyle-coaching including telemonitoring and telecoaching on gestational weight gain and postnatal weight loss. A systematic review.

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Background: Obesity during pregnancy, excessive gestational weight gain (GWG) and postpartum weight retention (PPWR) are associated with health risks for mothers and their offspring. Face-to-face lifestyle interventions can reduce GWG and PPWR, but are resource-demanding and effects on long-term maternal and fetal outcomes are scarce. mHealth might be a solution.

Objectives: to explore the existing literature about the effect of technology-supported lifestyle interventions including telemonitoring and – coaching on GWG and PPWR.

Methods: The PudMed, MEDLINE, CINAHL, EMBASE (incl. The Cochrane databases) and Web of Science databases were searched for relevant studies published since 2000. Inclusion criteria were: lifestyle interventions to optimize GWG or PPWR with at least mobile applications or websites, focusing on physical activity, healthy eating and/or psychological wellbeing, including self-monitoring with telemonitoring and telecoaching.

Results: The technology-supported interventions in seven study protocols and four pilot studies differed in terms of the used behavior change models, their focus on different lifestyle issues, their intervention components for telemonitoring and telecoaching. Technology-supported interventions including telemonitoring and – coaching can optimize GWG and PPWR, although not all results are significant. Effects on physical activity and healthy eating are inconsistent.

Conclusion: Technology-supported lifestyle interventions might affect GWG and PPWR, but more research is needed to examine the effectiveness, the usability and the critical features of these interventions.

Keywords: mHealth, telemonitoring, telecoaching, gestational weight gain, postnatal weight loss
Factors determining selected difficulties of women in the postpartum period

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Background: Numerous clinical observations suggest that adaptation to the tasks assigned to the function of the parent is not always easy. Some women experience difficulties and even emotional disorders.

Methods: The research project was approved by the Independent Bioethics Committee for Research at the Medical University of Gdańsk. The study adopted a diagnostic survey method which consisted of standardized psychological tests (State-Trait Anxiety Inventory STAI), the author’s questionnaire, modified Cantril Ladder, as well as the Risk Factors for Mental Disorders Questionnaire after childbirth.

Results: The factors that determined the incidence of selected issues and problems in the postpartum period were identified as: childbirth via caesarean section, age, education status, and the number of prior children. Respondents indicated that giving birth to a baby is associated with high life satisfaction. Risk factor associated with the postpartum onset of psychiatric disorders is the level of trait and state anxiety. Factors related to the level of state anxiety are: participation in prenatal education as well as help and support received from family and friends.

Discussion: The conducted study identified certain limitations. Due to differential treatment of women with higher levels of anxiety and already affected by postnatal depression, it seems appropriate to screen for postnatal emotional disorders with the State-Trait Anxiety Inventory (STAI) as well the Edinburgh Postnatal Depression Scale (EPDS), which this study did not utilize.

Conclusion: Several difficulties experienced by women after childbirth indicate that it is still necessary to influence their wellbeing postpartum through professional care provided by the midwives. Mental wellbeing evaluation in the earliest postpartum period should become a standard of care in professional practice, especially for women with identified risk factors of mental disorders.

Keywords: midwifery, postpartum period, emotional difficulties, risk factors
Is knowledge about abortion more important than attitudes? Study on midwifery students’ opinions towards abortion in their future practice.

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Background: Due to controversies related to abortion, most Polish midwifery students may begin their education with already established attitudes to this issue. To answer, how is it important in midwifery practice, we compared the attitudes of the 1st and 3rd year midwifery students, and verified if these attitudes changed considerably throughout the course of the studies.

Method: A cross-sectional study. An original questionnaire was evaluated. 334 female students of a 3-year bachelor degree program in midwifery were included. Research has ethic committee approval.

Results: The majority of the respondents were against active participation in the abortion on request. More than a half did not approve participation in the abortion if the fetus presents with a non-lethal defect having a considerable impact on future quality of life, e.g. Down syndrome. Generally, the acceptance rates were higher among the 3rd year students. More than a half of the 3rd year students stated that the abortion-related topics were inadequately addressed in their study curricula.

Discussion: The results of similar European studies conducted in other countries are quite contradictory: the proportion of Polish midwifery students, who declared their acceptance for abortion is dramatically low. Available evidence suggests that in countries where abortion is a controversial topic, midwives need to find a balance between the desire to provide professional care, and social, cultural and political pressure resulting from the lack of acceptance to certain medical procedures.

Potential limitation of this study may stem from the fact that the opinions presented by the students might be highly subjective and showed considerable variability.

Conclusions: Higher rates of abortion acceptance among the 3rd year students were not necessarily a manifestation of informed approval, but rather a form of a “systemic” adjustment to duties. Midwifery program need to be revised to develop informed and evidence-based knowledge toward abortion.

Keywords: midwifery, abortion, midwifery education, midwifery practice, law/legal issues
Homebirths in Poland - legal aspects, midwives reflection and statistics

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Introduction: Despite quite similar way of midwives education programs in Europe, models of perinatal care and the role of midwife varies in different countries. In some of the European countries a rising number of deliveries in birth centers or during homebirths can be observed. However, in Poland this type of care is not well known and popular.

Aim: The aim of the study was to present the legal aspects of polish midwife-led perinatal care and the role of midwives during homebirths and midwives reflection on a home birth. The purpose of this work was also to present the statistics about homebirths in Poland.

Material, Methods: In the study Polish scientific reports from Stowarzyszenie Dobrze Urodzeni (eng. Well birthed Association) were used. Data were analyzed in terms of aspects such as number of deliveries at home, transfers to hospitals wards, birth positions during labor, perineal trauma. In addition, a review of polish scientific literature and regulations in Polish in terms of procedures, the functioning of alternative perinatal care during labor and childbirth and midwives perception of care during home birth was made.

Results and Conclusion: A right to choose a place for childbirth is guaranteed by the Minister of Health regulations. Although, hospital with access to operating room is still the most recommended place to give birth. The number of homebirths in Poland is increasing, despite that the procedure is not covered by the health insurance. Growing awareness about active birth, respecting women’s rights during labor and low rates of episiotomies and perineal traumas, supportive approach, rather than the typical interventionist approach might be the reasons why women decide to choose to give birth at home.

Keywords: homebirth, midwife-led care, perinatal care
Management of the Second Stage of Labor in Women with Epidural Analgesia: a Qualitative Study on Midwives’ Experiences.

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Introduction. Since the 1960s epidural analgesia has been widely introduced for pain relief in labour in developed countries, changing the view of pharmacological strategies to manage the pain and consequently the midwifery care provided during labour and delivery. The Italian panorama is currently characterised by a range of rates for epidural analgesia between different Maternity Units based on geographical location and various models of care.

Methods. A qualitative phenomenological design. Data were collected using semi-structured interviews which combine a pre-determined set of open questions prompting discussion with the opportunity for the interviewer to further explore themes of particular interest to the individual participants. Interpretative Phenomenological Analysis (IPA) was used to analyze data.

Purposive convenience sampling was used based on the participants’ particular knowledge of the phenomenon. The inclusion criteria were midwives working for 6 months or more in the labour ward of one of the three largest maternity hospitals in northern Italy.

Results. The 12 interviews were transcribed verbatim in Italian and analysed using QSR NVivo, a qualitative analysis software. In order to undertake this analysis, the researcher first read and re-read each of the interviews and identified themes and sub-themes, which were agreed by the team. Three major themes were identified: a) Analgesia, b) Midwives’ experience and c) Midwifery management.

Conclusion. Findings show that the effects of epidural analgesia are related to the method used by the anesthetist (greater in case of administration of high doses of analgesic or in case of continuous infusion) and less widespread in the centers that provide the greatest number of analgesia. The results show a different care from the point of view of support to pain: some midwives tell about a sense of inutility due to a “surveillance without support”, because analgesia cancel the pain.

Keywords: Epidural analgesia, Second stage of labour, Midwifery management
Midwifery students and conscientious objection. An observational study in Universities of Lombardy - Italy

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Introduction: The Italian legislation on abortion and Medically Assisted Procreation (L. 194/78 and L. 40/2004) gives the Healthcare Professionals the opportunity to exercise they right to conscientious objection, a subject of current bioethical debate. From the published literature comes out that students are in an awkward situation and they need to reflect on this issue during the course.

Objective: The main aim of this study is to try and explore attitudes, legal knowledge, experiences and decision-making possibilities of the students attending the third year of the Bachelor in Midwifery towards conscientious objection in the Universities of Lombardy and the possible need of further education in the field.

Methods: This study is an observational study that explore attitudes, legal knowledge and experiences in midwifery student enrolled in five Universities in Lombardy. A structured, anonymous questionnaire was used for the survey. Of the 112 questionnaires, 111 were returned.

Results: From the study emerges the students have acquired the knowledge of the legislation related the conscientious objection and related laws, with a frequency of 62.9% correct answers.

Analyzing the data comes to light that the students think that the time devoted to teaching conscientious objection and protection of motherhood within the curriculum is not enough and only 51% say that the student has sufficient information on the procedures concerning the conscientious objection.

Conclusion: Even though the students have a global knowledge of the legislation, a deeper and wider general knowledge of the laws in question could be a safeguard both for students and women and more than that it could ensure the provision of the highest standard of care. During the three years of the Bachelor in Midwifery, starting from the first one, more time should be dedicated to the discussion of cases and the analysis of conflicting values.

Keywords: conscientious objection, midwifery students, legislation, ethics
The Birth Satisfaction Scale-Revised (BSS-R): process of translation and adaptation in an Italian context

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Introduction: Maternal satisfaction is one of the most important outcome to monitor the quality of maternity services. The Birth Satisfaction Scale-Revised (BSS-R) is a 10-item self-report scale to assess women’s satisfaction with their birth experience. The aim of this research was to achieve the cross-cultural and conceptual equivalence of the BSS-R tool in Italian.

Method: The WHO method has been used for the translation and the cultural adaptation of the BSS-R questionnaire.

Results: During the first step an Italian version of the BSS-R was developed. The second step involved an expert panel that discussed about the translation of three of ten items of the scale. The third step, called pretesting and cognitive interviewing, involved 100 women, who were asked to report any difficulties to understand the questionnaire. Women repeated with different expressions and words item one and nine. These two items involve the theme regarding the experience of stress during labour. At the end of the process, following a conceptual analysis, a final version of the questionnaire in Italian has been developed.

Discussion: The BSS-R is the first Italian tool that could be used to evaluate mother’s satisfaction by healthcare professionals, researches and managers, in order to improve maternity services.

Keywords: Birth satisfaction, Questionnaire, Woman’s satisfaction, Birth experience, Quality of care
Changes of the birth environment - experiences in the course of implementing the Be-Up trial

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Germany has to deal with high caesarean section rates compared with other European countries. A caesarean section is associated with an increased risk for maternal morbidity and mortality. In order to increase vaginal birth (VB) rates the multicenter RCT BE-UP tests the effect of a redesigned birthing room on the probability of VB (primary efficacy endpoint) in 12 hospitals. Beside this primary efficacy endpoint, key secondary endpoints like episiotomy; 3rd & 4th degree perineal tears; epidural analgesia; “critical outcome of newborn at term” and maternal self-determination are focused in a two arm parallel design. The intervention is a redesigned birthing room, which means that the standard delivery bed will be kept out of the room/out of sight and a floor mattress, a birth cushion, beanbags and soft pillows will be provided to increase comfort and coping with labor. Photo posters depicting upright positions, nature scenes via DVD imply relaxation, and a floor-lamp to regulate the light-conditions as desired. At least an en-suite station for drinks and snacks as well as a homelike unit of a table and chairs should foster self-determination and mobility during labor. The control is usual care in a standard birthing room according to the participating hospitals’ standards. Data will be collected during birth, 2 days and 3 months after birth. To test the effect of the intervention on the probability of VB a sample size of 3,800 women, who are randomly assigned, is needed. The first “Be-Up Baby” was born in April 2018, the last will be born in February 2020. Experiences presented will pertain to the furnishing of the alternative birthing room, the briefing of hospital staff (midwives and obstetricians), and the strategy to inform and enroll pregnant women as study participants.

Keywords: Birth, Environment, Upright, Position
Is there a connection between the number of midwives present through labor and delivery, and the objective and subjective birth experience?

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Background: Continuity of care and shortage of midwives may affect birth outcomes and satisfaction. The current study aimed to investigate how the number of midwives attending labor and delivery is related to the objective mode of birth and the subjective birth experience.

Method: The sample included 601 Israeli women, recruited during their pregnancy from women’s health clinics and a hospital. Two months postpartum, participants completed questionnaires regarding objective and subjective aspects of their labor and delivery.

Results: Number of attending midwives ranged from 1-4. Logistic regression, controlling for the duration of labor and delivery, parity, age, and gestation week, showed that compared with women who had a spontaneous vaginal delivery with epidural analgesia, any increase in the number of midwives during the course of labor and delivery was related to a 40% increase in the chances of an assisted delivery and a 33% decrease in the chances of a spontaneous vaginal delivery without pain medication. Similarly (and with the same control variables), analysis-of-variance showed that any increase in the number of attending midwives was related to a significant decrease in the level of satisfaction from the labor and delivery experience and from the birthing staff.

Discussion: Continuation of midwife care during childbirth has a significant effect on the mode of birth as well as the level of satisfaction from the birthing staff and the overall birthing experience. In Israel the hospital standard is one midwife for every three women, which contributes to the non-continuous and impersonal care of birthing women and can contribute to errors in maternity care. Study limitations included non-nationally representative sample and the reliance on self-reports.

Conclusion: This study clarifies the importance of the continuity of care, which may support the production of oxytocin and ensure a healthier and more satisfactory outcome and birthing experience.

Keywords: Continuity, attending, midwives, objective, subjective
Development and validation of the Dutch version of the Mobile Application Rating Scale (MARS): A pilot study on pregnancy apps

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Background: Mobile technology is an increasing, influential source of information, resulting in a steadily growth of health apps. Health professionals are concerned about the quality of the information in apps. A generally accepted, reliable tool for evaluating health applications is the Mobile Application Rating Scale (MARS). However, there is no standardized Dutch tool for assessing apps. The objective of this pilot study was to develop a Dutch MARS, to investigate its usefulness for assessing the quality of pregnancy apps and to evaluate its psychometric properties.

Methods: The original 23-item MARS, consisting of four objective subscales (engagement, functionality, aesthetics, information) and one subjective dimension, was translated and adapted according to the WHO guideline. Nineteen pregnancy apps were evaluated independently by two raters at two time points. The inter- and intrarater reliability and internal consistency were determined.

Results: Moderate to excellent inter- (0.672–0.765) and intrarater reliability (0.794–0.921) were found for the total score and the subjective part (0.601–0.761 resp. 0.729–0.882). The absolute reliability showed low %SEMs, indicating good reliability. The reliability for the subscale scores varied from poor to good, with poor intraclass correlation coefficients in the functionality subscale. However, the absolute reliability of this subscale showed good %SEM. Internal consistency was acceptable for all subscales and the subjective part (0.786–0.943), except for the functionality subscale (0.010–0.596).

Discussion and conclusion: Our results were similar to those in the original study, except for the functionality subscale. This may indicate that the Dutch MARS is a reliably tool for rating the quality of pregnancy apps. However, further research is needed to optimize the instrument (e.g. functionality subscale) and to evaluate its psychometric properties (e.g. validity) on a larger number of apps. Also the usability of the MARS by health professionals and the implementation in daily practice should be further explored.

Keywords: Mobile Health, mobile application, Mobile Application Rating Scale, pregnancy
The aim of this study is to explore and describe the transition to motherhood of mothers in Flanders and the supportive role of midwives in this transition, (re)gaining life balance in this sensitive period. Of all women living in Flanders, 83% are mothers. This is an estimated number for 29,000 nulliparous and 36,000 multiparous women (SPE, 2015) (Statistics Belgium, 2014). Becoming a mother and motherhood is a life-event. This transition has a significant impact on women’s life balance (Mercer, 2004) (Nelson, 2003) (Rousseau, et al., 2011). The role of (becoming) a mother characterizes itself by finding a new life balance for herself and in relationships with family and society (Eli, et al., 2016) (Emmanuel, Creedy, St John, & Brown, 2011) (Fontein-Kuipers, 2016). Midwives have an important role in health counseling on parenthood and need to prepare future mothers and families for the challenges they will face in finding this new life balance.

Currently the “MeToWe” researchers are conducting a cross sectional study about the life balance and transition to motherhood in Flanders. Via an online survey mothers in Flanders are questioned about their life balance, sense of coherence and transition to motherhood. Data analyses will be finalized before the end of 2018. We would like to present these novice data at the CARE4 conference in 2019.

We will also start the next phase of this project by collecting qualitative data (1) on the perceptions of midwives on their supportive role (2) and the lived-experiences of women/mothers and their need for support during the transition to motherhood. Finally, the opinions of various experts, using the Delphi-method, will be collected on how midwives can play an active role in supporting women in obtaining a healthy life balance during their transition to motherhood.

Keywords: life balance, sense of coherence, motherhood, transition
Being safe and feeling safe in maternity care: two sides of the same coin?

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Background: The concept of safety in childbirth represents one of the key quality characteristics in obstetrical care by aiming to reduce the risk of unnecessary harm for mothers and their babies. In this definition, pregnancy and childbirth are not only seen as physiological processes but also as potential risks, which have resulted in the medicalization of pregnancy and childbirth. The question arises as to whether the avoiding of undesirable results for mother and child also automatically guarantees a safe feeling among the users of the maternity care system.

Methods: The thematic discussion is based on socio-psychological aspects of subjective security and current research focusing the perception of safety and the sense of security in the context of maternity care.

Results: From the psychological and sociological perspective, subjective security is an essential part of quality of life and is designated as a collective and elementary basic human need. The creation of a sense of security is dependent on diverse internal and external factors.

Studies focusing on the perception of safety in the context of maternity care indicate that the safety concept is perceived and interpreted differently. The different perceptions of safety and associated safety needs have a decisive impact on women’s choice of birthplace.

Discussion: As the results point out, feeling safe is of high relevance for women during pregnancy and childbirth and goes beyond the medical perspective of the safety concept. Additionally, the findings show that rational safety concepts do not guarantee the subjective feeling of security.

Conclusion: Therefore it is important that midwives and obstetricians talk to women about their individual security needs and help them to find elements creating and strengthening their feeling of safety.

Keywords: subjective security, mothers, pregnancy, childbirth, maternity care
Poster presentations
Topic: Health and education

List of abstracts
(In alphabetic order by presenting author)
TRANSPARENTS: a longitudinal study on BMI, mental health and partner support during the transition to parenthood: study protocol

Hannelore Vanden Eynde (1), VickàVersele (2), Tom Deliens (2), Peter Clarys (2), Roland Devlieger (1), Annick Bogaerts* (1), Leonardo Gucciardo (3), Dirk Aerenhouts (2)

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BACKGROUND: The transition to parenthood seems to be a critical period for weight gain and creates challenges which might have an impact on the mental health of both partners. Research has shown evidence on first pregnancy-related weight gain and retention and postpartum depression in women, but the effects of having a first child on men are mainly unknown. Understanding of this potentially critical period could help us to develop more effective intervention programs.

METHODS: TRANSPARENTS is a multi-centre observational follow-up study that focusses on body weight, body composition and energy-balance related behaviour (EBRB) during the transition to parenthood. Data from this study will be extracted to examine BMI, mental health and partner support during this specific life phase and identify those who are most vulnerable. Couples (women and men) are recruited during the first trimester of their first pregnancy and data are collected at four occasions (12 weeks of pregnancy, 6 weeks postpartum, 6 months postpartum and 12 months postpartum). Anthropometrics will be assessed including weight and height to calculate BMI. Mental health will be assessed using the Edinburgh Postnatal Depression Scale and the Gotland Male Depression Scale. A Dutch version of the Social support for diet and Social support for exercise questionnaire will be adapted for partners to assess partner support. Using multilevel modelling, changes in body weight, mental health and partner support during and after pregnancy will be evaluated.

DISCUSSION: TRANSPARENTS is a unique project identifying vulnerable parents and (un)favourable changes in BMI and mental health throughout the transition to parenthood. Pre-pregnancy data are collected retrospectively which is a limitation, as is the use of subjective methods to estimate mental health and partner support. Provided insights will facilitate the development of effective intervention strategies to improve weight outcomes and mental health among couples transitioning to parenthood.

Keywords: Parenthood, BMI, mental health and partner support
BACKGROUND: The transition to parenthood seems to be a critical period for weight gain. Although research has shown evidence on first pregnancy-related weight and fat gain and retention in women, the effect of having a first child on men’s body weight and body composition is lacking. Moreover, to date, there is no full understanding about which specific energy balance related behaviours (EBRB) contribute to unfavourable weight gain and retention.

METHODS: TRANSPARENTS is a multi-centre observational follow-up study that focusses on body weight, body composition and EBRB during the transition to parenthood. Data are collected at four occasions (12 weeks of pregnancy, 6 weeks postpartum, 6 months postpartum, 12 months postpartum). Couples (women and men) are recruited during the first trimester of their first pregnancy. Anthropometrics will be assessed and include body weight, height, body composition (using bio-electrical impedance and measurement of four skinfold thicknesses (biceps, triceps, subscapular and supraspinal)) and waist and hip circumference. Socio-demographics, breastfeeding, dietary intake, physical activity and sedentary behaviour, lifestyle, mental health and social support will be assessed using a questionnaire. Accelerometers will be used to objectively assess participants’ (women & men) physical activity and sedentary behaviour. Multilevel modelling will be used to evaluate maternal and paternal changes in body weight, body composition and EBRB during and after pregnancy. All analyses will be adjusted for possible confounders. Multiple linear regression analyses will be performed to identify predictors of changes in body weight, body composition and EBRB.

DISCUSSION: TRANSPARENTS is a unique project identifying vulnerable parents and (un)favourable changes in EBRB throughout this potentially critical life period. Pre-pregnancy data are collected retrospectively which is a limitation, as is the use of mainly subjective methods to estimate EBRB. Provided insights will facilitate the development of effective intervention strategies to counter excessive weight gain among couples transitioning to parenthood.

Keywords: Pregnancy, parenthood, body composition, lifestyle
Perceptions of physicians, medical and nursing students concerning shared decision-making: a cross-sectional study

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Background: shared decision making (SDM) is promoted as a facilitator for a patient-centered health care. However, the attitudes of care providers pertaining SDM in various countries such as Belgium remains unknown.

Methods: a cross-sectional study was conducted between June and September 2017 in which sharing attitudes of Flemish physicians, third year postgraduate medical, and postgraduate nursing students were measured with the Patient-Practitioner Orientation Scale. Higher scores on the six-point scale indicate a patient-centered respondent. In addition, sex, age, rank, occupation and specialty were surveyed to compare sharing attitudes between the groups. Independent t-tests, One and Two-way ANOVA and multivariable regression with the variables sex, age, occupation and specialty were calculated.

Results: a total of 266 responses, of which 93 physicians, 147 medical and 26 nursing students were analyzed. Mean scores from the groups were 4.24 ± 0.64; 4.30 ± 0.61; and 4.30 ± 0.67, respectively. In the multivariable model, female sex (p<0.10) and employment (p<0.05) in general practice or internal medicine is predictive for higher sharing among physicians. In addition, univariate differences (p<0.05) between specialisms have been found in which pediatricians (4.79 ± 0.69), psychiatrists (4.74 ± 0.47), GPs (4.31 ± 0.59) and Obs/Gyn (4.40 ± 0.38) score higher than surgeons (3.84 ± 0.58).

Discussion: Flemish caregivers’ and trainees’ perceptions were disease-orientated. Despite the small samples and possibility for social desirability bias, it is likely that the scores of physicians change owing to prolonged contact to the specific clinical context. Additionally, academic trained nurses share the belief that the physician should decide and the patient should rely on his knowledge rather than his own.

Conclusion: this is the first study that examined these attitudes from providers and trainees in Flanders. There is an urgent need for health policy and educational institutions to facilitate an environment in which SDM is supported.

Keywords: shared decision making, nursing, physician, students, attitudes
Design of innovative information, training and social support intervention to informal caregivers of people with dementia living at home: the INFOSA-D

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Dementia affects about 36 million of people in worldwide and its prevalence doubles every five years after 65 years of age. Affects different functions, with progressive loss of autonomy to do activities of daily live, being necessary the care of family or friends. Most elderly people with dementia are cared at home for family members. This care is carried out for months or years and generates social, physical and mental consequences in the informal caregiver. Currently, it is necessary to identify interventions that improve the quality of care in home and this intervention will depend on the nature of special needs and positive emotions to help improve the informal caregiver’s quality of life and quality of care, emphasizing the importance of satisfaction and to take a rest every day as a protective factor against burden. Objective: develop and implement an educational intervention and social support to improve skills for care and reduce its negative effects Method: Quasi-experimental study with experimental group that will receive the educational program consisting of a multicomponent, formative, informative and emotional support program of five 90-minute sessions taught during a week and control group that will receive standard care, with follow-up at 3 and 6 months post-intervention. Participants will be informal caregivers of people with dementia living at home. Results: The results from this intervention will serve to support other studies and provide scientific evidence on the importance of promoting non-pharmacological interventions in the informal caregiver of people with dementia. In turn, it can be used as a basis for the implementation of psychoeducational interventions in home care and long-term care centers responsible for monitoring people with dementia, responding to the needs of training, information and social support that own caregivers demand.

Keywords: dementia, alzheimer’s disease, patient care, home care
Professionalization of health and nursing professions in Germany and the chances of scientific education

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In the last years a compression in the daily work routine can be noticed within health and nursing care in Germany. Furthermore, there is a national lack of skilled labour. In addition, employees have continuous and growing demand for further qualification which can’t be met with existing higher education on an academic level. This symposium takes up those upcoming challenges for health and nursing care and the further qualification in these fields by the example of current research projects. Different target groups as well as different programmes of further education will be considered. Emphasis will be put on examples, which take into account the participants’ work environment. Participating in this conference the audience will get an insight in different challenges of health and nursing care professionals and their need of further qualification. Projects will be presented that develop scientific education programs based on these needs. Their goal is to contribute to the professionalization of health and nursing care regarding heterogeneity and needs of the students. Their findings suggest guidelines and strategies that can help to improve the situation of employees in health and nursing care and to support non-traditional learners.

Challenges in supply of aging people with intellectual disabilities

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More and more people with intellectual disabilities living in inpatient and residential facilities for integration assistance are aging. For this reason, health and nursing needs are increasing. Normally, the remedial therapists are not trained in nursing care but meanwhile it takes over 50% of their supply time. Therefore, education of remedial therapists need a training complement. In addition to that the team should be interdisciplinary and include e.g. nursing staff. On the other hand, there is also a training complement for nurses (hospital and geriatric nurses) needed to train them dealing with aging people with intellectual disabilities.

Lifelong learning at Universities: A training program dedicated to non-traditional Nursing students

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The faculty of Public Health Services increasingly opens its’ study courses in Nursing science to non-traditional Students. A part of this strategy is a training course which focusses on the early identification of the students’ resources in the pre-study phase. To conceptualise this course a mixed-methods study was conducted in the Winter 2017/2018. Associated with the non-established status of nursing science in Germany this study gives important hints towards the professionalization of this discipline. The results indicate a distinct heterogeneity between the non-traditional nursing students. There are professional experienced older students and lesser experienced younger students. The latter group showed a remarkable vulnerability compared to the ‘older’ ones. Apparently, younger students are suffering from negative behaviours through colleagues or superiors. Also they articulated unclear motivations to study nursing science. For them it is important to develop in the course sensibilities concerning the ambivalences in a non-established field of nursing. At the centre of this input to the symposium the results of the training course concerning the chances and risks of academic education will be discussed.

Self-guided learning of non-traditional students in the context of further education in health and nursing care

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Based on the growing compression in the daily work routine in health and nursing care the German Science Council recommends the promotion of academic study programmes for employees in health and nursing care. But typical academic programmes are not suitable for this target group because of their high workload at work, family responsibilities or other responsibilities. Within the sub-project “Bachelor Upgrade Applied Nursing Science” of the joint project “Installation of part-time study programs in nursing- and health sciences” (funded by the German Federal Ministry of Education and Research) new scientific programmes in Nursing and Gerontology will be developed, implemented and evaluated. In this context it is of special interest which curricula concept promotes the self-guided learning of non-traditional students. In this input findings from the evaluation of six new modules that use a blended learning concept will be presented. The first results show different challenges for the use of new educational technology. Non-traditional learners are oriented on their previous educational experiences and strategies. The new programmes request a high individual responsibility of the participants. Overall the present results indicate that blended learning has a high potential for non-traditional learners.

Certificate courses as academic further education in health and nursing care

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The professional field of nursing is under permanent change. Thus there is a growing need for nursing specialists to improve their qualifications. Due to the increasing lack of specialists, many employers aren’t able to send their professionals to further education offers. Within the
realm of a mixed-method study the needs for further education and the requirements for developing certificate courses have been researched. Specific conditions like shift work and the high percentage of female employees with family duties have been considered.

As a result the high flexibility of certificate courses is an essential advantage: because of the modular structure of contents, certificate courses can be developed according to needs and participants. Thereby current topics as well as niche topics can be included relatively quickly and scientifically profound. They can be chosen by the participants according to their own previous experiences. And last but not least, certificate courses as entry-level offers contribute to reduce possible inhibitions towards the university as an academic institution and to open the university also to non-traditional students.

Keywords: Professionalization, blended learning, non-traditional students, interdisciplinary health and nursing care, interdisciplinary education and its challenges
A participative empowering postnatal group programme in the first year after birth,"Sterke Start project”.

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The main goal of this project was to develop an empowering group programme to support young families in parenting and to promote their health in the first year after birth. This is a period in which parents have several questions about the baby but are also challenged as a person and as a couple. How to adapt to the new situation and parental role are questions raised by young parents. Often they feel uncertain. Group programmes proofed to be successful interventions in supporting parents.

Based on literature research, focus groups with parents and professionals and complemented with topics from existing other evidence-based programmes we developed a group programme that includes 7 sessions and deals with a variety of topics such as the transition into parenthood, healthy lifestyle, partner relationship, resuming professional activities, … . One pilot ran from October 2017 to April 2018 in “Huis van het Kind” Leuven. Seven parents with babies between 6 to 10 weeks participated. Another pilot took place at “ZuMa”, Hasselt.

The Leuven pilot was evaluated by means of an interview with the parents (n=5). For the interview a structured questionnaire with both closed and open, as well as score questions were used. Overall, there was enough satisfaction with the content, topics, timing and amount of sessions and the coaches. The possibility to bring on own topics was much appreciated. A lower score concerns the duration of the sessions. The 90 minute sessions were judged to be too short. Based on the provisional results and the appreciation from the parents, we believe that the implementation of a postnatal group programme within perinatal health care can be a strong tool that fits the strategy of early intervention to support families in general and vulnerable families in particular in parenting and in making healthy lifestyle choices.

Keywords: postnatal group programme, parenting, healthy lifestyle, empowerment
Say What? Health Literacy! Current knowledge of the concept among nurses in general hospitals

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Background: the concept of ‘health literacy’ is described as the capacity of people to navigate through information on health and to manage their own health throughout life. Although the concept originated abroad some decades ago, it has only recently become of interest to European and National policy makers. Yet, low health literacy skills result in poor health outcomes, more hospitalizations, and inefficient health expenses (WHO Europe, 2013).

Objectives: until now, research has focused mostly on improving health literacy skills of patients themselves. However, promoting health literacy demands a multiparty approach. Thus, the role of health care organizations and care professionals providing information and aiding in health decisions should also be emphasized. In this study, current knowledge of the concept among care professionals as well as their health literacy skills were investigated.

Methods: nurses from several general hospitals in the province of Limburg (BE) were asked to fill out a 14-item questionnaire, based on the Enliven organizational health literacy self-assessment resource (Thomacos N. & Zazryn T., 2013) including questions such as ‘do you know the concept of health literacy?’ , ‘how do you provide information (only orally, written or other means)?’, ‘do you inform about the costs?’, ‘did you receive training?’, etc. Also care managers of these hospitals were asked about possibilities for training of the personnel.

Results: most respondents were unfamiliar with the concept of health literacy; they usually provide information in different ways including orally and written (i.e. brochures), always check whether patients have understood them by commonly using the teach-back method, but so far have received little or no training on how to improve their health literacy skills.

Discussion and conclusion: Although health literacy as a concept is new to most nurses, they do handle accordingly without being aware. Training of personnel is not yet commonly organized.

Keywords: health literacy, health literacy skills, health care professionals
Background: A health literate organisation is described as an organisation that endeavours a shift to enable people to navigate, understand and use information and services to take care of their health. Bach et al. (2012) proposed the concept of health literacy to point out and screen how organisations handle health literacy issues of patients. As a starting point, they considered health literacy at the level of the organisation to be characterised by ten attributes.

Objectives: (1) to determine characteristics of health literate organisations from a Flemish care system perspective, (2) to develop an inspiration guide with actions for each health literacy attribute, (3) to integrate and test these attributes and interventions in an easy-to-use online tool, and (4) to explore the support needs and barriers of care organisations in order to facilitate an improvement of their health literacy.

Methods: A literature review, focus group discussions, an expert panel discussion and qualitative interviews were used to obtain information from health care professionals and patients. Respondents from a general and psychiatric hospital and community centre were purposively sampled. A constant comparative approach was used to identify the organisational health literacy characteristics, the support needs and barriers.

Preliminary results: The ten attributes of Bach et al. (2012) were identified and confirmed by the Flemish health care professionals and patients (on a general level that is, as these attributes are considered to be universal, but because of their ‘universality’, attributes on a ‘lower’ or ‘deeper’ level may not be included).

Discussion and Conclusion: Patients and professionals supported the ten attributes of organisational health literacy. We were able to provide a useful tool to explore to what degree organisations are (becoming) health literate and to guide them in their effort.

Keywords: health literacy, health care organisation, empowerment, quality improvement
The development of blended learning about delirium for healthcare workers in long-term care facilities (LTCFs)

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BACKGROUND: A core element of strategies to improve delirium care is education of healthcare workers. Traditional strategies are notoriously difficult to implement. Previous studies showed that e-learning improved healthcare workers’ delirium recognition and knowledge. The aim of this study is to describe the development of blended learning for healthcare workers in LTCF’s and to evaluate the impact.

METHOD: The blended learning was developed by the research team, using a phased approach. Content development was based on literature review regarding effective interventions for delirium prevention and management, guidelines and expert opinion. The prototype of the e-learning tool was pilot-tested by 6 research nurses. Based on their feedback the tool was improved, before testing its use with healthcare workers from 19 LCTFs. After a two-month implementation period of the e-learning, an in-service training by the research nurses was presented to the healthcare workers. The participants completed the Delirium Knowledge Questionnaire (DKQ) and Strain of Care for Delirium Index (SCDI) before and after each part of the blended learning. After completion, they were asked to evaluate the intervention.

RESULTS: There were 312 participants in the blended learning pre-test. The post-test was completed by 87 participants, of which 1.6% logistic support, 37.9% nurse assistants, 33.3% nurses, 2.6% masters in healthcare, 11.9% other paramedics. Of them, 4.8% finished only the e-learning, 10.3% only the in-service training and 9.3% the mixed trajectory, 88.5% of the participants was female, with a mean age of 43 (SD 11.7). Only 67.9% knew what delirium was before the intervention.

DISCUSSION: The participants reported that the in-service training was an indispensable part of the training to be able to ask questions and to provide cases around which the participants worked in groups.

CONCLUSION: Delirium education for healthcare workers in long-term care facilities should contain multicomponent strategies like blended learning.

Keywords: Delirium education, blended learning, e-learning, long-term care facilities
BACKGROUND: Residents, relatives and caregivers experience delirium as stressful. Work) stress has an impact on the life of nursing staff. In addition, this stress has negative consequences on the quality of care. The aim of this study is to determine the relationship between delirium knowledge and care strain for healthcare workers in LTCF’s.

METHOD: In this multicentral pre-post intervention study with 312 healthcare workers from 19 LTCF’s the link between delirium knowledge (Delirium Knowledge Questionnaire, DKQ) and perceived care strain (Strain of Care for Delirium Index, SCDI) was investigated. The intervention was blended learning (e-learning, in-service training or a mixed approach). Subgroup analyses were performed for healthcare workers completing only the e-learning or the in-service training.

RESULTS: After intervention, the mean score on the SCDI was higher after blended learning (0.16, SD 0.44, p<0.001), e-learning (0.12, SD 0.49, p=0.019) and in-service training (0.12, SD 0.44, p=0.07).

The higher the delirium knowledge, the lower the perceived care strain (before: r=-0.062, p=0.299, after: r=-0.110, p=0.350). Hyperactive behavior caused the highest care strain. Nurse assistants had the highest decrease in care strain (before: r=-0.011, p=0.916, after: r=-0.584, p=0.011), 46.6% of the perceived stress was clarified by their delirium knowledge after blended learning and the amount of years they work in a LTCF. For nurses there was no significant difference after the intervention.

DISCUSSION: From the 312 healthcare workers participating in the pretest SCDI, 284 filled in the DKQ. After the intervention, 80 of them filled in the SCDI and 74 the DKQ.

CONCLUSION: Delirium knowledge after blended learning had only a significant influence on the perceived care strain for nurse assistants. Above that, the number of years they worked in a LTCF was a significant factor. To decrease delirium care strain, especially for nurse assistants, a mixed trajectory approach is advised.

Keywords: Delirium education, delirium knowledge, long-term care facilities, nurse assistants
Mapping the primary care process of women during the first 1000 days

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Background: Primary care is delivered by a wide range of care providers in healthcare and wellbeing services. There are several primary caregivers involved in perinatal care and the provision of care is fragmented. For a long time, organizations are working independently with their own models and procedures. We aim to focus on the experiences and perception of women in their care process during the first ‘1000 days’ as a way to map interdisciplinary collaboration primary care.

Methods: A qualitative research method is used based on a grounded theory design. The data collection is done through journey-mapping and semi-structured interviews. For the data analysis, Quagol (Qualitative Analysis Guide of Leuven) is used to analyze the results in a trustworthy, structured and systematic way. We aim to recruit 20 pregnant women or young mothers with heterogeneity in terms of age, marital status, primi- vs. multiparae, period (pre-, peri- and post-natal) and region of care.

(Expected) results: Based on the method of journey-mapping and interviews, we map the care process of pregnant women and young mothers and create persona. We start from the perspective of the woman and make an interpretation about her relationships with consulted health- and wellbeing professionals or services. Firstly, we focus on the emotions experienced during the care delivery process. Secondly, we examine the expectations of the participants and the extent to which these expectations are met. After our final analyses we will create an insight in the overall experience of the woman in her care process and the determinating factors for a meaningful care relationship.

Discussion: The results will add knowledge to enhance the access of care for most parents and parents-to-be in need.

Conclusion: Our study results will lead to the upgrade and adaptation of existing care pathways.

Keywords: Primary care, interdisciplinary collaboration, experience pregnancy and motherhood
Criteria for reporting on development and evaluation of professional training interventions in health care (CRe-DEPTH)

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Background. Descriptions of training interventions for healthcare professionals include a lot of vagueness, leaving the reader in doubt about the intervention and the true value of the reported effects. A set of reporting criteria to improve the transparency and comprehensiveness in reporting training interventions in health care is recommended. This study aimed to develop and content validate a set of reporting criteria for the development and evaluation of training interventions for healthcare professionals.

Methods. The set of criteria was developed through three stages: (1) a literature review, (2) the design of the criteria, and (3) a Delphi and consensus meeting process with ten experts from different professional disciplines.

Results. The Criteria for Reporting on Development and Evaluation of Professional Training interventions in Healthcare (CRe-DEPTH) comprises 12 items divided in four categories: (1) development of the training, (2) characteristics of the training, (3) characteristics of the providers, and (4) assessment of the training outcomes. For example: “Description of the underlying theoretical framework”. Each criterion was provided with a detailed description to support its unambiguous interpretation.

Discussion. High quality reporting is essential in describing complex interventions, also for training interventions. The CRe-DEPTH reporting criteria guide the development, evaluation and reporting of training interventions. The CRe-DEPTH are non-content specific reporting criteria and provide guidance for authors on any training intervention for professional training in health care. Its use will allow for detailed reporting on the training, its developmental process, as well as on the rationale for underlying choices, and will avoid non-reporting of training details. The challenge to find comprehensive and rigorous reported examples, gave an indication for the need for these criteria.

Conclusion. The 12 CRe-DEPTH criteria might ensure transparent and comprehensive descriptions of training interventions in health care.

Keywords: Guidline, healthcare, health personnel, professional education
Teams Under Pressure

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Background: Concerns arise regarding the implications for professionals caused by the deinstitutionalization of health and social care. This process of deinstitutionalization or so-called ‘vermaatschappelijking’, implies that care is mainly organized outside the residential context. Over the years, it evolved towards an assembly of changes endeavoring a meaningful place in society for everyone and integrating care. It is not an unambiguous concept. Clients are being centralized in their daily context, but on the other hand, care and services know increasing commercialization. This often implicates savings and puts a strain on the supply’s quality. Several types of volunteer work and informal care partly compensate for this concern as they surround the professionals and co-determine the client’s situation.

Central research questions: How and to which extent are professionals working in (health)care and wellbeing sectors confronted with working with volunteers? Which challenges do they face and which support is desirable/needed?

Methods: Through a systematic literature review, semi-structured interviews with professionals working with volunteers, an online survey for internship supervisors in education and professional learning committees for actors from education and practice, we developed a body of knowledge and a body of practice. The gathered information was processed and supplemented with the expertise from the AP University College lecturers. For the training modules, an explorative phase will precede implementation.

Results/output: The development of instruments for a high-quality policy supporting volunteers who coach vulnerable people at a care farm (one project currently approved by ‘Groene Zorg’)

The provision of training modules for contemporary volunteer work and participation (‘vrijwilligersacademie’, a cooperation between AP University College and ‘Give a day’ organization)

Formulating recommendations for students’ clinical placements in organizations working with volunteers

Conclusion: This project offers a methodology package and tools to empower professionals to support and cope with volunteers, both low and high-vulnerable profiles.

Keywords: professionals, volunteering, integrated care, health, wellbeing
Effect of fall prevention implementation on attitude, norms, self-efficacy, knowledge, barriers, intention and behavior in nursing home staff

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Background: Implementing fall prevention requires more than solely disseminating clinical practice guidelines (CPG). A multifaceted approach, tailored to the local context, is indispensable. This pilot study evaluated the effect of fall prevention implementation on attitude, norms, self-efficacy, knowledge, barriers, intention and behavior in nursing home (NH) staff.

Method: We conducted a pre-post pilot study in 6 NH (n = 709 measurements). Each NH committed to implement the CPG using a structured implementation plan. Data on attitude, norms, self-efficacy, knowledge, barriers, intention and behavior were collected using structured questionnaires at baseline and after an average follow-up of 20 months. Attitude (i.e., overall feeling of (un)desirability towards fall prevention), norms (i.e., perceived social pressure to apply fall prevention), self-efficacy (i.e., degree of feeling able to apply fall prevention) and intention (i.e., conscious plan to apply fall prevention) were measured using a 7-point likert-scale. Knowledge about fall prevention was measured using a 16-item true-false questionnaire. Environmental constraints (i.e., perceived reasons not to apply fall prevention) and behavior (i.e., performance of fall prevention) were measured on a 5-point scale.

Results: Attitude (PRE: 5.55±1.08 – POST: 5.86±0.89; p<0.000), norms (PRE: 4.54±1.23 – POST: 4.76±1.26; p<0.008), self-efficacy (PRE: 4.70±1.22 – POST: 4.96±1.16; p<0.001), knowledge (PRE: 69.38% ±14.38% – POST: 76.13% ±13.44%; p<0.000), intention (PRE: 5.43±1.32 – POST:5.65±1.29; p<0.048) and behavior (PRE: OR 1 – POST: OR 3.34; p<0.002) towards fall prevention increased in NH staff during the implementation process. Barriers (PRE: 1.58±0.55 – POST: 1.48±0.61; p<0.00) decreased.

Discussion: Although our pilot study shows promising results, these should be studied further using a controlled trial.

Conclusions: Results show a significant improvement in attitude, norms, self-efficacy, knowledge, barriers, intention and behavior towards fall prevention in staff, suggesting a structured implementation plan may support fall prevention implementation in NH.

Keywords: fall prevention, implementation, nursing home, integrated model for behavioral prediction
Development and pilot evaluation of a training intervention to enhance nurses’ competencies for self-management support

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Background. Patients living with a chronic illness need to be empowered to take the lead in managing their condition. Nurses lack confidence and skills to adequately support patients towards self-managing their illness. The aim of this study was two-fold: (1) to systematically develop a training intervention to enhance nurses’ competencies for self-management support (SMS), and (2) to test the feasibility, acceptability and usefulness of the training.

Methods & results. The training intervention was developed according to the Utrechts' model for development of complex nursing interventions (Van Meijel et al., 2004). In phase one, the building blocks for the design were gathered through a systematic literature review on effective components to train competencies for SMS; a current practice analysis among hospital (N=323) and home care (N=154) nurses, as well as among final-year nursing students (N=256); and a need assessment by a grounded theory study. In phase two, the training intervention was designed using the 5A’s-model (Glasgow et al., 2003), the Self-Determination Theory (Deci & Ryan, 2000) and the Presence Approach (Baart & Grypdonk, 2008). Five experts were involved in the process. Phase three consisted of a pilot evaluation on the feasibility, appropriateness, and meaningfulness among the participants (focus group) and the trainers.

Discussion. This method of development led to a theory- and use-feedback driven training intervention, which is meaningful to nursing practice. The broader theoretical frameworks and the time to practice autonomy-supportive communication were most appreciated by participants. In a next step the effectiveness of the intervention on nurses’ competencies will be evaluated.

Conclusion. We developed a multi-faceted training, which takes into account participants’ learning needs to provide self-management support. A first enrolment of the training has been successfully welcomed by an interdisciplinary group of students bachelor after bachelor primary care.

Keywords: continuing education, intervention development, Self-Determination Theory, self-management support
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