BOOK OF ABSTRACTS

MASTER PUBLIC HEALTH

Provided by the Center for
Public Health and Health Care Research

Editors:

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Second edition of the Book of Abstracts for the **Master´s degree program in Public Health** at Paracelsus Medical Private University, Salzburg.

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Cover image	Hans-Peter Wiesinger, Valentin Fischill-Neudeck

Foreword

Welcome to the second edition of the "Book of Abstracts" of the Public Health Master's degree program at Paracelsus Medical Private University, Salzburg. We are proud to present the diverse selection of Master's theses developed by our dedicated students from 2019 to 2025.

The program management and the entire course organization are committed to providing a high-quality education. This course imparts a solid theoretical foundation and strongly emphasizes practical skills, particularly the ability to work scientifically at the highest level. The training of public health experts at our university is characterized by its multi- and interdisciplinary approach as well as by excellent instructors. Collaborations with partner institutions, such as the Institute for Public Health at the University of North Florida in Jacksonville, offer students the opportunity to earn a certificate in Global Health. The program equips graduates to successfully address healthcare challenges — whether concerning health-threatening developments or physical and mental illnesses.
The range of included abstracts reflects the diversity and complexity of public health. From systematic reviews and epidemiological analyses to qualitative studies on the use of digital health technologies and analyses of treatment methods for malignant melanoma — these abstracts provide fascinating insights into the research conducted by our students and inspire future scientific developments.

We hope that you not only gain exciting insights into our students' research through these abstracts but also take away inspiring impulses for future scientific developments. Enjoy reading and discovering the world of research in our program!

Salzburg, April 2026

Hans-Peter Wiesinger
Scientific Director

Overview

The book comprises 129 abstracts, structured as follows: 38 quantitative studies, of which 22 master's theses used primary data and 16 used secondary data for analysis. Additionally, 46 master's theses employed qualitative research methods, with interview data being analyzed content-wise in most cases. A further 43 master's theses were literature reviews, while in 2 theses the students applied mixed methods approaches.

Before the actual development of the master's thesis, students undergo a structured peer-review process in which the topic is specified. As part of this process, the thesis topic is assigned to a Public Health Core Competence (PHCC). This refers to a list of thematically sorted competencies from the Association of Public Health Schools in the European Region (ASPHER[1]), intended to describe and delineate essential areas in public health. The PHCC, in its 5th version, serves as the thematic framework for the curriculum of the degree program and, subsequently, for the chapter structure of this Book of Abstracts.

Of the works, 8 align with PHCC 1 "Methods in public health – quantitative and qualitative methods." Another 29 master's theses can be attributed to PHCC 2 "Population health and its social, economic and political determinants." 25 papers investigate questions within the domain of PHCC 3 "Population health and its material–physical, radiological, chemical, and biological–environmental determinants." 29 master's theses belong to PHCC 4 "Health policy; economics; organizational theory, leadership and management." 34 Master's theses address aspects of PHCC 5 "Health promotion, health protection and disease prevention," while another 4 focus on topics related to PHCC 6 "Ethics."

It is particularly gratifying to see that master’s theses, such as those by Ms. Verena Wally, have been published in peer-reviewed journals. In the future, we will increasingly emphasize this qualitative work and enable students to achieve their master’s degree by publishing a contribution in a reputable peer-reviewed journal. In this edition, Ms. Verena Wally has been selected for a brief spotlight to acknowledge her outstanding achievement.

[1] ASPHER’s European List of Core Competences for the Public Health Professional. (2018). *Scandinavian Journal of Public Health*, *46*(23_suppl), 1-52. https://doi.org/10.1177/1403494818797072

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Spotlights and Publications

Alumni Spotlight

"Although it may seem at first glance that my scientific interest in rare diseases and public health are contradictory, this course of study has helped me to gain a deeper understanding of the challenges in the field of rare diseases, as well as the progress and initiatives achieved so far in the public health sector. This broader perspective enables me to place the milestones achieved in public health within the context of the specific needs of patients with rare diseases. This allows me to consider innovative solutions that combine both areas."

Verena Wally

Brigitte Hamann Award 2025

Verena Wally from the University Hospital Salzburg was awarded the Brigitte Hamann Prize at Vienna City Hall for her research on the rare skin disease epidermolysis bullosa (EB). The prize, conferred by the Austrian Private Universities Conference (ÖPUK), recognizes outstanding achievements by graduates of Austrian private universities. In her thesis at Paracelsus Medical Private University (PMU) Salzburg, Ms. Wally specifically investigated methodological bottlenecks in clinical research on rare diseases and developed approaches aimed at significantly improving the quality, comparability, and design of future EB studies.

Wally, V., Welponer, T., Wiesinger, H. P., Diem, A., Thiel, K., Geroldinger, M., Zimmermann, G., Hummel, J. I., Dorfer, S., Hofbauer, J. P., Bauer, J. W., & Laimer, M. (2025). Keratin-associated epidermolysis bullosa simplex: phenotypes and challenges in clinical trials - a narrative review and systematic update. *Orphanet journal of rare diseases*, *20*(1), 313. https://doi.org/10.1186/s13023-025-03822-0

Supervised by **Johann Bauer**

Masterthesis AWARD

MTA Spotlight

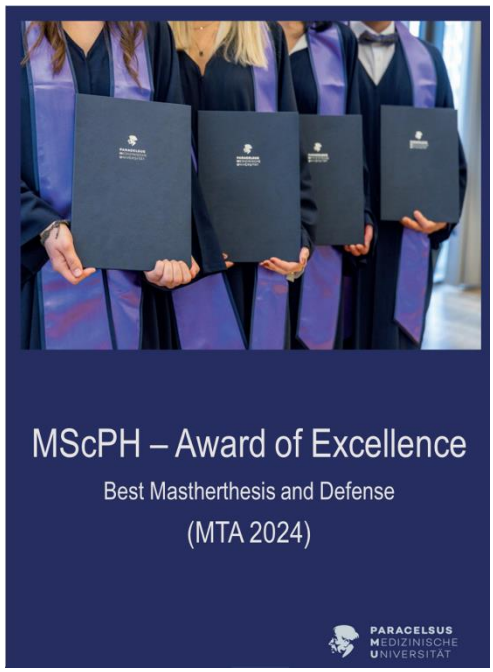
"My Public Health studies at PMU revealed the wide-ranging importance of health sciences and public health and enhanced my methodological and professional expertise, allowing me to apply these skills in my daily clinical research work and to further deepen them during my PhD in Public Health and Epidemiology at the University of Basel."

Romy Schönegger

Winner

Romy Schönegger

Empirische Zusammenhänge von Gesundheitskompetenz und Health Service Use: eine systematische Überprüfung im österreichischen Kontext



Empirische Zusammenhänge zwischen Gesundheitskompetenz und Health Service Use: eine systematische Überprüfung im österreichischen Kontext

Supervised by **Christine von Reibnitz**

Masterthesis AWARD

MTA Spotlight

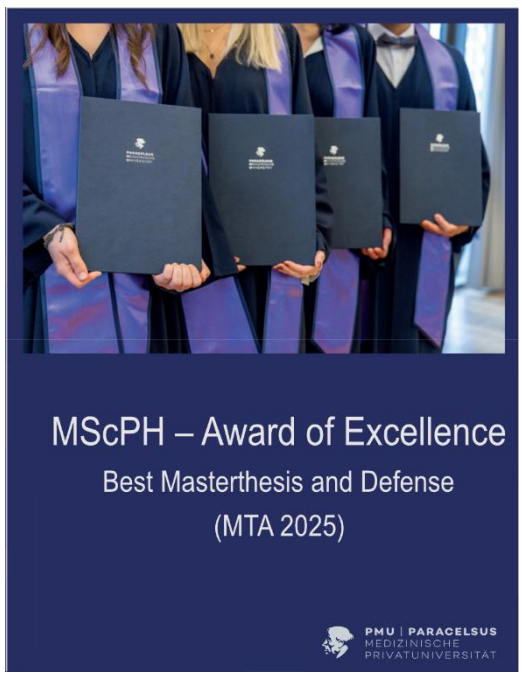
„The Master's degree program in Public Health at PMU has expanded my perspective beyond individual viewpoints and strengthened my ability to contribute to quality improvement and system development in healthcare in an evidence-based and responsible manner. The program's interdisciplinary approach supports me in advancing healthcare structures holistically and with a future-oriented mindset in my professional work."

Elisabeth Lesslauer

Winner

Elisabeth Lesslauer

Einsamkeit – Beginn und Wandel im Lebensverlauf: Eine Grounded Theory Studie zu Perspektiven und Erfahrungen älterer Menschen in strukturschwachen ländlichen Regionen



Einsamkeit – Beginn und Wandel im Lebensverlauf: Eine Grounded Theory Studie zu Perspektiven und Erfahrungen älterer Menschen in strukturschwachen ländlichen Regionen

Supervised by **Simon Krutter**

Spotlights and selected Publications

Journal Article

Hahn, K., Flamm, M., & Wernly, B. (2025). The Impact of Pharmacist-Led Interventions on the Treatment of Chronic Obstructive Pulmonary Disease Patients. *Medical principles and practice: international journal of the Kuwait University, Health Science Centre*, *34*(6), 527–543. https://doi.org/10.1159/000547390

Wally, V., Welponer, T., Wiesinger, H. P., Diem, A., Thiel, K., Geroldinger, M., Zimmermann, G., Hummel, J. I., Dorfer, S., Hofbauer, J. P., Bauer, J. W., & Laimer, M. (2025). Keratin-associated epidermolysis bullosa simplex: phenotypes and challenges in clinical trials - a narrative review and systematic update. *Orphanet journal of rare diseases*, *20*(1), 313. https://doi.org/10.1186/s13023-025-03822-0

Schnetzer, Eva; Brugger, Katharina (2025): *Pflege im Klimawandel. Eine qualitative Untersuchung zur Klimakompetenz von Angehörigen des gehobenen Dienstes für Gesundheits- und Krankenpflege in Oberösterreich.* Österreichische Pflegezeitschrift, 3/2025. pp. 22-28. ISSN 2071-1042

Book

Müller, H. (2025). Das Qualifikationsprofil der Community (Health) Nurse. *Chancen und Herausforderungen auf kommunaler Ebene in Österreich*. Wiesbaden: Springer.

Congress

Atalaia, A., Fischill-Neudeck, V., Betznec, P., Gorjan, R., Peinhaupt, C., Wiesinger, H. P., & Habacher, W. (2024). Empowerment and interprofessional collaboration in health promotion centre Murska Sobota. *European Journal of Public Health*, *34* (Supplement_3). https://doi.org/10.1093/eurpub/ckae144.1752

Schönegger, R., Von Reibnitz, C., & Wiesinger, H. P. (2025). Health literacy and healthcare utilisation in universal healthcare systems: A systematic review. *European Journal of Public Health*, *35* (Supplement_4). https://doi.org/10.1093/eurpub/ckaf161.1476

Geomor, K., & Wiesinger, H. P. (2025). Challenges in implementing ivermectin-based mass drug administration for onchocerciasis. *European Journal of Public Health*, *35* (Supplement_4). https://doi.org/10.1093/eurpub/ckaf161.1409

Hoch, L., Pölzl, G., Pfeifer, B., Fetz, B., Kleinheinz, E., Wiesinger, H. P., & Neururer, S. (2025). Telemedicine-supported medication titration in heart failure: evaluation of HerzMobil Tirol, Austria. *European Journal of Public Health*, *35* (Supplement_4). https://doi.org/10.1093/eurpub/ckaf161.1230

Bogensberger, K., Fischill-Neudeck, V., & van der Zee-Neuen, A. (2025). The general health literacy among health professionals – a secondary data analysis of the HLS19-AT. *European Journal of Public Health*, *35* (Supplement_4). https://doi.org/10.1093/eurpub/ckaf161.1479

PHCC I - Methods in public health – Quantitative and qualitative methods

DATA COLLECTION AND USE IN INTERNATIONAL RESEARCH PRACTICE NETWORK: A SCOPING REVIEW

Janina Carbon

Supervisor: Karola Mergenthal
Co-Supervisor: Maria Flamm

Date of the defense: 04.12.2023

Keywords: Data collection; Data utilization; Primary care; Primary care practices; Healthcare research

Introduction: In German primary care practices, physician-collected data has not been systematically collected and utilized. This presents a problem, as such data reflects specific aspects of primary care and could serve as a foundation for improving the quality and effectiveness of patient care. Currently, data from inpatient/university studies are predominantly used, which do not adequately represent the characteristics of primary care. Therefore, it is essential to gather specific data from primary care practices to optimize the quality of care in primary care in Germany. The main objective of this work is to investigate the extent of data collection and utilization in international research practice networks, compared with primary care in Germany. What billing and health data are collected and utilized in (primary) research practice networks in other countries (UK, Canada, Netherlands, USA) for patient care, compared to the primary health care setting in Germany?
Methods: To answer the research question, a systematic literature review in the form of a scoping review was conducted. A literature search was carried out in two databases, PubMed and Web of Science, between June and September 2023. Studies were selected based on predefined criteria.
Results: A total of 35 studies and research articles were included in the scoping review. The results from the included studies emphasize significant differences in data collection and utilization between the examined countries and Germany. This comprehensive overview provides valuable insights into the various approaches to data collection in healthcare and highlights specific challenges and potentials. In Germany, data collection and utilization are still in a developmental phase, with innovative approaches and best practices being adapted from other countries to enhance the efficiency and quality of healthcare research.
Discussion: The results of this study underscore the need to establish more comprehensive data collection and utilization in Germany. This is crucial to enhance the quality of patient care in primary healthcare and create a more robust evidence base for medical decision-making processes. In the future, increased efforts will be imperative to implement these measures and further improve healthcare delivery in Germany.

SOCIAL DESIRABILITY IN PUBLIC HEALTH SURVEYS ON HEALTH BEHAVIOR – A SCOPING REVIEW

Simone Panzer & Teresa Preller

Supervisor: Patrick Kutschar
Co-Supervisor: Piret Paal

Date of the defense: 05.09.2023

Keywords: Social desirability; Survey; Response bias; Health Behavior

Introduction: Population-based public health measures can be developed on the basis of surveys. In this context, high-quality research with survey results that are as valid and unbiased as possible is indispensable. This master's thesis examines social desirability (SD) in self-reported health behaviors in the context of diet, physical activity, alcohol and tobacco consumption, as well as body weight in public health surveys. The aim of this scoping review is to summarize the understanding and effects of SD as a form of response bias to self-reported health behaviors in adults. Another objective is to describe techniques for controlling biased response behavior.
Methods: A systematic literature search was conducted as part of a scoping review. The research covered the period from February to April 2023. PubMed, CINAHL, LIVIVO, and snowballing were used for examination. Included were studies published between 2003 to 2023 in German and English with empirical research on SD in self-reported health behavior among adults aged 18 years and over without significant underlying disease.
Results: Out of 602 screened articles, 20 studies were used to answer the research questions. None of the publications provided a full definition and explanation of the SD phenomenon. Half of the empirical research on SD relates to nutrition-based surveys, while a smaller number of the included studies focused on body weight, physical activity, and alcohol and tobacco consumption. Especially in surveys on diet, SD effects were consistently found, while a more divergent picture emerged in relation to the other behaviors. With regard to the measuring instruments and techniques, only those for assessing SD bias, but not for reducing it, could be found. In this context, five different instruments could be identified, of which various forms of the Marlowe-Crowne SD scale were by far the most frequently used.
Discussion: The identified SD effects should be considered in the design of surveys in the future, as well as in the interpretation of survey results. Further research is needed in the development, evaluation, and systematic application of new and existing methods to capture and reduce SD in public health surveys.

EFFECTIVENESS OF ACTIVE DIGITAL HOME EXERCISE PROGRAMS FOR CHRONIC, NONSPECIFIC LOW BACK PAIN: A SYSTEMATIC REVIEW

Ursina Peterhans

Supervisor: Hans-Peter Wiesinger

Co Supervisor: Antje van der Zee-Neuen

Date of the defense: 30.09.2025

Keywords: Chronic low back pain; Digital home exercise programs; Lumbar back pain; Telerehabilitation

Introduction: Low back pain is one of the leading causes of disability and work absence worldwide. As the prevalence increases, the demand for rehabilitation continues to grow. Digital home exercise programs offer a potential complement to conventional rehabilitation. However, evidence on the effectiveness of these programs in active interventions remains limited. This study examines the effectiveness of asynchronous digital active home exercise programs in adults with chronic non-specific low back pain compared to conventional home exercise programs, physiotherapy, or no intervention. The aim is to evaluate effects on pain, physical function, and quality of life.

Methods: A systematic review was conducted following PRISMA guidelines. Included were randomized controlled trials involving working-age adults (18–65 years) with chronic non-specific low back pain who participated in asynchronous, digitally guided active exercise interventions. Study quality was assessed using the PEDro scale, and results were synthesized narratively.

Results: Nine studies with a total of 511 participants were included. Partial significant benefits over placebo or no intervention were observed in three studies. Compared to physiotherapy, no differences were found. All intervention groups showed improvements in pain and function, several of which were statistically significant and partly clinically relevant. Interactive features such as feedback, push notifications, or AI-based adaptation appeared to have a positive impact.

Discussion: Digital home exercise programs may serve as a valuable complement to conventional therapy for chronic non-specific low back pain, particularly in cases with limited access to care. However, no clear superiority over conventional programs was demonstrated. Further research is needed to assess long-term outcomes and to identify the most effective digital components.

PUBLIC HEALTH INTERVENTIONS WITH THE INTERNATIONAL CLASSIFICATION OF HEALTH INTERVENTIONS (ICHI)

Manuel Roier

Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Hans-Peter Wiesinger
Research assistant: Valentin Fischill-Neudeck

Datum der Defensio: 30.09.2025

Keywords: International Classification of Health Interventions (ICHI); Large Language Models (LLMs); Public Health-Interventions

Introduction: The COVID-19 pandemic has highlighted the need for standardized reporting of Public Health Interventions (PHI). The WHO's International Classification of Health Interventions (ICHI) is the designated tool for this purpose. However, classifying context-dependent and complex PHI poses a significant challenge. Concurrently, emerging technologies like Large Language Models (LLMs) offer potential new approaches to support coding processes. This thesis examines the challenges of coding PHI with ICHI using the WHO-PHSM Taxonomy as a case study. Furthermore, it exploratively investigates the potential and limitations of LLM-based coding assistants (CodAs) for this process.
Methods: Following a qualitative, exploratory approach, the WHO-PHSM Taxonomy was systematically coded with ICHI to identify practical and conceptual difficulties. In parallel, various LLMs (ChatGPT, Gemini, Claude) were tested as supporting tools. This process was aided by web applications developed to create specific ICHI datasets and to verify the coding suggestions generated by the CodAs.
Results: The coding process revealed several difficulties, particularly in representing intervention bundles, capturing context factors, and dealing with inconsistencies between ICHI reference materials. The LLMs demonstrated potential in supporting discursive considerations, but also showed significant weaknesses in reliability for deterministic tasks, highlighting the need for constant human oversight.
Conclusion: ICHI is a valuable, yet still evolving, tool for classifying PHI that requires further adjustments to meet the needs of public health practice. CodAs can support the coding process as discursive partners, but are not currently a reliable 'plug-and-play' solution. The future development of ICHI and CodAs should therefore proceed in parallel, requiring close cooperation between subject matter experts and technology developers.

DELPHI STUDY FOR THE DEVELOPMENT OF A FACE-VALID ASSESSMENT INSTRUMENT FOR CLASSIFYING PATIENT CLIENTELE IN ACUTE HOSPITALS

Magdalena Scheytt

Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Irmela Gnass

Date of defense: 02.09.2024

Keywords: Delphi study; Assessment tool; Care optimization; Skill-grade-mix; Complex patients

Introduction: Against a backdrop of demographic change, performance-oriented hospital financing, and the predicted shortage of skilled workers, stakeholders in the German healthcare system face the challenge of ensuring high-quality and efficient patient care (Destatis, 2024a; Wingenfeld, 2020; Radtke, 2024). Nursing staff in acute care settings is characterized by a large skill-grade mix, which significantly complicates patient care (Jacob, Mckenna & D´amore, 2015). Various assessment tools are currently being used to help meet these challenges (Reuschenbach & Mahler, 2020). Despite these numerous assessment tools, there is a research gap

regarding a comprehensive instrument that takes into account the increasing complexity of patient cases and the diverse competencies of nursing staff. Therefore, the aim of this research is to develop an assessment tool for categorizing patients in acute care hospital settings to create a more needs-based model of patient care in order to avoid overburdening or underutilizing nursing competencies. 1) What criteria must an instrument for categorizing patients into "simple," "moderate," and "complex" cases meet in order to optimize care structures in acute care hospitals? 2) How do healthcare experts define complex care situations, and what characteristics are associated with each of these situations? The development of an assessment tool for optimizing the delivery of nursing care includes aspects of both health policy and management theory. The main goal of this assessment tool is to support the organization and planning of nursing and medical services in such a way as to ensure a smooth therapeutic process during hospitalization and to prevent care disruptions after inpatient treatment. Such an assessment tool supports the right of every individual to the highest possible quality of healthcare (WHO, 2023). Additionally, it can be seen as an investment in the people who sustain the healthcare system, making it particularly important for public health.

Methods: From November 2023 to February 2024, a three-stage Delphi study was conducted within the six different clinics of the RKH GmbH in Baden-Württemberg, Germany. Anonymized questionnaires with qualitative and quantitative questions were generated for each Delphi round. A total of 15 healthcare experts participated in the first Delphi round, 14 in the second round, and 13 in the third round. A dropout rate of 23.5% was calculated and considered very low. In the first Delphi round, quantitative and qualitative data on the relevance of certain care areas were generated. The second round served as feedback to the experts and was used to analyze the point distribution in the generated instrument. In the third Delphi round, face validity was checked as a quality criterion for the instrument.

Results: In the first Delphi round, 22 categories of high to very high relevance for the assessment tool were identified. On average, 61.9% of the experts expressed "confidence" in this assessment, and 18.9% expressed "high confidence." In the second round, the same experts weighted the individual categories on a scale of 1-5 points indicating their relevance. The categories were given an average of 3 to 4 points, with only the monitoring of hemodynamically unstable patients receiving the highest score of 5 points. The third Delphi round checked the face validity of the instrument through targeted questions about relevance, clarity, and comprehensibility of the assessment tool. The experts assigned a very high face validity to the generated instrument, with 69.2% considering the instrument very relevant, 76.9% as valid, and 46.2% as very understandable. The overall impression of the assessment tool was rated as relevant by 61.5% and very relevant by 38.5% of the experts.

Discussion: A face-validated assessment tool for categorizing patients was developed based on the results of the three-stage Delphi study. The present findings indicate that further research on validity, reliability, and objectivity is required before widespread practical application can occur. Positive results could help improve patient

care in the challenging context of the German healthcare system. Additionally, the instrument offers great potential to allocate existing staff according to their skill-grade mix to optimize care across the board.

References:

Jacob, E., Mckenna, L. & D´amore (2015). The changing skill mix in nursing: considerations for and against different levels of nurse. *Journal of nursing management,* 23(4), 421- 6. doi: 10.1111/jonm.12162

Radtke, R. (2024). *Prognose zu Bedarf und Angebot an Pflegekräften in Deutschland nach Szenario in den Jahren 2024 bis 2049.* Zugriff am 01.05.2025. Verfügbar unter https://de.statista.com/statistik/daten/studie/172651/umfrage/bedarf-an-pflegek raeften-2025/

Reuschenbach, B. & Mahler, C. (Hrsg.). (2020). *Pflegebezogene Assessmentinstrumente: Internationales Handbuch für Pflegeforschung und -praxis* (2. Aufl.). Göttingen: Hogrefe AG.

Statistisches Bundesamt Deutschland [Destatis] (2024a). *Bis 2049 werden voraussichtlich mindestens 280 000 zusätzliche Pflegekräfte benötigt.* Zugriff am 01.05.2024. Verfügbar unter: https://www.destatis.de/DE/Im-Fokus/Fachkraefte/Demografie/_inhalt.html

Wingenfeld, K. (2020). *Pflegerisches Entlassungsmanagement im Krankenhaus. Konzepte, Methoden und Organisationsformen patientenorientierter Hilfen* (2., erw. und überarb. Aufl.). Stuttgart: Kohlhammer.

DIGITAL HEALTH COMPETENCE: TRANSLATION AND CONTENT VALIDATION OF TWO MEASUREMENT INSTRUMENTS FOR ASSESSING DIGITAL HEALTH COMPETENCE AMONG HEALTHCARE PERSONELL

Nele Lisa Stock

Supervisor: Piret Paal
Co-Supervisor: Manela Glarcher

Date of the defense: 05.12.2023

Keywords: Digital health care; Digital health competence; Digital health; Health care professionals; Health works; Health personal

Introduction: The omnipresence of digital progress is driving dynamic growth in innovative healthcare services. Within the framework of digital health, ICT-supported applications offer innovative solutions to counteract current and future challenges in healthcare. To utilize these technologies and seize the opportunities, healthcare professionals must develop digital health competencies (DHC). In terms of education, empowerment, and guidance, DHC among healthcare professionals forms the foundation for the efficient use of digital health resources. Currently, there is insufficient evidence regarding DHC among healthcare professionals in the DACH region. Therefore, it is important to assess the level of DHC among healthcare

professionals on a broad scale. Knowledge, application, and infrastructure gaps can thus be identified. The aim was the translation and tool piloting of two questionnaires developed in Finland, DigiHealth-Com and DigiComInf to measure DHC among healthcare professionals, along with a background questionnaire for additional data collection.
Methods: The translation process followed the ISPOR guidelines. The content was translated by two independent experts, reconciled, back translated, and harmonized. Tool piloting was based on the Content Validation Index method, using I-CVI, S-CVI/Ave, S-CVI/UA and Think-Aloud. Based on the results of the first round of evaluation, the measurement tools were revised, and a new evaluation by experts was carried out. Kappa k* was calculated for problematic items.
Results: After the first round of testing, DigiHealthCom showed an S-CVI/Ave value of 0.86 (relevance) and 0.93 (clarity). S-CVI value of DigiComInf was 0.69 (relevance) and 0.91 (clarity). A revision of 27 items resulted S-CVI/Ave of 0.90 (relevance) and 0.97 (clarity) of the DigiHealthCom, and 0.76 (relevance) and 0.97 (clarity) for DigiComInf after the second round of testing. The German background questionnaire had an S-CVI value of 0.913 (relevance) and 0.983 (clarity). Kappa k* values for problematic items were calculated as 0.56; 0.412 and 0.273.
Discussion: After a successful translation process, DigiHealthCom and DigiComInf are sufficiently valid measurement instruments. Surveying DHC is an important step towards digital healthcare.

EPIDERMOLYSIS BULLOSA SIMPLEX: PHENOTYPES AND CHALLENGES IN CLINICAL TRIALS

Verena Wally

Supervisor: Johann W. Bauer and Hans-Peter Wiesinger
Co-Supervisor: Valentin Fischill-Neudeck

Published: This thesis was published in Orphanet J Rare Dis 2025: https://doi.org/10.1186/s13023-025-03822-0

Date of the defense: 01.12.2025

Keywords: Genetic skin disease; Clinical endpoints; Clinical research

Introduction: Clinical research on innovative therapies for the rare genodermatosis epidermolysis bullosa (EB) faces significant challenges, including small sample sizes, disease heterogeneity with intra- and inter-individual variability, limited understanding of pathogenic mechanisms and natural disease course, as well as the lack of patient-centred core outcomes. Moreover, existing tools and techniques to assess disease activity and dynamics are heterogeneous, inconsistent, and may fail to consider or inaccurately emphasize particularities of individual patients and distinct EB subtypes.
Methods: In order to exemplify the differences between keratin-associated subtypes of EB simplex (k-EBS), we summarized respective clinical characteristics in a narrative way. In addition, we performed a systematic review of the literature

published over the last 5 years, with the aim to give an overview on outcomes and their assessments used in these patient populations.

Results: This review summarises the methodological scope, strengths and limitations of outcome assessments in clinical trials for the k-EBS, a group of inherited skin fragility diseases characterised by their distinct phenotype of epidermal blistering.

Discussion: By presenting an overview of the clinical spectrum of k-EBS, we identified key gaps in current assessment methodologies and propose alternative approaches to optimise the evaluation of skin blistering, with the aim of enhancing the accuracy, reliability, and patient-relevance of clinical outcomes.

PHCC II - Population health and its social, economic and political determinants

RATIONED/MISSED CARE IN ACUTE HOSPITAL SETTINGS IN AUSTRIA FROM THE PERSPECTIVE OF REGISTERED NURSES: A QUALITATIVE STUDY

Gerhild Aigner

Supervisor: Manela Glarcher
Co-Supervisor: Andre Ewers

Date of the defense: 30.11.2021

Keywords: Missed nursing care; Rationed care; Care left undone; Patient safety; Adverse events; Nurse staffing

Introduction: Rationed/missed nursing care is defined as withholding or not performing necessary nursing tasks due to a lack of resources. Studies show significant associations between rationed/missed nursing care and patient safety, nurse staffing, as well as job satisfaction. Data from Austria are lacking. The study was conducted to explore the perspective of registered nurses in acute inpatient settings in Austria regarding rationed/missed nursing care.
Methods: Using a convenience sample, 10 registered nurses working in acute inpatient settings in Austria were interviewed by telephone based on a guideline. The analysis was carried out using content analysis according to Kuckartz (2018) with MAXQDA software.
Results: Circular links between the three main categories "reasons", "frequencies" and "effects" were identified. To avoid bias due to the COVID-19 pandemic, a sub-classification into „before“ and „during“ the pandemic was performed. In particular, the subcategories "positive and negative coping strategies" highlight the relevance for nursing practice.
Discussion: The results serve as a foundation for quantitative studies regarding the frequency of rationed/missed nursing care and the development of patient- and staff-oriented nursing practice to address underlying causes, reduce negative effects for both patients and nurses, and ensure retention in the nursing profession.

References:

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A VIGNETTE ANALYSIS OF THE PERCEPTION OF RACISM FROM THE PERSPECTIVE OF MASTER'S LEVEL NURSING PROFESSIONALS

Melanie Bany

Supervisor: Piret Paal
Co-Supervisor: Christine Dunger

Date of the defense: 15.11.2022

Keywords: Ethnic Minorities; Transcultural Competences; Racism Prevention

Introduction: International migration of health workers is increasing in both scale and complexity. A quarter of the world's nurses work in a country other than the one in which they were born. Demographic change is exacerbating this trend. The globalization of healthcare is increasing the number of nurses and patients with different national and ethnic backgrounds. This creates an opportunity for racist behavior in therapeutic relationships from both nurses and patients. The fight against racism is of global importance and a public health challenge that has not yet been sufficiently explored. The aim of this study is to raise awareness of the issue of racism in healthcare, to sensitize nurses to the issue of racism, and to gather strategies for preventing it. This study also aim to collect and summarize data to provide a basis for further research. The research question addressed in this study is as follows: How do Master`s level students at the PMU in Salzburg perceive racism in clinical nursing practice? The study also takes into account the student`s migrant backgrounds and ethnic minority status. Specifically, the question is whether individuals with migration background or who belong to an ethnic minority are more frequently affected by racism. Additionally, the study examines measures to combat and prevent racism.
Methods: The research design of the thesis is based on a factorial survey, or vignette analysis, which is particularly useful for studying social and situational behavior. Participants were confronted with two hypothetical situations and asked to answer questions about these scenarios. For the mixed-methods design, a literature review of available instruments was conducted in Medline via PubMed, Web of Science Core Collection and CINAHL via Ebsco Host. A questionnaire was then developed using vignette scenarios based on international literature. The survey was conducted online and anonymously.
Results: A total of 17 people participated in the survey, 15 of whom identified themselves as female. 62.5% of participants were born in Austria, followed by Germany. All but one participant acknowledged that racism exists in nursing practice. Participants described having been in situations similar to those described in the vignettes. Racism often infiltrates everyday care unnoticed. The suggested solutions to combat racism were diverse. These included training staff in transcultural competencies and expanding training on multicultural issues. Open communication with patients, colleagues, and managers was also seen as an important preventive measure. The overarching goal of prevention measures is the equal treatment of every individual, avoiding reduction to gender, skin color, appearance, religion,

political views, migration background, etc. People should be perceived based on their needs and met with empathy, without being stigmatized based on prejudice.
Discussion: This thesis presents the perceptions of Master`s students at the PMU Salzburg regarding racism in clinical nursing practice. The results serve as an important basis for further research projects and the development of prevention programs against racism.

GENERAL TECHNICAL READINESS, PERCEIVED ACCEPTANCE, AND USEFULNESS OF ASSISTIVE ROBOTS IN NURSING, AS EVALUATED BY NURSING STUDENTS IN GERMANY

Anna-Luisa Brigmann

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Date of the defense: 25.07.2022

Keywords: Robotics; Acceptance; Nursing trainees; Perceived usefulness; Willingness to use technology; Assistance robots

Introduction: Due to demographic change, the inpatient and outpatient care sectors are under severe strain. The number of people in need of care is constantly increasing, and more and more caregivers are deciding to leave their profession due to physical and mental stress. Care robots can support caregivers in everyday tasks (non-nursing tasks), thereby preventing damage to the health of caregivers. Additionally, they can ensure good care for people who need it (Fraunhofer IPA, 2019). The aim of the study is to present the perceived acceptance and usefulness of robots in nursing from the perspective of nursing trainees/entrants. Additionally, the willingness of the trainees to use technology is assessed. The goal is to explore whether there is a relationship between the willingness to use technology and the perceived acceptance of nursing robots among nursing trainees.
Methods: A cross-sectional survey was conducted, with 127 nursing trainees from two independent nursing schools interviewed using a questionnaire. The presentation of the research results is both descriptive and hypothesis-testing. Pearson's bivariate correlation analysis was used to test the hypothesis.
Results: Preferences regarding robots' assumption of nursing activities were identified. Among these, nursing trainees perceive tasks such as assisting with medication reminders, recognizing falls and calling for help, measuring vital signs (e.g., blood pressure, temperature), and delivering meals as the most useful. The perceived acceptability of these robots is rated in the middle range. No correlation was found between technology readiness and perceived acceptance of robots in nursing.
Discussion: Further research is needed, especially in German-speaking countries, to explore perceived acceptance and the usefulness of robots in nursing. In this context, not only trainees but also qualified personnel should be interviewed. This could be helpful for the potential implementation of robots in nursing care.

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GENDER-SPECIFIC DIFFERENCES IN THE LIKELIHOOD OF BEING RESUSCITATED AS AN ADULT IN THE CASE OF AN OUT-OF-HOSPITAL CARDIOVASCULAR ARREST, TAKING INTO ACCOUNT THE LOCATION: A SYSTEMATIC REVIEW

David Michael Butter

Supervisor: Hans-Peter Wiesinger
Co-Supervisor: Irmela Gnass

Date of defense: 02.09.2024

Keywords: Bystander; Cardiopulmonary resuscitation; Out-of-hospital cardiac arrest; Sex

Introduction: Bystander cardiopulmonary resuscitation (B-CPR) is one of the most important factors for survival and a good neurological outcome in patients with out-of-hospital cardiac arrest (OHCA). The probability of receiving B-CPR differs between the sexes and appears to be influenced by the location of the OHCA. The heterogeneity of existing studies leaves many questions unresolved. This systematic review investigates, for the first time, the differences between the sexes in receiving B-CPR in OHCA and the influence of the location of the OHCA on these differences. The aim is to evaluate whether adult females with OHCA have a lower probability of bystander CPR compared to male adults.
Methods: A systematic review was conducted. The study was registered in Open Science Framework. The systematic search, following the PRISMA guidelines, includes the databases Medline, Cochrane Library and CINHAL. The last update of the search was on May 10th. To be considered for inclusion, studies had to report absolute numbers on bystander CPR by sex for adult patients with OHCA. If confidence intervals were not reported, they were calculated using a Chi-squared test. If the odds ratio for B-CPR for male patients compared to female patients was not reported, it was calculated as well. The quality of the studies and risk of bias was evaluated using the Newcastle-Ottawa-Scale. The evidence was synthesized narratively.
Results and Discussion: Fifteen studies were included. There is a trend that adult females with OHCA receive less B-CPR than adult males. In OHCA cases occurring in public spaces, this difference is larger than in OHCA cases in private spaces. This highlights the need to include sex-specific differences in B-CPR training. The reasons for this difference should be further investigated, so countermeasures can be developed.

CHALLENGES, EXPERIENCES, AND PERSPECTIVES OF WOMEN POST BREAST CANCER TREATMENT - A HEALTH-RELATED VIEW FROM THE PERSPECTIVE OF CANCER SURVIVORS WITHIN THE GERMAN HEALTHCARE SYSTEM

Fleur de Nitto

Supervisor: Margitta Beil-Hildebrand
Co-Supervisor: Nadja Nestler
Research assistant: Doris Langegger

Date of defense: 01.12.2025

Keywords: Breast cancer; Long-term survival; Follow-up care; Late effects; Gaps in care; Qualitative interviews; Coping

Introduction: Due to medical progress, more and more women are living after a breast cancer diagnosis. In Germany, structured follow-up care ends after five years, although many patients are in this time still confronted with late effects of therapy as well as legal uncertainties. To date, little is known about the personal experiences of patients in the German health care system after the end of follow-up care. In this master's thesis are the subjective experiences of women after breast cancer within the German health care system examined. The guiding research question is: "Which subjectively perceived health-related challenges do patients with breast cancer experience in the self-managed phase of care beginning five years after completion of primary therapy within the German health care system?"
Methods: To answer the research question, eight narrative interviews were conducted with women after breast cancer whose primary therapy had been completed at least five years earlier and who were no longer receiving oncological care. The analysis was carried out using evaluative qualitative content analysis according to Kuckartz and Rädiker.
Results: The interviews point to gaps in care during the transition to follow-up, as well as to a lack of information on social law entitlements and persistent physical and psychosocial late effects. At the same time, the importance of resilience, self-management, and social support for coping with the illness became apparent. The development of categories enabled a differentiated presentation of needs, burdens, coping strategies, and expectations for sustainable care.
Discussion: The results show that the support of long-term survivors has not yet been systematically integrated into standard care. Concepts are needed that combine medical, psychosocial, and social law aspects and provide structured support for the transition immediately after the end of therapy.

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MEAT CONSUMPTION IN LUXEMBOURG: THE RELATIONSHIP TO MEAT AN FACTORS FOR A CHANGE IN CONSUMPTION

Danielle Fassbender

Supervisor: Andrea Schmidt
Co-Supervisor: Patrick Kutschar

Date of the defense: 05.09.2023

Keywords: Willingness to change meat consumption; Gender differences; Meat attachment; Motives for behavior change; Socio-demographic characteristics

Introduction: Meat consumption has a huge impact on both the environment and human health. A growing population requires a change in dietary habits to reduce meat consumption. The association between meat and masculinity continues to lead to strong pro-meat attitudes among men, making a change in consumption difficult. In Luxembourg, little is known about the factors influencing meat consumption habits. This study investigates the willingness of the adult population in Luxembourg to change their meat consumption habits. The aim is to determine how the attachment to meat, the motives for changing consumption patterns, and socio-demographic characteristics can influence consumers' willingness to change their meat consumption habits. An important aspect of this work is to investigate how men and women differ in these respects.
Methods: A quantitative single survey will be conducted using an online questionnaire. This included the Meat Attachment Scale to assess positive attachment to meat consumption, motives for behavior change and socio-demographic factors. A total of 414 valid data sets were analyzed using SPSS.
Results: Men are more willing to eat a plant-based diet than women. Nevertheless, men are more attached to meat. Intrinsic motives have a greater influence on both men's and women's willingness to adopt a more plant-based diet. A person's age and income can also predict their willingness to eat a plant-based diet.
Discussion: Concrete dietary guidelines are needed to motivate the Luxembourg population to change their meat consumption behavior. Knowledge transfer can raise awareness about the environmental and health impacts of meat consumption.

DIGITAL TECHNOLOGIES FOR OPTIMIZING STROKE MANAGEMENT IN THE ACUTE SETTING – AN UMBRELLA REVIEW

Iris Giner-Höfner

Supervisor: Tim Johansson
Co-Supervisor: Martin Pallauf

Date of defense: 02.09.2024

Keywords: Stroke; Digital technologies; Telestroke; MSU; AI; Prehospital management; Onset-to-treatment-time; Functional outcome; Quality of life; Mortality

Introduction: Strokes are the second leading cause of death among non-communicable diseases worldwide and are major contributors to disability-adjusted life years (DALYs), thus holding significant public health relevance. Although the risk of stroke increases with age, the age-standardized incidence is also rising among younger individuals (<55 years). Rapid diagnosis and treatment are crucial to minimize the loss of neurons and associated disability caused by a stroke. The use of digital technologies in prehospital stroke management has the potential to shorten the time to treatment and improve functional outcomes. The objective of this umbrella review is to provide a comprehensive overview of the current state of research on digital technologies in prehospital stroke management to reduce treatment times (onset-to-treatment-time (OTT)) and assess their impact on clinical outcomes, including functionality, quality of life, and mortality.
Methods: After registering a study protocol on the OSF platform (osf.io), a systematic literature search was conducted based on predefined inclusion and exclusion criteria in the databases MEDLINE (OVID), Cochrane (OVID), and Epistemonikos (Epistemonikos.org) from April to May 2024. The PRISMA guidelines and the rules of the Cochrane Handbook were followed, and the quality of the included studies was assessed using AMSTAR 2.
Results: Of the 343 identified studies, nine met the inclusion criteria. These studies examined various digital technologies, including Telestroke, Mobile Stroke Units (MSU), and artificial intelligence (AI) for imaging and triage. The results showed that the use of MSUs significantly reduced the OTT by an average of 31 minutes. Telestroke programs led to a significant reduction in onset-to-door time, while AI-based applications enabled rapid and precise diagnosis and triage. Functional Outcomes: No significant difference in favorable functional outcomes was found between telemedicine and control groups. However, MSUs showed a clear advantage compared to standard care. Quality of Life and Mortality: The mortality rate did not differ significantly between the groups. Improvements in quality of life through telemedicine and MSUs were demonstrated in some studies.
Discussion: Digital technologies such as MSUs and AI applications have the potential to increase the efficiency and accuracy of stroke care. The integration of telemedicine into standardized treatment protocols could significantly improve prehospital and in-hospital stroke care. However, there are regional differences in the implementation of such measures, and there is still a need for comprehensive studies on the effectiveness of digital technologies in stroke care. Further research is also needed to assess the long-term impacts on functional outcomes and quality of life.

PARENTAL PERCEPTION OF THE ORAL HEALTH OF THEIR ZERO-TO-SIX-YEAR-OLD CHILDREN IN THE FAMILY SETTING

Nicola Hagen

Supervisor: Irmela Gnass
Co-Supervisor: Hans-Peter Wiesinger
Research assistant: Valentin Fischill-Neudeck

Date of defense: 02.12.2024

Keywords: Early childhood caries; Child; Dental health; Oral hygiene; Education program; Health literacy; Perception; Parental care

Introduction: Early childhood caries (ECC) is considered the most common chronic disease worldwide. It is defined as caries that develops on primary teeth within the first three years of life. ECC has a significant impact on the psychological and social levels of individuals, families, and societies. Families play a key role in the oral health of their children. Parents help establish oral health habits early in their child's life and also determine when regular dental care is introduced. The objective of this research is to investigate how parents perceive their children's oral health and what factors, such as health literacy, influence parents' perceptions and children's oral health.
Methods: A qualitative design was chosen for the research approach. Expert interviews were conducted to collect data and capture parents' perceptions. The data were analyzed using Mayring's summary content analysis, which reflects the core content of the initial material. The content analysis process was supported by the software program MAXQDA (2024).
Results: The content analysis identified four main categories with a total of twelve subcategories. These categories reveal the experiences of parents, such as experienced stress, perceived reactions to caries-related pain in the child, perceived impact of oral health, and support options for children's oral health.
Discussion: The results indicate that parents play a key role in their children's oral health. Furthermore, practical implications for childcare facilities, pediatricians, dentists, and policymakers were described. For example, some ideas from parents regarding support options, such as preventive caries advertisements on social media, mandatory seminars for expectant parents, or targeted information brochures for parents with children with special needs, could be strategically implemented.

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PUBLIC HEALTH GOES TO SCHOOL: MEASURES TO PROTECT AND PROMOTE THE PSYCHOSOCIAL HEALTH OF ADOLESCENTS IN AUSTRIA'S SCHOOLS: THE EXAMPLE OF SALZBURG

Julia Hager

Supervisor: Piret Paal
Co-Supervisor: Tim Johansson
Research assistant: Valentin Fischill-Neudeck

Date of the defense: 19.07.2021

Keywords: Psychosocial Health; Expert Interviews; Health literacy; Austria

Introduction: In recent years, mental illnesses have received more attention. This is partly due to the current anti-stigmatization movement and the suspected increase in the incidence of mental illnesses. For this reason, countries worldwide have made it a health goal to protect the mental health of the population. This thesis provides an overview of currently implemented measures to protect and promote adolescent's psychosocial health in schools in Austria. Schools were chosen as the setting because they provide an opportunity to reach young people from all social classes over a long period of time. Additionally, schools, with their infrastructure and climate, offer a good environment to implement health-promoting measures nationwide.
Methods: A literature search was first conducted to identify recommendations for measures. This was followed by a qualitative content analysis according to Mayring of ten expert interviews with teachers at secondary level I and II.
Results: The interviews showed that many measures, e.g., promoting a good class climate, bullying prevention, school social workers, and school psychologists, are already implemented to the greatest extent possible. However, implementation varies by school type and location. Problems addressed by the experts include a lack of resources, both financial and personnel, a lack of structure and control in the implementation of measures, and the Covid-19 regulations.
Discussion: In conclusion, it can be inferred that the resource shortages should be addressed. One professional group that could provide support, but has not yet been implemented in Austrian schools, is school nurses. Additionally, the introduction of a mandatory course on psychosocial health during teacher training could offer significant benefits in dealing with young people in need of help. Teachers could act more effectively with the additional expertise and initiate necessary steps at an early stage. Moreover, the (mental) health literacy of students should be strengthened to indirectly reach other populations. Schools should be seen as an additional opportunity for public health to achieve health goals more effectively and nationwide. Economically, it would also be advantageous to invest now in protecting and promoting the psychosocial health of young people to reduce any potential future economic and social costs.

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THE ROLE OF GENDER IN MALARIA INTERVENTIONS: A SCOPING REVIEW

Lina Heltsche

Supervisor: Sophie Diarra
Co-Supervisor: Piret Paal

Date of the defense: 14.11.2022

Keywords: Malaria; Gender; Equality; Vector control; Case management; Preventive antimalarial drugs; Women; Empowerment; Scoping review

Introduction: The control and elimination of malaria remain among the biggest public health challenges. The effectiveness of malaria control is influenced by gender-specific vulnerabilities; however, gender is often overlooked during implementation, monitoring and evaluation of malaria interventions. The objective of this study was to identify the extent to which literature highlights gender differences in access, use, or exposure to malaria interventions in endemic regions in sub-Sahara Africa.
Methods: A scoping review was conducted to examine gender differences in vector control, preventive antimalarial drugs, and case management. A literature search was conducted in PubMed/MEDLINE, CINAHL, Web of Science and Cochrane. Key informant interviews were conducted with stakeholders to gain further insight, and a descriptive analysis supplemented the findings.
Results: A total of 24 papers investigated gender differences in vector control, preventive antimalarial drugs, and case management. The majority of studies addressed vector control, specifically the use and access of insecticide-treated nets (54%), followed by preventive antimalarial drugs (4%), case management (16%), and multiple intervention categories (24%). Access to interventions is, in many cases, dependent on financial resources and decision-making power within the household. Additionally, gender-specific activities and social norms play an important role in many settings, where women and men must conform to the standards set by the society in which they live. Access to and exposure to vector control interventions between men and women are also influenced by information channels and knowledge of the disease.
Discussion: It is important to consider the intersectionality of gender and malaria control, as there is a demonstrated relationship that may have significant implications for equality in malaria outcomes. This should be a research and policy priority, focused on an integrated approach across sectors at the national, community and household level, to achieve sustained and successful malaria control and elimination in endemic areas. The empowerment of women and gender-sensitive approaches to malaria control can create opportunities for a society to build a pathway towards the elimination of malaria.

EXPERIENCES OF PRIMARY SCHOOL STAFF REGARDING THE MENTAL HEALTH OF PRIMARY SCHOOL STUDENTS IN VIENNA

Carina Hohenberg

Supervisor: Nadja Nestler
Co-Supervisor: Joachim von der Heide

Date of the defense: 15.11.2022

Keywords: Elementary school; Mental health; Qualitative research

Introduction: Children's mental health is crucial to daily challenges and living a healthy and happy life. However, the number of mental disorders has increased since the COVID-19 pandemic, which can have negative effects on both adolescents and adults. Children spend most of their early years in school, which can positively influence their health. This study aims to survey the everyday work and experiences of elementary school staff regarding children`s mental health in the current situation in Vienna and to explore the implications and possibilities for improvement.
Methods: To address this research goal, a qualitative approach was chosen. Problem-centered interviews were conducted with five elementary school teachers and one school nurse from Viennese elementary schools. The data were analyzed using qualitative content analysis, which structured the content.
Results: The results show that elementary school staff observe an increase in mental health disorders among children, as well as associated problems and risk factors. Reduced resilience, impairments in social behavior, and anxiety related to the pandemic are predominant. Various support options and health-promoting measures have been offered, leading to improvements. However, there is a lack of therapeutic options and more personal support in everyday school life.
Discussion: The results confirm that school staff have a significant influence on children's health and make a valuable, important contribution to promoting children's mental health. Future research should address the role of school nurses and investigate how they could improve everyday life in elementary schools by providing personal support.

THE MENTAL HEALTH OF AUSTRIANS AGED 65 AND OLDER AFTER THE BEGINNING OF THE COVID-19 PANDEMIC – A SECONDARY DATA ANALYSIS OF THE SHARE-COVID SURVEY

Markus Huber

Supervisor: Patrick Kutschar
Co-Supervisor: Antje van der Zee-Neuen

Date of the defense: 04.12.2023

Keywords: Aged; COVID-19; Pandemics; Mental health; SHARE; Wellbeing

Introduction: Demographic change is leading to shifts in age structures, which may pose new challenges for the healthcare system and its decision-makers. For example, older adults are among the most vulnerable groups in society. Therefore, it is essential

to gather information on how to maintain and promote their health. International studies have shown that the COVID-19 pandemic has influenced the mental health of older individuals. Determinants such as female gender, social isolation, and a lower level of education have had a negative impact. However, there are few studies on this topic specifically focused on the Austrian population. The aim of this thesis is to investigate the mental health of Austrians aged 65 and older following the onset of the COVID pandemic. The focus is on socio-demographic, predisposing, and social determinants in relation to mental health, measured by psychological well-being, depressive symptoms, and emotions of anxiety.
Methods: A pragmatic literature search and a secondary data analysis of the SHARE data were conducted. The SHARE-COVID-19 data from the 8th wave of 2020 were used for this purpose. The survey on health, aging, and retirement in Europe was conducted using a standardized questionnaire.
Results: Analysis of data from 1,976 participants aged 65 and older revealed that about 84% of respondents reported a stable state of health since the beginning of the COVID-19 pandemic. The three age groups (65-69, 70-79, & ≥80 years) differed significantly from one another regarding the presence of depressive symptoms. The frequency of social contact with children, relatives, or the broader social environment was statistically significantly predictive of mental well-being in old age.
Discussion: The mental health of individuals aged 65 and older is multifactorial. There are differences among age groups in their predisposing characteristics. Based on the results generated in this thesis, it can be concluded that age, gender, and predisposing factors can have a positive influence on mental health during a crisis.

VOLUNTEERISM AS A PILLAR OF THE HEALTHCARE SYSTEM – MOTIVATION FOR VOLUNTARY ENGAGEMENT

Tabea Klausner

Supervisor: Jürgen Osterbrink
Co-Supervisor: Mario Prast
Research assistant: Christine Dunger

Date of the defense: 04.04.2023

Keywords: Volunteerism; Health system; Rescue service; Motivation

Introduction: Due to demographic change, the healthcare system is facing significant challenges, especially in rural areas. For example, in the region of Oberpinzgau, access to healthcare services is inadequate, requiring patients to travel up to two hours. Volunteers are necessary to support the healthcare system, as they are in the rescue service. More than 40% of the Austrian population is engaged in voluntary work. This thesis aims to explore the motivation for volunteering and the effects of the COVID-19 pandemic on volunteering in 2020 and 2021, and to derive possible strategies for improvement. The research questions are: "What motivations for volunteering do people in rural regions, using Oberpinzgau as an example, identify? How has COVID-19 in 2020/2021 influenced their motivation to volunteer?

Methods: To answer these research questions, six semi-structured interviews focused on motivation were conducted. The interviews were held with six individuals who volunteer in the rescue service in the Oberpinzgau region. The qualitative data were analyzed using Framework Analysis.
Results: The interview data revealed seven key themes regarding motivation: "The path to volunteering", "Being part of the community", "Volunteering during the COVID-19 pandemic“, “Volunteering in rural regions- using Oberpinzgau as an example", "Volunteering and motivation", "Demotivation" and "Volunteering in the future". Motivation is shaped by various factors that are interconnected. The concept of voluntariness is changing and is increasingly challenged by social transformation.
Discussion: Team spirit plays a significant role in strengthening the motivation of volunteers in Oberpinzgau. During the COVID-19, this sense of team spirit was greatly reduced, leading to a decrease in volunteer motivation. In the recruitment and retention of volunteers, this factor should be considered.

LONELINESS – ONSET AND CHANGE OVER THE COURSE OF LIFE: A GROUNDED THEORY STUDY ON THE PERSPECTIVES AND EXPERIENCES OF OLDER PEOPLE IN STRUCTURALLY WEAK RURAL REGIONS

Elisabeth Lesslauer

Supervisor: Simon Krutter
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Date of defense: 02.12.2025

Keywords: Loneliness; Feelings of loneliness; Older people; Life course; Rural environment; Public health; Co-creation; Grounded theory

Introduction: Loneliness in later life is a complex, subjective phenomenon with significant physical, psychological and social consequences. In structurally weak rural regions, limited mobility, deficits in infrastructure, and the decline of communal spaces increase the risk of social isolation and health impacts. While quantitative findings on the effects of loneliness are well documented, there is a lack of qualitative knowledge about the individual perspectives of older people and the development over the course of life. This master’s thesis examines how older people in rural areas experience loneliness, how they perceive its onset and change over the course of their lives, and what strategies and support services they use to cope with loneliness.
Method: As part of a qualitative research approach, nine semi-structured, problem-centered interviews were conducted with older adults at risk of loneliness from a rural region in Baden-Württemberg. The analysis was based on Grounded Theory according to Strauss and Corbin (1996) and within the framework of symbolic interactionism, with the aim of reconstructing processes of experiencing loneliness in a theory-building manner.
Results: The results describe a five-stage trajectory with the core category “Loneliness – Beginnings and Changes across the Life Course”. It comprises (1) biographical breaks as triggers, (2) the subjective recognition of loneliness, (3) initial

individual coping-strategies, (4) ambivalent participation, and (5) long-term consequences in the form of resignation or ritualized self-stabilization. Central tensions such as knowledge vs. action or self-initiative vs. dependency significantly shape how participants deal with loneliness.
Discussion: Loneliness in old age is a dynamic process, shaped by biographical transitions and the structural conditions of rural areas. For public health practice, this requires preventive and supportive measures that are more closely aligned with life stages, everyday contexts, and subjective needs. A participatory research approach, in the sense of co-creation, that actively involves older people in research and planning can combine scientific findings with practical implementation and design low-threshold support services oriented toward the living environment.

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"I RELY ON THE TRAINING PERIOD" HOW NURSING STUDENTS ACHIEVE THEIR LEGALLY REQUIRED COMPETENCIES DURING TIMES OF ACADEMIZATION AND NURSING SHORTAGES: A QUALITATIVE STUDY

Bettina Loibl

Supervisor: Joachim von der Heide
Co-Supervisor: Carola Walter

Date of the defense: 23.04.2024

Keywords: Nursing students; Competencies; Practical training; Practical supervision; Job readiness

Introduction: The demographic change, coupled with the current shortage of caregivers due to increasing turnover and a wave of retirements, is presenting new challenges for the nursing profession. High expectations are placed on the upcoming generation, yet the demands of practical training often exceed those of theoretical education. The bridging element between theory and practice - practical guidance - is seldom experienced. The aim of this study is to assess the extent to which current students in their final year can achieve the legally mandated competencies regarding their practical training and how they experience practical supervision in the process.
Methods: To address these questions, a phenomenological approach was adopted. Seven expert interviews with third-year nursing students in Austria were conducted using semi-structured questionnaires and analyzed with MAXQDA24.
Results: The findings indicate that, while some students gained in-depth knowledge through practical experience, certain crucial aspects of nursing education were neglected in the practice settings. Many students reported negative experiences with practical supervision, citing issues including a shortage of supervisors, uncoordinated duty schedules, and a lack of interest from practitioners.

Discussion: Current professionals in the nursing field must recognize the significance of practical training to effectively deepen the education of their future colleagues and prevent attrition from the nursing profession.

TELEMEDICINE LIPID CLINIC AT THE UNIVERSITY HOSPITAL OF SALZBURG: DESIGN OF A DIGITAL CARE MODEL

Anna Maresch

Supervisor: Elmar Aigner
Scientific Assistant: Philip Riedherr
Co-Supervisor: Hans-Peter Wiesinger

Date of defense: 13.04.2026

Keywords: Telemedicine, Lipid clinic, Digital health care, Digital care concept, Public health, Care model

Background: The ongoing digitalization enables new forms of healthcare delivery. Although international review studies demonstrate positive effects of telemedical approaches in lipidology, a conceptual framework for such a model in the Austrian context has so far been lacking. Against this background and taking into account current national and international eHealth strategies, a digital care concept for the lipid clinic of the University Hospital Salzburg was developed.
Methods: As evidence on telemedicine in the context of the lipid clinic at the University Hospital Salzburg is still limited, a narrative literature review was conducted using electronic databases, libraries, and international organizations. In addition, a qualitative study was carried out through one focus group interview and three expert interviews with outpatient and office-based physicians recruited by the University Hospital Salzburg. The data was analysed using thematic analysis.
Results: The telemedical concept is based on a structured care process that begins with a physician referral from the outpatient sector, with diagnostics, transmission of findings, and communication conducted via the digital system DaME, specialist assessment at the lipid clinic is organized in a hybrid manner, whereby clearly defined questions are addressed telemedically and complex cases continued to be treated in person. Follow-up care is provided in the outpatient sector, while the specialized clinic assumes an advisory role. Prerequisites for implementation include standardized laboratory panels, clearly defined responsibilities, defined response times and legally and technically secure communication pathways.
Discussion: The study demonstrates that a telemedical care concept for the lipid clinic of the University Hospital Salzburg is structurally and technically feasible and offers particular potential for standardized diagnostic and follow-up process. It contributes to the Public Health Strategy 2030 and may serve as a reference model for the further telemedical implementations.

THE PHENOMENON OF SOCIAL MEDIA: EFFECTS ON MENTAL WELL-BEING AND SUBJECTIVE BODY SATISFACTION AMONG ADOLESCENTS

Nora Mauritsch

Supervisor: Patrick Kutschar
Co-Supervisor: Manela Glarcher

Date of the defense: 04.12.2023

Keywords: Social media; Wellbeing; Mental health; Body satisfaction; Body image

Introduction: Social media is an integral part of our daily lives and a popular tool for social interaction. However, its use is increasingly associated with potential risks and dangers, and the correlation between intensive social media use and health-related problems is being investigated more frequently.
Methods: The aim of this paper is to examine the correlation between social media use and psychological wellbeing, as well as body satisfaction, among students *(n = 251)* at a selected school in Styria. A cross-sectional survey was conducted to answer the research question, with data collected through anonymous questionnaires.
Results: Statistically significant correlations were found between social media addiction and wellbeing (d = -.683; p = .002), as well as body satisfaction (d = -.446; p = .038), with social media addiction being linked to reduced wellbeing and body satisfaction. Additionally, higher daily social media consumption was associated with lower wellbeing and body satisfaction. Regarding gender differences, the results show that girls are more frequently affected by these dissatisfactions compared to boys.
Discussion: Social comparisons and manipulated media content may contribute to distorted body perception and impaired body self-image. Adolescents, who are in the process of seeking identity and recognition, may be particularly vulnerable to manipulation by seemingly perfect external appearances. Given that health-related risks associated with social media have already been identified, it is crucial to protected adolescents in particular in this regard.

EFFECTIVENESS AND SAFETY OF NON-ANTIBIOTIC TREATMENT METHODS FOR UNCOMPLICATED URINARY TRACT INFECTION

Birgit Neugebauer

Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Hans-Peter Wiesinger

Date of defense: 02.12.2025

Keywords: Uncomplicated urinary tract infections; Women; Antibiotics; Non-antibiotic treatment course

Introduction: The increasing resistance towards antibiotics has developed into a global problem compromising previously efficient treatment of infectious diseases. Urinary tract infections are responsible for a major fraction of antibiotic prescriptions. According to the current S3 guideline, a non-antibiotic treatment course should be considered for uncomplicated urinary tract infections in non-geriatric patients.
Method: The databases PubMed, Cinahl, Cochrane Library, Embase, Anthromedics, AnthroMedLibrary, Web of Science, ClinicalTrials.gov as well as the platform ICTRP of the WHO were searched for randomized controlled trials (RCTs) from between 2020 and 2025. Included were clinical studies that compared a non-antibiotic treatment method with an antibiotic treatment in non-pregnant women with uncomplicated urinary tract infection. The quality of the studies was rated with the Cochrane Risk-of-bias-tool 2 and with GRADE.
Results: Five RCTs with a combined study population of 755 women were included. For BNO 1045, the effect could be confirmed and the study yielded the best result with potential antibiotic savings of 83,5%. Uva Ursi is recommended for women with a negative urine culture. The treatment results with an Unani herbal formulation, D-mannose, or cranberry point towards application as alternatives, but have to be confirmed in studies with a larger population.
Discussion: Non-antibiotic treatment methods may constitute an alternative to antibiotic treatment, albeit with a longer recovery time. Advantages and disadvantages need to be discussed with patients.

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WORK-LIFE-BALANCE: COMPATIBILITY OF FAMILY, PROFESSION, AND LEISURE FOR MEDICAL PERSONNEL

Kathrin Obernhuber

Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Tim Johansson

Date of the defense: 19.07.2021

Keywords: Work-life balance; Medical staff; Childcare

Introduction: This master's thesis addresses the topic of work-life balance, which is becoming increasingly important for medical staff as employees and for hospitals as employers. The compatibility of family, work and leisure time is particularly crucial for employees whose life phase is focused on raising children. Social, economic and political changes are promoting companies to better address the needs of their employees. The aim of this thesis is to explore the work-life balance experience of medical staff in relation to childcare options.
Methods: The medical staff of the hospital “Barmherzigen Schwestern Ried im Innkreis” (n = 70), completed a standardized questionnaire focusing on their work-life balance. The data generated were analyzed using IBM SPSS Statistics Version 27.
Results: The study shows that childcare issues, in particular, have an impact on work-life balance. These effects are evident both in the time management of working parents and in the ability to transfer aspects (beneficial life experiences) from one area of life – work, family, or leisure – into another.
Discussion: The current research highlights a lack of childcare options for primary school-aged children, such as afternoon care or homework supervision programs (e.g., HORT). As a result, the possibility of night or weekend care options could be considered - a strategy already in place in some other countries.

SEXUAL ABUSE OF CHILDREN: INVESTIGATION OF CHILD PROTECTION MEASURES IN BURGENLAND PRIMARY SCHOOLS FROM THE PERSPECTIVE OF TEACHING STAFF

Theres Ranits

Supervisor: Anna Maria Dieplinger
Co-Supervisor: Jürgen Osterbrink

Date of the defense: 24.04.2024

Keywords: Sexual abuse; Children; Primary school; Teachers; Child protection measures

Introduction: In Austria, approximately 10,000 children and adolescents fall victim to sexual violence every year. Any form of violence has a profound impact on children. Since children spend a significant amount of time at school, teaching staff play a crucial role in recognizing and implementing protective measures to safeguard children's long-term health. The aim of this research is to assess the current child protection measures regarding the prevention of sexual abuse in primary schools in

Burgenland, in order to establish a foundation for the development and implementation of child protection systems.
Methods: Qualitative methods were employed to answer the research questions and gain a comprehensive understanding of existing structures. This approach involved guided interviews with teachers currently working in primary schools in Austria/Burgenland.
Results: The available research indicates that sexual abuse of children is rarely discussed in Burgenland primary schools, and as a result, few child protection measures have been implemented to address the issue. Additionally, there are discrepancies in the availability of counselling staff and school psychologists. Teaching staff currently have limited training and further education opportunities related to this topic, leading to uncertainty about how to proceed in cases of suspected abuse.
Discussion: This study provides initial insights into the child protection measures currently in place in Burgenland primary schools from the perspective of teaching staff. The inventory of existing child protection methods for preventing sexual abuse offers an important foundation for future planning and implementation of child protection measures, as well as for evaluating the resources needed for successful implementation.

READINESS TO USE DIGITIAL HEALTH TECHNOLOGIES AMONG PEOPLE AGED 60 AND OVER IN THE ENTRANCE REGION OF THE STUBAI VALLEY

Mirjam Santa

Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Nadja Nestler

Date of defense: 01.12.2025

Keywords: Acceptance; Austria; Cross-sectional Study; Digital Health; Older Adults; Rural Region

Introduction: Digital health technologies (DHTs) can improve the daily lives of older adults, help maintain their health, and promote independent aging. Despite growing evidence of their benefits, the readiness of older adults in Austria to use digital health services has been minimally studied. This study aimed to determine the readiness of individuals aged 60 and over in the entrance region of the Stubai valley to use various DHTs, including telemedicine, mobile phone or SMS services, wearables, and robotics. The research also examined the influence of sociodemographic factors, the frequency of doctor visits, and the importance of social recommendations on this readiness. Furthermore, the study collected data on participants' current use of DHTs, their willingness to learn, and general technology acceptance.
Methods: In this quantitative cross-sectional study, 117 completed questionnaires from patients at two general practitioners' offices in the entrance region of the Stubai valley were analyzed. Data analysis was conducted using descriptive statistics, correlations, and binary logistic regression.

Results: Mobile phones/smartphones were nearly universally owned (99.1 %) and were the most frequently used DHT (37.6 %), with the highest readiness for future use (76.9 %). Wearables (71.8 %) and telemedicine (69.2 %) followed in preference. Assistive robots showed the lowest approval (52.2 %) and were not used by anyone in the sample. Overall, 91.5 % of participants demonstrated a high willingness to learn and use new DHTs and a positive general attitude toward technology. Educational level was associated with readiness to use robotics, whereas age and gender showed no significant effects. Individuals who considered social recommendations important were significantly more willing to use mobile phone and messaging services, as well as wearables and robotics.
Discussion: Older adults in the entrance region of the Stubai valley show a high but varying readiness to use and learn about DHTs. The results highlight the need for tailored services that consider the influence of social recommendations. Future studies with larger samples and a broader range of influencing factors are necessary.

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VACCINE SKEPTICISM AMONG AUSTRIANS IN EARLY ADULTHOOD: A QUALITATIVE STUDY ON THE COVID-19 VACCINATION

Christina Schindlegger

Supervisor: Nadja Nestler
Co-Supervisor: Margitta Beil-Hildebrand

Date of the defense: 04.09.2023

Keywords: COVID-19; Vaccination hesitancy; Young adults; Critical Medical Anthropology; Qualitative research; Austria

Introduction: Since the beginning of 2020, the COVID-19 pandemic has posed a global challenge, with mortality rate rising due to the high number of infections. Despite the availability of vaccines against the virus, many people have chosen not to receive them. Vaccine hesitancy has become an increasing global health issue. Furthermore, there is an overwhelming amount of information about the COVID-19 vaccine, which has led to doubts among the population. In particular, vaccination rates are lower among young adults. This paper aims to identify the reasons behind their vaccine hesitancy and address the handling of misinformation regarding immunization. The goal is to recognize the perceptions and barriers to vaccination and, based on these insights, develop tailored strategies to promote vaccination.
Methods: A qualitative approach was employed to answer the research question. A non-probability sampling method was used, with participants recruited through snowball sampling. Twelve interviews were conducted using a problem-centered

guide. The results were analyzed through the phenomenological approach of "Critical Medical Anthropology" to identify factors influencing the vaccination decision. Data analysis was carried out using the MAXQDA software and the qualitative content analysis method, following Mayring (2015).
Results: The findings of this study show that multiple factors influence vaccination decisions, with distrust in the government being the primary reason for not using the vaccine. Young adults expressed low trust in the safety and efficacy of the vaccines, as well as in the information provided by the Ministry of Health, leading many to view it as misinformation. It becomes apparent that, for this reason, information is mainly sought from within the social environment, and handling misinformation presents a significant challenge.
Discussion: This work provides insights into vaccine hesitancy among young adults in Austria and highlights the need for measures to increase the vaccination rate through open communication and trust between the government and the population. There is a political imperative to implement specific actions to address misinformation and promote health literacy among the public.

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A SCOPING REVIEW OF DIGITAL FOOD ADVERTISING'S IMPACT ON ADOLESCENT BODY IMAGE AND EATING BEHAVIOR IN THE EU

Muriel Magdalena Schleuning

Supervisor: Ziad El-Khatib
Co-Supervisor: Christine Dunger

Date of the defense: 08.04.2025

Keywords: Digital marketing; Food advertising; Children and adolescents; Social media influence; Public health; Marketing regulations

Introduction: This thesis examines the influence of digital food marketing on adolescent dietary behaviors, emphasizing its implications for public health.
Methods: Using a scoping review methodology, the research identifies key mechanisms through which digital marketing strategies impact adolescents, including targeted advertisements, influencer endorsements, and gamified content.
Results: The findings showed a strong association between exposure to unhealthy food marketing and an increase in the consumption of high-fat, sugar, and salt (HFSS) foods among adolescents. The thesis also highlights significant disparities in marketing exposure, with vulnerable adolescent populations being disproportionately affected.
Discussion: The discussion underscores the need for robust policy interventions, including stricter regulations on digital advertising, school-based nutritional programs, and media literacy education.

SECONDARY DATA ANALYSIS OF SOCIODEMOGRAPHIC AND DISEASE-SPECIFIC CHARACTERISTICS OF SARS-COV-2 (RE-)INFECTION CASES IN THE DACHAU DISTRICT

Anna Schmeller

Supervisor: Carolina Judit Klett-Tammen
Co-Supervisor: Hans-Peter Wiesinger

Date of defense: 02.12.2024

Keywords: COVID-19; SARS-CoV-2; (Re-)infections; Public health service; Municipal science

Introduction: Infectious diseases remain one of the most common causes of morbidity and mortality worldwide. They are highly relevant for public health and healthcare systems. A connection between public health services and science is necessary to identify demands, meet needs, and apply scientific findings in practice. This contributes to the ongoing development of a successful and efficient public health strategy. The scientific investigation of selected sociodemographic and disease-specific characteristics of SARS-CoV-2-infection cases (I) and reinfection cases (RI) aims to increase knowledge and pursue the goal of linking public health services and science at the local level.
Methods: A quantitative, non-experimental descriptive study design with secondary data analysis of SARS-CoV-2 cases reported in the district of Dachau was used to answer the research question(s).
Results: From March 9, 2020, to November 15, 2022, 82,427 SARS-CoV-2 infection cases were recorded in the district of Dachau, of which 6,636 were reinfections. Females were more frequently affected by an infection (I = 51.3%; RI = 55.2%). In the younger age groups, males were more prevalent. Overall, the RI group (median = 38 years) was younger than the I group (median = 34 years). The age group distribution was consistent with the current state of research. Infection rates in the municipalities were similarly distributed (± 50%). 69.6% of the I cases and 56.5% of the RI cases showed clinical symptoms. The most common symptoms – runny nose, cough, headache, pharyngitis, muscle pain, and fever – differed among disease variants and age groups. 75% of the RI occurred within one year of the previous infection.
Discussion: The results provide an overview of the studied characteristics of the infections and offer a solid foundation for further research. Expanding scientific knowledge within the municipal context and fostering interdisciplinary cooperation among various stakeholders are crucial for establishing sustainable structures in the healthcare system, including local public health services.

MEGATRENDS IN PREHOSPITAL EMERGENCY CARE: DEVELOPMENT OF A TREND RADAR FOR THE ANALYSIS OF FUTURE CHALLENGES AND FIELDS OF ACTION

Denise Schuster

Supervisor: Stefan Sesselmann
Co-Supervisor: Valentin Fischill-Neudeck

Date of defense: 13.04.2026

Keywords: Futures Studies, Mega Trends, Emergency care

Introduction: Pre-hospital emergency care is undergoing long-term changes driven by societal, technological, and environmental developments. Megatrends such as digitalization, demographic change, and the climate crisis increasingly affect structures, processes, and workforce resources within emergency medical services. Despite their importance for health system performance, systematic analyses focusing specifically on these developments in pre-hospital emergency care remain limited. The aim of this master's thesis is to develop a trend radar to identify, analyze, and visualize relevant megatrends and sub-trends shaping pre-hospital emergency care. The study is assigned to the Public Health core competence "Health Policy, Economics and Management" and follows a qualitative exploratory research design.
Methods: Methodologically, the thesis is based on a systematic document analysis of scientific literature, guidelines, professional reports, and foresight studies. Data analysis is conducted using systemic coding supported by MAXQDA. Identified sub-trends are modeled within a semantic network and analyzed using cluster analysis in Gephi.
Results and Discussion: The results indicate that digitalization, resilience, workforce dynamics, and sustainability represent key future fields of action. The resulting trend radar supports strategic foresight and decision-making in the public health context

THE NON-INFERIORITY OF WOMEN'S RESULTS IN SURGERY

Viyan Sido

Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Johannes Albes

Date of the defense: 04.04.2023

Keywords: Gendermedicine; Gender; Cardiac surgery; Outcome

Introduction: Female doctors are increasingly entering cardiac surgery and are performing quite successfully, even though they are currently not as often in leadership positions as their male colleagues. Nevertheless, concerns about surgical quality, accompanied by prejudice, still persist. We therefore asked whether female surgeons perform worse, equally well, or better than their male colleagues in the procedures that women already regularly perform in large numbers.
Methods: A retrospective cohort study was conducted on patients who underwent isolated CABG and aortic valve surgery from 2011 to 2020. To compare the surgical quality between men and female surgeons, a 1:1 propensity score matching was performed (two groups of 680 patients operated by men and women surgeons, respectively; matching factors: age, log. ES, elective, urgent or emergent surgery, isolated aortic valve, or isolated CABG). Procedure time, bypass time, X-clamp time, hospital stay, and early mortality were compared.
Results: After propensity score matching, patients operated on by male surgeons (PoM) did not differ from those operated on by female surgeons (PoF) in terms of mean age (PoM: 66.72 ± 9.33, PoF: 67.24 ± 9.19 years, p = 0.346), log. ES (PoM: 5.58 ± 7.35, PoF: 5.53 ± 7.26, p = 0.507) or urgency of the operation (PoM: 43.0% elective, 48.9% urgent, 7.9% emergency, PoF: 40.8% elective, 55.2% urgent, 3.8% emergency, p = 0.556). This held true for male and female patients separately. Female surgeons had longer procedure times (PoM 224.35 ± 110.54 min; PoF: 265.41 ± 53.60 min), longer bypass time (PoM: 107.46 ± 45.09 min, PoF: 122.42 ± 36.18 min), and longer x-clamp time (PoM: 61.45 ± 24.77 min; PoF 72.76 ± 24.43 min). Hospitalization time (PoM 15.96 ± 8.12, PoF: 15.98 ± 6.91 days, p = 0,172) and early mortality (PoM: 2.2%, PoF: 3.0%, p = 0.328) did not differ significantly. This was also true when considering male and female patients separately.
Discussion: In routine heart surgery, the success of the operation and the early outcomes for patients did not depend on the gender of the surgeon. However, female surgeons required more time to perform the procedures compared to their male counterparts. It can be surmised that female surgeons are more likely to take their time for reasons of thoroughness, while male surgeons may derive personal satisfaction from performing procedures more quickly.

THE SUPPORT OF THE CONCEPT OF 'KINDESSTIMME' WITHIN PEDIATRIC HEALTH AND SOCIAL CARE: A SCOPING REVIEW

Patricia Siebenhofer

Supervisor: Ingrid Zechmeister-Koss
Co-Supervisor: Tim Johansson

Date of the defense: 03.04.2023

Keywords: Child rights; Real-world evidence; Pediatric healthcare

Introduction: Every child should have the right to receive health information relevant to them, to express their views freely, to obtain, receive, and share information, and to be heard. This thesis was written as part of the Village research project to emphasize the importance of listening to children's voices. The Village is an interdisciplinary project that aims to improve the well-being and health of children of people with mental illness. A central feature of the project is understanding how to include children's voices. This thesis seeks to understand the concept of the 'child's voice' and identify how children currently wish to participate in discussions about their needs.

Methods: A scoping review was chosen as the research design to provide an overview of existing literature and define the research scope in this area. Five databases were searched. In addition to the term 'child voice', the keywords such as 'child', 'assent', 'involvement', 'participation', 'autonomy' and 'decision-making' were used.

Results: Out of the 3,054 papers found, 72 were included in the scoping review. Two groups were formed: research with children and research about children. Five papers provided an explicit definition of the `child's voice` concept. In the 'research with children' group, most studies used a qualitative design and interviews to operationalize this concept.

Discussion: No consistent definition of the `child's voice` was found in the literature. Based on this review, the child's voice is understood as the way a child expresses themselves through both verbal and non-verbal communication, as relational and intergenerational, and therefore dependent on environmental factors, as well as defined through a variety of perspectives. The review provides an overview of existing literature on the child's voice and its operationalization, offering health professionals better insights into the topic and different approaches to how a child can be heard. Further research is needed to address the geographical imbalance in the published studies and the lack of research within the mental health field.

SOCIAL STATUS AND NUTRITION: DEVELOPMENT OF THE RELATIONSHIP BETWEEN EATING HABITS AND INDICATORS OF THE SOCIAL STATUS OF AUSTRIAN STUDENTS OVER THE YEARS 2014–2022

Isabel Charlotte Soede

Supervisor: Rosemarie Felder-Puig
Co-Supervisor: Antje van der Zee-Neuen

Date of the defense: 04.12.2023

Keywords: Eating behavior; Family affluence; Adolescent; Social class; Socioeconomic status; Austria

Introduction: Rates of overweight and obesity among children are steadily increasing in Austria, raising concerns about the negative consequences for their current well-being and future health. The underlying cause of weight gain is often a poor diet. Social and economic determinants are potential influencing factors on dietary habits. This study aims to investigate the association between dietary habits and socio-economic factors (migration background, family affluence) among Austrian school-aged children and adolescents (11-17 years) over time, from 2014 to 2022. Additionally, the study seeks to identify which factor played a more significant role during the years studied.

Methods: Data from the Austrian Health Behavior in School-aged Children (HBSC) study from 2013/14, 2017/18, and 2021/22 were used for this analysis. The sample included 5,614 students in 2013/14, 7,585 in 2017/18, and 7,099 in 2021/22. Data on migration background was available for all age groups only for 2017/18 and 2021/22. The HBSC study is a cross-sectional study that uses standardized questionnaires to assess health status, health behaviors, and social determinants. Adolescents were classified into three affluence categories (low / medium / high) based on the Family Affluence Scale II. Students whose parents were born abroad or who were born abroad themselves were categorized as having “migration background”. Dietary habits were measured using a Food Frequency Questionnaire, assessing the intake of fruits, vegetables, sweets, soft drinks, fast food, and breakfast during weekdays, along with a nutrition sum score calculated from these food categories. Correlations were examined descriptively and using appropriate statistical methods.

Results: Lower family affluence was associated with lower consumption of fruits, vegetables, and breakfast at all survey time points. Overall, there was a trend toward an increasing social gradient, favoring students with higher family affluence. Adolescents with higher affluence exhibited better dietary habits overall (nutrition sum score) in 2018 and this result was even more pronounced in 2022. Students with immigrant backgrounds reported consuming soft drinks and fast food more frequently in 2018 and 2022, as well as eating breakfast less frequently on weekdays. The nutrition sum score indicated that respondents without a migration background tended to have higher scores more favorable dietary habits in both years. In 2018, migration background had a greater influence on dietary habits, whereas in 2022, family wealth emerged as the more dominant factor.

Discussion: This study confirms the influence of socio-economic factors on the dietary habits of Austrian students aged 11 to 17 years in recent years. The results highlight the need for targeted political initiatives to improve dietary habits of adolescents in Austria.

PROMOTING SELF-EFFICACY AND SELF-MANAGEMENT IN CHRONIC ILLNESSES – DESIGNING THE INTERACTION AND COMMUNICATION BETWEEN PHYSIOTHERAPISTS AND PATIENTS

Nadine Speicher

Supervisor: Nadja Nestler
Co-Supervisor: Simon Krutter

Date of the defense: 24.04.2024

Keywords: Chronic disease; Physiotherapy; Self-management; Self-efficacy; Communication; Interaction

Introduction: Physiotherapy offers various treatment options, including manual therapy. However, effective therapy relies on communication and interaction. For individuals with chronic illnesses, good self-management is crucial for maintaining a high quality of life. This requires a strong sense of self-efficacy. Physiotherapists face challenges when attempting to modify the behavior of individuals with chronic illnesses. In this context, the importance of psychosocial skills is increasing. However, counselling, communication, and self-management training are often lacking in German training programs.
Methods: As part of this research project, a qualitative interview study was conducted with nine physiotherapists who had varying levels of professional experience and advanced training in outpatient physiotherapy. The data were analyzed and evaluated using Kuckartz's (2018) content-structuring content analysis method.
Results: Effective communication and interaction can be hindered by various factors, including chronic pain, psychosocial issues experienced by the patient, and limited professional experience. It is crucial to establish a strong patient-provider relationship through open communication and the use of patient-friendly language. To address these challenges, experts emphasize the significance of self-management skills and self-efficacy in individuals with chronic illnesses. Patients should take responsibility for their well-being, set individual goals, and actively work towards their recovery. The formulation of goals may not always be clear, as the patient's condition typically fluctuates from one therapy session to another. Long-term goals often involve developing self-management strategies and promoting patient independence.
Discussion: Communication challenges are diverse and require empathy and adaptability. Building relationships plays a key role in overcoming these challenges. The study highlights the complexity of therapy for individuals with chronic illnesses and the need for an individualized approach. It also emphasizes the importance of better preparing future physiotherapists to care for people with chronic illnesses and the significance of empathetic, individualized communication. Furthermore, the study

underscores the potential for improving the care of patients with chronic illnesses through increased interdisciplinary collaboration. Additionally, physiotherapy practice often lacks skills in cognitive physiotherapy, health coaching, and psychological interventions. Therefore, recommendations for improved communication and further training are urgently needed.

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COLLATERAL DAMAGE OF THE COVID-19 PANDEMIC IN RELATION TO CARDIOVASCULAR DISEASES AND MOVEMENT RESTRICTIONS (LOCKDOWNS): LITERATURE REVIEW AND DATA BASED ON THE EXAMPLE OF THE INTERNAL MEDICINE EMERGENCY DEPARTMENT OF LKH VILLACH

Martin Untermoser

Supervisor: Sabine Horn
Co-Supervisor: Jochen Schuler

Date of the defense: 05.04.2022

Keywords: Patient frequency; Mortality; Primary care; Emergency room

Introduction: The COVID-19 pandemic challenged healthcare systems worldwide, not only serving as a critical moment for public health but also threatening it, as many (indirect) collateral damages are still difficult be estimated. To date, the serve acute respiratory syndrome coronavirus 2 (Sars-Cov-2) has infected more than 182 million people worldwide and caused over 4 million deaths. Due to the implemented quarantine and lockdowns during the Covid-19 pandemic, hospitals and emergency departments, and private doctors saw a significant drop in patients visits. This has had consequences not only for public health but especially for people with cardiovascular diseases. The aim of this work is to highlight these collateral health issues, focusing on cardiovascular illness, through a literature review and investigation of patient frequencies with cardiologic diseases in the emergency department of the internal ward at LKH Villach during the first lockdown in Austria.

Methods: A literature review was conducted using PubMed. The following search terms were used: „collateral damage“, „COVID-19“, „cardiovascular diseases“, „cardiovascular hospital admissions“, „acute coronary syndrome“, „stroke“, „hospital admissions“, „lockdown“, „emergency department admissions“, „mortality“. These terms were appropriately combined, and the search was performed until the end of July in 2021. Furthermore, the cardiological hospital visits in the internal ward of LKH Villach were recorded for the lockdown period from March 16, 2020, to April 30, 2020, as well as for the same time range in the years 2017 to 2019 and a 6-week period after the lockdown in 2020. Using ICD-10 diagnosis code, a comparison was made to provide an overview of cardiac patients, cardiovascular illnesses, and patient

frequencies. The hypothesis is: Lockdowns alter the frequency and spectrum of patients with cardiovascular illnesses in the medical emergency department of LKH Villach.

Results: The implemented lockdowns due to the Covid-19 pandemic led to a significant drop in cardiovascular emergencies, emergency department visits and hospital admissions. A reduction in preventive medical check-ups, medical interventions, and length of hospital stays was observed. According to international literature, the time from symptom onset to medical care was prolonged. A rise in mortality of up to 7.5% during the first lockdown phase was noted. The drop in medical consultations and hospital admissions led to a statistically significant increase in mortality outside the hospital. At LKH Villach, patient frequencies during the first lockdown period dropped dramatically by -41.9%. In the post-lockdown period, a reduction of -16.4% in patients was observed. The number of cardiac cases did not drop as much as compared to other cases (-37.8% vs. -42.6%), although the proportion remained the same. Interestingly, in the post-lockdown period, more cardiac cases compared to others were seen (-7.1% vs. -17.1%), but the numbers from the previous year were still not reached. No differences were observed in the spectrum of cardiac illnesses.

Discussion: Public health measures, such as lockdowns to prevent the spread of the Sars-Cov-2 virus, do not only have positive effects. Negative health effects, such as cardiovascular damage unrelated to Covid-19, must also be considered. The Covid-19 pandemic caused a significant drop in patient frequencies in both the outpatient and inpatient sectors. The direct influence of lockdowns on this phenomenon cannot be determined for sure. Potential fear of contagion in hospitals and emergency services plays a significant role, as do other factors like better air quality, reduced stress, and a slowing down in everyday life. Further hypotheses suggest that patients did not seek care even though they had typical symptoms, and spontaneous recoveries may have occurred. The relocation of resources to handle the high number of COVID-19 patients may have also contributed to the decline in (cardiac) procedures during the pandemic. This highlights the far-reaching consequences of government and public health authorities` media messages. The dramatic drop in emergency department visits should also prompt us to reconsider how patients should be guided and which indications need to be investigated in an emergency department, as non-indicated cases increase and capacities may be limited. Empowering primary healthcare is a crucial aspect in overcoming the pandemic and raising public awareness about health. Fear will undoubtedly continue during pandemics, and countermeasures by governments and public health authorities must include explicit communication in future public health (media) campaigns to prevent the healthcare system from becoming overwhelmed and to minimize collateral damage during pandemics, especially during lockdowns. The long-time effects on patients with cardiovascular diseases will need to be assessed in further studies in the coming years.

INDICATIONS OF DEPRESSIVE SYMPTOMS AMONG HEALTHCARE PROFESSIONALS IN ACUTE CARE, CONSIDERING POST-PANDEMIC WORK AND STRESS LOADS AS WELL AS COPING STRATEGIES: A QUANTITATIVE CROSS-SECTIONAL STUDY

Sina Christa Wagenknecht

Supervisor: Patrick Kutschar
Co-Supervisor: Christine von Reibnitz

Date of the defense: 05.12.2023

Keywords: Acute care; Depressive symptoms; Workload; Job stress; Postpandemic

Introduction: Compared to other occupational groups, nurses take sick leave significantly more often and are twice as likely to be affected by mental illnesses, especially depression. Mental illnesses can be a consequence of stress, with nurses being particularly vulnerable due to the general workload and the effects of the COVID-19 pandemic. Current meta-analyses focus on healthcare workers without specifying professional qualifications or work settings, and examine the interpandemic period. The primary research question is: "To what extent do subjectively perceived work and stress burdens in nurses in acute care settings contribute to the development of depressive symptoms after the COVID-19 pandemic?" The main aim of this study is to analyze the correlation between workload, stress, coping strategies, and depressive symptoms experienced by nurses in acute care settings after the COVID-19 pandemic.
Methods: A quantitative cross-sectional survey was conducted via an online survey. The survey was developed using validated measurement instruments (CESD-R, “Workloads in Nursing,” SCI) and underwent a pretest before publication. Field access was facilitated through the nursing-specific social media campaign "Pflegestufe GRÜN."
Results: Post-pandemic workload and stress significantly positively impacted depressive symptoms in acute care nurses (n = 715). A strong correlation was found between workload and depressive symptoms, while stress showed a weaker correlation. Support from the social environment was the most frequently used coping strategy among healthcare workers.
Discussion: Identifying objective factors of work and stress that contribute to high levels of depressive symptoms is crucial. By doing so, targeted measures can be implemented to improve working and stress conditions for healthcare workers and nurses, specifically to promote and maintain their mental health. Additionally, these measures can help prevent early retirement or professionals leaving the field. In this way, the shortage of nurses can be mitigated, contributing to a stable healthcare system.

PHCC III - Population health and its material – physical, radiological, chemical and biological – environmental determinants

EXPERIENCES, CHALLENGES, AND NEED FOR OPTIMIZATION OF DIVERSITY-SENSITIVE CARE IN THE HOSPITAL SECTOR IN AUSTRIA

Lena Ablinger

Supervisor: Katharina Lex
Co-Supervisor: Christine Dunger

Date of the defense: 23.09.2025

Keywords: Barriers; Healthcare; Hospital; LGBTQIA+ Patients

Introduction: Approximately 8% of the world population identify with a marginalized sexual orientation, 1% identify as trans*, and 1.3% of all children are born intersex (1). Discriminatory experiences and heteronormative structures lead to mistrust and reduced utilization of medical services among LGBTQIA+ individuals. In addition to far-reaching consequences for those affected due to delayed treatments and worsening health outcomes, this also results in significant economic impacts on the healthcare system. The specific experiences and needs of this group have so far been scarcely researched in the Austrian context (2).

Methods: As part of a qualitative research design, ten semi-structured guideline-based interviews were conducted with LGBTQIA+ individuals. Inclusion and exclusion criteria were developed in advance. The interviews were transcribed, pseudonymized, and analyzed using qualitative content analysis based on Mayring. The category system was developed both deductively and inductively; the analysis was supported by MAXQDA software.

Results: Many participants reported discriminatory or distressing experiences, including incorrect forms of address, stereotypical assumptions, or a lack of sensitivity. Notably, most interviewees stated that these instances of discrimination were rarely intentional but rather stemmed from insufficient training. Structural barriers were also mentioned, such as non-inclusive forms or lack of privacy. Some participants emphasized positive encounters, where they felt accepted and respected due to appreciative behavior from medical staff. These experiences clearly influenced trust in the healthcare system. While negative experiences led to mistrust and avoidance, positive encounters significantly strengthened trust. Clear recommendations for action were identified, including mandatory training, gender-sensitive language, structural adjustments, and an open, respectful approach.

Discussion: This study highlights an urgent need for action regarding diversity-sensitive care. Promoting an inclusive healthcare system is not only an ethical imperative but also a public health necessity to build trust among LGBTQIA+ individuals and to ensure equitable access to medical care.

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SUSTAINABILITY FOR HOSPITAL CONSUMABLES - OVERVIEW OF REVIEWS ON THE AVOIDANCE OF NON-REUSABLE WASTE

Claudia Azesberger

Supervisor: Claudia Wild
Co-Supervisor: Hans-Peter Wiesinger

Date of the defense: 22.09.2025

Keywords: Waste reduction; Hospital; Sustainability

Introduction: Global warming is significant challenge confronting our planet in the present age. It is important to acknowledge that hospitals and healthcare systems are not merely responding to the consequences of climate change; they are also contributing to global warming. With regard to the USA, it is estimated that the healthcare sector is responsible for 10% of total greenhouse gas emissions (1). Similar data are available worldwide, where 4-5% of greenhouse gases are produced by hospitals (2). In order to stop global warming, it is imperative that hospitals adopt a more sustainable manner of operation. A primary area for this attention is the management of waste, with the objective being to minimize the amount of hospital waste generated (3).

Methods: The objective of the study was to identify strategies that have been implemented in healthcare facilities with the aim of reducing non-reusable waste, and to assess their effectiveness. This was achieved by conducting an Overview of Reviews, with the key performance indicators including the amount of waste, costs, patient safety and acceptance by hospital staff. A search was conducted in the following databases: PubMed, Web of Science, Cochrane Library via OVID and International HTA Database. The search term used were “hospital*” AND “waste” AND “reduction”. 312 reviews were identified. Of these, 25 were selected for inclusion in the overview of reviews. The quality of the research was assessed using the AMSTAR tool.

Results: The results were then categorized according to the 5R waste reduction strategy (Refuse, reduce, reuse, repurpose, recycle) (4). A total of 14 reviews referenced strategies for “refusing”, 17 reviews referenced strategies for “reducing”,

18 reviews referenced strategies for “reusing”, 4 reviews proposed “repurposing”, and 11 reviews reported other strategies that did not fit the 5Rs.

Discussion: In the final analysis, the heterogeneity of the endpoints employed in the reviews and studies precluded the possibility of comparing the strategies and identifying the most effective one. A plethora of strategies have been posited as potentially efficacious. However, further research is required for some approaches, especially in relation to patient safety.

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EVALUATION OF A MEDICAL SINGLE INTERVENTION: CYTOREDUCTIVE SURGERY AND HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY IN SECONDARY PERITONEAL CARCINOMATOSIS – 1ST UPDATE

Daniela Auinger

Supervisor: Ingrid Zechmeister-Koss
Co-Supervisor: Dagmar Schaffler-Schaden

Date of the defense: 14.11.2022

Keywords: HIPEC; Hyperthermic intraperitoneal chemotherapy; CRS; Cytoreductive surgery; Secondary peritoneal metastasis

Introduction: In 2014, the AIHTA conducted an evidence analysis for the decision support document on the intervention "cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (CRS+HIPEC)" in secondary peritoneal carcinosis of colorectal, gastric, and ovarian cancer. At that time, the inclusion of the intervention in the service catalog was not recommended. Since this evidence analysis, several randomized controlled phase 3 studies on this topic have been published. For this

reason, a re-analysis of the efficacy and safety of the CRS+HIPEC procedure in secondary peritoneal carcinosis is warranted.
Methods: In February 2022, a systematic updated literature search on this research question was conducted. The selection of literature, data extraction, risk of bias assessment, and quality assessment (GRADE) were carried out individually.
Results: For colorectal carcinoma, one clinical study was included in the analysis. This study showed a slightly longer overall survival (I = 41.7 months [95% CI 36.2 - 53.8], C = 41.2 months [95% CI 35.0 - 49.7]) and disease-free survival (I = 13.1 months [95% CI 12.1 - 15.7], C = 11.1 months [95% CI 9.0 - 12.7]) in the intervention group. For gastric carcinoma, one study was included, but it included only 17 participants, meaning that no statistical analyses were possible. Four studies were included for the indication of ovarian carcinoma. These studies differ only slightly in the main inclusion criteria and treatment scheme; however, their results vary widely in terms of important outcomes such as overall survival, disease-free survival, and perioperative morbidity.
Discussion: For colorectal and gastric cancer, one study was included in both the 2014 and current analyses. In 2014, only the results of systematic reviews based on observational studies were available for ovarian carcinoma; these have now been supplemented by four clinical studies. Nevertheless, the current study situation for all three indications remains insufficient to recommend the inclusion of the CRS+HIPEC intervention in the service catalog.

DIETARY MEASURES IN THE MANAGEMENT OF THERAPY-RESISTANT CHRONIC PAIN SYNDROMES

Mathias Ausserwinkler

Supervisor: Christian Dejaco
Co-Supervisor: Martin Pallauf

Date of the defense: 29.11.2021

Keywords: Diet; Nutrition; Systematic review

Introduction: The various forms of chronic pain syndromes, including fibromyalgia syndrome (FMS), are typically non-curable, progressive symptom complexes that, in addition to the primary symptom of pain, are accompanied by concomitant symptoms such as depression, fatigue, poor concentration, sleep disturbances, and a progressive loss of quality of life. Chronic pain is defined as pain persisting for at least 3-6 months with recurrence in the majority of cases. Currently, causal therapies are lacking. Depending on the form and type of disease, analgesic, antidepressant, and anticonvulsant medications are used as supportive drug therapies. In addition, patients are offered behavioral therapies, including relaxation exercises.
Methods: To evaluate therapeutic options, a systematic review was conducted as part of this master's thesis. The research focused on various nutritional concepts and dietary interventions for the mentioned patient groups. The PubMed/Medline database

was used, with the search terms ("chronic pain" OR "chronic widespread pain" OR fibromyalgia OR "chronic musculoskeletal pain") AND (nutrition OR food OR diet OR dietary). To assess the quality of the included studies, CASP checklists were used. The search strategy was based on the Patient, Intervention, Comparison, Outcome (PICO) framework.

Results: Outcomes were categorized based on different approaches, including vitamin D, gluten-free diet (GFD), weight reduction, electrolyte and trace element supplementation, vegan and/or vegetarian diet, probiotics, glutamate reduction, dietary behavior, soy, and intravenous nutritional supplements. Due to the varied methods, differing endpoints, and heterogeneous study designs, comparability of the studies was challenging. Various interventions, such as meat-free, sugar-free, and vegetable-rich diets, showed improvement in pain and concomitant diseases. Interestingly, almost all changes from conventional dietary habits to new nutritional behavior patterns led to improvements. This was also observed in the control and placebo groups. From an ethical perspective, there were no significant concerns for this master's thesis, as it was a pure literature study, and the recommendation of dietary changes aligned with other guidelines, such as those for cardiovascular diseases.

Discussion: The public health implications were emphasized in relation to pain and nutrition. Strengths of the studies included the ability to systematically categorize individual dietary approaches. A weakness was that for many studies, comparing individual endpoints was not possible due to the heterogeneity of study designs, interventions, and outcome assessments.

CARDIOVASCULAR DISEASES AND DIABETES IN 40- TO 70-YEAR-OLDS IN SALZBURG: PREVALENCE AND RISK ESTIMATION AT THE DISTRICT LEVEL

Raphael Bertsch

Supervisor: Maria Flamm
Co-Supervisor: Patrick Kutschar
Research assistant: Stefan Pitzer

Date of defense: 02.12.2024

Keywords: Spatial Analysis; Cardiovascular Diseases*/epidemiology; Diabetes Mellitus*/epidemiology; Socioeconomic factors; Cohort Studies; Middle Aged; Female; Male

Introduction: Residents of socio-economically disadvantaged regions have an increased risk of cardiovascular disease (CVD) and diabetes mellitus (DM), which results in a higher need for primary care (PC). These geographical socio-economic differences can be quantified using a Multiple Disadvantage Index (MDI). However, due to a lack of small-scale health data in Austria, needs-based and morbidity-based resource planning remains a challenge. The Paracelsus 10,000 study (P10) enables the analysis of CVD and DM prevalence at the district level in Salzburg for the first time. How do the prevalences of CVD and DM, as well as cardiovascular health based on the Life's Essential 8 score (LE8) and diabetes risk based on the Finnish Diabetes

Risk Score (FINDRISC), differ between the districts of Salzburg, and how does the MDI influence these indicators?
Methods: Using data linkage, aggregated health data from 4,742 P10 respondents aged 40 to 70 years were linked to the socio-economic register data of the city districts. The prevalence of CVD and DM, as well as the LE8 and FINDRISC values, were analyzed descriptively and inferentially to investigate differences between the districts. Correlations between the four indicators and the MDI were tested using regression analyses.
Results: Socioeconomically disadvantaged neighborhoods had significantly higher prevalences of DM (OR = 1.37, p = 0.021) and CVD (OR = 1.27, p < 0.001). The risk of diabetes was also significantly higher (t = -2.5, p = 0.018), while cardiovascular health showed no differences (t = 0.3, p = 0.753). Of the MDI dimensions, district-level education had a significant influence on all four indicators, particularly on FINDRISC (R^2 = 0.43; β = -0.68; p = 0.016) and CVD prevalence (R^2 = 0.223; β = -0.75; p = 0.027).
Discussion: Residents of socio-economically disadvantaged neighborhoods exhibit significantly higher prevalences of CVD and DM and an increased risk of diabetes, with the level of education in the neighborhood playing a central role. Morbidity-oriented resource planning and targeted prevention measures are necessary to address health disparities. Limitations include the lack of influence from other socio-economic dimensions and the limited representativeness of the sample.

COMPARISON OF PUBLIC OPINION AND CURRENT RESEARCH ON THE IMPACTS OF MICROPLASTICS ON HUMAN HEALTH – A SCOPING REVIEW

Marlene Blüml

Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Hans-Peter Wiesinger

Date of the defense: 24.04.2024

Keywords: Microplastics; Nanoplastics; Human; Health; Public; Population; Perception; Opinion

Introduction: Microplastics are tiny plastic particles that are created either through the breakdown of larger plastic items or through targeted production. These particles enter the environment—such as water, soil, and air—through various means. The impact of microplastics on human health is increasingly gaining attention worldwide, as potentially negative effects on the human organism are suspected. This issue is highly topical and is still associated with a great deal of uncertainty. For future actions to be based on scientific findings, the public needs to understand and accept the current state of research. To identify similarities and differences between public opinion and research, a summary and comparison are beneficial. The main objective of this thesis is to compare public opinion on the effects of microplastics on human health, as found in the literature, with the current state of research on the actual effects.

Methods: A scoping review design was chosen to answer the research questions. A systematic literature search was conducted in selected databases, supplemented by a hand search. The PCC acronym, created a priori, was used to define the inclusion and exclusion criteria based on which the studies were selected to answer the two sub-questions.
Results: A total of 25 studies met the inclusion criteria and were analyzed to answer the research questions. The study results were structured, and their contents summarized. Indications of potential harm to human health were identified. In the publications on public perception, the effects of microplastics on human health were predominantly regarded as concerning and often negative.
Discussion: The results of this work highlight the need for further research, especially with a larger number of test subjects, to verify previous findings and to understand not only the effects of microplastics but also the mechanisms of how they work in humans. Future studies could help close the identified research gap and also provide important information to the public.

FALL PREVENTION THROUGH STRENGTH TRAINING IN INDIVIDUALS AGED 65 AND OLDER

Kristina Doppler

Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Florian Rieder

Date of the defense: 04.04.2023

Keywords: Retrospective study; Maximum strength; Leg press; Fall prevention

Introduction: Due to the continuously increasing costs in the healthcare system, the public health sector is facing a major challenge. To address this issue, the focus must already be on a preventive approach. One of the main factors behind the rising costs is the aging population and the associated costs of maintaining quality of life. A major risk factor here is falls. To counteract the risk of falls and the resulting costs, strength training should be used as a measure within the elderly population.
Methods: A retrospective data extraction and analysis was conducted on a 10-week full-body training intervention with 74 study participants in a health and fitness studio in Salzburg.
Results and Discussion: The results of the study show a significant increase in maximum strength on the leg press, which confirms the theoretical basis of the topic. Therefore, this study serves as a foundation for promoting and integrating strength training within the elderly population to effectively and sustainably reduce the risk of falls, thus also decreasing healthcare system costs.

NON-INVASIVE TELEMONITORING IN HEART FAILURE: AN UPDATED SYSTEMATIC REVIEW AND SYNTHESIS OF NEW EVIDENCE

Linda Edelbauer

Supervisor: Bernhard Wernly
Co-Supervisor: Hans-Peter Wiesinger
Research assistant: Valentin Fischill-Neudeck

Date of the defense: 09.04.2025

Keywords: Heart failure; Non-invasive telemonitoring; Telemedicine interventions; Mortality; Hospitalization

Introduction: Heart failure, a common form of cardiovascular disease, is one of the leading causes of premature mortality worldwide. Advances in non-invasive telemonitoring enable the continuous collection of health data and hold potential for improving health-related outcomes.
Objective: This systematic review, which serves as an update to a review that included studies up to March 2024, examined non-invasive telemonitoring approaches in patients with heart failure to update the evidence base and evaluate their potential effects on the outcomes of mortality and hospitalization.
Methods: A systematic literature search was conducted in the databases PubMed, Cochrane Library, and Web of Science to identify randomized controlled trials on non-invasive telemonitoring in heart failure. Studies from 2022 up to and including November 2024 were considered. The results were narratively synthesized, and the included studies were evaluated using the RoB 2 tool and the GRADE approach.
Results: The five included randomized controlled trials (RCTs) with a total of 2,123 participants demonstrated predominantly positive effects of non-invasive telemonitoring interventions on clinical endpoints such as mortality and hospitalizations. In three out of five studies, the observed effects were statistically significant, while two studies found no significant differences between the intervention and control groups. Additionally, two studies documented statistically significant improvements in patients' quality of life and self-care. The evidence quality assessment using the GRADE approach indicated mostly low to very low confidence levels due to methodological limitations, including small sample sizes and high heterogeneity.
Discussion: Despite the mentioned limitations, the findings indicate potential benefits of telemonitoring approaches in the management of patients with heart failure. Due to the methodological limitations and the limited quality of evidence, more high-quality studies are needed. Enhancing the generalizability of these findings could support better implementation of telemonitoring strategies in clinical practice.

RELATION BETWEEN CEREBROVASCULAR RISK FACTORS AND THE COURSE OF THE EARLY REHABILITATIVE PHASE AFTER ACUTE ISCHAEMIC CEREBRAL STROKE TREATED BY THROMBECTOMY

Christa Anna Eibensteiner

Supervisor: Nasel Christian
Co-Supervisor: Eva Mann

Date of the defense: 26.07.2022

Keywords: Acute ischemic infarction; Thrombectomy; Risk factors; Outcome; Rehabilitation

Introduction: The aim of this thesis was to analyze how known cerebrovascular risk factors and the associated multimorbidity influence the outcome of an acute ischemic stroke (AIS) followed by endovascular therapy (EVT) after 90 days, and whether preventive, relevant medical recommendations can be derived from this.
Methods: This retrospective study includes 131 AIS patients treated with EVT at the University Hospital Tulln between June 2013 and December 2018. The patients' condition was assessed by collecting the National Institutes of Health Stroke Scale (NIHSSpre) at the time of stroke. The Thrombolysis in Cerebral Infarct Score (TICIpost) was measured after EVT. Outcome was assessed 90 days after treatment using the Modified Rankin Scale (mRS90d). A Summative Risk Score (SRS) was introduced to assess the impact of risk factors and multimorbidity.
Results: No risk factors were detected in 3 women and 3 men. Men (n = 51 [94%]) had an SRS of 5 ± 1 (range: [2;11]) while women (n = 74 [96%]) had an SRS of 4±2 (range: [1;12]) (c2-test: SRS; female:male; p = 0.048). A threshold value of SRS = 3 was detected, at which men have a significantly higher chance of suffering from an AIS requiring EVT than women (odds ratio test; SRS > 2; female:male; p = 0.041). The SRS showed only a very weak positive correlation with the outcome scores collected (Pearson; SRS vs outcome; ρNIHpre = 0.01, ρTICIpost = 0.28, ρmRS90d = 0.05). In robust linear regression analysis, SRS was a significant predictor of worse outcome after AIS with EVT. The explanation of the obtained outcome parameters by SRS was generally low (linear lts-regression; SRS:outcome, p < 0.05; model fit: adj.R^2NIHpre = 0.547, adj. R^2TICIpost = 0.587, adj. R^2mRS90d = 0.421).
Discussion: Different risk profiles were found for women and men, with men seeming to suffer from a higher degree of multimorbidity than women. Despite this, the outcome was worse in women, as they presented with more severe strokes. Public healthcare strategies should therefore be adapted to meet the specific gender needs in order to potentially prevent disabling strokes in the general population.

EVIDENCE OF EFFECTIVENESS OF THERAPEUTIC MEDICAL DEVICES IN NEUROREHABILITATION FROM THE PERSPECTIVE OF HEALTH INSURANCE PROVIDERS: BENEFIT, COST, PRODUCT MARKETING

Florian Ernst

Supervisor: Claudia Wild
Co-Supervisor: Hans-Peter Wiesinger

Date of the defense: 30.09.2025

Keywords: ICF classification; Clinical relevance; Cost analysis; Medical devices; Robot-assisted rehabilitation; Scoping review

Introduction: In Austria, the Pension Insurance Institution (PVA) is primarily responsible for neurorehabilitation, which nowadays is hardly conceivable without often expensive technical aids (1). The clinical benefit of these devices regarding outcomes relevant to payers (ICF domains of activity and participation, long-term and clinically meaningful) remains unclear. The only regulatory authority in this context is CE-certification, which allows the use of equivalent products (2).
Methods: A scoping review was conducted, analyzing six therapy systems that were randomly selected from an international trade fair platform. These systems covered the fields of arm/hand rehabilitation, gait rehabilitation, and postural control/balance. A systematic, exploratory analysis of manufacturer-provided scientific materials was compared with the results of an independent systematic literature search focusing on study design, population, study quality, comparators, and clinical and economic endpoints. Furthermore, cost-effectiveness results from the literature were compared with the findings of a self-conducted cost analysis.
Results: The literature used by manufacturers for marketing purposes included only partially controlled study designs and frequently relied on equivalent products. Consistent with the independent literature review, the majority of the studied populations were patients with stroke, Parkinsons disease, or multiple sclerosis.
In the field of arm/hand rehabilitation, 102 systems were identified, 29 in gait rehabilitation, and 5 in postural control. Most outcomes assessed were short-term and related to the ICF domain of body functions. The effectiveness results were heterogeneous, with effect sizes at the lower threshold of clinical relevance. Cost-effectiveness analyses demonstrated potential superiority of robot-assisted gait training only at high device utilization rates. Robot-assisted arm rehabilitation was significantly more expensive without a demonstrable gain in quality of life or function. The findings of the in-house cost analysis also reflected higher costs for device-based therapy compared to conventional therapy.
Discussion: The study designs chosen by manufacturers to support clinical benefit, as well as the endpoints analyzed in the literature, play a minor role for payers in creating a decision-making basis for the implementation of therapeutic medical devices. Moreover, the study populations examined cannot be directly extrapolated to the broader neurorehabilitation population. A realistic cost saving could not be demonstrated.

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COMBINATION THERAPY WITH ANTIDEPRESSANTS AND VITAMIN B COMPLEX COMPARED TO ANTIDEPRESSANT MONOTHERAPY: A SYSTEMATIC REVIEW

Susanne Fasching

Supervisor: Claudia Wild
Co-Supervisor: Corinna Hirzinger

Date of thesis presentation: 13.04.2026

Keywords: Depressive Disorder; Anxiety Disorder; Antidepressive Agents; Micronutrients; Drug Therapy, Combination

Background: Anxiety and depressive disorders account for a significant proportion of the global mental health burden (1). Treatment challenges in antidepressant therapy (2) have stimulated interest in adjunctive nutritional interventions, such as B vitamins (3), due to their role in neurobiological processes relevant to mood regulation (4). However, existing systematic reviews have not focused specifically on adjunctive regimens combining multiple B vitamins with antidepressants. Consequently, this systematic review aimed to evaluate the efficacy and safety of combining a vitamin B complex (≥2 B vitamins) with antidepressant medication to improve symptom severity in depression and anxiety.

Method: A systematic literature search targeting clinical trials involving patients (≥18 years) with clinical diagnosis of depression or anxiety was performed. Eligible studies compared vitamin B complex supplementation plus antidepressant treatment with antidepressant monotherapy. The primary outcome was change in symptom severity on validated scales; secondary outcomes included response rate, remission rate, cognitive outcomes, quality of life and safety outcomes. Study selection, data extraction, and risk-of-bias assessment were performed by one reviewer. Evidence was summarised narratively, and the certainty of evidence was not formally graded.

Results: The review included two double-blind randomised controlled trials (RCTs), two open-label RCTs, and one non-randomised controlled trial (NRCT), totaling 320 study participants. All included studies assessed depressive outcomes; no studies evaluating anxiety were identified. One open-label RCT and one NRCT reported significant improvements in depressive symptom severity with folic acid (vitamin B9) plus vitamin B12; however, the evidence is limited by small sample sizes and a high risk of bias. The remaining three trials assessing ≥3 B vitamins showed no significant benefits. The largest, lowest-risk-of-bias trial with the longest follow-up found no

significant difference in depressive symptom severity but an improved response over 12 months. Cognitive outcomes and adverse events showed no significant differences, but evidence was scarce due to a small number of events. Trial comparability was limited by clinical and methodological heterogeneity.
Conclusions: Overall, evidence for adjunctive vitamin B complex supplementation with antidepressants remains very limited, warranting high-quality RCTs.

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CONTRASTING EVIDENCE FROM APPROVAL STUDIES WITH REAL-WORLD EVIDENCE FOR NIVOLUMAB TREATMENT IN MALIGNANT MELANOMA: A SYSTEMATIC REVIEW

Katharina Anna Glanz

Supervisor: Claudia Wild
Co-Supervisor: Tim Johansson

Date of the defense: 30.11.2021

Keywords: Systematic review; Malignant melanoma

Introduction: Ninety percent of all skin tumor-related deaths are caused by malignant melanoma. Nivolumab is an anti-PD1 checkpoint inhibitor used in patients with advanced malignant melanoma and as adjuvant therapy for patients with high-risk metastatic melanoma. The aim of this work is to evaluate the real-world evidence of Nivolumab for the treatment of malignant melanoma in a systematic review and to contrast the results with the evidence from pivotal RCTs.
Methods: A systematic literature search was carried out. As a result, ten publications with 1,425 patients from 614 references were included and evaluated in the systematic review. All of them were exclusively uncontrolled observational studies. In a further step, the real-world evidence was compared with the evidence from the

pivotal studies, differentiated according to therapy lines, in order to assess whether and to what extent the results of the RCTs are also reflected in real clinical practice. However, no study on adjuvant use in the real clinical setting could be identified and included.

Results and Discussion: The comparison showed good concordance between the outcomes of the included real-world studies and those of the pivotal RCTs across various lines of therapy, with slightly lower response rates. It was also found that first-line treatment with Nivolumab, both as monotherapy and in combination with Ipilimumab, is associated with a better outcome. Additionally, when administered in second- or follow-up-line treatments, outcomes may depend on the type of prior therapy and other prognostic factors, such as the BRAF mutation status.

USE AND ACCEPTANCE OF ROBOTICS IN HOSPITAL NURSING IN GERMANY

Arne Hannich

Supervisor: Martin Pallauf
Co-Supervisor: Irmela Gnass

Date of the defense: 22.09.2025

Keywords: Hospital nursing; Nursing innovation; Robotic nursing technology; Technology acceptance

Introduction: Demographic change in Germany is leading to an increasing demand for care while the number of qualified nursing professionals is simultaneously declining. This development presents a major challenge for the healthcare system and calls for innovative solutions (Boll et al., 2018; Kochskämper, 2021). The use of nursing robots is considered a potential response to this issue, particularly by taking over time-consuming and physically demanding routine tasks. However, the acceptance and willingness of nursing staff to use such technology is crucial for its sustainable and effective implementation (Güsken et al., 2021). Evidence primarily exists in the field of long-term care, whereas studies on the use of robotic nursing technology in German hospital settings are largely lacking.

Methods: A qualitative study was conducted to explore the perspectives of nursing professionals in German hospitals regarding their acceptance of and willingness to use robotic nursing technology. Ten nurses were interviewed using a semi-structured interview guide. The data were analyzed with MAXQDA 24 using Kuckartz's content analysis methodology.

Results: The results show that nurses generally have a positive attitude toward the use of robotics in hospitals. Acceptance of robotic technology largely depends on the perceived personal benefit, which includes factors such as job security, economic efficiency, and practical feasibility. The main benefit is seen in the time and physical relief provided by delegating service and transport tasks. Potential applications in patient communication are also acknowledged. At the same time, concerns exist regarding the replacement of nursing tasks and potential risks to patient safety. The willingness to integrate robotic assistance systems is particularly high when they act

as "invisible helpers" with high reliability and user-friendliness. Key prerequisites include a technical design requiring low maintenance and assurance of patient safety. Ongoing training opportunities are considered essential to strengthen confidence in handling the technology.

Discussion: It becomes clear that the question of robotics in nursing goes far beyond technical considerations and deeply touches on aspects of professional identity. Preserving core nursing responsibilities and actively involving nursing staff in implementation processes are crucial for the development of acceptance. Within the framework of public health research, the findings provide important impetus for health and care policy strategies in response to demographic change and serve as an evidence-based foundation for the technological advancement of the hospital sector.

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COMPARATIVE ANALYSIS OF CLIMATE PROTECTION STRATEGIES TO REDUCE CO_2 EMISSION IN THE HEALTHCARE SECTOR - A SCOPING REVIEW

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Primary supervisor: Claudia Wild
Co-supervisor: Hans-Peter Wiesinger
Research assistant: Johanna Schauer-Berg

Date of defence: 22.09.2025

Keywords: Decarbonisation; Health policy; Climate neutrality; Climate change; Strategy; Greenhouse gas emissions

Introduction: The healthcare sector is a significant contributor to CO2 emissions and is profoundly impacted by climate change. Although the need for climate protection measures is generally recognised and some countries have already implemented national strategies, a comparative analysis of sector-specific climate protection strategies for the healthcare sector is lacking. Such an overview would be essential for decision-makers to develop and implement effective measures tailored to the sector's specific challenges.

Methods: The research was conducted from October 2024 to April 2025 on government websites and those of international organisations, and via Google, supplemented by the snowball method. The five-step framework of Arksey and O'Malley was applied, supported by the JBI method and the PRISMA ScR checklist. One reviewer performed the text screening and data extraction. The extracted data was summarised to obtain an overview of the orientation of the strategy papers.
Results: A total of eleven strategy papers from ten countries were included in the analysis. Most papers set out the creation of a climate-resilient healthcare system, the standardisation of approaches, the development of emission-reduction pathways, and the establishment of a basis for climate-friendly healthcare as objectives. All countries defined essential fields of action, although the level of detail varies. The multi-stakeholder approach is recognised, but the concrete implementation of measures differs. Some countries have already presented concrete, data-based plans and implemented initial measures, while others are still in the groundwork and strategy development phase. There are also differences in the levels of transparency in financing, governance, and monitoring. The strategy papers have different strengths and weaknesses, for example, regarding the consideration of key emission areas and the addressing of feasibility and risks. Many countries recognise the importance of reducing overuse and misuse, optimising the use of medicines and digital technologies as key levers, and the need for training and strong leadership.
Discussion: Despite consensus on the urgency and fundamental goals, the approaches vary in the level of detail and implementation measures. In practice, standardised reporting, more detailed measures, and robust monitoring are crucial to increase the effectiveness of decarbonisation efforts. Research should focus on evaluating the effectiveness of strategies and the precise measurement of CO_2 emissions. This overview provides an essential basis for future efforts to support the healthcare sector on the path to climate neutrality.

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EVALUATION OF MEDICATION TITRATION WITHIN THE TELEMEDICINE-SUPPORTED CARE PROGRAM HERZMOBIL TIROL

Luiza Hoch

Supervisor: Sabrina Barbara Neururer
Co-Supervisor: Maria Flamm

Date of the defense: 07.04.2025

Keywords: Disease management program; Drug titration; Guideline-directed medical therapy; Heart failure; Telemedicine

Introduction: Heart failure (HF) remains a substantial burden on public health. To improve outcomes and quality of life for HF patients, guideline-directed medical therapy (GDMT) is crucial. However, adherence to GDMT remains deficient in clinical practice. This analysis aimed to evaluate the implementation of GDMT within the telemedicine-supported care program HerzMobil Tirol (HMT) and identify potential areas for optimization.
Methods: A retrospective analysis was conducted on data from 1,492 patients enrolled in HMT from January 2016 to October 2024. The analysis focused on evaluating the medication titration success for beta-blockers (BB), mineralocorticoid receptor antagonists (MRA), renin-angiotensin-aldosterone system inhibitors (RAASi), and sodium-glucose cotransporter-2 inhibitors (SGLT2i) at the end of the three-month care period. Descriptive statistics were used to calculate means and standard deviations of achieved doses. Time series analyses were performed to track trends from 2016 to 2024.
Results: The average overall titration success increased from 28.1% in 2016 to 40.1% in 2024. The introduction of SGLT2i in 2021 contributed to this improvement, achieving a titration success of 75.6 % in 2024. In contrast, titration success for BB (46.8% in 2024), MRA (38.3% in 2024) and RAASi (53.5% in 2024) either stagnated or declined compared to the 2016 baseline. Overall, only 4.5% of patients achieved the target dose for quadruple therapy from 2016 to October 2024.
Discussion: While progress has been made, significant room for improvement remains in the implementation of GDMT in HMT. Established drug classes like BB, MRA, and RAASi require enhanced titration strategies. These findings provide valuable insights for optimizing HMT and lay the groundwork for the AMPEL trial, which aims to improve physician adherence and guideline implementation within HMT.

SINGLE HIGH DOSE VITAMIN D SUBSTITUTION IN HOSPITALIZED COVID-19 PATIENTS IN SWITZERLAND: A RANDOMIZED, PLACEBO-CONTROLLED, DOUBLE-BLIND, MULTICENTER TRIAL

Fabienne Jaun

Supervisor: Jörg Daniel Leuppi
Co-Supervisor: Bernhard Wernly

Date of the defense: 14.11.2022

Keywords: Vitamin D; COVID-19; SARS-CoV-2; Vitamin D deficiency; Vitamin D substitution; Immunmodulation

Introduction: Vitamin D and its role in the Covid-19 pandemic was and is a controversial discussed topic. The evidence about high dose vitamin D supplementation in patients with Covid-19 and with or without vitamin D deficiency is inconclusive and no consensus was found so far. To the current knowledge, vitamin D plays an important role when it comes to the initiation and adaptation of the immune system. There is evidence, that vitamin D deficiency is a predictor for poor prognosis

in patients with acute respiratory failure due to Covid-19. Therefore, vitamin D deficiency is an easily modifiable risk factor. Thus, vitamin D supplementation might improve important outcomes in vitamin D deficient Covid-19 patients. The aim of this trial is to determine if patients with vitamin D deficiency and a Covid-19 infection profit from a single high dose of vitamin D in addition to the standard vitamin D dosage.
Methods: This is a multicenter, randomized, placebo- controlled double- blind trial, to compare the effect of a single high dose of vitamin D (140'000 IU) followed by treatment as usual of daily 800 IU vitamin D daily until discharge versus placebo plus TAU in hospitalized patients with Covid-19 and vitamin D deficiency.
Results: No significant difference between the groups in terms of the primary outcome length of hospital stay (*time from symptom onset to discharge*: p = .193; *time from hospital admission to discharge*: p = .924 and *time from randomization to discharge*: p =.920). Vitamin D was significantly increasing in the intervention group compared to the control group (mean change of 25(OH)D level; intervention: + 26.35 [± 8.88] vs. control: - 2.73 [±10.23], p < 0.001).
Discussion: The intervention with 140'000 IU of vitamin D in addition to treatment as usual did not significantly shorten the length of hospital stay in patients with vitamin D deficiency and Covid-19 but was effective for the elevation of serum 25(OH)D levels without an increased occurrence of adverse or serious adverse events related to the intervention.

TREATMENT OPTIONS FOR CONTACT DERMATITIS IN PEDIATRIC PATIENTS WITH TYPE 1 DIABETES CAUSED BY CONTINUOUS GLUCOSE MONITORING SYSTEMS AND/OR CONTINUOUS SUBCUTANEOUS INSULIN INFUSION THERAPY – A SCOPING REVIEW

Marion Jech

Supervisor: Gerlies Treiber
Co-Supervisor: Simon Krutter

Date of the defense: 23.04.2023

Keywords: Type 1 diabetes; Adverse skin reactions; Continuous glucose monitoring; Continuous; Subcutaneous insulin infusion

Introduction: Type 1 diabetes mellitus (T1D) is the most common metabolic disease in childhood and adolescence. In children, multiple daily insulin injections and fingerstick blood glucose monitoring are increasingly being replaced by continuous glucose monitoring (CGM) systems and continuous subcutaneous insulin infusion (CSII). However, a subset of patients experiences contact dermatitis while using CGM or CSII devices. This can lead to reduced quality of life (QoL) and/or deterioration of glycemic outcomes, combined with a frustrating therapy experience. What is known from the literature about preventive strategies and/or treatment options for contact dermatitis in pediatric patients with T1D using CGM and/or CSII therapy? This scoping review focuses on preventive and therapeutic options for skin complications related to CSII or CGM devices, which are commonly reported in pediatric patients with T1D.

Methods: Literature on adverse skin reactions has increased since 2018. To date, there is no guideline available for treating patients experiencing such reactions to CGM or CSII systems. A scoping review covering the last 10 years of literature will be performed, following the PRISMA-ScR checklist.
Results and Discussion: It is expected that various publications will be identified that may provide new research directions and ideas for prevention and treatment to manage adverse skin reactions. The main goal is to find a way for most pediatric patients to benefit from these new technologies, thereby improving their glycemic outcomes and QoL.

SYSTEMATIC REVIEW OF MENDELIAN RANDOMIZATION STUDIES ON THE ROLE OF THE GUT MICROBIOME IN THE DEVELOPMENT OF BREAST CANCER

Frederike Klaasen Federspiel

Supervisor: Bernhard Wernly
Co-Supervisor: Tim Johansson

Date of the defense: 24.04.2024

Keywords: Breast cancer; Microbiome; Dysbiosis; Breast carcinogenesis; Gut microbiota; Mendelian randomization studies; Natural randomization

Introduction: Breast cancer is the most prevalent cancer worldwide and the leading cause of cancer-related deaths in women, representing a major challenge for public health. While established risk factors such as increased age, sex hormone exposure, a family history of breast cancer, alcohol abuse, radiation exposure, and obesity promote the development of breast cancer, half of all newly diagnosed cases appear to develop in the absence of these factors. Several epidemiological studies have linked the human microbiome to both cancer promotion and prevention. As an alternative to randomized controlled trials, Mendelian randomization (MR) studies on microbiome and breast cancer have been conducted to investigate a possible causal relationship. This review addresses the question of whether MR studies have validly explored a link between the gut microbiome and the development of breast cancer.
Methods: A systematic literature search was conducted, followed by a critical analysis using a risk-of-bias tool and a validation tool.
Results: Probable and robust valid results confirming an association were found. Specifically, the genus Ruminococcus UCG 013 and the genus Adlercreutzia demonstrated protective effects in several studies, while the genus Sellimonas was found to be a risk factor for breast cancer in several studies.
Discussion: In addition to the heterogeneity of the sample data and the lack of population stratification, the absence of sequencing at the taxonomic species level was discussed as a limitation. While causal relationships between the microbiome and breast cancer are likely, more detailed analyses and sample adjustments are needed to make definitive statements.

THE INFLUENCE AND CHANGE OF KNOWN RISK FACTORS FOR ACUTE MYOCARDIAL INFARCTIONS IN A TEN-YEAR TREND: AN EPIDEMIOLOGICAL SECONDARY DATA ANALYSIS AT AN AUSTRIAN UNIVERSITY HOSPITAL WITH A FOCUS ON AGE- AND SEX-SPECIFIC DIFFERENCES

Dimitri Kwasny-Weiss

Supervisor: Thomas Lambert
Co-Supervisor: Bernhard Wernly

Date of the defense: 26.07.2022

Keywords: Acute myocardial infarction; Coronary heart disease; Risk factors; Fine particulate matter exposure; Nicotine abuse

Introduction: Coronary heart disease remains the leading cause of death in developed Western countries. In Austria alone, 13,445 Austrians died in 2020 as a result of coronary heart disease, and 4,583 from acute myocardial infarction. The burden on those affected, their relatives, and society as a whole is enormous. The Framingham Heart Study, conducted in the United States in the 1960s, provided important insights into the risk factors for the development of coronary heart disease and, subsequently, for the occurrence of an acute myocardial infarction. Risk factors for coronary heart disease can generally be divided into two categories: non-modifiable, congenital risk factors and modifiable, mostly acquired risk factors. Not only do certain chronic diseases influence the prevalence of acute myocardial infarction, but sociodemographic factors also play a role. The purpose of this thesis is to provide an overview of the risk factors influencing the development of acute myocardial infarction, their impact on prevalence, and how they have evolved over the last decade.

Methods: Through a comprehensive literature review and a presentation of findings, an overview of the situation of coronary heart disease, especially for Europe and Austria, is provided in the first part. This is followed by an overview of known risk factors for acute myocardial infarction. The empirical part presents the results of an epidemiological secondary data analysis, in which anonymized data from 1,334 acute myocardial infarctions at the Kepler University Hospital Linz, sourced from the Austrian Acute PCI Registry, were evaluated and matched with fine particulate matter data (PM2.5) from the Upper Austrian Government.

Result: The results of this thesis show that in the last decade, significant changes were observed only with regard to age ($p < 0.05$) and body mass index (BMI) ($p < 0.001$). Patients who suffered an acute myocardial infarction are, on average, 3.5 years older and have a lower BMI compared to ten years ago. Other risk factors also show changes, but these are not statistically significant. Patients who experienced an acute myocardial infarction on days when the IG-L limit for PM2.5 was exceeded have a 1.6-fold higher risk of dying from it.

Discussion: The data obtained provide a basis for public health interventions and show the high relevance of this topic for the improvement of public health within the Austrian population.

CLIMATE CHANGE AND HEALTH IN THE CITY: HOW DOES CLIMATE CHANGE AFFECT THE WELL-BEING AND HEALTH OF OLDER WOMEN IN URBAN AREAS? A QUALITATIVE RESEARCH PROJECT

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Supervisor: Piret Paal
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Date of the defense: 23.04.2024

Keywords: Climate change; Wellbeing; Health; Elderly women in the large city

Introduction: Due to climate change, the increasing deterioration of the urban climate and the problem of heat islands are impacting the well-being and health of various groups within the urban population. Studies on the health status of Munich citizens over the last decade have not assessed well-being and health in connection with climate change and the associated heat island problem. However, this is especially relevant for older individuals. How do healthy women aged 65 and older, who live alone and are retired, experience the hot summers of the past three years in districts with high population densities and the climatic conditions caused by heat islands? Are there impacts on their well-being and health? And what interventions can be taken to mitigate the overall situation?
Methods: To answer the research question, a qualitative design was chosen, involving individual interviews with a small sample. A total of 11 senior women were interviewed. The data were analyzed using the qualitative content analysis method of Mayring (2022).
Results: As documented in the literature, climate change and heat events impact the health of various groups in the urban population. The literature research identified necessary interventions, which were also reflected in the interviews. The results of the analyzed interviews correspond with numerous effects on health and well-being found in the literature. The suggested solutions from the interviewees also align with those proposed in the literature.
Discussion: This qualitative research should be followed by a quantitative study in Munich, the results of which should then be considered by the city administration and the relevant departments.

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POTENTIAL FOR USE OF POINT-OF-CARE ULTRASOUND (POCUS) IN PRIMARY CARE – BENEFITS, HARMS, DIAGNOSTIC ACCURACY AND EDUCATION OPPORTUNITIES: AN UMBRELLA REVIEW

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Research assistant: Sebastian Huter
Co-Supervisor: Dagmar Schaffler-Schaden

Date of the defense: 03.04.2023

Keywords: Point-of-care ultrasound; POCUS; General practice; Primary health care

Introduction: Ultrasound examinations have become one of the most important diagnostic tools in the healthcare sector. Point-of-care ultrasound (POCUS) is a relatively new development within the prehospital setting, where a focused sonographic examination with a specific clinical question is performed and interpreted directly at the scene of interest. Especially for general practitioners, who face the challenge of treating both acute and chronic diseases in an unfiltered patient population, point-of-care ultrasound could be a promising diagnostic tool. To date, there is no umbrella review that examines the benefits, harms, diagnostic accuracy, and educational opportunities of POCUS in the primary care setting. The aim of this master's thesis is to provide a comprehensive overview of the potential of point-of-care ultrasound in primary care to contribute to an improved quality of care. The research questions are: What benefits and harms of POCUS can be evaluated in primary care? What is known about the diagnostic accuracy of POCUS in this setting? What educational opportunities for POCUS are available to general practitioners?
Methods: A study protocol with preliminary search terms and eligibility criteria was registered on the Open Science Framework platform (osf.io). A systematic literature search was conducted in MEDLINE (Ovid), Cochrane Library (Wiley), epistemonikos.org, and PubMed from September to October 2022. The PRISMA guidelines and the Cochrane Handbook were followed for searching and reporting.
Results: Twenty systematic reviews out of 549 screened articles met all inclusion criteria. A meta-analysis was conducted in eleven of the included studies. Evidence exists for several benefits of point-of-care ultrasound in the primary care setting, including improved health outcomes, patient management, and patient satisfaction. Harms were reported less frequently and were primarily due to overdiagnosis, false-positive, and false-negative results. Point-of-care ultrasound can be used to detect pathologies of the heart, lungs, abdomen, vessels, musculoskeletal system, and skin/soft tissue with moderate to high diagnostic accuracy, even when performed by non-specialists such as general practitioners. The duration of training programs varies widely, but point-of-care ultrasound has the potential for rapid skill acquisition in some application areas. In addition to theoretical and practical content, quality assessment should be recognized as an essential part of the education.
Discussion: Point-of-care ultrasound has the potential to be a very important diagnostic tool in primary care across a wide range of applications. Focused ultrasound plays an important role not only in the diagnosis of acute diseases such as

pneumothorax, deep vein thrombosis, or pulmonary embolism, but also in the management of chronic diseases such as heart failure, liver cirrhosis, and skin abscesses in the outpatient setting. The results of this work suggest that point-of-care ultrasound has the potential to substantially improve the quality of primary care. However, many questions remain unanswered on the path to nationwide implementation. These concerns primarily relate to organizational and financial aspects, as well as the necessary training modalities for general practitioners, which is why further high-quality research is necessary.

ROBOT-ASSISTED SURGERY VS. CONVENTIONAL LAPAROSCOPIC AND OPEN ABDOMINAL APPROACH IN GYNECOLOGICAL PATIENTS: A SYSTEMATIC REVIEW.

Margarita Nagele

Supervisor: Claudia Wild
Co-Supervisor: Tim Johansson

Date of the defense: 04.04.2022

Keywords: Robot-assisted surgery; Gynecologic surgery; Hysterectomy; Sacrocolpopexy; Myomectomy; Cost-analysis

Introduction: The aim of this review is to update and summarize the latest evidence on robot-assisted surgery (RAS) in comparison with conventional laparoscopic surgery (CLS) and open surgery in gynecological patients, in terms of effectiveness, safety, and costs for the acquisition and maintenance of the robot systems and devices.

Methods: Literature was searched in different databases, including Cochrane Library, Embase, Medline via Ovid, and the HTA-Library, on 18 August 2021. The Centre for Reviews and Dissemination (CRD) was searched for ongoing trials. A hand search was performed in the reference lists of all included articles to identify further relevant studies. Systematic reviews (SRs) and randomized controlled trials (RCTs) comparing RAS with open or conventional laparoscopic procedures on women requiring selected gynecological surgeries (hysterectomy, sacrocolpopexy, adnexectomy, myomectomy, and surgery for endometriosis) were included. Cost analyses from countries with social health insurance systems were also included. Data collection and analysis: Two review authors (MN, CW) independently assessed studies for inclusion. Data extraction and risk of bias assessment were performed by the first review author (MN) and controlled by the second review author (CW). Different surgical procedures were compared separately. Evidence was summarized narratively, as the included studies were insufficient in number, quality, and homogeneity for meta-analysis.

Results: Eight studies (three SRs, three RCTs, and two NRCTs), involving 6,414 patients, were included in this review. Most studies were rated as having a moderate to high risk of bias. The performed gynecological procedures included hysterectomy (three studies), sacrocolpopexy (two studies), myomectomy (two studies), and surgery for endometriosis (one study). No studies were found for adnexectomy. Two

studies were cost analyses. Regarding effectiveness and safety, no clear superiority was identified when comparing RAS to CLS. Costs were much higher for RAS than for CLS, strongly depending on the number of surgeries performed per year. A comparison of RAS with open surgery showed superiority of RAS in terms of length of hospital stay and recovery time, but inferiority in terms of operative time. As with CLS, costs for RAS were significantly higher than for open surgery, depending on the number of robotic procedures performed annually. This is true for benign indications and general surgical outcomes. Specific oncological outcomes, such as overall survival or disease-free survival, were not included in the studies.
Discussion: While robotic surgery is effective and safe (at least for benign surgical indications), it remains very high in cost. The acquisition of a robotic surgical system can only be recommended for selected gynecological departments with high surgical output.

THE IMPACT OF THE SEVERE ACUTE RESPIRATORY SYNDROME, CORONAVIRUS 2 (SARS-COV-2), ON MALE SEXUALITY AND FERTILITY

Bethseba Agola Plank

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Co-Supervisor: Maria Flamm

Date of the defense: 14.11.2022

Keywords: SARS-CoV-2; COVID-19; Sperm quality; Sexual function; Oxidative stress

Introduction: The SARS-CoV-2 virus may cause fertility and sexual function impairments, particularly in male patients who experienced a severe course of infection. The aim of this master's thesis was to assess the impact of the SARS-CoV-2 virus on male fertility and sexuality.
Methods: The study recruited patients who had a valid sperm analysis between 2018 and 2021 and a confirmed COVID-19 infection after the first sperm assessment. Two questionnaires were evaluated: the "Standardized International Erectile Dysfunction Questionnaire (IIEF-5)" and a self-created questionnaire to assess general well-being after COVID-19. Nasal COVID-PCR tests, male sexual hormones, qualitative SARS-CoV-2 Anti-Nucleocapsid IgG antibodies, quantitative SARS-CoV-2 Anti-Spike IgG antibodies, and semen parameters, including oxidative stress, were analyzed.
Results: One patient reported a post-Covid ejaculatio praecox, while two patients had erectile dysfunction due to breathing difficulties during intercourse. Apart from one patient with a marginal low testosterone (2.64 ng/mL, 111 days after infection), all other patients had normal post-Covid testosterone, Free-Testosterone, FSH and LH values. Better sperm fast progressive motility (a-motility) values were observed post-Covid ($p = 0,005$; t-Test). None of the other investigated semen parameter showed a significant difference after COVID-19 infection when compared with pre-Covid values. The semen of one patient was MAR-positive (developed anti-semen antibodies) after COVID-19 infection. There was no significant association between oxidative stress

and COVID-19. A significant correlation was observed between vaccine frequency and the absolute and relative difference Pre- and Post-Covid in sperm concentration (0.451, p = 0.011; 0.499, p = 0.004), semen volume ((-0.376; p = 0.037); (-0.379; p = 0.035)), LH (0.392; p = 0.029), and quantitative Covid-antibodies (0.627; p < 0.001).
Discussion: COVID-19 may lead to the development of anti-semen antibodies as an indirect sign of impaired blood-testis barrier function, but it has no negative effect on sperm quality, sexual hormones or oxidative stress in the short term. COVID-19 vaccines may influence LH secretion. Although most patients have unaltered erectile function after COVID-19, the few cases of de novo ejaculatio praecox and erectile dysfunction observed after COVID-19 infection warrant further investigation.

CAR-T CELL THERAPY: CONTRASTING EVIDENCE FROM APPROVAL STUDIES WITH REAL-WORLD EVIDENCE

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Supervisor: Claudia Wild
Co-Supervisor: Maria Flamm

Date of the defense: 14.11.2022

Keywords: Therapy-resistant or relapsing leukemia; Survival chances; Real-world evidence

Introduction: B-cell acute lymphoblastic leukemia (B-ALL) is a malignant, rapidly progressive disease that is fatal within a few months if left untreated. It predominantly affects children, adolescents, and young adults (CAYAs). Survival rates have reached 90%, but the prognosis for refractory or relapsed (r/r) disease is poor, with survival rates of less than 30%. With the approval of chimeric antigen receptor (CAR) T cell therapy tisagenlecleucel (Kymriah®) in 2017, new hope emerged for this patient group. However, long-term real-world evidence (RWE) is still awaited. The aim of this study was to analyze the available RWE and compare it with the outcomes of the pivotal ELIANA trial.
Methods: A systematic literature search was conducted in Medline, Embase, and The Cochrane Library to identify publications with RWE on tisagenlecleucel as treatment for r/r B-ALL in CAYAs from 2018 to March 2022. Data were extracted and descriptively compared with the outcomes of the pivotal trial.
Results: Twelve publications providing RWE were identified. All studies were observational, non-randomized, non-controlled and patients' characteristics and outcome definitions were broadly heterogeneous. Additionally, the quality of evidence ranged from moderate to low. However, where comparison was possible, the outcomes from RWE and the ELIANA trial largely overlapped. Complete remission rates ranged from 74% to 100% versus (vs.) *80%*; event-free survival (EFS) at 12 months was 31% - 72% vs. *50%*, EFS at 24 months was 34% - 78% vs. not available (n.a.), overall survival (OS) at 12 months ranged from 38.5% to 100% vs. *76%,* and OS at 24 months ranged from 53.3% to 92% vs. *n.a.* Similarly, the safety profile

showed severe cytokine release syndrome and neurologic events occurring in 14% - 22% and 0% - 29% in RWE vs. 46% and 13% in ELIANA, respectively.
Discussion: RWE is highly heterogeneous, and long-term follow-up is lacking. However, the feasibility and safety of tisagenlecleucel could be reproduced in RWE. Much more long-term RWE and well-defined randomized controlled trials with standardized definitions are needed to address the existing evidence gaps.

HELICOBACTER PYLORI AND NON-ALCOHOLIC FATTY LIVER DISEASE ARE NOT INDEPENDENT OF EACH OTHER: ASSOCIATION IN AN AUSTRIAN SCREENING COHORT

Sarah Wernly

Supervisor: Christan Datz
Co-Supervisor: Dagmar Schaffler-Schaden

Date of the defense: 29.11.2021

Keywords: Screening; Transient Elastography; Multivariable Logistic Regression; Glucose Tolerance Disorders; Diabetes mellitus Type II

Introduction: The association between Helicobacter pylori (H. pylori) infection and non-alcoholic fatty liver disease (NAFLD) is a subject of ongoing debate. Most data stem from Asian cohorts, while European data remain scarce. Therefore, this study aimed to examine an Austrian screening cohort for an association between H. pylori and NAFLD.
Methods: A total of, 1,434 participants undergoing screening colonoscopy at a single center in Austria were evaluated. The primary risk factor was H. pylori positivity or negativity. Baseline characteristics of H. pylori-positive and negative patients were compared. The primary endpoint was the presence of NAFLD, defined by ultrasound, and the secondary endpoint was the presence of NAFLD, defined by transient elastography (controlled attenuation parameter (CAP) > 247dB/m). Uni- and multivariable logistic regression models were fitted to calculate odds ratios (OR) and 95% confidence intervals (95% CI).
Results: H. pylori positive patients had a higher BMI (27 ± 5 vs. 26 ± 5 kg/m², p = 0.008), and higher rates of dysglycemia (49% vs. 40%, p = 0.005) and type II diabetes mellitus (17% vs. 10%, p = 0.009). The percentage of patients with NAFLD, defined by ultrasound, did not differ statistically (47% vs. 43%, p = 0.349) between H. pylori positive and negative patients. However, NAFLD defined by CAP was more common in the H. pylori positive group (64% vs. 56%, p = 0.021). For the primary endpoint, no independent association was found in the unadjusted analysis (OR 1.2 95% CI 0.9 - 1.5; p = 0.34) or in the adjusted analyses (aOR 0.8 95%CI 0.6-1.1; p = 0.22). For the secondary endpoint, H. pylori positivity was associated with higher odds for NAFLD in the unadjusted analysis (OR 1.4 95% CI 1.1 - 1.9; p = 0.02). However, after adjustment for various confounders, including age, sex, concomitant diagnoses (diabetes mellitus and hyperlipidemia), as well as body mass index, an independent association between H. pylori and NAFLD was not observed (aOR 1.2 95%CI 0.9-1.6; p = 0.33).

Discussion: In this central European cohort, H. pylori positivity was not independently associated with a diagnosis of NAFLD.

COMPARISON OF CT-FFR BASED ON ULTRA-HIGH-RESOLUTION PHOTON-COUNTING CCTA WITH INVASIVE FFR IN A SELECTIVE HIGH-RISK POPULATION (AGATSTON SCORE ≥300)

Eric Wurzinger

Supervisor: Herwig Schuchlenz
Co-Supervisor: Hans-Peter Wiesinger

Date of the defense: 07.04.2025

Keywords: CAD; CCTA; CT-FFR; cFFR; UHR-Photon Counting-CT

Introduction: CT-based FFR has the potential to provide insights into the physiological relevance of coronary artery stenosis and is increasingly being compared to the gold standard of invasive FFR. Increased calcium within the coronary arteries can affect the luminal segmentation of the model, potentially leading to an overestimation of stenoses. CT-FFR based on UHR-Photon Counting-CCTA addresses this limitation but has not yet been investigated in a high-risk population (Agatston Score ≥ 300) in comparison to the invasive reference. This study is based on real-world practice.
The research question were: How strongly does the CT-FFR of calcified coronary arteries, based on UHR-Photon Counting-CCTA, correlate with the invasive FFR? – To what extent do differences in CT-FFR appear in inter-observer comparisons with reference to invasive FFR?
Methods: A monocentric retrospective data analysis was conducted to investigate CT-FFR in comparison to invasive FFR in calcified coronary arteries (n = 63). Secondary data were used to analyze the reproducibility of CT-FFR measurements relative to the reference standard.
Results: CT-FFR showed a moderate correlation with invasive FFR (Spearman correlation: 0.492). The sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV) of the CT-FFR were 0.77, 0.74, 0.87 and 0.58, respectively, at a cut-off of 0.8. In the inter-observer comparison, the reproducibility of absolute CT-FFR measurements was low (ICC: 0.277). The dichotomous categorization into positive and negative resulted in moderate to substantial agreement (Cohen's Kappa: 0.651). Few differences were observed in the diagnostic accuracy between the two observers compared to the invasive reference.
Discussion: The results indicate that CT-FFR has limitations as a stand-alone diagnostic tool in the high-risk population (Agatston Score ≥ 300). The high prevalence of invasive positive stenoses (69.8%) and the limited sample size reduce the significance of the study. Larger, heterogeneous studies with diverse methodological approaches are needed to determine the potential benefits of UHR-Photon Counting-CCTA.

PHCC IV - Health policy; economics; organizational theory, leadership and management

THE IMPLEMENTATION OF PALLIATIVE CARE CONDUCTED BY A NURSING HOME IN THE CONTEXT OF CENTRAL ITALY: FOCUS GROUPS FINDINGS IN A QUALITATIVE STUDY

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Research assistant: Simon Krutter
Co-Supervisor: Ziad El-Khatib

Date of the defense: 05.09.2023

Keywords: Palliative Care; End of life care; Nursing homes; Nursing home personnel

Introduction: In Europe, a rapid increase in the average age of the population is being observed, particularly within the age group of people over eighty, which is experiencing significant growth. This trend is driving an increased demand for long-term care services. However, in many European countries, an imbalance between supply and demand can be observed. It is also known that there is a shortage of palliative care services in this context, despite scientific evidence indicating that residents would benefit from this care approach.
Methods: Initially, a rapid review was conducted to gather a knowledge base on current developments in the implementation of palliative care in Italy. In the next phase, four focus groups were formed and interviewed. Four transcripts were created from the digitally recorded data, which were subsequently analyzed and evaluated using MAXQDA software. The results from the focus groups were extracted and synthesized using thematic analysis.
Results: Thirteen nursing staff members participated. The results indicate poor implementation of palliative care in the long-term care facility in central Italy. The barriers to implementation are multifactorial. The primary barrier described by participants was constant understaffing. Together with the study participants, a list of suggestions for improving the implementation of adequate palliative care at the end of life was developed.
Discussion: To ensure adequate end-of-life care for residents of a long-term care facility in central Italy, the primary issue to address is the resource deficits, particularly in terms of personnel and time.

NEGLECTED TROPICAL DISEASES AND THE UTILIZATION OF DIGITAL HEALTH TECHNOLOGIES IN THE CONTEXT OF ONE HEALTH - A SCOPING REVIEW

Sebastian Bauer

Supervisor: Ziad El-Khatib
Co-Supervisor: Katharina Lex

Date of the defense: 04.04.2023

Keywords: Neglected tropical disease; Digital health technologies; Surveillance

Introduction: Neglected Tropical Diseases (NTDs) are a group of viral, bacterial, parasitic, helminthic, protozoal, or fungal infections that affect more than 1 billion people worldwide, spanning over 149 countries. To address this, the World Health Organization (WHO) has set five goals to control, eliminate, and eradicate these diseases. Of the nearly forty NTDs, twenty have been selected by the WHO to be eradicated by 2030, including Buruli ulcer, Chagas disease, dengue and chikungunya, dracunculiasis (Guinea-worm disease), echinococcosis, foodborne trematodiases, human African trypanosomiasis (sleeping sickness), leishmaniasis, leprosy (Hansen's disease), lymphatic filariasis, mycetoma, chromoblastomycosis and other deep mycoses, onchocerciasis (river blindness), rabies, scabies and other ectoparasitoses, schistosomiasis, soil-transmitted helminthiases, snakebite envenoming, taeniasis/cysticercosis, trachoma, and yaws and other endemic treponematoses. Recent studies on public health surveillance (PHS) have shown an emerging need for both current and newly developed digital health technologies (DHTs) to effectively and sustainably control these 20 NTDs. The aim of this study is to demonstrate the positive impact of digital health technologies in monitoring neglected tropical diseases within the context of "One Health."

Methods: A scoping review design was chosen to answer the research question due to the heterogeneity of the data. The systematic literature search was conducted between May and June 2022 across several databases, including PubMed, CINAHL, and Web of Science, as well as through reference lists and Google Scholar. Studies were included or excluded based on predefined inclusion and exclusion criteria.

Results: In total, 22 studies were included in this analysis. MHealth, big data, and the Internet of Things (IoT) were the most common DHTs used for the surveillance of at least nine of the twenty NTDs. Most of the studies indicated an advantage in utilizing DHTs for public health surveillance alongside traditional national surveillance strategies.

Discussion: MHealth, big data, and IoT have the potential to improve public health surveillance of NTDs. However, these applications face numerous obstacles, such as lack of internet access, limited availability of mobile phones, and insufficient knowledge of digital technologies. Diverse strategies employing DHTs need to be tailored to the different NTDs. Moreover, incorporating the "One Health" approach would provide a holistic and sustainable framework for future research in this area.

CHARACTERISTICS OF FREQUENT USERS WITH ANXIETY DISORDERS IN BERLIN EMERGENCY MEDICAL SERVICES – ANALYSIS OF EMERGENCY CALL BEHAVIOR, SYMPTOMATOLOGY, AND URBAN DISTRIBUTION

Florian Breuer

Supervisor: Stefan Poloczek
Co-Supervisor: Maria Flamm

Date of the defense: 30.11.2021

Keywords: Preclinical care; Emergency dispatch center; Psychosocial emergency; Vulnerability; High utilizer

Introduction: Frequent users are individuals who repeatedly call emergency number 112, resulting in a high number of EMS missions. Often, a primary anxiety disorder is the cause of such behavior; however, a secondary anxiety disorder can also be a manifestation of a somatic disease. Frequent users represent a particularly vulnerable patient group, with their lack of compliance and poor connection to the care system posing significant challenges. A low socioeconomic status may also be associated with this phenomenon. Characteristics of frequent users with anxiety disorders were analyzed in terms of urgency, diagnosis group, and transport frequency. Additionally, emergency call frequency, reported main complaints, and the geographical distribution across the city of Berlin were examined.

Methods: Frequent users with anxiety disorders were defined as patients for whom the combination of the (suspected) diagnoses "psychiatric emergency" and the psychiatric finding "anxious" were documented in the mission protocol. These patients had at least two EMS missions within the review period (October 1, 2020 to May 31, 2021; n = 74). The missions (n = 326) were evaluated in terms of urgency, diagnosis group, and transport frequency. Furthermore, dispatch data was analyzed.

Results: Of the subjects, 63% were female, and 62% of EMS missions occurred in domestic settings. 31% of alarms were related to „psychiatric emergencies”. However, numerous cases were also related to heart problems (10%), chest pain (7%) and breathing difficulties (7%). The distribution of mission severity was as follows: 52.1% were mNACA II, 42.3% were mNACA III, and 5.3% were mNACA IV. Regardless of the urgency, 74% of the cases involved transport to a hospital. The majority of transports were related to „psychiatric emergency”. No correlation was found between patient age and the frequency of use or transport.

Discussion: In addition to the need for improving health literacy among vulnerable groups, the EMS system must adapt to the changing range of missions in the coming years. At the same time, interfaces and connections to alternative forms of care need to be optimized. Furthermore, the conditions for outpatient care by EMS must be adapted. In addition to case management, innovative resources could also play a significant role.

ECONOMIC DIMENSIONS OF COMMUNITY NURSING – A SYSTEMATIC LITERATURE REVIEW

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Supervisor: Ingrid Zechmeister-Koss
Co-Supervisor: Manela Glarcher

Date of the defense: 05.09.2023

Keywords: Community nursing; Community health nursing; Costs; Cost-effectiveness; Economic

Introduction: An increasingly aging society, a higher prevalence of chronic diseases, and a shortage of staff in the healthcare sector are leading to growing challenges for the Austrian healthcare system. Under the Austrian community nursing pilot projects, a new model of care was developed based on international standards. By providing low-threshold access to information, offering health advice where needed, enhancing health literacy, and initiating health-promoting and preventive measures, older people are enabled to stay in their own homes for as long as possible. However, this new model of healthcare service comes with financial costs. It is unclear whether the implementation of community nursing can be recommended from an economic perspective. The primary goal of this systematic review is to present international evidence regarding the economic aspects of community nursing and the methods used to collect and measure this data. Furthermore, the results aim to establish a foundation for the implementation and further scientific evaluation of community nursing in Austria.

Methods: In addition to a systematic search in seven frequently used databases, a hand search using well-defined inclusion and exclusion criteria was performed. Interventions related to the field of community nursing (or equivalent professional titles) that also investigated economic parameters were included. The selection process for the publications is presented in a PRISMA flowchart. Extracted data and relevant information from the included publications were compiled into a data extraction table for further analysis. The methodological quality was evaluated using quality assessment tools (CHEC list for economic studies, AMSTAR II checklist for systematic reviews). The characteristics of the studies were then presented narratively and thematically in terms of content.

Results: A total of 1,192 potential hits were identified. After removing duplicates and screening abstracts, 122 publications remained. After excluding 111 publications based on full-text screening, 11 publications were included in the systematic review. The included studies showed no clear results regarding the cost-effectiveness of community nursing. Particularly in Europe, there is a lack of reliable data. In general, there is a trend toward an initial increase in costs due to the intervention; however, there are indications that hospitalizations and re-hospitalizations can be avoided. Some studies suggest potential cost-effectiveness for certain patient groups (e.g., specific diseases or age groups). Several of the included studies have significant methodological limitations, which affect the validity of the conclusions regarding cost-effectiveness.

Discussion: The results are inconclusive—on one hand, some publications show that community nursing does not seem to be cost-effective, while on the other hand, there are signs of cost-effectiveness for certain subgroups of patients. Some effects may not have been adequately revealed due to methodological limitations in study design. It is difficult to transfer the results of international studies to Austria because of differences in healthcare systems and the heterogeneity of interventions. In conclusion, the results highlight the need for further research, using appropriate methods to investigate complex interventions.

CAR-T CELL THERAPY: UPDATED EFFECTIVENESS AND SAFETY RESULTS FROM REAL-WORLD EVIDENCE – A SYSTEMATIC REVIEW

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Supervisor: Ingrid Zechmeister-Koss
Co-Supervisor: Bernhard Wernly

Date of the defense: 07.04.2025

Keywords: CAR-T cell therapy; Hematologic cancers; Real-world evidence; Effectiveness; Safety; Systematic review

Introduction: Malignant hematologic diseases are of great importance worldwide, with increasing incidence rates. CAR-T cell therapies have been approved as a treatment option for some of these cancers. CAR-T cells are the patient's own T immune cells, which are genetically modified outside the body, returned to the patient, and used for autologous immunotherapy. Within this dynamic therapeutic field, additional products and indications are being approved. The aim of this work was to analyze the effectiveness and safety of CAR-T cell therapies based on real-world evidence and to provide an update on the current evidence. In addition, a broader range of therapies and indications, as well as longer follow-up times than those in previously published reviews, were considered.
Methods: A systematic literature search was performed based on a priori defined PICO research questions and the six CAR-T products approved by the EMA. The following databases were searched: PubMed, Cochrane Library, and Epistemonikos. The results were presented for the relevant cancer types using data extraction tables. A quality and risk of bias assessment was conducted.
Results: A total of 26 full texts with a total of 2,716 real-world patient data were identified for the search period from April 2022 to July 2024 and included in this analysis. All included studies were non-randomized, with 14 being observational single-arm studies and 12 being indirect comparative studies with external control arms. Due to the heterogeneity of the studies and the characteristics of the cohorts, a narrative presentation of the results was made. The outcomes indicated that treatment results in real-world settings are largely comparable to the results of pivotal trials. The comparative studies showed that treatment with CAR-T cells is associated with better results than treatment without CAR-T cells.

Discussion: Although there is an increasing body of evidence regarding CAR-T cell treatment in practice, the effectiveness and safety results cannot be assessed with certainty due to the identified limitations.

OVERCOMING BARRIERS: MEASURES TO PROMOTE WOMEN IN LEADERSHIP POSITIONS IN THE AUSTRIAN HEALTHCARE SYSTEM – A SYSTEMATIC INTEGRATIVE REVIEW

Viktoria Deutschmann

Supervisor: Manela Glarcher
Co-Supervisor: Maria Flamm

Date of the defense: 07.04.2025

Keywords: Women in leadership positions; Healthcare; Gender equity; Glass ceiling; Structural and cultural barriers; Support and promotion; Gender bias; Austria

Introduction: Women constitute the majority of the workforce in Austria's healthcare sector but remain significantly underrepresented in leadership positions. Structural and cultural barriers, including the "glass ceiling" and gender-specific stereotypes, hinder their professional advancement. This study examines which structural and cultural measures are effective in promoting women into leadership positions within Austria's healthcare system.
Methods: An integrative review was conducted based on the methods of Whittemore and Knafl (2005). The analysis included 20 studies utilizing qualitative, quantitative, and mixed-method approaches from international contexts.
Results: The findings reveal that structural and cultural measures, such as mentoring programs, gender-equitable human resource policies, flexible work models, and awareness campaigns, are key tools for advancing women into leadership roles. Networks and support through family-friendly frameworks were also identified as critical factors.
Discussion: Promoting women into leadership positions in Austria requires a combination of structural and cultural reforms. Organizations should develop integrative strategies to enable sustainable and long-term change.

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DAY CARE FROM THE PERSPECTIVE OF THE NURSING PROFESSION: A QUALITATIVE STUDY ON EXPERIENCES, BARRIERS TO ACCESS AND MOTIVES FOR UTILIZATION

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Supervisor: Simon Krutter
Co-Supervisor: Nadja Nestler

Date of Defense: 01.12.2025

Keywords: Barriers; Day care; Utilzation

Introduction: Providing care for family members can impose significant stress and frequently leads to reduced participation in the workforce, or in some cases, the cessation of professional employment altogether. Day care represents a well-established form of support aimed at alleviating the strain on family caregivers and maintaining the functional abilities of care recipients. Nevertheless, only about 4% of eligible individuals nationwide use this service. To gain deeper insight into the causes of the low utilization rate, a survey was conducted among healthcare professionals, whose expertise and direct interaction with care recipients and the family caregivers offer a unique perspective.

Methods: To explore factors contributing to the (non-) use of day care services, 13 semi-structured interviews were carried out with professionals working in day care centers, care support institutions, and outpatient care providers. Qualitative content analysis following Mayring's approach was employed for the evaluation (3). The interview guide was informed by Andersen's Behavioural Model of Health Services Use and pertinent literature. Category development was carried out through both deductive and inductive methods (4).

Results: Findings indicate that financial constraints, emotional reluctance, and insufficient knowledge of available services significantly contribute to the underutilization of day care. A lack of awareness regarding available services continues to be a major barrier to their effective use. Employment obligations and the need for respite are especially influential factors for family caregivers in their decision-making regarding the use of day care services. For individuals receiving care, the utilization of day care services is more likely when factors such as social isolation, older age, female gender, and dementia are present. Additional themes that emerged included user characteristics, communication pathways, daily routines, strategies for recruitment, and the broader structural and policy-related framework conditions.

Discussion: The findings align with existing research and suggest that increased counseling efforts, ongoing case management, gender-sensitive service offerings, flexible care schedules, and lower co-payment requirements, and personalized recommendations from general practitioners may enhance the uptake of day care services.

Discussion: Day care plays a crucial role in supporting family caregivers by reducing their physical, emotional, and organizational strain. To effectively identify and close care gaps at an early stage, a broad expansion of services, the creation of innovative

care models, and the provision of proactive, easily accessible counseling are deemed essential.

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REGISTERED NURSES' DECISION-MAKING IN THE IMPLICIT RATIONING OF FUNDAMENTAL NURSING CARE IN INTENSIVE CARE UNITS

Marlene Felbinger-Forster

Supervisor: Christine Dunger
Co-Supervisor: Simon Krutter

Date of the defense: 14.04.2026

Keywords: Intensive Care Nursing; Implicit Rationing; Missed Nursing Care; Decision-Making; Public Health; Nursing Core Competencies; Patient Safety

Backround: Registered nurses (RNs) make decisions under resource constraints that affect both the quality of care and patient safety. In this context, nursing activities may be postponed, shortened, or omitted. The phenomenon of implicit rationing in intensive care, particularly regarding personal hygiene and patient mobilization, occurs repeatedly in nursing practice, yet remains insufficiently researched in the ICU setting. The aim of this study was to understand how RNs explain their decision-making and which factors influence it.

Method: Guideline-supported, vignette-based group discussions were conducted in two intensive care units. The pseudonymized transcripts were evaluated using Mayring's structured qualitative content analysis in MAXQDA. The categories were formed both deductively based on theoretical models and inductively from the material.

Results: Urgency, patient safety, clinical stability, and structural conditions shape nurses' decision-making. Personal hygiene and mobilization are given lower priority when acute medical needs arise. Team culture, interprofessional communication, professional experience, and individual values further influence these decisions. Decision-making situations are experienced as emotionally and morally stressful, often due to frustration or conflicts between professional standards and actual working conditions.

Conclusion: Implicit rationing arises from the interplay of individual, team-related, and structural factors. From a public health perspective, it does not represent individual failure, but rather reflects systemic conditions. Adequate human resources,

clear organizational processes, and a supportive team culture are fundamental prerequisites for ensuring high-quality professional nursing care and patient safety in intensive care units.

REASONS FOR NON-ELECTIVE HOSPITAL ADMISSIONS IN SPECIALIZED PALLIATIVE CARE (SAPV) AND THEIR IMPACT ON THE HEALTH SYSTEM AND THE CARE STRUCTURE OF SAPV

Sebastian Fischer

Supervisor: Piret Paal
Co-Supervisor: Stefan Weier

Date of the defense: 05.09.2023

Keywords: Non-elective hospital admissions; Potentially avoidable hospital admissions; Palliative care; SAPV; Predictors hospital admissions; Public health care; End of life costs; Communication

Introduction: Special outpatient palliative care (SAPV) was legally established in Germany in 2007 with the aim of enabling seriously ill patients to die in their familiar home environment while ensuring professional care consisting of medical and nursing services. In practice, however, it has become evident that a supposedly safe care setting consisting of relatives, nursing services, general practitioners, specialists, and SAPV cannot always ensure care at home, leading to emergency and non-elective hospital admissions. This paper aims to identify the triggering predictors.
Methods: Descriptive-retrospective cross-sectional design with a mixed-method approach, including qualitative and quantitative components in three steps: NGT with experts from SAPV and subsequent thematic analysis according to Braun & Clarke using MAXQDA. A case collective of 5244 SAPV cases in Hesse from 2011 to 2021 was included. Thematic analysis of the documentation of cases with the discharge reason "hospitalization" (609 cases) and calculation of logistic regression to determine the probability of potential predictors using SPSS (version 29).
Results: Qualitative part: The thematic analysis showed that lack of and poor communication between the SAPV team and patients, ambivalence in goal clarification, unsatisfactory symptom control, excessive demands on relatives, the housing situation, and insufficient consideration of the social history can be important triggers for non-elective hospital admissions. These results were confirmed in the qualitative analysis of the documentation. Quantitative part: A total of 5244 SAPV cases from 2011 to 2021 were included. The patients, treated in home environments, elderly facilities, or hospices, had an average of 76.9 years and were cared for within the framework of complex CTV services. The average duration of care was 12.9 days. The most frequently documented diseases were malignant neoplasms and in situ neoplasms (C00-C99/D01- D09 - 60.58%). Patients with diagnoses from these classes and diseases of the respiratory system (J00-J99) had a higher risk of non-elective hospital admissions than patients with other diagnoses (regression coefficientB = 1.157, Sig. = 0.002, Exp(B) = 3.181 / regression coefficientB = 1.172, Sig. = 0.005, Exp(B) = 3.229). Dyspnoea and pain were the most frequently recorded

leading symptoms. Patients with these symptoms also had a higher risk of non-elective hospital admissions. Furthermore, male gender, age and living situation were identified as significant predictors Muslim patients had a higher risk of hospital contacts compared to patients with other or no religious beliefs (regression coefficientB = 1.620, Sig. = 0.01, Exp(B) = 5.055).
Discussion: The study identified predictors that can be considered causes of non-elective hospital admissions for palliative care patients involved in SAPV networks. The work also suggests that a comprehensive assessment of care structures is needed, and that the strict separation between SAPV and inpatient care should be reconsidered, with a focus on potentially avoidable hospital admissions. The paper provides important insights for improving the care situation of palliative patients within SAPV structures in Germany.

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TELEDERMATOLOGICAL MANAGEMENT OF PSORIASIS: A NARRATIVE REVIEW WITH A STRUCTURED METHODOLOGY

Martin Fischer

Supervisor: Irmela Gnass
Co-Supervisor: Martin Pallauf

Date of the defense: 15.11.2022

Keywords: Psoriasis; Telemedicine; Teledermatology; Internet-based intervention; Store-and-forward; Videoconferencing

Introduction: Psoriasis is a common, chronic inflammatory skin disease with a high disease burden. It occurs worldwide with a prevalence of approximately two percent, affecting at least 100 million people globally. Psoriasis is a significant public health issue with great relevance. Teledermatology refers to the provision of dermatological services such as diagnosis and treatment across spatial distances or time offsets, using information and communication technologies. Two main technologies are used in teledermatology: Store-and-forward (SAF) systems, which transmit data asynchronously, and real-time applications, which transmit findings synchronously, similar to a video consultation. The aim of this work was to answer the following questions: What forms of interaction in teledermatological psoriasis management are known, and what benefits and harms have been reported in the literature for adults and school children with psoriasis?
Methods: For a narrative review, a systematic literature search was conducted in the databases MEDLINE, CENTRAL, and Web of Science Core Collection according to the RefHunter version 3.0 search protocol. All types of controlled primary studies with adults and school children from 1997 to 2022 in English or German were included. Critical appraisal was performed using SIGN checklists, and data extraction was conducted using tables.

Results: 368 potentially relevant hits were identified. Eight publications were included, including seven randomized controlled trials and one nonrandomized controlled trial. Six studies were from the United States, one from China, and one from the Netherlands. Seven of the eight studies used a form of interaction based on the SAF technique, and one used the real-time technique. The included studies demonstrated the benefits of teledermatologic psoriasis management in the following categories: Efficacy, cost-effectiveness, access to care, and quality of life, functional status, and mental status. In terms of harm avoidance and safety, teledermatology is not inferior to in-person treatment.
Discussion: The benefits of teledermatologic psoriasis management outweigh the harms. However, there are limitations to consider: There is no data yet on the initial diagnosis in the context of teledermatologic psoriasis management, and approximately five percent of treatments face challenges that can only be addressed in a face-to-face consultation. Further research is needed to compare SAF and real-time technologies and to address the special needs of children with psoriasis in teledermatology. High-quality studies should also be conducted outside of the United States.

THE ROLE OF PRIMARY CARE PHYSICIANS IN THE PREVENTION AND TREATMENT OF OVERWEIGHT AND OBESITY

Sabine Fritzenwallner

Supervisor: Dagmar Schaffler-Schaden
Co-Supervisor: Hans-Peter Wiesinger

Date of the defense: 23.04.2024

Keywords: Primary care Austria; Obesity; Diagnosis; Conservative Therapy; Guideline

Introduction: Obesity is considered a chronic, multifactorial disease and is often referred to as the epidemic or pandemic of the 21st century due to its rising prevalence. Family doctors at the primary care level are increasingly confronted with overweight and obese patients. However, due to multiple barriers, adequate care for those affected is often not guaranteed. The aim of this study is to explore how obese people are currently cared for in primary care in Austria, to assess the extent to which family doctors feel equipped to treat them, and to identify the obstacles to optimal care. Additionally, the study aims to provide an overview of existing recommendations for the care of this patient group and to suggest initial steps that can be taken at the primary care level.
Methods: The most important aspects regarding the prevention and treatment of overweight and obesity in primary care were collected through an online survey among general practitioners (N = 59). By identifying current guidelines and synthesizing the relevant recommendations on obesity, a guideline for the care of this patient group was created.

Results: Almost half of the participants reported feeling insufficiently trained to properly treat obesity. General practitioners expressed a desire for improved interdisciplinary collaboration, but there was limited awareness of existing offerings. The biggest barrier identified was a lack of motivation among the affected individuals. Guidelines indicate that an individually tailored lifestyle intervention, focusing on nutrition, exercise, and behavior, should be the main component of every treatment plan, with particular attention to unbiased communication.
Discussion: Among the general practitioners who participated in the survey, there are still significant uncertainties regarding the treatment of people with overweight and obesity. The results should serve as an opportunity to implement concrete measures and actions to improve patient care within the system and to enhance the qualifications of the treating doctors.

PATIENT SATISFACTION WITH TELEMEDICAL PRE-ANESTHESIOLOGICAL CONSULTATION

Georg Gibas

Supervisor: Irmela Gnass
Co-Supervisor: Gerhard Fritsch

Date of the defense: 03.04.2023

Keywords: Telemedicine; Anesthesia; Patient satisfaction

Introduction: Due to the COVID-19 pandemic, digitalization and remote services in healthcare have accelerated dramatically. Pre-anesthetic preparation by phone provides a successful alternative to inpatient assessments without divergence in diagnostics and process-related decisions. The goal of this study was to quantify patient satisfaction using a validated questionnaire for pre-anesthetic preparations and evaluate additional benefits for patients as well as for climate protection.
Methods: A single-arm study using a questionnaire was conducted between April 11, 2022, and June 17, 2022. After a routine telemedical pre-anesthesia visit, another telephone call (interview) was conducted, followed by an online questionnaire by Snyder-Ramos et al. (2003). Seven hundred and fourteen patients were invited to participate and informed about the study. Written consent for descriptive analysis was given by 83 patients, with 76 patients completing all questionnaires.
Results: Patient satisfaction levels reached 91.4% of the maximum score and were comparable to the standard of care. On average, patients saved 130 minutes of time and €26 in costs. Based on conservative estimations, a total of 0.703 tons of CO_2 were saved, which translates to 30.15 tons of CO_2 within one year.
Discussion: Telemedicine in pre-anesthesia outpatient clinics is associated with high patient satisfaction. In addition to preventing unnecessary appointments, saving costs and time, it contributes to climate protection—even at a hospital in the center of Vienna, with surgical patients traveling within the city. Further studies are necessary to confirm these results.

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REASONS FOR THE DELAYED DIAGNOSIS OF COMPLEX REGIONAL PAIN SYNDROME

Hanna Grundtner

Supervisor: Florian Rieder
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Date of the defense: 04.09.2023

Keywords: Qualitative research; Interviews; General practitioners; Guidelines

Introduction: Complex Regional Pain Syndrome (CRPS) is a condition that typically occurs after trauma and manifests in the distal region of an extremity. Due to the complexity of this condition and the variety of symptoms, it is difficult to diagnose, often leading to significant delays. However, clinical guidelines largely emphasize the importance of early recognition of CRPS. The reasons for delayed diagnosis (up to 3.9 years) are described differently in the literature. These include, among other factors, a lack of knowledge, doubts about the credibility of the patients, and feelings of shame among those affected. The literature predominantly presents either a medical perspective or that of the affected individuals. Therefore, this master's thesis aims to survey different groups (general practitioners, patients, therapists) in order to confirm or refute existing reasons described in the literature from various viewpoints and, if applicable, identify additional causes, providing a basis for potential changes. The following research question was pursued: What are the reasons for delayed diagnoses of CRPS from the perspectives of doctors, therapists, and patients?
Methods: A qualitative design was used, involving semi-structured interviews and theory-guided questions. The data were analyzed using content analysis.
Results: In the statements of the interview partners, five main categories were identified: "Complexity of the Condition," "Level of Knowledge," "Appreciation," "Communication," and "Structural Organization."
Discussion: The results provide insights into potential areas for action to achieve earlier diagnoses.

THE INFLUENCE OF PHARMACIST-LED INTERVENTIONS ON THE TREATMENT OF COPD PATIENTS

Katharina Hahn

Supervisor: Bernhard Wernly
Co-Supervisor: Antje van der Zee-Neuen

Date of the defense: 23.04.2023

Keywords: COPD; Chronic obstructive pulmonary disease; Pharmacists; Pharmacist-led interventions; Medication adherence

Introduction: Chronic Obstructive Pulmonary Disease (COPD) is an incurable condition contributing significantly to the global health burden. Optimizing treatment, combining medical and non-medical strategies, is crucial for improving patients' quality of life and reducing exacerbations. A multidisciplinary approach involving physicians, nursing staff and pharmacists is gaining attention in managing COPD effectively. This systematic review focuses on pharmacist-led interventions designed to enhance health-related outcomes in COPD patients. It aims to identify the types of interventions implemented and assess their effectiveness in improving patient health.
Methods: A comprehensive systematic search was conducted in key databases, including PubMed, Cochrane Library, and Web of Science, to identify randomized controlled trials on pharmacist-led interventions for COPD patients up until November 2023. The studies were critically analyzed for bias risk and the overall quality of evidence. A narrative synthesis of the findings was also undertaken.
Results: The review included nine RCTs with a total of 2,094 participants. The primary focus of these studies was educational interventions aimed at increasing knowledge about COPD, enhancing medication adherence, improving health-related quality of life, and teaching effective inhalation techniques. In eight of the nine studies, significant improvements in various health outcomes were observed in the intervention groups compared to control groups. However, the risk of bias was notably high due to the nature of the interventions and the absence of blinding. The GRADE assessment indicated that the overall quality of evidence ranged from "low" to "very low" across the studies.
Discussion: The studies underscored significant improvements in health outcomes attributable to pharmacist-led interventions, highlighting the potential role of pharmacists in such interventions within healthcare. Despite these promising findings, the low quality of the available studies necessitates further research. Additional research is crucial for establishing the generalizability of these interventions and ensuring their broader applicability in the management of COPD patients. The results suggest that while pharmacist-led interventions can be beneficial, the current evidence base needs strengthening to fully realize their potential in COPD management.

TUMOR DIAGNOSTICS FOR CLINICAL DECISION-MAKING: IN-HOUSE VS. COMMERCIAL PANEL TUMOR PROFILING - A SCOPING REVIEW WITH EXPERT INTERVIEWS ON ADVANTAGES AND DISADVANTAGES

Johannes Heigl

Supervisor: Claudia Wild
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Date of defense: 02.09.2024

Keywords: Molecular tumor diagnostics; In-house tests; CE-IVD; Personalized medicine; IVDR; Scoping review; Qualitative analysis; Oncology

Introduction: Molecular tumor diagnostics plays a crucial role in modern oncology by enabling personalized therapy through the creation of tumor profiles. There are two main approaches to tumor profiling: in-house tests (laboratory-developed tests, LDT) and commercial test methods (CE-IVD). This study examines the specific advantages and disadvantages of both approaches and their implications for clinical practice. The central research question of this study is: What are the advantages and disadvantages of molecular in-house tumor profiling compared to commercial methods in terms of personalized therapy planning, as well as economic and organizational aspects? The aim is to present the advantages and disadvantages of both approaches concerning diagnostic accuracy, costs, and organizational requirements.

Methods: The study combines a scoping review with a qualitative analysis of expert interviews. The literature search included publications from the last ten years, focusing on studies that compare the two approaches. Additionally, interviews with experts in molecular tumor diagnostics from academic medical centers in Austria were conducted. The qualitative content analysis of the interviews was carried out according to Mayring (2015).

Results: Both approaches show comparable diagnostic accuracy and safety. In-house methods offer greater flexibility and adaptability to new scientific findings and rare diseases, and potentially lower costs, especially with existing infrastructure and expertise. These methods enable specific diagnostics tailored to individual patient histories and laboratory expertise. Commercial tests, on the other hand, ensure high reliability and quality of results through comprehensive validation and standardization. With CE-IVD marking, manufacturers guarantee the functionality of these tests. They are user-friendly and easier to apply according to the manufacturer's instructions, simplifying implementation in the laboratory setting. However, they come with higher implementation costs and less flexibility in adapting to new scientific findings or rare diseases. The In-Vitro-Diagnostikverordnung (IVDR) poses a particular challenge for smaller laboratories, as it restricts the use of in-house tests and requires compliance with stringent regulatory requirements.

Discussion: Both approaches are valid and should be used depending on the specific requirements and resources of the respective institution. In-house methods are particularly advantageous in institutions with existing infrastructure and expertise, while commercial tests are convincing due to their standardization and validation. Future research should focus on the further development and standardization of in-house methods and the improvement of the cost-efficiency of commercial tests. Enhanced collaboration and networking between institutions can pool resources and improve the quality of diagnostics. The choice of tumor diagnostic methods has significant impacts on patient care, diagnostic accuracy, and healthcare costs. Both in-house and commercial methods offer specific advantages, and their selection should be tailored to the individual needs and resources of the respective institution.

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THE CHALLENGES OF HEALTH AND NURSING PROFESSIONALS IN THEIR DAILY WORK IN THE FEDERAL REPUBLIC OF GERMANY

Daniela Hiebl

Supervisor: Manela Glarcher
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Date of the defense: 26.07.2022

Keywords: Nurses; Germany; Health promotion and prevention; Active care with patients

Introduction: Nurses in Germany are specially trained during their education to address health-promoting topics. This training empowers them to provide advice and educate patients and their families about health, illness, and healthy behaviors. However, due to the ongoing SARS-CoV-2 pandemic and the persistent nursing staff shortage, nurses in Germany are unable to appropriately apply their knowledge of maintaining physical and mental health for themselves. This study aims to highlight the challenges faced by nurses in Germany in staying physically and mentally healthy during their daily work with patients. The physical and mental demands of nurses in patient care can be assessed across four dimensions using the FEBA questionnaire.
Methods: A quantitative cross-sectional study was conducted between January and February 2022, using an established questionnaire (FEBA) to assess working conditions, supplemented with additional items on health behavior, addressing nurses in Germany. Data analysis was performed using IBM SPSS version 27.
Results: A total of 177 nurses (76.8% female) who actively work with patients participated and completed the questionnaire. The greatest challenges to staying physically and mentally healthy for nurses during their work with patients in Germany were noise, lifting heavy patients or objects, high responsibility, few breaks, and frequent work interruptions. No significant physical or mental burdens were found for the examined group of nurses in Germany ($p > 0.05$).
Discussion: The nurses surveyed demonstrated a high level of resilience in coping with the current working conditions. However, the results of this sample cannot be generalized to the entire population of nurses in Germany.

CAREER GOALS AND DESIRED FIELDS OF ACTIVITY OF PUBLIC HEALTH MASTER'S GRADUATES

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Date of defense: 02.12.2025

Keywords: Public health; Master's graduates; Career goals; Fields of activity; Job market; German-speaking countries; Qualitative content analysis

Introduction: Public health master's graduates face a heterogeneous job market with a wide range of role profiles. In light of the growing diversity within the field and the ongoing transformation of healthcare systems, the career aspirations and actual professional trajectories of public health master's graduates are gaining increasing relevance. At the same time, a notable research gap exists in this area within German-speaking countries. This study therefore examines the individual career goals that graduates of public health master's programs in German-speaking countries pursue after graduation in terms of their desired professional fields of activity. The aim of the study is to identify and describe individual career goals and desired fields of activity.
Method: A qualitative, exploratory study design was chosen. Data were collected through guided interviews with public health master's graduates. In total, eight interviews with public health master's graduates from German-speaking countries were analyzed. The transcribed interviews were systematically evaluated using qualitative content analysis, interpreted within established paradigms and appropriately contextualized.
Results: Three overarching career goals emerged among the surveyed public health master's graduates: horizontal development, vertical development, and contributing to improvements in the healthcare system. The preferred professional fields of activity were primarily located in leadership and management, health authorities and health policy, health promotion and prevention, research and data analysis as well as teaching and higher education. In some cases, respondents expressed the intention to remain in their original profession. Furthermore, the limited visibility of public health in German-speaking countries was cited as a factor constraining the realization of individual career goals.
Discussion: The study demonstrates that public health master's graduates pursue different career goals which are in part closely linked to specific areas of professional activity. For instance, the career goal of "improving the healthcare system" was frequently associated with the areas of health promotion and prevention. Nevertheless, the alignment of goals and activities is always shaped by individual contexts.

COLLECTIVE ACTION AND PROFESSIONAL ADVOCACY OF NURSING STAFF IN ELDERLY CARE HOMES UNDER THE STRAINS OF THE COVID-19 PANDEMIC

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Co-Supervisor: Nadja Nestler

Date of the defense: 08.04.2025

Keywords: Elderly care; Nursing chamber; Trade unions; Professional representation of interests; Collective action; Covid-19 pandemic; Focus group; Qualitative content analysis

Introduction: The working conditions in nursing homes are notoriously poor and have been further exacerbated by the conditions of the COVID-19 pandemic. It has been shown that nursing staff in elderly care desire reduced workloads, better pay, and greater control over their schedules, particularly in the form of secure duty planning. Moreover, the conditions of the work environment demonstrably affect the health of employees. Despite this, the level of organization among elderly care workers remains low. This study examines the conditions for collective action and professional representation of interests among care workers in nursing homes under the pressures of the COVID-19 pandemic.
Methods: For data collection, a panel from an expert conference, conducted as a focus group within the framework of the PICo project, was analyzed using structured content analysis according to Kuckartz and Rädiker (2024).
Results and Discussion: The study concludes that the reasons for the insufficient professional representation of interests among elderly care workers are rooted, on the one hand, in various historical, political, and societal causes, and on the other hand, in the attitudes, mindsets, and life experiences of the care workers themselves. Additionally, professional qualifications play a decisive role. The strains of the COVID-19 pandemic have not disproportionately worsened these factors. On the contrary, they have opened up new opportunities for negotiation processes. However, these opportunities were not utilized by the elderly care workers. Further research is needed to explore the reasons behind this.
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THE SCHOOL AS A KEY TO HEALTH PROMOTION AND PREVENTION: THE SCHOOL HEALTH SYSTEM IN AUSTRIAN SECONDARY SCHOOLS, CONSIDERING THE ROLE OF THE SCHOOL NURSE

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Co-Supervisor: Piret Paal

Date of the defense: 25.07.2022

Keywords: School nurse; School healthcare; Health promotion; Prevention; School doctor

Introduction: Health is considered one of the most important and valuable assets of humankind. This is why health promotion and prevention will continue to play a major role in the future and will increase in importance. Young people are seen as a country's potential future. Given the rise in chronic diseases and the existing need for equitable healthcare for young people, it is essential to enhance this group's responsibility for their health. The school setting offers a good opportunity to promote health and prevention on a broad scale. School doctors are currently entrusted with this task. However, due to the prevailing shortage of doctors, it must be questioned to what extent students' health care is guaranteed in the school setting. Therefore, it should

be determined whether the introduction of a school nurse could improve and increase health care for secondary school students.
Methods: A qualitative research design was chosen for the planned research project. To answer the research questions, four guided focus group interviews were conducted with educators at secondary schools to explore the importance of school health care for teachers and whether they would welcome the presence of a school nurse in their school setting. The qualitative content analysis method according to Kuckartz was used for evaluating the interviews.
Results: The participants report that, in some cases, there is no school doctor available as a contact person at the schools, and teachers often take on tasks that are outside their responsibility, despite lacking the time and expertise. Even schools that have the privilege of a school doctor feel that the doctor's attendance is insufficient and request additional support from professional staff to promote student health care in the school setting and call upon a competent specialist when action is needed.
Discussion: Teachers would welcome the presence of a school nurse in the school setting and view it as an important measure for the students, as well as a relief for the teaching staff. Additionally, children and young people would greatly benefit from this, and the health of the students would be prioritized more in the school setting.

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PATIENT-CENTERED ALIGNMENT OF THE VALUE-BASED HEALTHCARE CONCEPT: PERSPECTIVES AND NEEDS OF PATIENTS FOLLOWING HEART VALVE SURGERY WITHIN THE TREATMENT CYCLE – A QUALITATIVE CASE STUDY

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Date of the defense: 02.12.2024

Keywords: Value-Based Healthcare; Patient-Centered Care; Person-Centered Care; PCC, Patient-centered; Health care quality; Patient-Reported Outcome Measures; PROMs, Patient-Reported Experience Measures; PREMs; Patient experience; Pathway; Care cycle; Heart valve disease

Introduction: The concept of Value-Based Healthcare (VBHC), introduced by Porter & Teisberg (2006), aims for a strategic shift in healthcare systems to achieve the best possible outcomes for patients with available resources at the lowest costs. According to recent studies, aspects of patient-centered care (PCC) are often overlooked in the implementation of VBHC initiatives in routine care. This study examines the needs and experiences of adult patients undergoing surgical heart valve procedures, as well

as patient-reported outcomes, to support a patient-centered alignment with the care pathway for this target group.

Methods: Semi-structured interviews were conducted face-to-face before the discharge of the target group during their hospital stay. The model of Santana et al. (2018), which includes the main domains of structure, process, and outcome (SPO) as indicators for healthcare quality, was used as a framework for PCC. This framework guided the development of the interview guide, as well as the categorization and coding of qualitative data through the Codebook. Data analysis was performed using the qualitative content analysis method by Mayring (2015).

Results: A total of eight interviews with patients, aged 25 to 82 years, were conducted, with an average interview duration of 19.82 minutes. The participants demonstrated a high level of knowledge about their own condition, adherence, and health literacy. Communication and the exchange of information between the clinic team and patients were identified as integral components of successful care and key dimensions of PCC. The role of the surgeon is crucial in the care pathway and as an interface throughout the entire care cycle, ensuring continuity across the care continuum. From the patients' perspective, the quality of the consultation prior to the surgical procedure is vital for building a trusting relationship between the surgeon and the patient within the care pathway. An information gap regarding rehabilitation after discharge was identified, as well as a potential need for more personalized care based on individual preferences. Despite undergoing surgery only a few days prior, the overall well-being of the patients was reported to have improved, despite limitations in breathing and mobility.

Discussion: Patient experiences with healthcare influence their well-being, outcomes, and the quality of care. The most valuable aspects of healthcare performance can only be provided by the patients themselves. Neither standardized collection of Patient-Reported Experience Measures (PREMs) nor individual patient experiences are sufficiently integrated into the healthcare setting, which may be due to methodological and structural barriers. The development of metrics for patient-centeredness is necessary to better understand and measure the needs of patients, ultimately informing the most valuable reorganization of healthcare services.

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LITERATURE-BASED, FOUR-STEP PRODUCT DEVELOPMENT OF A TRAINING MODULE TO PROMOTE ORGANIZATIONAL HEALTH LITERACY IN COMMUNICATION: LITERATURE REVIEW, CREATION OF THE LEARNING MODULE, QUALITATIVE EXPERT INTERVIEWS, AND ADJUSTMENT OF THE LEARNING MODULE

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Research assistant: Valentin Fischill-Neudeck

Date of the defense: 03.04.2023

Keywords: Organizational health literacy; Healthcare workers; Communication; Learning module

Introduction: Increasing attention is being paid to improving organizational health literacy in German-speaking healthcare systems. Methods are needed to help put recommendations into practice. A digital learning module for healthcare workers can support this goal by strengthening their communication skills. The aim of this study is to design a digital learning module to improve organizational health literacy for healthcare workers, particularly regarding communication skills.
Methods: A literature search was conducted in professional databases and grey literature to identify relevant content and the didactic design of a learning module. Following this, the learning module was designed. To evaluate version 1 of the module, guided interviews were conducted with 11 experts and analyzed using Mayring's qualitative content analysis. The results were used to refine and improve the design of version 2 of the module.
Results: Based on the literature research, a 33-minute learning module in video format was created. The experts interviewed expressed positive feedback regarding the idea of a learning module and highlighted the relevance of the topic. Suggestions for content and design improvements led to the development of version 2. The revised module now includes three videos with more detailed explanations and sample videos demonstrating interview techniques.
Discussion: The evidence-based development of a digital learning module in video format has been successful. The four-step process proved to be effective in designing version 1 and improving the module in the transition to version 2.

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CORE COMPETENCIES OF SPECIALISTS IN INFECTION PREVENTION IN HEALTHCARE IN SWITZERLAND

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Date of the defense: 04.09.2023

Keywords: Healthcare-associated infections (HAI); Antibiotic resistance; Switzerland; Qualitative research

Introduction: The prevention and control of Healthcare-Associated Infections (HAIs) and antibiotic resistance require coordinated and integrated efforts at various levels of the healthcare system. This includes the implementation of infection prevention measures, the education and training of healthcare professionals, and research to develop effective prevention strategies. This paper examines the continuing education and core competencies of infection prevention specialists to determine whether they are adequately prepared for their roles and if their continuing education keeps pace with evolving requirements. The aim is to identify gaps in current practices and offer recommendations for improving the continuing education of infection prevention specialists, thereby strengthening the prevention and control of HAIs.
Methods: A qualitative research approach was used through semi-structured expert interviews. A total of eight participants were recruited from various universities and cantonal hospitals in the German-speaking part of Switzerland, ensuring a broad perspective on the study topic.
Results and Discussion: The current continuing education for infection prevention specialists does not fully meet the expectations and requirements of leaders in infection prevention. Both content deficiencies and insufficient permeability were criticized. There is a need for standardization and clarification of the role of infection prevention specialists. A revision or redesign of continuing education is necessary. However, the specific content and structure of continuing education cannot be definitively determined from this study. Further research should be conducted to address the topic, considering additional stakeholders and settings comprehensively.

THE QUALIFICATION PROFILE OF THE COMMUNITY (HEALTH) NURSE: OPPORTUNITIES AND CHALLENGES AT THE COMMUNITY LEVEL IN AUSTRIA

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Date of the defense: 24.04.2024

Keywords: Community (health) nursing; Community (health) nurse; Prevention; Qualification profile; Opportunities and challenges

Introduction: The Community (Health) Nursing pilot project has been implemented in the Austrian primary care landscape since 2022. The national Community (Health) Nurse carries out her professional practice at local level according to the Public Health Intervention Wheel. Internationally, challenges such as inadequate professional training characterize the professional practice of the community (health) nurse. The implementation of Community (Health) Nursing presents both unknown opportunities and challenges in Austria. Following international experience, a practical analysis of

the qualification profile should therefore be conducted. The aim of this research is to present the required qualification profile for the Community (Health) Nurse in Austria. In addition, the opportunities and challenges in implementing the measures are analyzed from the perspective of the community (health) nurse. The results serve as a guide for both stakeholders and the community (health) nurses to optimize the implementation process.

Methods: A qualitative research approach consisting of nine expert interviews was chosen to collect the data. The data were analyzed using a combination of the interpretative-reductive evaluation methods of content-structuring content analysis according to Kuckartz and Rädiker, and summarizing content analysis according to Mayring.

Results and Discussion: In examining the key competencies required for implementing the Public Health Intervention Wheel, it became evident that currently practicing Community (Health) Nurses possess varying levels of professional competence. However, deficits were particularly evident in the competences that are primarily required. A change in the national qualification profile regarding training is therefore necessary. With regard to adressing the opportunities and challenges, previous professional experience, which was well above the minimum requirements of the national qualification profile for all community (health) nurses surveyed, was identified as the strongest factor in the implementation of measures. This emphasizes the importance of professional experience for the successful implementation of measures and should be reflected accordingly in the national qualification profile. Additionally, further promoting and inhibiting factors were identified, which should be taken into account for the successful implementation of Community (Health) Nursing in Austria.

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SARS-COV-2 PANDEMIC – AN EVALUATION OF CRISIS MANAGEMENT USING THE EXAMPLE OF LKH HALL

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Date of the defense: 24.08.2021

Keywords: COVID-19; Vaccination; Side effects; Austria

Introduction: The current situation is a global public health emergency. Many countries around the world, including Austria, have adopted similar strategies involving testing, maintaining distance, wearing face masks, enforcing hygiene measures, and vaccinating the population. Additionally, crisis management in the healthcare sector plays a significant role in helping to end the pandemic. The Landeskrankenhaus (LKH) Hall in Tyrol, Tirol-Kliniken GmbH, for example, demonstrates how this pandemic has impacted everyday life in hospitals. Research results show that vaccination is one of the key factors in ending the pandemic. The aim of this study is to examine crisis management and explore ways to enhance its effectiveness, with a particular focus on vaccination.
Methods: A literature review was conducted using the databases MEDLINE via PubMed, EBSCO-Host, Cochrane Library, and CINAHL. A secondary analysis of vaccination data collected from the quality management department of LKH Hall using an online questionnaire was also performed.
Results: There was only one independent variable to analyze, limiting the possibilities for further analysis. A total of 363 participants, out of 1,089 employees, returned the questionnaire. No significant relationships were found between side effects, sick leave, and the different vaccines. Side effects were short-lived, and the number of sick days following vaccination was shorter than the regular quarantine period. Additionally, hospitals can manage such a pandemic situation for a certain period through strong interdisciplinary cooperation.
Discussion: We concluded that there is no significant relationship between these factors. Further studies are needed to end this pandemic as quickly as possible.

OPTIMIZATION OF PERIOPERATIVE CARE FOR GERIATRIC PATIENTS WITH HIP FRACTURES

Andrea Rajtora

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Date of defense: 14.04.2026

Keywords: Geriatrics; Hip fractures; Perioperative care; Interdisciplinary collaboration; Geriatrics co-management-models; Quality of care; Public health

Introduction: Hip fractures in geriatric patients are associated with morbidity, functional decline, increased mortality, and growing care needs. Coordinated perioperative care integrating medical, functional, cognitive, and social aspects is essential. This study aimed to explore the experiences and perspectives of interdisciplinary treatment teams and to identify optimization potentials from a public health perspective
Methods: The qualitative study combined a systematic literature review with two focus group interviews involving nine participants from trauma surgery, anaesthesiology, nursing, physiotherapy, nutrition, wound management, and discharge coordination. Data were analysed using thematic content analysis

Results: Findings indicate that deficits in communications, coordination and structural conditions are major barriers. Interdisciplinary collaboration is valued but often informal. Early surgical intervention, mobilization, activating nursing, physiotherapy and nutritional care are perceived as particular beneficial. Discharge planning represents a critical transition where structural gabs become apparent

Discussion: The study highlights the importance of standardized interdisciplinary care pathways and geriatric co-management-models to improve functional outcomes, quality of live and continuity of care. It provides actionable, practice-oriented insights to advance perioperative care structures and support public health goals.

PUBLIC HEALTH AGENDAS IN CASE MANAGEMENT – A CASE VIGNETTE STUDY ON OPPORTUNITIES AND CHALLENGES

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Research assistant: Valentin Fischill-Neudeck

Date of the defense: 05.09.2023

Keywords: Case management; Qualitative research; Austria; Case vignette

Introduction: Due to already known socio-political issues, such as the increasing need for care in an aging society and the constantly growing shortage of personnel, existing resources in the care landscape must be recognized. In this context, it is important to consider whether and how case management can support the provision of care for people of all age groups through preventive consultation, the implementation of health-promoting measures, and the development of competencies to realize the potential of public health in Austria. To date, there is insufficient research on the extent to which case managers are aware of how to act in line with public health principles. The aim of this study is to explore the potential relevance of case management in health counseling, health promotion, and the development of health competencies in the context of public health, and to examine to what extent case managers work with an awareness of public health and set interventions in this regard.
Methods: A qualitative design was chosen. Three group discussions with twelve experts from the field of case management were conducted to collect data. A case vignette was used to stimulate discussion and gain insights into the experts' subjective views on the topic. The data were analyzed using the summarizing and structuring content analysis method according to Mayring.
Results: Through the content analysis, three main categories and nine subcategories were identified. These categories provide information about subjective perspectives on the research topic and generate relevant conclusions regarding the effects, mission, competencies, and also areas of tension that exist.
Discussion: The results show that case managers sometimes intervene with an awareness of public health. Interdependencies and (positive) effects of public health interventions were identified, and the greater benefits of these interventions were recognized. There is a clear need for more background knowledge, as well as additional resources and networking opportunities for case managers, to raise awareness of public health and related interventions.

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CLIMATE COMPETENCE OF STAFF IN HIGHER HEALTH AND NURSING SERVICES IN UPPER AUSTRIA – A QUALITATIVE STUDY

Eva Schnetzer

Supervisor: Katharina Brugger
Co-Supervisor: Hans-Peter Wiesinger
Research assistant: Johanna Schauer-Berg

Date of defense: 02.09.2024

Keywords: Climate change; Climate literacy; Health professionals; Nurses; Climate resilience

Introduction: Climate change and its effects on health pose a significant challenge for public health and, therefore, for the healthcare system. The climate literacy of nurses is of crucial importance for developing a climate-resilient healthcare system. This study analyzes the understanding and experiences of nursing staff in stationary, ambulatory, and mobile care settings in Upper Austria regarding their climate literacy, as well as the differences across various settings and the specific challenges they face.
Methods: As part of a qualitative study, six semi-structured interviews were conducted with nurses from different settings in Upper Austria. The collected data were transcribed, evaluated, and analyzed by using qualitative content analysis.
Results: The results reveal that healthcare and nursing professionals have a basic awareness of climate-related health risks, but there are knowledge gaps regarding the interaction between climate and health. Another finding is that nurses experience an increased workload due to the effects of climate change. Finally, systemic changes are needed in healthcare institutions with regard climate protection.
Discussion: The study emphasizes the need to deepen the climate competence of nursing staff. It is recommended to expand education and training programs for healthcare professionals and improve institutional support to enhance the resilience of the healthcare system to the effects of climate change.

CHALLENGES IN THE TRANSITION FROM INPATIENT TO HOME CARE IN UPPER AUSTRIA: A QUALITATIVE STUDY FROM THE PERSPECTIVE OF DISCHARGE MANAGEMENT

Nadia Schober

Supervisor: Nadja Nestler
Co-Supervisor: Irmela Gnass

Date of defense: 13.04.2026

Keywords: Nurse; Case manager; Discharge manager; Transitional care; Home care service

Introduction: In Upper Austria home health care is characterized by regional fragmentation. This may create challenges during care transitions between inpatient and outpatient settings. In Upper Austria, cross-sectoral, organizational, and structural barriers have not yet been investigated as perspective by discharge managers.

Methods: A qualitative study with reductive-interpretative data analysis was conducted. Nine discharge managers from four general hospitals in Upper Austria participated in qualitative problem-centred interviews. The recorded interviews were transcribed and analyzed using qualitative content analysis.
Results: The perspectives of discharge managers were categorized into cross-sectoral, organizational and structural barriers, as well as strategies and measures to address these barriers. Cross-sectoral barriers include case complexity, resource limitations, and problems in communication and coordination. Organizational barriers relate both to the respondents' own organizations and the organizational structures of home care services. The rigid structure of home care services is reported as a key structural barrier. More flexible structures in peripheral regions are identified as a potential area for improvement.
Discussion: Resource limitations and increasing case complexity hinder the coordination of care. Rigid structural conditions within home health care services lead to variations in care. To inform the further development of the Austrian health care system, the findings were compared against the World Health Organization's ICOPE implementation framework. Further research should investigate structural barriers more comprehensively in greater depth.

OPTIMIZATION POTENTIALS OF EMERGENCY CARE IN BAVARIA DURING HEAT WAVES

Monika Seemann

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Co-Supervisor: Dagmar Schaffler-Schaden

Date of the defense: 05.12.2023

Keywords: Bavarian State Ministry; Focus group interviews

Introduction: With the onset of industrialization in the nineteenth century, humans began to drastically interfere with the delicate ecosystem of the Earth. This human-dominated epoch and its resulting consequences are encapsulated under the term "Anthropocene" (Schulz & Simon, 2021). The altered living and economic conditions, driven by the use of fossil fuels, accelerate climate change (Rossati, 2017). This results in a continuously rise in average global temperatures, which in turn leads to an increased occurrence of extreme weather events such as heatwaves, droughts, and floods, negatively impacting both human health and, consequently, health systems (Swiers, Brimicombe, Wieser, & Otto, 2023). As early as 2018, the World Health Organization (WHO) attributed the drastic increase in global mortality and the resulting rise in global disease burden to climate change (WHO, 2018). According to heuristic estimates by the WHO, around 4,500 people in the Federal Republic of Germany alone succumbed to the negative health effects of heat in 2022 (Kluge, 2022). Since heat-associated morbidity has multiple causes, emergency care for heat-exposed patients assumes a particularly important role (Lang, Luschkova, Seemann,

& Traidl-Hoffmann, 2018). This master's thesis investigates, as part of the EXTREME project funded by the Bavarian State Ministry for Health and Care (StMGP), the impact of heatwaves on the medical care of Bavarian patients. The aim of the EXTREME project is to establish systematic monitoring of mortality and morbidity during extreme weather events, focusing on extreme heat and extreme cold. In particular, the handover of patients during heatwaves at the interface between pre-hospital and in-hospital care will be examined from the perspective of the emergency services in the public rescue service in the Augsburg area and the professionals working in the emergency department of the University Hospital Augsburg. The overarching research question is:

- How do heatwaves affect patient handover and the involved professions at the sectoral interface of pre-hospital and in-hospital care?

Specific research questions include:

- What challenges can be identified for emergency care in Bavaria?
- How can the identified issues be mitigated through structural and/or organizational adjustments?

Methods: The answers to the presented research questions were obtained using the qualitative research method of focus group interviews. A focus group with heterogeneous professions was recruited for each care sector, and a pre-prepared topic-specific interview guide was discussed by the participants. This approach aimed to capture as many facets of the heat-associated challenges in emergency care as possible. To explore the data collected, qualitative content analysis according to Kuckartz (2018) was conducted using MAXQDA software.

Results und Discussion: In summary, it can be stated that, at present, no heat-associated procedural issues can be identified at the interface between pre-hospital and in-hospital emergency care. Regarding the challenges faced by the professionals involved in emergency care, four major thematic areas were identified: lack of health literacy among the population, increased demand for emergency services, socioeconomic background/migration, and health impacts. To address these challenges, both focus groups had already developed potential solution strategies from their perspectives. Participants from the clinical setting preferred better integration of the sectors as well as an expansion of the competencies of non-medical nursing staff in outpatient care. From the perspective of the public emergency medical service focus group participants, an expansion of competencies was also favored, but in terms of the legal scope of action. There was consensus in both focus groups that the increased use of emergency services is attributable to the insufficient health literacy of the population. This challenge could, from the participants' viewpoint, be mitigated, on the one hand, by proactive actions from the professionals in the outpatient care sector, and on the other hand, through measures to enhance health literacy among the population. In conclusion, it can be stated that addressing climate-related challenges is a societal task. Therefore, the participatory involvement of all stakeholders in the healthcare system is essential for building resilient care structures.

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NURSING NEXT LEVEL – DEPLOYMENT POTENTIALS OF FREELANCE NURSES IN INTEGRATED CARE MODELS USING THE EXAMPLE OF THE AUSTRIAN DIABETES STRATEGY

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Date of the defense: 24.04.2024

Keywords: Integrated care; Diabetes mellitus; Diabetes care; Nursing; Role of nurses

Introduction: While nurses in Australia and Great Britain have been taking on coordinating roles within integrated care models for diabetes mellitus for decades, an equivalent implementation by nursing experts in Austria has been overlooked so far. Although the number of freelance nurses has increased tenfold in the last three years, this human resource has not been considered by the relevant stakeholders, despite numerous challenges in the treatment of diabetes mellitus, such as increasing prevalence of the disease. The aims of this work are to present the establishment of freelance nursing staff in integrated care models for diabetes mellitus as practically as possible and to identify concrete application potential.
Methods: To achieve this, a scoping review was conducted to provide an overview of the role nursing staff already play in international comparisons. To identify the application potential for Austria, a case example was created, which was discussed in expert interviews. This qualitative survey was evaluated using the summarizing content analysis method by Mayring. As part of the scoping review, eight studies were included and analyzed in detail. Based on Mayring's analysis, three main categories and twelve subcategories were formed, which include relevant conclusions, for example, on implementation strategy or remuneration.
Results: The findings from this scoping review indicate that nurses are primarily involved in case coordination and patient education. A comparison with Austrian professional law for nursing staff shows that the identified tasks could also be implemented by Austrian nurses.
Discussion: The results of the qualitative survey suggest that supply gaps in integrated diabetes care models in Austria could be reduced by (freelance) nursing staff. It is therefore necessary to create national structures, such as the definition of a catalog of nursing services within the framework of integrated care models, including the possibility of billing with the social insurance providers and the definition of minimum qualifications in the sense of quality assurance.

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LIVING WITH TYPE 1 DIABETES IN SCHOOL – DIABETES CARE IN PRIMARY SCHOOLS IN VORARLBERG FROM THE PARENTS' PERSPECTIVE

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Date of the defense: 04.09.2023

Keywords: Type 1 diabetes; Children; Primary school; Care; Parents

Introduction: The school setting is an essential part of the care for children with type-1 diabetes. Due to the increasing incidence and prevalence of children with type-1 diabetes, and the fact that children spend a significant portion of their waking hours at school, schools are increasingly faced with the challenge of caring for children with diabetes. The aim of this study is to describe the care of children with type-1 diabetes in primary schools in Vorarlberg from the parents' perspective. Another aim is to explore what parents wish for in terms of safe care for their children in the school setting. The following research questions were posed: *How do parents describe the care of their primary school children with type-1 diabetes in everyday school life in Vorarlberg? What do parents of primary school children with type-1 diabetes wish for their children‘s care at primary school?*

Methods: For this qualitative study, six problem-centered interviews were conducted with parents of primary school children with type-1 diabetes in Vorarlberg. Data analysis was carried out using qualitative content analysis according to Kuckartz (2018) and computer-assisted using MAXQDA 2020 software. Data analysis involved forming deductive and inductive main and subcategories.

Results: Parents described various experiences, as there is currently no structured diabetes care in Vorarlberg. In particular, the process of enrolling or returning to school after diagnosis was challenging and raised safety concerns among parents. With increasing routine, most parents felt more confident about the safety of their children at school, mainly due to the commitment of the class teachers and the children's self-care. Parents expressed a desire for support from caregivers for diabetes care, automatic diabetes education for teachers, understanding from teachers, and a contact point within the region.

Discussion: School-based care faces challenges due to a lack of standardized policies and reliance on the goodwill of teachers. Based on the findings of this study, policymakers can develop interventions to improve care for children with type-1 diabetes and other chronic conditions.

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INTENSIVE MEDICAL CARE FOR OLDER PATIENTS (≥70 YEARS) WITH COVID-19 IN EUROPEAN BISMARCK SYSTEMS COMPARED TO BEVERIDGE SYSTEMS

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Date of the defense: 29.11.2021

Keywords: Health systems; Mortality; Frailty; Kidney replacement therapy; COVID-19; Treatment limitations

Introduction: Based on historical developments and organizational considerations, two healthcare systems can be distinguished in Europe: the tax-financed Beveridge system and the social insurance-based Bismarck system. The aim of this study was to investigate possible differences in the admission characteristics, management, and mortality of elderly (≥ 70 years) patients treated in an intensive care unit due to COVID-19 between the two systems.
Methods: A total of 2,406 patients were included in this analysis and assigned to either a Beveridge system (n = 886) or a Bismarck system (n = 1,520). Frailty was assessed using the Clinical Frailty Scale (CFS). Adjusted odds ratios (aOR) were calculated using the generalized estimating equation (GEE). Adjustments were made for patient-specific variables, organ support, and health economic data. The primary endpoint was 30-day mortality.
Results: No statistical difference was found between the Bismarck and Beveridge systems in the rate of patients classified as frail (17% versus 14%; p = 0.09). The other admission characteristics also showed no clinically relevant differences, although the mean SOFA score was higher on admission in the Bismarck systems (6 ± 3 versus 5 ± 3; p = 0.002). The use of renal replacement therapies was more common in the Bismarck systems than in the Beveridge system (17% versus 10%; aOR 0.47; 95% CI 0.32 - 0.71; p < 0.001). The frequency of treatment goal limitations (DNE and/or treatment withdrawal) was not statistically significantly different between Bismarck and Beveridge systems (40% versus 39%; aOR 0.93; 95% CI 0.67 - 1.29; p = 0.66). The primary endpoint, mortality at 30 days, showed no difference between Bismarck and Beveridge systems (47% versus 50%; aOR 1.07; 95% CI 0.82 - 1.40; p = 0.63).
Discussion: There was no evidence of clinically relevant differences in admission characteristics between the Bismarck and Beveridge systems. With regard to intensive care management, there was evidence of more frequent use of renal replacement procedures in the Bismarck system compared to the Beveridge system. However, the frequency of treatment goal limitations in the patients included in this study did not differ between the two healthcare systems. Finally, there was no evidence of differences between the Bismarck and Beveridge systems in terms of mortality. The extent to which this broad parity of healthcare systems regarding intensive care for elderly COVID-19 patients is specific to critical care or indicative of broad convergence between the two systems remains unclear.

PHCC V - Health promotion, health protection and disease prevention

HEALTH SELF-MANAGEMENT AND HEALTH-PROMOTING LEADERSHIP – ASSOCIATION WITH THE HEALTH OF CAREGIVERS

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Co-Supervisor: Tim Johansson

Date of the defense: 19.07.2021

Keywords: Health-promoting leadership; Health self-management; Health; Nurses

Introduction: The health of nurses is becoming increasingly relevant, firstly due to its importance for maintaining a functional healthcare system, and secondly due to the high direct and indirect costs associated with absenteeism among healthcare workers. Therefore, maintaining the health of nurses significantly contributes to alleviating the burden on the healthcare system. The aim of this study is to explore the association between 1) a health-promoting management style and 2) health-promoting self-management with the mental and physical health of nurses.
Methods: For the outcomes and the main independent variables, standardized questionnaires were used: the Health-Oriented Leadership Questionnaire and the 12-item Short Form Health Survey (SF-12), respectively. With the collected data, a multiple linear regression was performed using IBM SPSS Statistics Version 27, and
.
Results: The results show that a health-promoting leadership style is significantly associated with the mental health of nurses, and health-promoting self-management is significantly associated with the physical health of nurses.
Discussion: Both, a health-promoting management style and health-promoting self-management influence the health of nurses and should therefore be considered in measures aimed at promoting their health.

CAUSAL RELATIONSHIP BETWEEN PERIODONTAL DISEASES AND CHRONIC OBSTRUCTIVE LUNG DISEASE (COPD): A SYSTEMATIC REVIEW OF MENDELIAN RANDOMIZATION STUDIES

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Date of the defense: 02.12.2025

Keywords: Chronic obstructive pulmonary disease, COPD, Mendelian randomization, Periodontal disease, Periodontitis

Introduction: Periodontal diseases and chronic obstructive pulmonary disease (COPD) are among the most common chronic inflammatory diseases worldwide and contribute significantly to the global burden of disease. Epidemiological studies particularly suggest an association between periodontitis and COPD. However, whether this relationship is causal or influenced by confounders remains unclear. Mendelian Randomization (MR) enables the investigation of causality using genetic instrumental variables, minimizing confounding and reverse causality.
Objectives: This systematic review examines the potential causal relationship between periodontal diseases and COPD based on existing bidirectional MR studies. Additionally, the methodological quality, validity and strength of evidence of the included studies were assessed.
Methods: A systematic literature search was conducted in PubMed, the Cochrane Library and Web of Science. Included were MR studies that investigated the bidirectional relationship between periodontal diseases and COPD. Study quality, validity and risk of bias were assessed using the criteria from Davies, Holmes and Davey Smith (2018) and the strength of evidence was evaluated according to Markozannes et al. (2022).
Results: Three bidirectional MR studies were included in the analysis. One study reported a significant causal relationship from periodontitis to COPD, while another provided suggestive evidence. In the opposite direction, suggestive evidence for a causal relationship was also found. One of the studies reported no significant results in either direction. The methodological quality and validity of the studies ranged from 9, 12 and 14 out of a maximum of 19 points. The strength of evidence ranged from “insufficient” to “probable”.
Conclusion: Overall, the results from the studies suggest a causal relationship between periodontitis and the risk of developing COPD and vice versa. However, due to methodological limitations, these results should be interpreted with caution. Further MR studies with larger sample sizes, standardized definitions and validated instrumental variables are needed to enable robust conclusions. The study highlights the importance of interdisciplinary care concepts between pulmonology and dentistry, as well as adapted prevention strategies that address both diseases.

EMPOWERMENT AND INTERPROFESSIONAL COLLABORATION IN THE HEALTH PROMOTION CENTER OF MURSKA SOBOTA: QUALITATIVE ANALYSIS TO DERIVE RECOMMENDATIONS FOR AUSTRIA

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Co-Supervisor: Irmela Gnass
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Date of defense: 02.12.2024

Keywords: Health promotion; Health promotion centre; Prevention; Non-communicable diseases; Primary care; Interprofessional collaboration

Introduction: Non-communicable diseases (NCDs) are responsible for two-thirds of premature deaths in Europe. Reducing risk factors for NCDs through health promotion and prevention services can alleviate the burden on communities and health systems. Health Promotion Centers (HPCs) have been established in Slovenia to address risk

factors for NCDs through a multidisciplinary primary care approach. This study aims to understand how healthcare professionals (HPs) experience the implementation of health promotion and NCD prevention programs within intra- and interprofessional collaboration at the HPC Murska Sobota.
Methods: Two group discussions were conducted at the HPC Murska Sobota following the principles of cross-language qualitative research, with the assistance of an interpreter experienced in research. The collected data was transcribed, semantically translated, and subjected to qualitative content analysis.
Results: A total of eleven HPs from the professional groups of dietetics, nursing, kinesiology, physiotherapy, and psychology participated in the group discussions. The empowerment of individuals begins with building a relationship with the client and is organized through awareness-raising activities aimed at fostering self-determination with a holistic approach. Communities are empowered for the prevention of NCDs, and health equity is targeted through cooperation with communities and local institutions, as well as through advertising efforts. The HPs emphasize reflexivity and continuous development, highlighting the importance of intra- and interprofessional collaboration for health promotion and NCD prevention. In team settings, there is a focus on each professional's expertise, while understanding the connections between the individual disciplines is equally important.
Discussion: The HPs at HPC Murska Sobota experience the implementation of health promotion and NCD prevention programs as empowering individuals and communities toward self-determination. Intra- and interprofessional cooperation in the implementation of these programs is seen as foundational to a holistic approach.

HEALTH LITERACY OF CARE STAFF: UNDERSTANDING AND EXPERIENCES IN A LONG-TERM CARE FACILITY IN BURGENLAND

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Date of the defense: 23.04.2024

Keywords: Health literacy; Nursing home; Nurses

Introduction: Demographic developments in Austria are leading to an aging population and an increasing demand for care services. The health literacy of nursing staff is becoming increasingly important in order to improve the quality of care and enhance the efficiency of the healthcare system. Health literacy is not only important for individual well-being but also for the efficiency and effectiveness of the healthcare system and the health of the population as a whole. In particular, health literacy plays a critical role in the care sector, as it directly influences the quality of care and the well-being of those receiving care. Nurses with a high level of health literacy can convey medical information clearly, promote preventive measures, and communicate effectively with patients. This is especially crucial in long-term care, where nurses frequently deal with highly complex medical conditions. Therefore, it is essential that

nursing staff are sensitized to and trained in health literacy. Despite recognizing the importance of health literacy in the care sector, there is a research gap in Austria, particularly regarding care workers in long-term care facilities. The aim of this study is to explore nursing professionals' understanding and experiences of health literacy in a long-term care facility through guided interviews. Additionally, the research seeks to identify challenges in applying health literacy in daily practice. The results aim to illuminate the prevailing understanding of health literacy in nursing and identify potential deficiencies. Subsequently, the findings will be used to organize targeted measures to enhance health literacy among nursing professionals.
Methods: A qualitative design was chosen. Eight expert interviews were conducted with individuals working in a long-term care facility to collect data. A guideline was used to stimulate discussion and obtain subjective views on the topic. The data were evaluated using Mayring's summarizing content analysis.
Results: Through content analysis, four main categories and nine subcategories were identified, providing insights into the understanding and role of health literacy among nursing professionals. The study also examined experiences in applying health literacy, considering both the nursing staff and the residents. Personal, organizational, and systemic barriers were identified. Finally, opportunities and possibilities for promoting health literacy were discussed, particularly concerning education, training, and professional development.
Discussion: The study revealed that nursing staff find it difficult to draw on their own health literacy in their daily work. In some cases, there is a lack of understanding of health literacy. Nevertheless, health literacy is considered very important. Several challenges in applying health literacy were described. These challenges can be addressed through targeted measures that promote health literacy among caregivers.

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BRIDGING GAPS IN PREVENTIVE CARE: A SCOPING REVIEW OF CERVICAL CANCER SCREENING AMONG MIGRANT WOMEN

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Co-Supervisor: Simon Krutter

Date of the defense: 08.04.2025

Keywords: Cervical cancer screening; Migrant women; Public health; Health disparities; Knowledge; Attitudes; Practices

Introduction: Cervical cancer is one of the most preventable cancers, yet migrant women are less likely to participate in early detection programs, such as Pap smear screening. Barriers including linguistic, cultural, and systemic challenges contribute to persistent health disparities. This scoping review aims to explore factors influencing

the knowledge, attitudes, and practices (KAP) of migrant women regarding cervical cancer screening. It identifies barriers and facilitators to inform the development of effective and culturally sensitive strategies.
Methods: A systematic literature search was conducted in PubMed/ MEDLINE, CINAHL, Scopus, and the Cochrane Library. 32 Studies focusing on migrant women's engagement in cervical cancer screening in European countries and globally were included. Data were analyzed thematically to identify key patterns and research gaps.
Results: Common barriers included language difficulties, limited health literacy, cultural norms, and restricted access to female healthcare providers. Facilitators included longer duration of residency, targeted information campaigns, and regular gynecological visits.
Discussion: Increasing participation in screening programs requires greater cultural sensitivity and improved access to healthcare resources. Future research should evaluate the effectiveness of tailored interventions in addressing long-standing health disparities.

BEATING THE HEAT: A SCOPING REVIEW OF ADAPTATION STRATEGIES FOR OLDER ADULTS DURING PHYSICAL ACTIVITY

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Date of defense: 01.12.2025

Keywords: Adaptation; Physiological; Physical Therapy; Temperate Climate; Physical Activity; Thermoregulation; Older Adults; Hot Temperature

Introduction: Rising temperatures in temperate regions, coupled with rapid population ageing is increasingly endangering the ability to maintain health-promoting physical activity (PA) levels in older adults (1;2). Physiotherapists and healthcare providers therefore need integrated, evidence-based guidance on heat-adaptation measures for this population (3).
Method: A Joanna Briggs Institute (JBI) - aligned scoping review was pre-registered on the Open Science Framework (DOI 10.17605/OSF.IO/25BUE) and reported with PRISMA-ScR-guidance. MEDLINE/PubMed, Web of Science and Google Scholar were searched for peer-reviewed English/German articles (2015 - 2025). After deduplication, two reviewers independently screened 979 titles/abstracts and 18 full texts against PCC-based criteria. Data extraction and JBI critical appraisal were completed by one reviewer. Findings were charted into five pre-defined strategy domains and synthesised narratively.
Results: 12 studies satisfied all criteria (9 primary, 3 syntheses). Evidence is dominated by short laboratory trials in Canada, the UK and Japan with healthy men aged 50-73 years; field data and frail-elderly cohorts are absent. Reported effective counter-measures included: Behavioural (BEH) cold-fluid ingestion during scheduled

work-rest cycles; prescribed Threshold Limit Value (TLV) work-rest ratios (3 : 1 or 1 : 1) as well as fan-jacket cooling over a wetted shirt; Environmental (ENV) high-velocity airflow, climate-controlled venues and shade provision; Physiological (PHY) 4-12-day exercise or warm-water acclimation blocks and post-exercise whey-protein + glucose drinks; Institutional (INS) and Social (SOC) only expert opinion on supervision, transport support, cultural tailoring and buddy systems.

Discussion: Simple, low-cost strategies can meaningfully improve heat tolerance in adults over fifty, but current knowledge is based on small-scale, male-dominated laboratory research. While cautious optimism is warranted for interim guidance, robust field trials (setting gap) that oversample the oldest adults (age gap), women (gender gap) and those with complex health needs are urgently needed, as are rigorous tests of institutional and social delivery models (domain gap).

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GENERAL HEALTH LITERACY OF HEALTH PROFESSION MEMBERS - A SECONDARY DATA ANALYSIS OF THE HLS19-AT SURVEY

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Date of the defense: 04.09.2023

Keywords: Health professionals; General health literacy

Introduction: The Sustainable Development Goals (SDGs) aim to promote the healthy life and well-being of the world's population by 2030. These goals are to be achieved through targeted health promotion, prevention, and disease management. Within the framework of the Shanghai Declaration, the World Health Organization (WHO) has defined health literacy as an important determinant. Cross-sectional studies already conducted in Austria have shown a worrying level of health literacy. In order to improve this, employees in the health sector play a key role. They function as multipliers of their own health literacy. However, the level of health literacy among health professionals has not yet been considered in scientific research.
Methods: For that reason, a secondary data analysis of the HLS19-AT was conducted as part of this master´s thesis. Among other things, correlation and linear regression analysis were used to identify deficits in health literacy within this specific subgroup. The following research questions formed the basis of the analysis:

- How high is the health literacy level of persons with education or studies in the health sector?
- How does this differ from the health literacy of the Austrian general population?

Results: The analyses revealed a high proportion (34.3%) of persons with education or studies in the health sector had inadequate or problematic health literacy. Nearly 40% achieved a sufficient level, and 25.7% had a very good level of health literacy. No differences in general health literacy were found between people with or without education/ studies in the health sector. Neither Pearson´s correlation analysis ($r = 0.001$, CI 95%, $p = 0.943$) nor linear regression ($R^2 = 0.000$, CI 95%) showed a correlation between the two variables. The Mann-Whitney U-test showed no significant differences in general health literacy between the two groups.

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THE NECESSITY AND IMPLEMENTATION OF HEAT PROTECTION PLANS IN NURSING HOMES IN BERLIN – A CROSS-SECTIONAL STUDY

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Date of the defense: 23.09.2025

Keywords: Heat protection plans, Nursing homes, Climate change, Heat, Health protection, Residents, Prevention, Berlin

Introduction: The frequency and intensity of extreme heat and its effects have increased worldwide (WHO, 2024). Elderly people requiring care living in urban areas are exposed to increased heat-related health risks due to the heat island effect, lack of vegetation and disease-related or therapy-related factors (Fastl et al., 2024). The WHO proposes the introduction of heat protection plans to prevent or mitigate the effects of heat. In Germany, a National Heat Protection Plan For Health (2023) and the Nationwide Recommendation For The Use Of Heat Protection Plans In Nursing Homes (2024) were introduced. Both offer nursing homes guidance on the implementation of heat protection measures. So far, there are no mandatory and standardized heat protection plans for nursing homes in Berlin.
Methods: The necessity of heat protection plans in care homes is analyzed with the help of problem-centered expert interviews. The research examines how existing heat protection plans work and how specific heat protection plans in nursing homes can be implemented. The aim is to gain insights into how to improve heat protection in nursing homes in Berlin. Interviews were conducted with representatives from nursing homes, networks of organizations and associations from the entire healthcare sector and public administration. The data was evaluated using Mayring's content-structuring content analysis (Mayring, 2015).
Results: The experts consistently emphasize the high relevance of heat protection measures in care homes. The Federal Ministry of Health's heat protection plan for health only plays a guiding role here. Despite the wide range of recommendations and a variety of materials, measures have so far tended to be implemented selectively and on a small scale. There is a consensus that heat protection should become mandatory, but that heat protection plans should be developed and implemented individually in the facilities in consultation with the relevant stakeholders including experts, people residing in nursing homes and other relevant groups. The creation of suitable framework conditions for implementation, such as training and financial resources, are of great importance.
Discussion: Nursing homes need facility-specific heat protection concepts that are practical, legally secure and affordable. Implementation must be interdisciplinary and participatory. The results provide an overview of the current heat protection in nursing homes in Berlin and show the structural, organizational and ethical challenges. It also provides approaches for further research and for politics and decision makers.

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ARTIFICIAL INTELLIGENCE IN PAEDIATRICS: A GUIDE FOR PARENTAL DECISIONS – AN ANALYSIS WITHIN THE FRAMEWORK OF A SCOPING REVIEW

Lisa Enzlmüller

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Co-Supervisor: Bernhard Schwartz

Date of defense: 22.09.2025

Keywords: Artificial intelligence; Chatbots; Parents; Health decisions; Paediatrics

Introduction: As artificially intelligent systems become more prevalent, chatbots are emerging as valuable digital tools for providing information and facilitating decision-making in healthcare. Parents, in particular, use these technologies in paediatrics to obtain reliable information about symptoms, treatment options, and the need for medical care (Sisk, Antes & DuBois, 2020). However, it is still unclear which factors influence parents' acceptance of, and their actual use of, these chatbots. This master's thesis therefore addresses the question of which factors, both positive and negative, are described in the scientific literature with regard to parents' use of such systems in health-related decisions for their children.

Methods: A scoping review was conducted in accordance with the PRISMA-ScR guidelines to answer the research question. A systematic literature search was conducted in PubMed/MEDLINE, CINAHL, the Cochrane Library and LIVIVO, as well as relevant grey literature sources. The berry picking approach was also employed to identify additional suitable sources. Studies were selected based on previously defined inclusion and exclusion criteria. The content of the included literature was evaluated using thematic analysis.

Results: The results show that trust in technology, user-friendliness, and digital health literacy are key facilitating factors. However, reservations were also identified regarding data protection, technical reliability, and the role of chatbots in the medical decision-making process. The included studies demonstrate significant heterogeneity in terms of methodology and results presentation. Overall, the field of research is in its infancy.

Discussion: This paper provides a systematic overview of the current state of knowledge and derives initial implications for research and practice. Despite the limited evidence available, the results provide a sound basis for the further development of AI-supported applications in the context of parental health decisions. Future studies should particularly examine the effectiveness, safety, and integration of these applications into care contexts.

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PARTICIPATORY DEVELOPMENT OF VIOLENCE PROTECTION CONCEPTS IN FACILITIES FOR LONG-TERM INPATIENT CARE – A SCOPING REVIEW

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Supervisor: Florian Fischer
Co-Supervisor: Jürgen Osterbrink

Date of defense: 02.12.2024

Keywords: Violence protection concepts; Violence prevention; Long-term care; Participation; Public health

Introduction: The demographic development in Germany is leading to a significant increase in the number of people requiring long-term care, which increasingly highlights the importance of stationary long-term care facilities. With the rising number of older, care-dependent individuals, the significance of violence prevention measures in these facilities grows, as both residents and healthcare professionals are regularly exposed to violence. This study explores the current state of research on violence protection concepts in stationary long-term care facilities and examines how such concepts can be successfully developed and implemented. It analyzes best practices and challenges in implementation and identifies existing research gaps.
Methods: A scoping review was conducted involving a systematic literature search in the databases PubMed and Web of Science, as well as through the search engine Google Scholar and manual searches. From an initial 610 hits, 12 publications were ultimately included in the analysis based on predefined inclusion and exclusion criteria. All types of evidence published in English and German between 2010 and 2024 were considered.
Results: The analysis of 12 relevant studies identifies five key categories of best practices in developing violence protection concepts: accountability in the violence protection process, organizational structures and management processes, procedural measures, support services, and external reporting mechanisms. Challenges highlighted include structural and legal conditions, insufficient participation, practical uncertainties, and a shortage of qualified professionals. Research gaps are identified, particularly regarding the effectiveness of protection measures, implementation barriers, gender-sensitive aspects, the development of uniform guidelines and terminologies, and the investigation of participation in concept development.
Discussion: The results of this study demonstrate how violence protection concepts can be sustainably implemented in long-term care facilities. The responsibility for these concepts lies with the facilities themselves, but political support is also crucial. Given the relatively new field of research on violence protection concepts in the care sector, further research is needed, especially studies with higher levels of evidence. The findings provide a foundation for future research projects or the development of a unified guideline for violence protection concepts.

A QUALITATIVE STUDY ON THE ACCEPTANCE AND PERCEIVED BENEFITS OF MOBILE APPLICATIONS FOR DIABETES SELF-MANAGEMENT IN OUTPATIENT CARE AMONG INDIVIDUALS AGED 55 AND OLDER

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Date of defense: 23.09.2025

Keywords: Mobile applications; Diabetes mellitus; Self-management; UTAUT model; Acceptance; Older adults

Introduction: As artificially intelligent systems become more prevalent, chatbots are emerging as valuable

Introduction: Diabetes mellitus represents one of the greatest global challenges to public health. Demographic change is leading to a shift in the age structure, with an increasing proportion of older individuals in the population (Weuthen, 2019). According to Statistik Austria (2024), 19.8% of Austria's population are aged over 55 as of 2024. The prevalence of chronic diseases is closely associated with increasing age. The health survey conducted by the Robert Koch Institute (RKI) in Germany revealed that 50% of the population suffer from at least one chronic condition (RKI, 2020). The 21st century is characterised by significant societal and technological transformations that affect almost every area of life. Globally, 2.7 billion people already use a smartphone (Fleming et al., 2020). A study by Hood et al. (2016) indicated that 0.5 billion people are already using mobile applications to support dietary habits, physical activity, and the self-management of chronic non-communicable diseases such as diabetes mellitus and hypertension. Research into digital programmes and mobile apps targeting blood glucose control, medication adherence, weight reduction, and quality of life has yielded promising results. These studies have demonstrated improvements in long-term blood glucose levels (HbA1c) and better self-management through the use of mobile applications (Birhanu et al., 2024; Cai et al., 2020; Eberle et al., 2021; El-Gayar et al., 2021; Fleming et al., 2020; Hou et al., 2016; Jahan et al., 2024). Mobile applications thus offer significant potential to support diabetes self-management. However, older patients often encounter barriers in adopting and accepting these digital health tools. This qualitative study explores the acceptance and perceived benefits of mobile applications for diabetes self-management among patients aged over 55 in outpatient care settings in Carinthia, Austria. Additionally, the study aims to derive recommendations for user-friendly navigation and visual presentation within mobile applications. To what extent and through which influencing factors do patients aged over 55 in outpatient settings (region of Carinthia) use and accept mobile applications for diabetes self-management? The primary objective of this study is to identify usage behaviour and acceptance levels among patients aged over 55 who use mobile applications for diabetes management. Secondarily, through the analysis and transcription of semi-structured interviews, the study seeks to derive practical design recommendations regarding app navigation, icon and font size, and visual presentation for future mobile health app development.

Methods: A qualitative research design was chosen to conduct this study. Semi-structured interviews were conducted with patients over the age of 55 who use mobile applications for diabetes self-monitoring. Participants were asked about their usage patterns and acceptance of mobile apps as a treatment strategy for type 1 and type 2 diabetes mellitus. The data were analysed using qualitative content analysis following the frameworks of Mayring and Kuckartz. The Unified Theory of Acceptance and Use of Technology (UTAUT) served as the theoretical model to explore factors influencing technology acceptance and use.

Results: Participants generally perceived mobile applications as helpful and supportive in managing their diabetes. The ease of documenting blood glucose values, reminder functions, and visual presentation of historical data were particularly valued. Reported challenges included font size, the complexity of data input, and initial insecurity regarding app operation. Social support and regular training were highlighted as important facilitators.

Discussion: Mobile applications offer valuable tools to support self-management and self-care for older adults with diabetes mellitus. However, successful implementation requires that age-related factors be taken into account, including interface design and the integration of needs-based functions and support structures. User-centred design and accompanying training programmes can improve acceptance and sustained use of mobile apps, ultimately enhancing health literacy and quality of life.

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HEALTH LITERACY OF JUVENILE STROKE PATIENTS AT THE UNIVERSITY HOSPITAL TULLN – AN EXPLORATIVE CROSS-SECTIONAL STUDY

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Date of the defense: 07.04.2025

Keywords: Health literacy; Health promotion; Juvenile stroke; Prevention; Self-management; Stroke in young; Stroke management

Introduction: Stroke, characterized by a cerebral circulatory disorder, is one of the leading causes of death and disability in Europe. Juvenile stroke, affecting individuals aged 18 to 55, impacts up to 4,000 people annually in Austria and is often influenced by modifiable lifestyle factors. Health literacy, defined as the ability to understand and apply health information, plays a crucial role in preventing and managing this condition, reintegration into the workforce, and promoting social participation. This study aimed to assess the level of health literacy among juvenile stroke patients and analyze the impact of sociodemographic factors.

Methods: An exploratory cross-sectional study was conducted to assess the health literacy of 29 juvenile stroke patients at the University Hospital Tulln. Participants included individuals aged 18 to 55 who experienced a stroke after 2018 and were treated either as inpatients or outpatients. Health literacy was measured using the

Health Literacy Questionnaire (HLQ), while sociodemographic data, stroke type, and physical impairments (modified Rankin Scale) were also collected. Data analysis included descriptive statistics and regression analyses using IBM SPSS Statistics 29.
Results: Significant differences were observed between genders, educational levels, marital status, and type of stroke. The lowest mean scores were recorded in the dimensions of “Appraisal of Health Information” (Mean = 2.83; SD = 0.61) and “Navigating the Healthcare System” (Mean = 3.68; SD = 0.63). Among these, navigating the healthcare system was identified as a notable weakness for many groups examined. Sociodemographic factors such as age, occupation, and living situation indicate possible associations with the ability to critically appraise ($p = 0.018$; $R^2 = 0.817$) and understand health information ($p = 0.045$; $R^2 = 0.771$).
Discussion: These findings highlight the importance of individual and structural factors in shaping health literacy. Improved communication within the healthcare system could enhance the health literacy of this group while positively influencing their social participation.

CHALLENGES IN THE IMPLEMENTATION OF MASS DRUG ADMINISTRATION PROGRAMS WITH IVERMECTIN FOR THE CONTROL AND ELIMINATION OF ONCHOCERCIASIS: A NARRATIVE REVIEW

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Date of the defense: 08.04.2025

Keywords: Mass drug administration; Global public health; Neglected tropical diseases; Onchocerciasis; Social ecological model; WHO building blocks framework

Introduction: The filarial nematode Onchocerca volvulus causes onchocerciasis, a neglected tropical disease (NTD) that can ultimately lead to blindness. Although ivermectin, a potent antifilarial drug, was introduced in 1991 and has been used successfully in mass drug administration (MDA) programs, complex challenges have prevented the elimination of onchocerciasis, a goal set by WHO in 2009. A comprehensive understanding of these challenges could help program managers and policymakers better target their efforts to control and eliminate onchocerciasis. The aim of this narrative review is to elucidate the challenges of MDA programs with ivermectin to control or eliminate onchocerciasis in endemic countries, as described in the literature.
Methods: MEDLINE (Ovid), Web of Science Core Collection, CINAHL (EBSCOhost), and Cochrane Library were searched. Grey literature was searched using Google Scholar. All available primary and grey literature published in English since January 1991 was included. The term “challenge” was conceptualized using the WHO Building Blocks Framework and the Social Ecologic Model to describe the health system

perspective and the patient/participant perspective. Data were analyzed descriptively and presented in tables, graphs, and narrative form.
Results and Discussion: Challenges were found primarily within the Service Delivery category of the WHO Building Blocks Framework and within the Individual Influences category of the SEM. Conceptualizing challenges using these two frameworks has potential for future projects. It could help policymakers better understand challenges and develop more tailored solutions for similar public health interventions.

DIGITAL HEALTH TECHNOLOGIES FOR SELF-IDENTIFICATION OF THE RISK OF PERINATAL MENTAL ILLNESS: A SYSTEMATIC REVIEW

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Co-Supervisor: Ziad El-Khatib

Date of the defense: 08.04.2025

Keywords: Digital health technology; Mental illness; Perinatal; Self-identification

Introduction: Perinatal mental illnesses affect up to 20% of mothers and 10% of fathers worldwide, posing risks to both parents and infants. Early detection is crucial to improve outcomes, yet barriers such as stigma and limited access to care persist. Digital health technologies may facilitate self-identification, offering a promising alternative for the early detection of these conditions.
Aim: The aim of this systematic review was to assess the effectiveness and safety as primary outcomes, as well as implementation considerations of digital health technologies for self-identification the risk of perinatal mental illness, with a focus on social, organizational, and legal aspects as secondary outcomes.
Methods: Following a systematic review approach, a systematic literature search on this topic was conducted using a pre-formulated search strategy in the online databases PubMed, CINHAL, Web of Science, PsycINFO and Cochrane Library to identify studies between 2014 and 2024. Data extraction and quality assessment were performed using appropriate critical appraisal tools.
Results: Six studies and one review were included, covering mobile applications, web platforms, and text-based interventions. However, no generalizable statements could be made about the primary clinical outcomes related to effectiveness and safety, as one study of limited quality was included in this review. The non-clinical secondary outcomes showed good acceptance and usability, also the study data were highly heterogeneous and contained some limitations. Regarding the organizational and legal aspects, no relevant literature could be found.
Discussion: Digital self-identification tools for assessing the risk of perinatal mental illness show potential to overcome barriers and improve mental health and accessibility. However, further high-quality research is required to prove their

effectiveness and safety, as well as to establish regulatory frameworks and organizational pathways.

REAL-TIME DOSIMETRY IN INTERVENTIONAL ANGIOGRAPHY – SALES GIMMIC OR IMPROVEMENT IN RADIATION PROTECTION? – AN EXPERIMENTAL STUDY AT THE UINR SALZBURG

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Date of defense: 01.12.2025

Keywords: Aspher; Dosimetry; Interventional radiology; Medically exposed personnel; Occupational safety; Teaching effect

Background: In interventional radiology, employees are exposed to increased occupational risks due to their proximity to the radiation source. Existing protective measures often leave areas of the body such as the head and extremities unprotected. Since conventional dosimeters do not provide real-time feedback, which makes it difficult to optimize protective measures, the introduction of real-time dosimeters offers an important improvement in practical radiation protection through immediate feedback.[1,2]

Method and aim: An experimental study with three measurement phases was chosen as the study design: baseline – blind (without feedback monitor), follow-up I – sighted (with feedback monitor), and a second follow-up blind phase (one year later) to evaluate behavioral change over two years. At the same time, an evaluation questionnaire was used to assess acceptance and subjective effects at the University Institute for Neuroradiology (UINR) in Salzburg. The evaluation was carried out using MS Excel and descriptive statistics. The recorded personal doses were set in relation to the respective total dose area product (DAP) and evaluated in a blind/visible/blind comparison. The study investigated whether wearing real-time dosimeters causes behavioral changes and whether a so-called “teaching effect” occurs.

Results: Analysis of dose measurements from 308 interventional angiographies showed a measurable reduction in the normalized personal dose (µSv/DAP) for interventionalists, radiology technologists, and anesthesiologists. A positive “teaching effect” led to a dose reduction in the viewing phase, which was partially maintained in the blind phase. The patient's total radiation exposure (DAP) remained unchanged. An analysis of 40 questionnaires confirms the system's high subjective acceptance. Users found real-time dosimetry helpful in developing a better sense of their radiation exposure, leading to concrete behavioral changes such as conscious distancing.

Discussion: These results show that visualizing radiation has a positive effect, especially for training purposes, and should be integrated into daily routine. Occupational health risks are reduced and staff are made more aware of radiation protection.

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THE UNDERSTANDING OF PROFESSIONAL HEALTH LITERACY AMONG TEACHERS IN GENERALIST NURSING EDUCATION

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Research Assistant: Karin Kaiser

Date of thesis presentation: 13.04.2026

Keywords: Professional health literacy; Nursing education; Teachers; Public health

Backround: Professional health literacy is considered a necessary condition for high-quality, patient-centred care. While the professional health literacy of nursing professionals is increasingly being studied (1), there is currently little knowledge about how teachers in generalist nursing education understand professional health literacy and perceive their educational mission in this context. This master's thesis addresses this research gap.

Method: The study follows a qualitative exploratory research design. To collect data, three guided focus group interviews were conducted with a total of 13 teachers from general nursing training programmes. The interviews were transcribed in full and evaluated using Mayring's qualitative content analysis (2). Categories were formed using a deductive-inductive approach. To ensure scientific quality, Mayring's quality criteria for qualitative research were considered (2).

Results: The results show a diverse and sometimes unclear understanding of the term professional health literacy. Teachers mainly associate it with specialist knowledge and aspects of maintaining good health and health-related behaviour. There is only a limited difference between this and general health literacy. The educational mission to promote professional health literacy is understood as part of nursing education, but is mainly implemented implicitly.

Conclusions: The results show that although professional health literacy is considered relevant in nursing education, it is only reflected in a limited way in theory and implemented systematically to a limited extent. The predominantly implicit promotion of health literacy carries the risk of inconsistent understanding and

objectives. This has implications for a clearer conceptual foundation, explicit curricular anchoring and the targeted qualification of teachers.

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MEASUREMENT OF GENERAL HEALTH LITERACY AMONG NURSING ASSISTANT TRAINEES

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Date of defense: 02.12.2024

Keywords: General health literacy; Nursing assistance level 2; Education

Introduction: The curriculum for nursing assistance education, level 2, includes learning content related to health literacy and its promotion. However, it was unclear what effects the education program has on the overall health literacy of the trainees, whether differences in progress become apparent, how this affects the trainees' health behaviors and self-assessed health status, and whether there are differences when compared to the Austrian population as a whole.

Methods: A cross-sectional survey was conducted using a self-administered online questionnaire based on the HLS19-Q12-AT to assess the general health literacy of trainees at a nursing school and its consequences. The total sample was divided into four groups based on year levels to quantify possible differences over the course of training. The data were then analyzed using quantitative methods.

Results: A non-significant trend was observed indicating that general health literacy is higher in the upper year groups. Correlations were found between general health literacy and the Body Mass Index (BMI), coping with chronic diseases, financial situation, perceived general health status, perceived restrictions in daily life due to health problems, and age.

Discussion: Based on the results, it is recommended that the curriculum be revised to include learning objectives that promote general health literacy, particularly in finding and evaluating health information, especially from digital sources. Further research is needed to explore health literacy and its development in nursing education.

STRUCTURAL BARRIERS AND ORGANIZATIONAL IMPROVEMENT APPROACHES IN HEALTHCARE FOR TRANSGENDER INDIVIDUALS IN AUSTRIA – A QUALITATIVE EMPIRICAL STUDY

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Co-Supervisor: Christine Dunger

Date of defense: 02.09.2024

Keywords: Transgender; Gender reassignment; Health; Barriers; Discrimination; Care; Healthcare

Introduction: Trans* individuals in Austria encounter structural and organizational barriers in the healthcare system that significantly complicate their transition. These include insufficient professional expertise, long waiting times, bureaucratic hurdles, regional differences in care, and discriminatory experiences. These factors increase the psychosocial burden on those affected and lead to gaps in care. The aim of this study was therefore to systematically record these experiences and derive concrete recommendations for improvement to ensure non-discriminatory and needs-based care.

Method: To answer the research questions, a qualitative approach with 14 guided interviews was chosen. The data was pseudonymized, transcribed and evaluated using qualitative content analysis according to Mayring (2023) in MAXQDA. The second research question was based on the WHO strategy People-Centred and Integrated Health Services (PCIHS), in particular “Strategy 1: Empowering and Engaging People and Communities,” served as a theoretical analytical framework that emphasizes the active participation of users in care and structural development.

Results: The findings show that insufficient qualification of specialists, a lack of coordination between care sectors and unclear responsibilities place considerable strain on the transition experience. At the same time, clear expectations were formulated, including designated contact persons, uniform nationwide standards, and mandatory training and continuing education for healthcare personnel.

Discussion: The results demonstrate that existing healthcare structures only provide limited treatment tailored to individual needs and create additional burdens for those affected. Improvements require targeted awareness-raising, clear responsibilities, and the removal of organizational barriers. Furthermore, additional research is needed to develop sustainable concepts for optimizing healthcare for trans* people.

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EFFECTS OF TRAINING IN "PFLEGEFACHASSISTENZ" ON THE SUBJECTIVELY EXPERIENCED HEALTH BEHAVOIUR OF TRAINEES – A QUALITATIVE DESCRIPTIVE STUDY

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Co-Supervisor: Nadja Nestler

Date of defense: 02.12.2024

Keywords: Health Behavior; Educational training; Pflegefachassistenz

Introduction: International surveys indicate that nursing students often exhibit suboptimal health behaviors, posing a significant risk for non-communicable chronic diseases, which could lead to higher healthcare costs. Additionally, the increasing shortage of personnel highlights the importance of focusing on the health behaviors of future nursing staff and the factors influencing them. Given the limited data available on the professional group of Pflegefachassistenz (PFA), new research opportunities emerge in this area. How does the educational training to become a PFA affect the subjectively perceived health behaviors of PFA students? How can the educational training to become a PFA be modified, from the students' perspective, to improve their health behaviors? The aim is to identify factors in the educational training that influence the subjectively perceived health behaviors and to determine what is needed to improve them.
Methods: Data collection was conducted through online focus groups as part of a qualitative descriptive design. Four groups consisting of second-year students from various institutions were surveyed, and the corresponding data were analyzed according to Kuckartz.
Results: The results show that educational training has various influences on the health behaviors of students. The students express that the primary cause of their risky behaviors is stress. The acquisition of knowledge is highlighted as a positive aspect. Several suggestions for improvement in enhancing health behavior within the educational setting were noted, encompassing both behavior-oriented and structural measures.
Discussion: Factors related to educational training that influence the health behaviors of students must be given attention. As future nursing staff, students play a crucial role in current and future patient care and the promotion and prevention of patient health. To promote positive health behaviors, students desire various adaptations in the way health is taught and emphasized within their nursing education.

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HEALTH LITERACY IN THE WORKPLACE OF EMPLOYEES OF THE AUSTRIAN HEALTH INSURANCE FUND (ÖGK). PRESENTATION OF ORGANIZATIONAL HEALTH LITERACY FROM THE PERSPECTIVE OF EMPLOYEES IN CUSTOMER SERVICE WITH CONTACT TO INSURED PERSONS. AN ONLINE QUESTIONNAIRE SURVEY

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Co-Supervisor: Hans-Joachim Hannich
Research assistant: Valentin Fischill-Neudeck

Date of the defense: 04.04.2022

Keywords: Organizational health literacy; Social insurance; ÖGK; Health literacy; Employee assessment

Introduction: The concept of the health-literate organization is intended to help individuals better manage external challenges related to personal health (Charoghchian Khorasani, Tavakoly Sany, Tehrani, Doosti, & Peyman, 2020). Organizations can contribute to making it easier for people within their structures to find, understand, and use health information (ÖPGK, 2019). The knowledge and participation of employees are essential for improving health literacy within an institution (Pelikan, Ganahl, & Röthlin, 2013). Since employees are given a central role in the implementation of these measures, the aim of this work is to present their perspective on various aspects of organizational health literacy at the ÖGK.

Methods: The survey of organizational health literacy at the ÖGK from the perspective of employees in customer service, who have direct contact with the insured, was conducted using an online questionnaire. The cross-sectional survey aimed to collect data on the evaluation, perception, implementation, and employees' own roles in relation to organizational health literacy for the first time.

Results: The results show that employees rate the organizational health literacy measures at the ÖGK as an institution (44.6%) and their own active implementation (54%), as well as their perception (54%) of these measures, as high in their areas of work. Particularly noteworthy is the high rating of the perceived benefit of one's own role in the context of organizational health literacy (77.2%). When analyzing factors that can affect the implementation of organizational health literacy by employees, it was found that training measures on organizational health literacy have a positive influence on the implementation of these measures.

Discussion: The results indicate that employees have a positive view of organizational health literacy at the ÖGK. Despite the good results, measures can still be optimized to further expand long-term success as part of health-competent social insurance. In particular, targeted training measures for employees on health literacy should be offered.

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EFFECTIVENESS, SAFETY, AND COST ANALYSIS OF MOBILE STROKE UNITS – A SYSTEMATIC REVIEW

Alicia Linsenboll

Supervisor: Tim Johansson
Co-Supervisor: Manela Glarcher

Date of defense: 02.09.2024

Keywords: Mobile Stroke Unit; Ischemic Stroke; Acute Stroke Care; Thrombolysis; Cost-effectiveness; Prehospital Care; Health Economics; Emergency Medical Service

Introduction: The acute care of stroke patients lies at the intersection of medical urgency and health economic efficiency. Given the globally increasing prevalence of strokes and their significant socioeconomic consequences, optimizing stroke care is paramount. Mobile Stroke Units (MSUs) represent an innovative intervention that enables immediate diagnosis and initiation of necessary therapy at the emergency site, potentially saving critical time.

Methods: This systematic review was conducted following the Cochrane Collaboration Handbook and PRISMA guidelines. A comprehensive search was performed in databases including Medline and The Cochrane Library, along with a grey literature search. Studies included in the review evaluated the effectiveness, safety, and economic impact of MSUs compared to standard care and telemedicine in the prehospital phase of ischemic stroke treatment. Inclusion criteria were defined using the PICO framework, focusing on patients with acute ischemic stroke, interventions involving MSUs, and outcomes related to safety, effectiveness, and costs.

Results: The review included various systematic reviews, meta-analyses, and economic evaluations. MSUs demonstrated a reduction in time to thrombolysis, improved functional outcomes as measured by the Modified Rankin Scale (mRS), and a lower incidence of symptomatic intracerebral hemorrhage. Economically, MSUs showed potential cost-effectiveness by reducing long-term disability and associated healthcare costs. However, high initial setup and operational costs remain significant barriers.

Discussion: MSUs improve timeliness and quality of stroke care, potentially translating into better clinical outcomes and cost savings. Despite financial

challenges, integrating MSUs into stroke care systems holds promise for improving patient outcomes and healthcare efficiency. Further research is recommended to solidify the economic benefits and develop sustainable funding models.

STRENGTHENING AWARENESS AND COMPETENCE OF THE POPULATION IN THE SETTING OF PRE-HOSPITAL STROKE MANAGEMENT THROUGH HEALTH EDUCATIONAL MEASURES IN EUROPE - A SCOPING REVIEW

Sophie Matuschitz

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Date of the defense: 04.12.2023

Keywords: Acute stroke; Awareness; Health literacy; Prehospital stroke management; Public health

Introduction: Acute stroke results from a disturbance in the blood supply to the brain. It manifests as sudden symptom onset, depending on the affected brain area. The quickest possible identification of stroke-associated symptoms is essential because the sooner emergency services are notified, the higher the chances of avoiding irreversible brain damage. Lack of awareness and health literacy among the public can lead to delays in prehospital stroke management. Therefore, improving health literacy is crucial. This study aims to identify evidence that improves public awareness and health literacy regarding prehospital stroke management in Europe. Additionally, we examine the modalities of delivery and the effectiveness of these interventions.
Methods: The research questions will be addressed through a scoping review. A systematic literature search will be conducted in the databases CINAHL, Cochrane Library, LIVIVO, PubMed, and Web of Science, supplemented by a manual search in various other sources. The study selection is based on predefined inclusion and exclusion criteria, using the PCC framework. The results of the included studies will be extracted and systematically presented.
Results: A total of 13 publications were identified in the systematic literature search. The study findings have been summarized according to content presentation, delivery modalities, and the evaluation of effectiveness. Most of the included publications used the FAST concept for health education content. Additionally, CPSS and individually developed interventions were employed. The delivery modalities included media campaigns, school-based programs, health education events, and a multimedia app. Effectiveness was evaluated using six outcome parameters: public awareness and competence, emergency call activation, onset-to-door time, admission to inpatient care, treatment with intravenous thrombolysis, and other relevant outcomes.
Discussion: The FAST concept showed considerable adaptability, though limitations remain in adressing visual dysfunctions and varying levels of symptom severity. The CPSS was used for content presentation in one study and supplemented with additional components. A critical issue is the lack of emphasis on the urgency of activating an emergency call. Individually developed interventions proved to be the

most comprehensive in terms of content presentation. Media campaigns dominated the delivery modalities, and individual measures differed in duration. Assessing characteristics concerning the target group could help align interventions with their specific needs. High effectiveness was observed during and shortly after the implementation period, and continuous repetition could strengthen this effect.

INTERVENTIONS TO PROMOT HEALTH LITERACY AMONG ADOLESCENTS IN AUSTRIA – A SCOPING REVIEW

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Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Kathrin Bogensberger

Date of the defense: 23.09.2025

Keywords: Digital health literacy, Early intervention, Health promotion, Adolescents, School programs

Introduction: Adolescents' health literacy is a key determinant of health-promoting behavior and long-term well-being (Sørensen et al., 2012). In an increasingly digital information landscape, young people face the challenge of critically evaluating and applying health information (Diviani et al., 2015). Despite its growing importance, there is limited data on the scope, effectiveness, and implementation of adolescent health literacy initiatives in Austria (Pelikan, Röthlin & Ganahl, 2013). Schools, as central environments in adolescents' lives, offer a promising setting for promoting this competence (Thaiss, 2023).
Methods: A scoping review was conducted to explore existing interventions. A systematic literature search was performed in PubMed and CINAHL, supplemented by manual searches and grey literature screening. The PCC framework (Population – Concept – Context) guided the selection of studies. Publications from the past ten years focusing on adolescents aged 13–18 and school-based interventions were included. Data were extracted manually using a structured table.
Results: The review identified a diverse range of school-based initiatives, including workshops, teaching materials, peer education programs, and national strategies. These interventions are increasingly integrated into everyday school life. However, they vary in terms of reach, quality, and sustainability. Notably, only a few explicitly address digital health literacy.
Discussion: Austria has developed a variety of approaches to promote adolescent health literacy, with encouraging progress in practice-oriented materials. Nonetheless, challenges remain regarding nationwide implementation, systemic integration, evaluation of effectiveness, and the targeted promotion of digital health literacy. The study recommends stronger structural integration, interdisciplinary collaboration, and the active involvement of adolescents in the design and implementation of future initiatives.

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HEALTHY SCHOOL SNACKS - CHALLENGES IN PRIMARY SCHOOLS FROM A PUBLIC HEALTH PERSPECTIVE

Christina Pratter

Supervisor: Katharina Lex
Co-Supervisor: Joachim von der Heide

Date of the defense: 05.04.2022

Keywords: Healthy school snack; Elementary school; Nutrition; Challenges; Children

Introduction: Unhealthy nutrition has a high impact on the development of young children and schoolchildren. In addition to potential physical effects such as obesity, the psychological consequences of stigmatization or discrimination should not be overlooked. Impairments in self-esteem, quality of life, as well as eating disorders and deficits in social skills, leading to problems at school, can have serious consequences for children. The goal is to collect and compare the perspectives of parents and primary educators regarding healthy school snacks and to identify difficulties in the theory-practice transfer to reduce or, ideally, eliminate them.
Methods: A systematic literature search was conducted in the PubMed and CINAHL databases, along with a review of the literature in the electronic journal library of Paracelsus Medical Private University. Additionally, 10 guided expert interviews were conducted with primary educators and parents.
Results: Parents and primary school teachers have different knowledge and expectations regarding healthy school snacks. Not all elementary schools have guidelines for school snacks, and when they do, these guidelines are often not followed by the school community. Challenges such as limited personnel and time resources, lack of communication between parents and educators, as well as the negative influence of advertising and social media were identified.
Discussion: One possible intervention approach is to provide healthy school snacks directly from the school. However, questions regarding financing, responsibility, and

organization would need to be clarified in advance. Furthermore, the primary challenge lies with parents who do not adhere to the school's guidelines. This issue would not be resolved even if the school provided snacks. The importance of healthy nutrition must be consistently emphasized in elementary schools to overcome this barrier. Finally, it should be noted that there are no standardized guidelines in Austria; each school or teacher can decide individually. Standardization of these guidelines is essential to implement appropriate interventions effectively.

MENTAL HEALTH IN THE WORKPLACE – EMPLOYEE SURVEY OF THE CITY OF DORNBIRN FOR THE DEVELOPMENT OF MEASURES FOR THE CORPORATE HEALTH PROMOTION PROGRAM 'STADT-FIT'

Nadine Reis

Supervisor: Simon Krutter
Co-Supervisor: Patrick Kutschar
Research assistant: Stefan Pitzer

Date of the defense: 08.04.2025

Keywords: Workplace health promotion; Psychological risk factors; Mental health; Employee survey; Offers and support options

Introduction: Around 60 percent of all employees experience psychological risks in the workplace and are exposed to at least one risk factor that can lead to long-term health problems, impacting both personal well-being and the work environment. The aim of this study is to investigate psychological risk factors in the workplace to plan further mental health services for the “stadt-fit” workplace health promotion program. The following two research questions are to be answered: 1. Which psychological risk factors regarding mental stress at the workplace exist among the employees of the city of Dornbirn? 2. Which workplace health promotion measures of “stadt-fit” are known or have been used by employees, and how are their effects perceived?
Methods: The quantitative cross-sectional study involved a full survey of all employees of the city of Dornbirn, excluding hospital staff. Data was collected anonymously using a semi-structured online questionnaire and analyzed using descriptive and inferential statistics with the SPSS program (IBM SPSS Statistics Version 27). In addition to a short questionnaire on work analysis (KFZA), questions were also asked about mental health and the company’s health promotion program, “stadt-fit.” Declarations of consent for the research project and the release of the questionnaire were obtained from the responsible departments of the city of Dornbirn.
Results: The most frequently mentioned psychological risk factors among employees (N = 255) were high quantitative workload (too much work), frequent time pressure, and work interruptions. It was also found that employees were only partially aware of the mental health services (supervision, IFS cooperation, and guides) available, and only a few had taken advantage of them to date. Additionally, a correlation was found between emotionally demanding work and the work area of elementary education (ordinal correlation measure + 0.304/0.327; p = < 0.001).

Discussion: The results provide valuable information for the further development of the “stadt-fit” workplace health promotion program. It is recommended that mental health services be made more widely known or further expanded, and that employees be more strongly motivated to take advantage of these services.

INTERACTION AND COOPERATION BETWEEN COMMUNITY NURSES AND GENERAL PRACTITIONERS REGARDING THE HEALTH LITERACY OF THEIR CLIENTS OR PATIENTS

Maria Riedl

Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Irmela Gnass
Research assistant: Valentin Fischill-Neudeck

Date of the defense: 04.12.2023

Keywords: Collaboration; Cooperation; Community nurse; Community health nurse; Public health nurse; General practitioner; General physician; Family doctor; Health literacy

Introduction: The complexity of the health care system makes it difficult to access services and can overwhelm patients. People with low health literacy (HL) face increased challenges in navigating the health care system. General practitioners (GPs) are often the first point of contact for health concerns. Following the international model, community nurses (CNs) in Austria should provide low-threshold, needs-oriented care close to the population and help strengthen the population's HL. Cooperation between CNs and GPs is essential for enhancing HL. However, little is known about the collaboration between CNs and GPs in terms of strengthening HL. The aim of this study is to present aspects of the collaboration between CNs and GPs in a structured way in order to identify future ways to improve health literacy. These efforts could influence healthcare delivery structures within a comprehensive public health approach.
Methods: A literature review was conducted initially, followed by guided interviews with five experts from both professional groups. The data were analyzed using Mayring's summarizing qualitative content analysis.
Results: The research highlights the significant roles of both professions in promoting health literacy, though challenges such as limited resources, unclear role definitions, and a lack of awareness of CNs hinder collaboration. Nevertheless, there is a positive attitude toward cooperation, with concrete approaches for quality improvement and promising prospects.
Discussion: Collaboration among professionals requires coordinated efforts from all stakeholders to overcome barriers and more effectively promote health literacy through improved collaboration.

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PERCEPTION OF HEALTH BEHAVIOR AMONG OLDER ADULTS AFTER PARTICIPATIONIN SENIOR CAFES

Nadine Sabukoschek

Supervisor: Nadja Nestler
Co-Supervisor: Irmela Gnass

Date of the defense: 22.09.2025

Keywords: Community Nursing; Health Behavior; Social Participation; Older Adults

Introduction: Demographic change and the decline in healthy life years in old age represent growing challenges for public health. Against this backdrop, measures to promote health behavior in later life are becoming increasingly important (1,2). Senior Cafes, an intervention within the Austrian Community Nursing model, aim to provide health related knowledge, strengthen social participation, and offer preventive impulses.
Method: To examine how older adults perceive their health behavior after attending Senior Cafes, eight problem centered, semistructured interviews were conducted. The data were analyzed using qualitative content analysis according to Mayring (3).
Results: Participants rated the cafes positively throughout. The social dimension in particular - exchanging with peers, experiencing a sense of belonging, and communal encounters – was highlighted. Regarding health behavior, interviewees reported increased reflection and small but meaningful individual changes in areas such as physical activity, nutrition, sleep, or cognitive engagement. The cafes were perceived more as stabilizing than transformative.
Discussion: The findings highlight the value of low-threshold, socially embedded formats such as Senior Cafes. These not only support health related routines but also foster social participation and psychological well-being, both of which are key factors for healthy aging.

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HEALTH PROMOTION IN HEALTHCARE FACILITIES: A COMPARISON BETWEEN THE REORIENTATION EFFORTS OF HOSPITALS AND PRIMARY CARE UNITS IN AUSTRIA

Lena Schön

Supervisor: Daniela Rojatz
Co-Supervisor: Irmela Gnass

Date of the defense: 05.04.2022

Keywords: Ottawa Charter; Qualitative research; Participatory approach; Primary care

Introduction: In 1986, the Ottawa Charta stated that reorienting health services towards health promotion is one of five action areas to promote health. Efforts have been made to reorient both hospitals and primary health care units in Austria, but evidence remains scarce. This master's thesis aims to identify similarities and differences in the reorientation process of both settings.
Methods: A document analysis of articles, scientific publications and websites was conducted for data collection and analyzed using qualitative content analysis. A complementary focus group was held to reflect on the outcomes of the document analysis.
Results: Several differences were found regarding the development of health promotion, the form of organization, the strategic and legal basis for reorientation, and the form of capacity building between the two settings. However, the concepts and strategies used for health promotion practice are largely the same.
Discussion: There is further potential to enhance the reorientation of health services in Austria. Professional exchange between the settings, a participatory approach, and facilitating skills may improve the further systematic reorientation of health services.

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EMPIRICAL CORRELATIONS BETWEEN HEALTH LITERACY AND HEALTH SERVICE USE: A SYSTEMATIC REVIEW IN THE AUSTRIAN CONTEXT

Romy Schönegger

Supervisor: Christine von Reibnitz
Co-Supervisor: Hans-Peter Wiesinger
Research assistant: Valentin Fischill-Neudeck

Date of defense: 02.12.2024

Keywords: Health literacy; Health Service Use; Systematic review; Austria; Bismarck Healthcare System; Access to Healthcare; Health Service Research

Introduction: Low health literacy makes access to healthcare difficult even before people enter the healthcare system, a challenge that affects 51% of people in Austria. Since most research on this topic is based on US data, the impact of health literacy in

countries with universal healthcare systems remains unclear. Therefore, this thesis aims to shed light on the influence of individual health literacy on healthcare utilization in Austria and similar healthcare systems, focusing on outpatient, inpatient, emergency, and preventive care, as well as digital resources for information and navigation purposes.
Methods: Following a systematic review methodology, studies were extracted from the PubMed, CINAHL, and PsychInfo databases and selected according to predefined inclusion and exclusion criteria. Data extraction was performed using a standardized data extraction sheet, and critical appraisal was conducted using JBI instruments. Due to the heterogeneity of the data, a narrative synthesis was performed.
Results: The results show a complex and nuanced relationship between health literacy and healthcare utilization in different care settings. Health literacy was found to significantly impact several key aspects of outpatient care, playing a crucial role in the use of digital health resources and vaccination uptake. However, health literacy appears to have little or no impact on inpatient care, surgical day clinics, and emergency care. These areas of healthcare utilization are likely more driven by immediate and acute healthcare needs.
Discussion: The study suggests that, overall, the evidence is neither consistent nor strong enough to draw definitive conclusions. Instead, the findings highlight specific areas of healthcare utilization where health literacy plays an influential role, as well as areas where its influence is negligible. These findings suggest that the development of targeted interventions to improve health literacy could lead to more informed and appropriate use of health services. This could help avoid unnecessary utilization, reduce complexity, and ultimately alleviate pressure on the healthcare system.

HEALTH LITERACY IN THE MANAGEMENT OF CHRONIC DISEASES AMONG OLDER ADULTS – A QUALITATIVE META-SYNTHESIS OF EXPERIENCES AND POTENTIAL OF A GROWING POPULATION GROUP

Katrin Schütz

Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Nadja Nestler
Research assistant: Valentin Fischill-Neudeck

Date of the defense: 04.04.2022

Keywords: Qualitative evidence synthesis; Older people; Chronic conditions; Health literacy; Experiences; Experience

Introduction: The risk of developing at least one chronic disease increases among older individuals. Healthcare systems must provide personnel, infrastructure, and financial resources for their care. According to current projections, the proportion of older people in the population is growing, meaning that they will consume more resources in the healthcare sector in the future. Individual health literacy is considered a central element in healthcare. However, the perspective of older people with chronic diseases on the demands they experience regarding their own health literacy has not

been extensively addressed in research studies so far. The research question, “What qualitative evidence is available on the experiences and perceptions of health literacy among older people with chronic conditions?” will be used to understand the views of the older population with chronic conditions on their individual health literacy needs.
Methods: A systematic literature search for qualitative primary studies was conducted in the MEDLINE via PubMed®, CINAHL, and Web of Science databases, supplemented by a manual search. The results were synthesized on a meta-level using two conceptual models of health literacy.
Results: A total of 1006 articles were identified, of which nine studies were included in the qualitative meta-synthesis. The results reveal key themes from the perspective of those affected regarding the requirements of health literacy. Additionally, the possibilities and limitations of acquiring knowledge and skills, as well as facilitating and hindering aspects of communication, were identified.
Discussion: This paper contributes to the understanding of the needs of the growing elderly population, placing these needs in a social and system-related framework. The areas of communication and interaction between those affected and healthcare providers are particularly relevant in considering health literacy, as both barriers and potential solutions can be described in this context. Understanding the perspective of older individuals can support the development of preventive and health-promoting measures in public health.

HEALTH LITERACY – HEALTH LITERACY AS A KEY FACTOR FOR HEALTH. SURVEY AND COMPARISON OF THE HEALTH LITERACY OF NURSING PROFESSIONALS AND ADULTS IN GERMANY BASED ON THE EUROPEAN HEALTH LITERACY SURVEY: QUESTIONNAIRE (HLS-EU-Q)

Johannes Stephan

Supervisor: Antje van der Zee-Neuen
Co-Supervisor: Tim Johansson
Research assistant: Valentin Fischill-Neudeck

Date of the defense: 29.11.2021

Keywords: Health literacy; Nurses; Caregivers; HLS-EU-Q; Academics; Education level

Introduction: Improving health literacy is an increasingly important issue for our society, as it is a key in the health of the population and its various demographic groups. Therefore, it is imperative to promote effective structures in politics and society. According to the World Health Organization, nurses working in healthcare should promote and empower patients in their health literacy. However, to date, there has been insufficient research on whether nurses working in Germany possess sufficient health literacy themselves, which is an important core competence for enhancing the health literacy of others. The aim of this work was, therefore, to investigate the health literacy and health determinants of nursing professionals and the general working population in Germany.

Methods: A cross-sectional survey using a self-report instrument was conducted with 115 nursing professionals and 217 other individuals representing the general working population. On one hand, the relevant health determinants that can influence health literacy, according to the literature, were analyzed. On the other hand, the construct of health literacy was assessed using the HLS-EU-Q16.
Results: No significant difference in the level of health literacy was observed between nurses and the general working population. Less than half (40.9%) of the surveyed nurses showed adequate health literacy. In general, socioeconomic status had a significant effect on health literacy in all statistical analyses. Furthermore, specific statistical tests revealed that the level of education, gender, presence of a chronic disease, smoking behavior, alcohol consumption, and perceived health status were significantly associated with health literacy.
Discussion: Both health literacy and the competence to promote the health literacy of patients should be further improved among nursing professionals. This could be achieved, on one hand, through targeted training for working nursing staff and, on the other hand, through earlier promotion of health literacy, for example, during school and academic nursing training. Additionally, further studies are needed to investigate the health literacy of nurses and evaluate potential continuing education programs to promote health literacy.

THE IMPACT OF ICU CHARACTERISTICS AND THE IMPLEMENTATION OF A FAMILIY SUPPORT INTERVENTION ON FAMILY-CENTERED CARE. A QUANTITATIVE ANALYSIS

Simone Sutter

Supervisor: Marco Riguzzi
Co-Supervisor: Simon Krutter

Date of the defense: 23.09.2025

Keywords: Critical Illness; Family-centered Care; Organizational Culture; Sustainable Healthcare Systems; Quality of Care

Introduction: Family members of critically ill patients often experience substantial psychological distress during their loved one’s stay in, discharge from, or death in the intensive care unit (ICU) (Anderson et al., 2008). Despite mixed evidence, some studies suggest that implementing family support interventions and enhancing family-centered care (FCC) practices in adult ICUs may improve family and patient outcomes (Mc Andrew et al., 2022; Duong et al., 2024). However, FCC is often inconsistently implemented due to structural and contextual barriers (Kiwanuka et al., 2019), highlighting the need for supportive ICU environments and targeted interventions to achieve sustainable FCC implementation. This study examines how structural ICU characteristics and a newly introduced family support intervention influence FCC outcomes in Swiss adult ICUs.
Methods: The study is embedded in the FICUS cluster-randomized controlled trial (Neaf et al., 2022) and uses ICU-level data from 16 Swiss adult ICUs, applying a

longitudinal panel design to evaluate FCC development across three timepoints. FCC was assessed using the gap analysis tool by the Society of Critical Care Medicine. Data on ICU characteristics were collected via self-assessment surveys and national minimal datasets. Baseline associations were analyzed by multiple linear regression, while a difference-in-differences approach using a linear mixed-effect model with random effects evaluated differential changes in FCC over time.

Results: At baseline, FCC-ICU scores were moderate overall (median: 3.0). No significant associations were found between FCC-ICU scores and ICU characteristics such as nurse staffing, the presence of nurses trained in family care, institutional commitment to patient- and family-centered care ($R^2 = 0.13$, $p = 0.638$). Longitudinal analysis showed a modest but significant improvement in FCC over time across all ICUs ($\Delta = -0.18$, $p < 0.001$). However, the interaction term of the linear mixed-effect model was not statistically significant ($p = 0.177$), indicating that the intervention did not result in a differential change in FCC relative to usual care over time. Variability in the implementation of FCC persisted across clusters and timepoints.

Discussion: Results indicate that the FICUS intervention had no differential effect on FCC, and structural factors were not predictive of FCC outcomes. However, the limited explanatory power limits the generalizability and external validity of these findings. The observed modest and statistically significant improvement of FCC outcomes across all groups over time suggests broader contextual or cultural shifts. Despite its limited sample size, the study's real-world context adds practical value and underscores the need for future, larger-scale, mixed-methods research. In this context, this study provides a valuable methodological foundation to address such research questions systematically. Ultimately, FCC should be embraced not merely as a clinical ideal but as a public health imperative, requiring sustained system-wide commitment.

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COPING STRATEGIES OF EMERGENCY SERVICE EMPLOYEES: A QUALITATIVE STUDY ON STRESS MANAGEMENT IN DAILY WORK

Theresa Sygulla

Supervisor: Barbara Zimmermann
Co-Supervisor: Dagmar Schaffler-Schaden

Date of defense: 02.12.2024

Keywords: Paramedics; Stress; Coping; Resilience; Trainees; Curriculum

Introduction: Paramedics are frequently exposed to extreme stress situations that can negatively impact their mental health. The effectiveness of the current training curriculum in equipping paramedics with adequate coping strategies for stress management remains unclear. This study aims to explore how experienced paramedics with up to ten years of service and trainees in their final year of training perceive the stress management strategies taught and which strategies are actually employed in their daily work. The goal is to identify discrepancies between the taught curriculum and the strategies applied in practice and to propose recommendations for improvement.
Methods: Twelve problem-centered interviews were conducted with paramedics and trainees in the Hamburg area to explore their perceptions of the training content and its effectiveness in relation to the practical application of coping strategies. The interviews combined open-ended and alternative questions. Transcriptions were analyzed using MAXQDA software, applying qualitative content analysis based on Mayring's methodology with a deductive approach.
Results: The analysis revealed that while the curriculum provides a solid foundation in medical-technical skills, it largely overlooks psychological training for emotional resilience and stress management. Many paramedics develop their own coping strategies, as the techniques taught during training are perceived as insufficient, especially for emotionally demanding and unpredictable situations.
Discussion: The findings indicate that the curriculum should be expanded to include resilience training and practical coping strategies. The integration of realistic simulations and regular psychological debriefings is essential to better prepare paramedics for unpredictable situations and safeguard their long-term mental health.

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GEOSTATISTICS FOR HEALTH PRACTICE: SPATIAL-EPIDEMIOLOGICAL IDENTIFICATION AND CHARACTERIZATION OF MMR RISK CLUSTERS IN CHILDREN BASED ON CONTRACTUAL PHYSICIAN BILLING DATA

Sebastian Völker

Supervisor: Tim Johansson
Co-Supervisor: Manela Glarcher
Research assistant: Giula Rathmes

Date of the defense: 19.07.2021

Keywords: Spatial Cluster; MMR vaccination; Measles; Typing; Epidemiology; Health geography

Introduction: Health services and measures improving vaccination rates should ideally be tailored to local target populations, such as spatial clusters. However, spatial clusters of underimmunization have received little attention so far, and typologies for spatial-neighborhood classification have not been developed. Using the example of Measles-Mumps-Rubella (MMR) vaccination in children, the present study aims to: 1. identify the spatial distribution of insufficient MMR vaccination in Westphalia-Lippe, Germany; 2. identify specific spatial risk clusters with insufficient vaccination protection; and 3. describe spatially neighboring factors of the different risk clusters for public health interventions.
Methods: The analysis was based on accounting data from Association of Statutory Health Insurance Physicians Westphalia-Lippe (KVWL). Birth cohorts of children born between 2013 and 2016 were formed and aggregated at the 5-digit postal code level (n = 410). General and specific cluster methods were used to identify statistically significant, spatially compact clusters and relative risks (RR) of underimmunization. Binary logistic regressions estimated local risk models based on spatially neighboring variables.
Results and Discussion: Two significant clusters were identified for low vaccination rates in the categories "min. one MMR vaccination" and "both MMR vaccinations". Significant spatial-neighborhood risk factors for low vaccination rates included age structure, socio-economic variables, population density, medical care, and value retention. The proposed methodology is suitable for describing spatial variations in vaccination behavior across different cluster typologies, supporting targeted evidence-based interventions.

HEALTH PROMOTION THROUGH HEALTH INFORMATION: STRATEGIES FOR TARGET GROUP ENGAGEMENT IN THE COMMUNITY NURSING PILOT PROJECTS IN AUSTRIA

Sabrina Wieland

Supervisor: Christine Pichler
Co-Supervisor: Simon Krutter

Date of the defense: 24.04.2024

Keywords: Community nurse; Community health nurse; Public health nurse; Prevention; Health promotion; Health information

Introduction: In light of demographic changes, the increase in chronic diseases, and socioeconomic health inequalities in Austria, a reorientation towards home-based care, prevention, and health promotion is imperative. The Community Nursing pilot project aims to provide local, accessible, and needs-based care to improve health literacy and support prevention. Community Nurses play a key role as the first point of contact and link to health and social services at the community level. The main aim of this thesis is to analyze how Community Nurses in pilot projects reach their target groups and raise awareness of health promotion and prevention, focusing on the role of high-quality health information and the application of the 15 quality criteria of the Austrian Health Literacy Platform.
Methods: Following a literature review, an interview guide was developed, and nine expert interviews with community nurses were conducted. A qualitative research approach was adopted. The interview data were analyzed using a combined approach integrating Kuckartz and Rädiker's content structuring method and Mayring's summarizing content analysis.
Results: The study shows that although the target groups have been reached and made aware of health promotion and prevention, challenges remain in identifying the population's needs and understanding the population's understanding. In addition, community nurses mainly use health information from public sources and rarely produce their own materials. As a result, the 15 quality criteria for health information are rarely used and known to only a few experts.
Discussion: In summary, the projects are reaching their target groups and have introduced measures to raise awareness of health promotion and prevention. However, there is a need for training in addressing target groups, raising awareness of health promotion and prevention, and producing health information in accordance with the 15 quality criteria of the Austrian Platform for Health Literacy (ÖPGK).

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SUPPORT SERVICES FOR RELATIVES OF PEOPLE WITH ALCOHOL DEPENDENCE: A QUALITATIVE CASE STUDY OF EXPERT PERSPECTIVES FROM THE SALZBURG CENTRAL REGION

Andrea Wienerroither

Supervisor: Simon Krutter
Co-Supervisor: Andrea Egger-Rainer

Date of the defense: 14.04.2026

Keywords: Relatives; Alcohol dependence; Support services; Salzburg central region; Expert experiences; Case-study; Qualitative content analysis

Introduction: Relatives of people with alcohol dependence are often highly burdened and have an increased risk of depression. However, support services primarily target individuals with alcohol dependence. Therefore, the research question is: What experiences do experts describe regarding support services for relatives of people with alcohol dependence in the Salzburg central region? This study aims to identify care-relevant support needs from the experts' perspective and to derive recommendations for needs- and use-oriented care for relatives.
Methods: As part of a qualitative case study design, theoretically contextualized by the Andersen Model, eight semi-structured expert interviews were conducted with professionals from the alcohol dependence treatment context in the Salzburg central region. Interviews were audio-recorded, transcribed and analysed using structured qualitative content analysis.
Results: The service landscape is described as fragmented but helpful. Access pathways are often unsystematic and orientation aids are lacking. Capacity constraints and waiting times hinder service use. Barriers include stigma, low awareness, limited accessibility and unrealistic expectations. Facilitating factors include health-related changes, favourable contextual conditions and social support. Service use leads to psychological relief, the development of coping strategies and increased orientation and confidence in dealing with alcohol dependence. Improvements are needed, particularly in expanding specific support services, better structural conditions, increasing public awareness and sensitising first-contact services.
Conclusions: Limitations include low heterogeneity of participants regarding professional background and gender, as well as a lack of data saturation beyond the categories. In the Salzburg central region, no theory-guided case study based on Andersen's Model has previously been conducted, enabling a dense description of the topic. The findings are context-bound but evidence a basis for further research and for recommendations on public health measures to achieve needs- and utilisation-oriented care for relatives.

PHCC VI - Ethics

PHYSICAL ACTIVITY AND SELF-ESTEEM IN ADOLESCENTS. A QUANTITATIVE ANALYSIS

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Supervisor: Florian Schaub
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Date of defense: 02.09.2024

Keywords: Mental health; Adolescence; Self-esteem; Physical activity; Sport; Rosenberg Self-Esteem Scale (RSES)

Introduction: This study examines the effects of regular physical activity on self-esteem in adolescents. Given the increasing prevalence of obesity and mental disorders in adolescents, as well as the challenges young people face during this developmental stage, it is important to investigate the relationship between physical activity and mental health in more detail. The aim of this study is to explore the relationship between physical activity and self-esteem in adolescents, with the goal of developing preventive measures to promote mental health. Research question: To what extent does regular physical activity influence self-esteem in adolescents, and is there a relationship between duration of physical activity and self-esteem? Are there other factors that influence RSES (age, gender, BMI, appearance, physical well-being)? Mental health problems and physical inactivity pose a major challenge worldwide, especially among adolescents.

Methods: A quantitative research approach was used, with a survey conducted among students in Zurich (n = 210). Data collected included demographic characteristics such as age, sex, height, body weight, physical activity (hours of sport per week & minutes of exercise per day), type of sport, participation in sports clubs, other leisure activities, and self-esteem, measured using the Rosenberg Self-Esteem Scale (RSES).

Results: The results of the study show that physical activity may be positively associated with self-esteem in adolescents. Adolescents who are active for more than 120 minutes per day or who exercise for more than 10 hours per week tend to have higher self-esteem. Physical well-being was also found to have a stronger influence on self-esteem than appearance.

Discussion: The findings suggest that promoting sport and physical activity in adolescents may positively impact not only physical health but also self-image and self-esteem. Therefore, it is important to implement targeted programs that promote both physical activity and mental health, supporting the holistic well-being of adolescents.

THE EFFECTS OF LOCKDOWNS DURING THE COVID-19 PANDEMIC – AN ETHICAL PERSPECTIVE

Michael Knechtel

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Co-Supervisor: Martin W. Schnell

Date of the defense: 05.04.2022

Keywords: Lockdown; SARS-CoV-2; Cost-benefit analysis; Ethics

Introduction: The COVID-19 pandemic, now in its second year, poses an enormous challenge to our society and health systems. Various control strategies were implemented to prevent or delay the spread of SARS-CoV-2. One of the most drastic public measures is the imposition of the so-called "lockdown". Due to the ordered avoidance of social contact and the isolation of people to protect them from infections, there was a significant increase in both physical and mental health issues. The purpose of this thesis is to investigate the extent to which lockdowns have affected the health of the population. Since the implementation of public health measures always involves weighing different factors, an ethical perspective must be central to the discussion. The research presented here aims to analyze both aspects in combination.
Methods: To answer these questions, a literature review was initially conducted. The insights gained from the theoretical research were used to develop a guideline for conducting problem-centered interviews. After evaluating the expert responses, three main categories were identified: ethics/morals, communication, and lockdown.
Results: The results show a massive burden on the affected population, particularly due to stress caused by the uncertain situation, existential fears, symptoms of fatigue, psychological instability, depression, sleep disorders, loneliness, frustration, and physical degradation due to the limited possibilities for mobility. Regarding ethical positions, the study draws a distinction between the outcome of an action and adherence to an ethical principle.
Discussion: In summary, the experts interviewed emphasize a self-responsibility position negotiated within society (public health ethics) as well as considerations of benefit versus harm (utilitarian ethics).

DEVELOPMENT OF A TOOL FOR EVALUATING THE ETHICAL DELIBERATION OF DRAMA-BASED TRAINING FOR NURSING STAFF IN AUSTRIA ON THE TOPIC OF ASSISTED SUICIDE

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Supervisor: Piret Paal
Co-Supervisor: Joachim von der Heide

Date of the defense: 23.04.2023

Keywords: Ethical Deliberation; Drama-based techniques; Assisted suicide; Moral case deliberation; Questionnaire; Tool validation

Introduction: In January 2022, Austria implemented the Federal Law on the Establishment of Advance Directives, which provides legal prerequisites for assisted suicide. While this law has established legal protection and clarity, it does not address the role of nurses. Given their close, trusting relationships with patients, nurses, in particular, face challenges such as ethical and moral distress, which can lead to burnout and employment termination. However, nursing education only inadequately addresses this topic. Recognizing this need, the Institute of Palliative Care at Paracelsus Medical University in Salzburg, Austria, implemented a workshop that utilizes drama-based techniques to train nurses on the topic of assisted suicide. The workshop aims to foster ethical deliberation - an approach characterized by openness and pragmatic learning, focusing on individual well-being and harm minimization.
Methods: In the scope of this thesis, an evaluation and reflection tool was developed through a mixed-methods approach to assess the quality of ethical deliberation. The process began with a literature search, followed by a deductive qualitative content analysis and mapping of questions to seven predetermined quality criteria for ethical deliberation. A questionnaire tool was then designed. The validation of the tool involved both content and face validation, as well as a pilot study. As a result of these methodological steps, a questionnaire comprising 22 questions with a 5-point Likert scale and six open-ended questions was created. This tool may be utilized during the workshop to facilitate reflection and assess the quality of deliberation.
Results and Discussion: Findings of the pilot study indicate that the tool may effectively evaluate deliberation as good, partial, or poor ethical deliberation. As part of future research, the tool will undergo further testing through a field study. After further refinement and broadening of the questions, the tool may serve various types of moral case deliberation workshops.

THE EFFECTIVENESS OF SOCIAL MARKETING STRATEGIES TO PROMOTE PHYSICAL ACTIVITY AMONG CHILDREN AND YOUNG ADULTS. A SCOPING REVIEW

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Date of defense: 02.09.2024

Keywords: Social marketing; Social marketing strategies; Children; Young adults; Health education; Health promotion; Health protection; Disease prevention; Sports; Physical activities; Effectiveness

Introduction: This scoping review aims to examine and present the effectiveness of social marketing strategies for promoting physical activity among children and young adults, based on the key components of the framework. The concept of "Social Marketing" was developed by Kotler and Zaltman in 1971, with the aim of using existing marketing strategies to initiate positive, health-promoting behavior changes in the target audience. Social marketing strategies are also applied in various areas concerning children and adolescents, with this work focusing on physical activity in

these groups. A total of 13 studies were included, all of which conducted and evaluated an intervention according to the principles of the Social Marketing Framework. The included studies focused on children and young adults up to 18 years old and formulated social marketing interventions to increase physical activity.
Methods: The databases PubMed, Web of Science Core Collection, and Cochrane Database of Systematic Reviews were used for the scoping review. The search was limited to English-language studies for the past 24 years.
Results: Out of a total of 685 articles, 13 studies were included in the final analysis. These studies examined various social marketing strategies to promote physical activity among children and young adults. The results were heterogeneous and were divided into three categories: measurable increase in physical activity, measurable increase in mediating factors such as motivation, knowledge, or health literacy, and no measurable effects of the intervention. A long-term, consistent change in behavior could not be demonstrated in any of the studies.
Discussion: Based on the results, it can be concluded that social marketing strategies represent an effective method for promoting physical activity among children and young adults. These findings can help to tailor future health promotion measures more precisely and further explore the effectiveness of social marketing in this area.

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