

Healthcare & Nursing Conference

Shaping the Future of Healthcare – Nursing Trends and Innovation

🕒 August 8-9, 2025

Host Institution

Hungkuang University, Taichung, Taiwan, R. O. C.

Co-organizers

- Assumption University of Thailand
- Changhua Christian Hospital
- College of Health Care, China Medical University
- College of Nursing, Central Taiwan University of Science and Technology
- Kuang Tien General Hospital
- Nakhon Pathom Rajabhat University
- Phetchaburi Rajabhat University
- Sin-Sim Nursing
- Taiwan Nurses Association
- The Honor Society of Nursing,
Sigma Theta Tau International,
Lambda Beta-at-Large Chapter in Taiwan, R.O.C



TABLE of CONTENTS

	Page
Welcome message from President of Hungkuang University	1
Welcome message from the Dean of the College of Nursing, Hungkuang University	2
About Hungkuang University	3
Conference co-organizers	4
Conference organizing committee	5
Programs	6
Campus map and conference venue	8
Keynote Address 1: Empowering nursing leadership and practice through policy innovation in the era of smart healthcare. Professor Eui Geum Oh, Yonsei University, Korea	9
Keynote Address 2: The pulse of progress: Nursing innovation in a changing world. Professor Ritin Fernandez, University of Newcastle, Australia	11
Keynote Address 3: Saving mothers: Thailand's health system strategies to prevent postpartum hemorrhage. Dr. Phat Prapawichar, Assumption University of Thailand	13
Moderators list	15
Symposium 1: Advancing dementia care: Insights from smart health applications and caregiver experiences	16
Symposium 2: Innovative care models	22
Symposium 3: Advancing health and education in aging and chronic care	27
Oral presentation	32
Poster presentation	48

Welcome message from President of Hungkuang University

Dr. Hung-Yee Shu

President of Hungkuang University



Warmest Greetings to All,

We are truly honored and delighted to host the Healthcare & Nursing Conference 2025 at our university, and I warmly welcome each and every one of you to this meaningful event.

In this era of rapid and dynamic transformation in healthcare, the role of nursing professionals has never been more vital. Nurses stand at the forefront of patient care, not only as compassionate caregivers, but also as educators, researchers, advocates, leaders, and innovators. The contributions of nurses extend far beyond the bedside, influencing health policy, advancing evidence-based practice, and shaping the future of global healthcare.

Conferences like this offer a valuable platform for dialogue, collaboration, and growth. They allow us to exchange cutting-edge knowledge, explore new perspectives, and build meaningful partnerships across disciplines and borders. I believe the conversations and connections that emerge from this gathering will have a lasting impact on nursing science and practice.

I would like to express my heartfelt appreciation to all the keynote speakers, presenters, and participants, especially those who have traveled from afar or joined us virtually. Your presence here reflects a shared commitment to excellence and to advancing the nursing profession worldwide.

A special thanks also goes to the organizing committee and all the dedicated staff members whose tireless efforts have made this conference a reality. Your behind-the-scenes work has laid the foundation for what I am confident will be a memorable and enriching experience for all.

Let us make the most of this opportunity to learn from one another, to challenge and inspire one another, and to work together toward a healthier, more equitable, and more compassionate world.

Thank you once again for being here. I wish you a fruitful, engaging, and inspiring conference.

Welcome message from the Dean of the College of Nursing, Hungkuang University

Dr. Hsiu-Min Tsai

Chair, Healthcare & Nursing Conference 2025
College of Nursing, Hungkuang University



Dear Distinguished Guests, Colleagues, and Friends,

On behalf of the College of Nursing at Hungkuang University, it is my great honor and pleasure to welcome you to the 2025 Healthcare & Nursing Conference at our beautiful campus in Taichung, Taiwan.

This year's conference, themed "Shaping the Future of Healthcare: Nursing Trends and Innovation," brings together outstanding experts, scholars, educators, and students from around eight countries to explore the challenges and opportunities in healthcare and nursing today. As we navigate an era of digital transformation, evolving global health landscapes, and increasingly complex care needs, our shared commitment to advancing nursing excellence has never been more vital.

This conference provides a dynamic platform to share groundbreaking research, exchange practical insights, and foster meaningful academic and professional collaboration. We are especially proud to offer a diverse program featuring international keynote speeches, cross-national research presentations, and opportunities for students and frontline professionals to showcase their work and innovation.

I would like to express my highly appreciation to our esteemed co-organizers—the Taiwan Nurses Association, the College of Health Care at China Medical University, the College of Nursing at Central Taiwan University of Science and Technology, Assumption University of Thailand, Sin-Sim Nursing Foundation, and the Honor Society of Nursing, Sigma Theta Tau International (Taiwan chapter)—for their invaluable support. My sincere thanks also go to Kuang Tien General Hospital and Changhua Christian Hospital for their generous contributions and dedicated partnership.

Together, let us engage in open dialogue, inspire one another, and explore new pathways that will shape the future of healthcare and nursing education. I wish each of you a rewarding, insightful, and memorable conference experience.

Welcome once again to Hungkuang University and to the 2025 Healthcare & Nursing Conference! Best wishes to everyone!!

About Hungkuang University

Given the rising awareness of cultivating excellent nursing expertise, Dr. Wang Yuxuan (MD, Ph.D.) who was also the founder of Kuang Tien General Hospital, founded Hungkuang University (HKU) in 1967 in central Taiwan, with a school motto “Begin from oneself, extend benevolence to all”. Since the establishment of the university, the Department/College of Nursing has become one of the most important institutions for cultivating nursing leaders in Taiwan.



Hungkuang University has entered a new era since the renaming of the school in 2003. Our faculty and students all recognize that a purposeful and effective college education should be based on humanistic values and the exploration of our own existence. We believe that a university is a place where young adults begin the process of growing into caring mature adults. Living up to the goals our motto embodies, our students are not only expected to contribute to society, but to develop into well-rounded individuals.

In response to the application of artificial intelligence, and the rise of emerging industries, HKU is committed to the development of Augmented Reality, Virtual Reality, drone and e-sports programs as well as training environmental science and technology expertise. Furthermore, HKU has integrated Artificial Intelligence for cross-disciplinary applications in medical technology, built a drone industry base, and a top-notch training facility for holistic long-term care and physical therapy training.

Since 2013, HKU has published Campus Sustainability Reports (CSR) in response to the United Nation’s Sustainable Development Goals (SDGs). In 2017, HKU was the very first university of science and technology that received the National Sustainable Development Prize in the Education Sustainable Development Category. In 2018, HKU was awarded the 16th Asian Recognition for Excellence in Quality Practice (ARE-QP). Our instructional technology is as good as the universities worldwide. HKU’s teaching innovation has been widely recognized by parents and the public.

To comply with the UN Sustainable Development Goals Declaration and global equity, HKU has been actively dedicated to international exchange and had signed academic exchange agreements with the higher education institutions in the U.S.A., U.K, Japan, Singapore, Vietnam, Malaysia, Australia, and China, etc. to promote our educational resources and relevant industries in Taiwan, in hope of cultivating talents for the welfare of the global society.

Conference co-organizers

- Assumption University of Thailand
- Changhua Christian Hospital
- College of Health Care, China Medical University
- College of Nursing, Central Taiwan University of Science and Technology
- Kuang Tien General Hospital
- Nakhon Pathom Rajabhat University
- Phetchaburi Rajabhat University
- Sin-Sim Nursing
- Taiwan Nurses Association
- The Honor Society of Nursing, Sigma Theta Tau International, Lambda Beta-at-Large Chapter in Taiwan, R.O.C

(Sorted in alphabetical order)

Conference organizing committee

Chair

Dean, Professor Hsiu-Min Tsai	Hungkuang University
-------------------------------	----------------------

Secretary General

Professor Cheng-I Yang	Hungkuang University
------------------------	----------------------

Members

Assistant Professor Chia-Hsiu Chang	Hungkuang University
Assistant Professor Li-Huan Chen	Hungkuang University
Assistant Professor Te-Hui Hao	Hungkuang University
Assistant Professor Li-Chiu Lin	Hungkuang University
Associate Professor Li-Hung Lee	Hungkuang University
Professor Wen-Chun Liao	China Medical University
Assistant Professor Li Ya Lin	Central Taiwan University of Science and Technology
Associate Professor Ruoh-Lih Lei	National Chi Nan University
Associate Professor Ching-Mei Chang	Hungkuang University
Associate Professor Chu-Ling Chang	Hungkuang University
Associate Professor Kuan-Pin Lin	Hungkuang University
Assistant Professor Ming-Hsin Hsieh	Hungkuang University
Assistant Professor Lin-Lin Lee	Hungkuang University

Advisors

Professor and President Hung-Yee Shu	Hungkuang University
Professor and Dean Ya-Ling Tzeng	China Medical University
Professor and Dean Li-Yun Tsai	Central Taiwan University of Science and Technology
Professor and Director Wei-Fen Ma	China Medical University

Conference Secretary

Ms. Yi-Ching Chuang	Hungkuang University
Ms. Chian-He Chen	Hungkuang University
Ms. Shih-Yuan Wang	Hungkuang University
Ms. Guan-Ru Wei	Hungkuang University
Mr. Ting-Kuei Yeh	Hungkuang University

Programs

Day 1, Friday, August 8

8:30-9:30 am	Registration Venue: International Conference Center	
9:30-10:00 am	Opening Remarks Venue: International Conference Center, LB206	
10:00-10:50am	Keynote 1: Empowering nursing leadership and practice through policy innovation in the era of smart healthcare. Professor Eui Geum Oh, Yonsei University, Korea	
	Moderator Professor Hsiu-Min Tsai Hungkuang University	
	Venue: International Conference Center, LB206	
10:50-11:10am	Coffee break / Poster and Exhibition Venue: International Conference Center	
11:10-12:00am	Keynote 2: The pulse of progress: Nursing innovation in a changing world. Professor Ritin Fernandez, University of Newcastle, Australia	
	Moderator Professor Ya-Ling Tzeng China Medical University	
	Venue: International Conference Center LB206	
12:00am - 13:00 pm	Lunch	
13:00 -14:30 pm	Symposium 1 : Advancing dementia care: Insights from smart health Venue: International Conference Center LB206	
14:30-15:00 pm	Afternoon coffee break / Poster and Exhibition Venue: International Conference Center	
15:00-16:30 pm	Concurrent oral presentation 1 Venue: LB206	Concurrent oral presentation 2 Venue: LB207

Day 2, Saturday, August 9

8:30-9:30 am	Registration Venue: International Conference Center
9:30-10:20 am	Keynote 3: Saving mothers: Thailand's health system strategies to prevent postpartum hemorrhage. Dr. Phat Prapawichar, Assumption University, Thailand
	Moderator Deputy Director Hui-Ying Chiang Chi Mei Medical Center
	Venue: International Conference Center, LB206
10:20-10:40am	Coffee break / Poster and Exhibition Venue: International Conference Center
10:40-12:10am	Symposium 2: Innovative care models Venue: International Conference Center, LB206
11:30am - 13:00 pm	Lunch
13:00 -14:30 pm	Symposium 3: Advancing health and education in aging and chronic care Venue: International Conference Center, LB206
14:30-15:00 pm	Afternoon coffee break / Poster and Exhibition Venue: International Conference Center, LB206
15:00-16:30 pm	Concurrent oral presentation 3 Venue: International Conference Center, LB206
16:30-17:00	Closing Remarks Venue: International Conference Center, LB206

Campus map and conference venue



Conference Venue

LB206

International Conference Center (**L Building**)

No. 1018, Sec. 6, Taiwan Boulevard, Shalu District, Taichung City 433304, Taiwan (R.O.C.)

Keynote Address 1

Topic: Empowering nursing leadership and practice through policy innovation in the era of smart healthcare

August 8 ; 10:00-10:50am	International Conference Center (LB206)
<p>Professor Eui Geum Oh</p> <p>Former Dean of College of Nursing President, Korean Nursing Industry</p> <p>Yonsei University Korea</p>	
<p>Dr. Eui Geum Oh is a Professor at the College of Nursing, Yonsei University in Seoul, Korea, where she served as Dean from 2020 to 2024. She also holds a joint appointment as Adjunct Professor in the Department of Medical Engineering at Yonsei University College of Medicine. Dr. Oh received her PhD in Nursing Science from the University of Illinois at Chicago and is a Fellow of both the American Academy of Nursing and the National Academy of Medicine of Korea.</p> <p>A leading scholar in adult health nursing, transitional care, and technology-enhanced nursing interventions, Dr. Oh has authored over 170 peer-reviewed articles in prestigious international journals. In 2024, she was named among the World's Top 2% Scientists by Stanford University, being recognized in both the career-long impact and single-year citation categories—highlighting the depth and sustained influence of her scholarly work. Her research spans digital health coaching, discharge education models, cancer survivorship, and nursing leadership, integrating evidence-based practices with interdisciplinary collaboration.</p> <p>Dr. Oh's leadership extends across academic and national policy landscapes. She currently serves as Vice President (President-Elect) of the Korean Society of Nursing Science and President of the Korean Society of Nursing Industry. She has been an advisor to national institutions such as the Ministry of Health and Welfare, Ministry of Food and Drug Safety, and the National Bioethics Policy Institute. She previously served as Editor-in-Chief of <i>Asian Nursing Research</i> and continues to serve on editorial boards of journals including the <i>International Journal of Nursing Studies</i>, <i>Advances in Nursing Science</i>, and <i>Asian/Pacific Island Nursing Journal</i>.</p> <p>Her contributions have earned numerous honors, including the 2024 Alumni Achievement Award from the University of Illinois at Chicago, the Distinguished Nurse Scholar Award from the Korean Society of Nursing Science, and the Minister's Award from Korea's Ministry of Health and Welfare for contributions to healthcare innovation.</p> <p>From 2008 to 2020, Dr. Oh directed the Yonsei Evidence-Based Nursing Center, a Joanna Briggs Institute (JBI) collaborating center, where she championed systematic review methodologies and translational research. Her distinguished career continues to shape nursing science and practice while fostering the development of future nurse leaders.</p>	

Empowering nursing leadership and practice through policy innovation in the era of smart healthcare

Eui Geum Oh, PhD, RN, FAAN. College of Nursing, Yonsei University, Korea

Accelerated by the transformative forces of the Fourth Industrial Revolution—particularly artificial intelligence (AI), big data, cloud computing, and the Internet of Things (IoT)—global society is rapidly transitioning into a hyperconnected, super-aged environment. The advancement of smart healthcare technologies is reshaping the traditional healthcare paradigm, shifting from hospital- and physician-centered, treatment-focused models to patient-centered care embedded within home and community settings. This new model places greater emphasis on prevention, wellness, and health promotion.


Amid these profound shifts, the nursing profession must assume an expanded and proactive role. The integration of advanced digital technologies offers significant opportunities to enhance the quality, safety, efficiency, and personalization of care. Nurses are uniquely positioned to lead this transformation by adopting innovative practices, embracing interdisciplinary collaboration, and championing patient-centered models of care.

This presentation examines the evolving responsibilities of the nursing profession in the context of Healthcare 4.0, with a particular focus on the critical need for leadership and policy innovation. It explores strategic approaches to empower nurses in navigating complex technological environments—emphasizing the development of digital competencies, data-informed decision-making, and systems thinking. Furthermore, it underscores the importance of cultivating nurse leaders who can advocate for equitable and sustainable health systems through policy reform, regulatory advancement, and organizational change.

In addition, the presentation addresses the potential of value-based nursing interventions, high-quality care products, and service innovations to strengthen the healthcare industry. It concludes by introducing the concepts of nursing industrialization and nurse entrepreneurship as essential strategies for expanding the scope and societal impact of the nursing profession—ensuring its continued relevance, adaptability, and leadership in the era of smart healthcare.

Keynote Address 2

Topic: The pulse of progress: Nursing innovation in a changing world

August 8 ; 11:10-12:00am	International Conference Center (LB206)
<p>Professor Ritin Fernandez</p> <p>Associate Dean International School of Nursing and Midwifery</p> <p>University of Newcastle Australia</p>	
<p>Biography</p> <p>Professor Ritin Fernandez is an internationally recognised expert in evidence synthesis for clinical practice, recognized with numerous awards at both national and global levels. She is a Professor at the University of Newcastle, where she also leads the Centre for Transformative Nursing, Midwifery, and Health Research, a JBI Centre of Excellence. Ranked among the top 2% of scientists worldwide, Ritin's work spans academia and clinical settings, addressing the need for evidence-based healthcare to manage complex patient needs.</p> <p>Ritin is a passionate advocate for evidence synthesis and leads collaborative research projects on heart disease and diabetes with partners internationally. Her research in multicultural health, has contributed significantly to improving heart health outcomes in this population. Her extensive expertise in population studies, systematic reviews, meta-analysis, and quantitative methods has led to over 300 publications in high-impact journals. Ritin's commitment to education is evident through her development and teaching of advanced courses in systematic reviews, meta-analysis, and quantitative research for postgraduate and doctoral students.</p> <p>As Assistant Dean (International) at the College of Health, Medicine, and Wellbeing, she drives the College's internationalization strategy, building strategic international partnerships, enhancing the diversity of the international student profile, and overseeing global operations to ensure compliance with quality standards. Through these efforts, she plays a vital role in establishing and communicating UON's brand and values globally. Ritin's dedication to mentoring emerging researchers and her expertise in data management further strengthen her invaluable contributions to academia and healthcare worldwide.</p> <p>Education</p> <p>Doctor of Philosophy, University of Western Sydney</p>	

The pulse of progress: Nursing innovation in a changing world

Professor Ritin Fernandez, Associate Dean, International, School of Nursing and Midwifery,
University of Newcastle, Australia

As healthcare systems around the world confront rising pressures from an aging population, chronic disease, workforce shortages, and rapid technological change, the nursing profession is undergoing a transformative shift. **“The Pulse of Progress: Nursing Innovation in a Changing World”** explores how nurses are evolving beyond traditional roles to become pioneers of innovation, leadership, and systemic reform. Nurses are no longer only care providers, they are data interpreters, digital health navigators, policy influencers, and advocates for equity and person-centred care.


This presentation focuses on the critical trends reshaping nursing practice today. These include the integration of digital tools such as telehealth, wearable technologies, artificial intelligence, and electronic health records, as well as the growing importance of nursing roles in remote monitoring and virtual care. As these technologies become embedded in care delivery, nurses must develop new competencies in digital literacy and clinical decision-making.

The presentation also highlights how educational reform and leadership development are key to preparing nurses for the future. From simulation-based learning to interdisciplinary training, education is aligning with real-world complexity. At the same time, nurse-led innovations—from community health models to mobile care units—are addressing gaps in access, particularly among aging and marginalised populations.

The presentation also emphasises the importance of recognising and supporting nurses as agents of change within health systems. Their deep understanding of patient needs, combined with frontline experience and growing research engagement, positions them uniquely to lead responsive, sustainable innovations. Ultimately, the presentation concludes that the future of healthcare will be defined by how effectively we harness nursing’s full potential. By following the “pulse of progress,” healthcare systems can tap into the power of nursing innovation to build a more adaptive, equitable, and forward-thinking future.

Keynote Address 3

Topic: Saving mothers: Thailand's health system strategies to prevent postpartum hemorrhage

August 9 ; 9:30am -10:20am	International Conference Center (LB206)
<p>Dr. Phat Prapawichar</p> <p>Former Dean of Faculty of Nursing Science Assumption University Thailand</p>	
<p>Biography</p> <p>EDUCATION :</p> <ul style="list-style-type: none"> ● Doctor of Nursing Science (D.N.S), Faculty of Nursing, Mahidol University, Bangkok, Thailand, 2018 ● Master of Nursing (MNurs), School of Nursing, Midwifery, and Indigenous Health, University of Wollongong, NSW, 2522, Australia, 2006 ● Bachelor of Nursing Science (B.N.S.), Assumption University, Bangkok, Thailand, 2002 ● Practical Nurse Certificate (P.N.), Faculty of Medicine, Mahidol University, Bangkok, Thailand, 1990 <p>SPECIAL TRAINING:</p> <ol style="list-style-type: none"> 1. Participated in the academic seminar on “Updated in Obstetrics Nursing Care during COVID 19 Pandemic”, organized by Faculty of Nursing, Suratthani Rajabhat University, on October 3, 2021 (via Zoom Meeting) 2. Participated in the 6th National Congress of Nursing Education, Sub-Project 6: workshop to develop “Draft” Policy Proposals on the Management of Nursing Curriculum in the New Normal Society, organized by the Nursing Council on 27th – 28 November 2020 at the Rajanagarindra Conference Room, 4th Floor, Nursing Council 3. Participated in Preceptorship Training for Nursing Practicum at Assumption University, February 27- March 3, 2020 4. Participated in the conference on “Professional Ethics and Complaints: Protecting and Uphold Fairness for Nursing Professionals” organized by the Nursing Council on June 4, 2019 at the Rajanagarindra Conference Room, 4th Floor, Nursing Council 5. Participated in the academic seminar “Standard Practice of Obstetrics 4.0” at Amari Hotel, May 7 – 8, 2018 6. Participated in Workshop Training “Help Baby Breath Version 2” at Faculty of Medicine Ramathibodi Hospital, Bangkok, Thailand, August 15, 2017 7. Participated in Training of Assessors, organized by the QA Executive Committees, Assumption University, Bangkok, Thailand, June 13-14, 2016 8. Participated in the academic seminar “Pediatric Nursing Update: Family-Centered Care” at Goden Tulip Hotel, June 22-24, 2015 	

PROFESSIONAL EXPERIENCE:

1. Full time lecturer, Faculty of Nursing Science, Assumption University, Bangkok, Thailand, July 2002 – present.
2. Registered Nurse (Intensive Care Unit), Camillian Hospital, Bangkok, Thailand, May 2002 – June 2002.
3. Practical Nurse (Intensive Care Unit), Pak Kret Vetchakan Hospital, Nonthaburi, Thailand, 1997 – 1998
4. Practical Nurse (Intensive Care Unit), Ladpao Hospital, Bangkok, Thailand, 1994 – 1996
5. Practical Nurse (Intensive Care Unit), Ramathibodi Hospital, Bangkok, Thailand, 1990 – 1990

Saving mothers: Thailand's health system strategies to prevent postpartum hemorrhage

Dr. Phat Prapawichar, Former Dean of Faculty of Nursing Science, Assumption University of Thailand

Postpartum hemorrhage (PPH) remains a leading cause of maternal mortality worldwide, including in Thailand. In response, Thailand has implemented a multi-tiered health system strategy to effectively prevent and manage PPH. This system integrates primary, secondary, and tertiary healthcare services with strong community participation and national policy support. Universal health coverage ensures equitable access, while referral systems and emergency transport enable timely care. Continuous training for healthcare providers and active community involvement further strengthen prevention efforts. Despite significant progress, challenges remain in ensuring consistent implementation nationwide. Sustained system support is essential to maintain and advance reductions in PPH-related mortality.

Moderators list	
Hsiu-Min Tsai, RN. PhD. Professor and Dean College of Nursing Hungkuang University Taiwan	Hui-Ying Chiang, RN. PhD. Deputy Director, Department of Nursing, Chi Mei Medical Center, Chi Mei Medical Foundation Taiwan
Ya-Ling Tzeng, RN. PhD. Professor and Dean College of Health Care China Medical University Taiwan	Li-Yun Tsai, RN. PhD. Professor and Dean College of Nursing Central Taiwan University of Science and Technology Taiwan
Wei-Fen Ma, RN. PhD. Professor and Director School of Nursing China Medical University Taiwan	Wen-Miao Liu, RN. PhD. Associate Professor Department of Post-Baccalaureate Program in Nursing Central Taiwan University of Science and Technology Taiwan
Sally Chan, PhD, MSc, BSc, PGDip. Ed., RN, RMN, RN (Psy.), FHKAN, FAAN, FFNMRC SI Ad Eundem, SFSERA Professor and President of Tung Wah College, Hong Kong China	Ping-Yi Lin, RN. PhD. Associate Professor Department of Nursing Hungkuang University Taiwan
Ruoh-Lih Lei, RN. PhD. Associate Professor Department of Nursing National Chi Nan University Taiwan	Ming-Hsin Hsieh, RN. PhD. Assistant Professor Department of Nursing Hungkuang University Taiwan
Ya-Wen Lee, RN. PhD. Associate Professor and Director Department of Nursing, Changhua Christian Hospital Taiwan	Wan-Ting Huang, RN. PhD. Assistant Professor Department of Nursing Da Yeh University Taiwan
Ching-Mei Chang, RN. PhD. Associate Professor and Director Department of Five-Year Junior Nursing College Program Hungkuang University Taiwan	Li-Hung Lee, RN. PhD. Associate Professor Department of Nursing Hungkuang University Taiwan
Emilie M. Lopez, Ed.D., MAN, RN Assistant Professor Department of Nursing, College of Health and Welfare Woosong University Philippines	

Symposium 1

- ◆ **Topic:** Advancing dementia care: Insights from smart health applications and caregiver experiences
- ◆ August 8; 13:00 -14:30 pm; LB206

Moderators

<p>Sally Chan</p> <p>PhD, MSc, BSc, PGDip. Ed., RN, RMN, RN (Psy.), FHKAN, FAAN, FFNMRC SI Ad Eundem, SFSERA</p> <p>Professor and President of Tung Wah College Hong Kong</p>	
<p>Wei-Fen Ma</p> <p>RN, MSN, PhD.</p> <p>Professor and Chair School of Nursing, China Medical University Taiwan</p> <p>Consultant, Department of Nursing China Medical University Hospital Taiwan</p>	

Presentations and Speakers

<p>Topic 1: The investigation of mobile applications used in the management of dementia care</p> <p>Authors: Hsiao-Lun Kuo, Chun-Hung Chang, Wei-Fen Ma*</p> <p>Speaker Hsiao-Lun Kuo RN, MSN Account Manager, Anxin Community Psychiatric Rehabilitation Center, China Medical University, Taiwan</p>
<p>Topic 2: An analysis of socioeconomic factors and the role of medical developers in English-language dementia Apps</p> <p>Authors: Tzu-Han Chen, Wei-Fen Ma*</p> <p>Speaker Tzu-Han Chen Ph.D. Candidate Ph.D. Program for Health Science and Industry, China Medical University, Taiwan</p>

Topic 3: The experience of using smart mobile applications for patients with mild cognitive impairment and their primary caregivers

Authors:

Jui-Hung Chang, Wei-Fen Ma*

Speaker

Jui-Hung Chang

RN, NP, MSN

Changhua Chistian Hospital, Changhua, Taiwan

Topic 4: Beyond caregiving: Recovery and growth among primary caregivers following the loss of a family member living with dementia

Authors:

Wen-Ying Chang, Wei-Fen Ma*

Speaker

Wen-Ying Chang

RN, NP, MSN

Changhua Chistian Hospital, Changhua, Taiwan

Symposium 1

Topic 1: The investigation of mobile applications used in the management of dementia care

Speaker

Hsiao-Lun Kuo, RN, MSN

Account Manager, Anxin Community

Psychiatric Rehabilitation Center

China Medical University

Taiwan



Biography

I am currently an account manager in Community Psychiatric Rehabilitation Center, with 13 years of experience in the field of psychiatric nursing. In 2022, I completed a program in smart medical training course at China Medical University Hospital's School of Artificial Intelligence (AI). My main area of work is community psychiatric nursing, where I actively promote community support and recovery for psychiatric patients. I am involved in the implementation of a community living program for psychiatric patients. I look forward to integrating digital solutions in the future to enhance the accessibility and convenience of rehabilitation resources for mental health recovers in the community.

Abstract

Dementia poses increasing challenges for individuals, families, and healthcare systems worldwide. This study examined mobile applications developed to support dementia care, comparing those in different languages and those released before and during the COVID-19 pandemic. A range of databases and app stores were systematically searched, and app quality was assessed using a standardized rating scale. Findings revealed only minor differences in quality between English- and Chinese-language apps, as well as between apps developed before and during the pandemic. Although some variations in user engagement and perceived impact were observed, they were not statistically significant. The results highlight the need for continued interdisciplinary collaboration to develop accessible, culturally appropriate, and evidence-based mobile health tools tailored to the needs of individuals living with dementia and their caregivers.

Symposium 1

Topic 2: An analysis of socioeconomic factors and the role of medical developers in English-language dementia Apps

Speaker

Tzu-Han Chen

Ph.D. Candidate

PhD Program for Health Science and
Industry, China Medical University
Taiwan



Biography

As a PhD candidate in the Health Science and Industry Program at China Medical University, Taiwan, my research focuses on digital health and the development of the healthcare industry. The work combines academic insights with real-world innovation to support technology-driven healthcare solutions. Involvement in interdisciplinary projects and presentations at both national and international conferences has enriched the research experience. The overarching goal is to bridge the gap between research and practice, promoting sustainable and effective healthcare through digital innovation.

Abstract

Mobile health applications offer promising support for individuals at risk of dementia, yet disparities exist in app development and quality across countries and developer backgrounds. This study examined how national development status and medical involvement influence the quality and impact of dementia-related apps. Using a structured evaluation tool, the analysis revealed that apps developed in higher-income regions and by teams with medical expertise tended to perform better in both informational quality and user-perceived value. Engagement and credibility emerged as key factors linked to users' willingness to adopt such tools. The findings underscore the importance of prioritizing inclusive app development and integrating medical professionals to enhance usability and accessibility, especially in underserved regions.

Symposium 1

Topic 3: The experience of using smart mobile applications for patients with mild cognitive impairment and their primary caregivers

Speaker

Jui-Hung Chang

RN, NP, MSN

Psychiatric Nurse Practitioner

China Medical University

Taiwan



Biography

With over 10 years of experience as a psychiatric nurse and currently serving as a psychiatric nurse practitioner at Kaohsiung Municipal Kai-Syuan Psychiatric Hospital for the past 3 years, I have been deeply involved in caring for patients with a wide range of mental health conditions. My clinical work has fueled my interest in dementia care, particularly in understanding patients' subjective experiences. I conducted a qualitative study exploring how individuals with mild dementia interact with and perceive mobile applications. Motivated by the advancement of AI and digital tools, my research aims to develop innovative interventions that support cognitive functioning, reduce caregiver burden, and enhance overall social well-being. I look forward to furthering my academic and clinical development, with the hope of making a meaningful contribution to the future of elderly and dementia care.

Abstract

This qualitative study explored the experiences of individuals with mild cognitive impairment and their primary caregivers after using a mobile health app. Four major themes were identified: (1) caregiving-related distress, including emotional and physical strain; (2) gradual relief and restoration of autonomy through app engagement; (3) social reintegration as patients regained confidence in daily activities; and (4) reflection and emerging hope inspired by improved self-care and caregiver support. Although initial resistance to technology was noted, both patients and caregivers reported enhanced well-being, cognitive stimulation, and reduced burden. Participants expressed positive expectations for future app development, highlighting its potential to support long-term dementia care.

Symposium 1

Topic 4: Beyond caregiving: Recovery and growth among primary caregivers following the loss of a family member living with dementia

Speaker

Wen-Ying Chang

RN, NP, MSN

Changhua Chistian Hospital

Taiwan



Biography

With over 20 years of experience in emergency clinical care, I have witnessed firsthand the challenges faced by patients and families in critical situations. As Taiwan's aging population continues to rise, I recognize the increasing importance of long-term care, which led me to pursue further education in this field. My personal experience with dementia caregiving has deepened my interest in supporting families dealing with this condition. Through my studies and research, I have gained a better understanding of the policies and challenges in long-term care. I am committed to advancing my knowledge and skills to contribute meaningfully to elderly and dementia care in the future.



Abstract

This qualitative study explored the post-bereavement recovery of primary caregivers of individuals with dementia, focusing on their emotional responses, life transitions, and identity reconstruction within a Chinese cultural context. Interviews with ten former caregivers revealed four main themes: (1) enduring physical, emotional, and spiritual distress during caregiving; (2) gradual relief and restoration of autonomy; (3) social reintegration; and (4) reflection and emerging hope. While many participants experienced emotional release and regained a sense of self, some encountered lingering grief and difficulty adapting. Recovery was supported by spiritual beliefs, family support, and meaningful caregiving reflections, whereas unresolved guilt and prior depressive symptoms impeded adjustment. These findings highlight the need for culturally sensitive, post-caregiving interventions that promote psychological healing and role transformation.

Symposium 2

- ◆ **Topic:** Innovative care models
- ◆ August 9; 10:40-12:10am; LB206

Moderators

<p>Li-Yun Tsai</p> <p>Professor and Dean College of Nursing Central Taiwan University of Science and Technology Taiwan</p>	
<p>Wen-Miao Liu</p> <p>Associate Professor Department of Post-Baccalaureate Program in Nursing Central Taiwan University of Science and Technology Taiwan</p>	

Presentations and Speakers

<p>Topic 1: Promoting physical activity among cancer survivors in Taiwan: From observation to intervention</p> <p>Yu-Ling Chen Assistant Professor National Taiwan University of Sport, Taiwan</p>
<p>Topic 2: The real experiences and potential applications of artificial intelligence (AI) art drawing: A novice perspective</p> <p>Shu-Jen Chen Assistant Professor Central Taiwan University of Science and Technology, Taiwan</p>
<p>Topic 3: Innovative approaches to cancer care education</p> <p>Li Ya Lin Assistant Professor Department of Nursing/Central Taiwan University of Science and Technology, Taiwan</p>
<p>Topic 4: Melodies of well-being: Examining the influence of community music care on older adults' well-being</p> <p>Liang-Ru Lin Chair Department of Gerontological Health Care, Central Taiwan University of Science and Technology, Taiwan</p>

Symposium 2

Topic 1: Promoting physical activity among cancer survivors in Taiwan: From observation to intervention

Speaker

Yu-Ling Chen

Assistant Professor

National Taiwan University of Sport

Taiwan



Biography

Dr Yu-Ling Chen specialises in sports medicine, physical activity promotion, mental health enhancement, and health promotion. Her research focuses on physical activity and public health, with particular expertise in physical activity epidemiology, exercise psychology, and behaviour change. She has conducted studies across diverse populations, including school-aged children, professional drivers, women, older adults and cancer survivors, aiming to improve public engagement in physical activity and foster sustainable health behaviours through evidence-based strategies.

Abstract

Physical activity is recognised as an effective approach to improving overall health, both in the general population and among cancer survivors. Its benefits include reduced fatigue, improved physical functioning, enhanced emotional well-being, and a lower risk of cancer recurrence and mortality. Research has shown that engaging in regular physical activity significantly improves survival outcomes for cancer survivors. International guidelines recommend at least 150 minutes of moderate-intensity aerobic activity per week, along with muscle-strengthening exercises on two or more days.

Despite these recommendations, studies in Western countries have reported low physical activity levels among cancer survivors. To explore the situation in Taiwan, a survey was conducted with 298 cancer survivors to assess their physical activity behaviours and identify perceived barriers and motivators. The most commonly cited barrier was adverse effects following treatment, while the main motivator was the desire to maintain health and independence. Interestingly, those who had recently completed surgery or chemotherapy reported higher levels of moderate to vigorous physical activity and less sedentary time compared to those not undergoing active treatment.

Following the survey, a series of focus group discussions with 21 cancer survivors provided deeper insight into these patterns. Participants expressed a strong preference for outdoor activities, though challenges such as fatigue, medication side effects, and weather were frequently mentioned.

Based on these findings, a 12-week exercise and nutrition programme was developed. The intervention led to improvements in fatigue, emotional health, and quality of life. Notably, intrinsic motivation played a key role in sustaining behavioural change. These results suggest that well-designed, personalised programmes with ongoing support may effectively promote physical activity in cancer survivors.

Symposium 2

Topic 2: The real experiences and potential applications of artificial intelligence (AI) art drawing: A novice perspective

Speaker

Shu-Jen Chen

Assistant Professor

Central Taiwan University of Science and
Technology

Taiwan



Biography

Dr Shu-Jen Chen is specialized in the mental health nursing in Taiwan. Since her early childhood, she has been interested in drawing and enjoyed the fun of naïve art. In 2011 and 2012, she held a joint art exhibition with her sister at the art gallery of the Central Taiwan University of Science and Technology; the university where she has been working as a nurse educator for decades. Afterwards, she, together with two other teachers, has launched a course named “Expressive Art in Applications”. The main goal of the course is to promote nurse students’ self-awareness and personal development by performing different art activities, such as drawing, dancing, singing, playing music instruments and various group art activities. Through the experiential learning, students reflect also on the potential benefits that expressive arts can possibly bring to an individual, whom students might serve in the future. The course has been much welcomed by those students who take part in it.

Abstract

This project consisted of a two-stage qualitative exploration on personal experiences and potential applications of AI-powered image generation in art.

In the first stage, five groups of second-year-bachelor nursing students each successfully created artwork by using Generative AI. Then, they discussed and reported their experiences. Content analysis on their reports revealed five themes that highlighted their AI drawing experiences.

In the second stage, after completing a year-long nursing practicum across various clinical settings, all of the students had developed a deeper understanding of clinical nursing practices. Subsequently, ten of them were recruited to participate in a focus group brainstorming session. Based on their nursing practicum and AI art drawing experiences, their suggestions were analyzed and categorized to unveil possible applications of AI-generated artwork, from a novice perspective.

Symposium 2

Topic 3: Innovative approaches to cancer care education

Speaker

Li Ya Lin

Assistant Professor,
Department of Nursing, Central Taiwan
University of Science and Technology
Taiwan



Biography

Dr. Li Ya Lin specializes in critical and emergency care nursing and has a passion for innovative nursing education. With extensive clinical and teaching experience, she integrates technologies such as virtual reality and artificial intelligence into her lessons to enhance students' critical thinking abilities and prepare them for real-world scenarios. Her goal is to equip future nurses with the skills and mindset necessary to succeed in fast-paced healthcare environments.

Abstract

This presentation introduces a VR-based teaching module designed by Dr. Li Ya Lin to enhance nursing education in cancer care. Addressing the limitations of traditional methods, the module offers immersive simulations covering symptom assessment, communication, psychological support, and end-of-life care. Students engage in realistic scenarios to safely practice clinical decision-making and humanistic care. The session will highlight the module's design, implementation, and initial student feedback, demonstrating how VR fosters empathy, critical thinking, and interdisciplinary innovation in nursing education.

Symposium 2

Topic 4: Melodies of well-being: Examining the influence of community music care on older adults' well-being

Speaker

Liang-Ru Lin

Chair, Department of Gerontological Health
Care, Central Taiwan University of
Science and Technology
Taiwan



Biography

Dr. Liang-Ru Lin, with a background in music performance and adult education, holds a Ph.D. in Adult Education from National Kaohsiung Normal University and a Master's degree in music from Northwestern University. Her research explores the innovative integration of community music care in enhancing the well-being of older adults. By leveraging music as a tool for care, she aims to create innovative models that promote emotional well-being, community connection, and aging with dignity. Her work focuses on developing person-centered, community-driven strategies that foster holistic health for older adults."

Abstract

Community music care is an innovative social practice strategy that integrates community music therapy and music care. Its main purpose is to improve the well-being of older adults in the community. However, the existing well-being-related research rarely outlines the full picture of the well-being of older adults from the perspective of community music care. Therefore, this study aims to explore the impact of community music care on the well-being of older adults. This study adopted a mixed qualitative and quantitative research method. The qualitative component involved semi-structured in-depth interviews with 10 community-dwelling older adults to explore their experiences with community music care and its effects on well-being. The quantitative component employed a survey of older adults in Penghu County, Taiwan (one of the areas with the most aging population in Taiwan). A total of 166 valid questionnaires were collected to measure the correlation between music care and well-being. The research results show that community music care has a significant impact on the mental health, social interactions and overall well-being of older adults. Qualitative interviews further revealed the specific role of music care in improving emotional connections and reducing loneliness. The results of this study can provide future reference for communities and long-term care institutions in planning music activities for older adults and can serve as a strategic basis for government agencies to formulate long-term care policies to improve the well-being of older adults.

Symposium 3

◆ **Topic:** Advancing health and education in aging and chronic care

◆ August 9; 13:00 -14:30 pm; LB206

Moderator:

Ping-Yi Lin

Associate Professor

Department of Nursing, Hungkuang

University

Taiwan



Presentations and Speakers

Topic 1: Developing a diverse mindfulness course for community-dwelling older adults

Yu-Rung Wang

Assistant Professor

Department of Nursing, Chang Gung University of Science and Technology - Chiayi Campus, Puzi, Chiayi, Taiwan

Topic 2: Oral health challenges and cognitive profiles in community older adults: Insights from a Taiwanese AI-supported assessment

Chia-Hsiu Chang

Assistant Professor

Department of Nursing, Hungkuang University, Taiwan

Topic 3: Transforming health literacy into action: A moderated mediation model of health literacy and self-care behaviors in chronic kidney disease

Kuan-Pin Lin

Associate Professor

Department of Nursing, Hungkuang University, Taiwan

Topic 4: From PowerPoint to AI: Innovations in nursing education

Chu-Ling Chang

Associate Professor

Department of Nursing, Hungkuang University, Taiwan

Symposium 3

Topic 1: Developing a diverse mindfulness course for community-dwelling older adults

Speaker

Yu-Rung Wang

Assistant Professor

Department of Nursing

Chang Gung University of Science and

Technology - Chiayi Campus

Taiwan



Biography

Dr. Yu-Rung Wang is an Assistant Professor in the Department of Nursing at Chang Gung University of Science and Technology, Taiwan. She received her Ph.D. in Nursing from National Cheng Kung University. Her research focuses on healthy aging, mindfulness-based interventions, and innovative nursing education using virtual reality. Dr. Wang has led government-funded intervention research projects on perspectives of healthy aging. She is also a certified instructor of Mindfulness-Based Stress Reduction (MBSR) and frequently conducts workshops for healthcare professionals and community elders.

Abstract

As Taiwan is poised to enter a super-aged society, previous research studies have found that improving the psychological aspects of older people can contribute to promoting healthy aging. Existing evidence suggests that interventional mindfulness courses are effective in enhancing self-awareness and well-being among older adults. However, there are still no relevant theory-based mindfulness courses for older people in Taiwan. Therefore, this study aims to use the modified Delphi method to develop mindfulness courses for older adults in the community. This study aims to use the modified Delphi method to establish mindfulness courses for older adults in the community. After experts evaluated it, the research showed a high CVI for suitability and clarity. This study provides relevant course guidelines for mindfulness programs targeting older adults in Taiwan's communities. It is a reference for promoting community-based psychological care to support healthy aging among older adults.

Symposium 3

Topic 2: Oral health challenges and cognitive profiles in community older adults: Insights from a Taiwanese AI-supported assessment

Speaker

Chia-Hsiu Chang

Assistant Professor

Department of Nursing

Hungkuang University

Taiwan



Biography

Dr. Chia-Hsiu Chang is a dedicated researcher and educator in nursing and healthcare innovation, known for integrating technology with deep humanistic values and cultural insight. Her work spans evidence-based practice, community care, and the application of AI, IoT, and drones in rural health services. She leads curriculum development that fosters both technological competence and empathy, aiming to cultivate healthcare professionals grounded in compassion, cultural and technological literacy, and social responsibility.

Abstract

An AI-based image recognition model and a Taiwan-specific Masticatory Visual Scale (MVS) were developed to assess masticatory ability in older adults. Among 82 participants aged ≥ 65 , 30.48% showed poor chewing function. Common issues included high denture use, xerostomia, tongue-lip dysfunction, and fewer than 20 natural teeth. Chewed dried beencurd samples were analyzed using VisLab AI, achieving 66.55% recognition accuracy. Findings support the initial validity of the Taiwan MVS and highlight the potential of AI-assisted tools for community-based oral health assessment in aging populations.

Symposium 3

Topic 3: Transforming health literacy into action: A moderated mediation model of health literacy and self-care behaviors in chronic kidney disease

Speaker

Kuan-Pin Lin

Associate Professor

Department of Nursing

Hungkuang University

Taiwan



Biography

Dr. Kuan-Pin Lin is an Associate Professor and Graduate Program Coordinator in the Department of Nursing at Hungkuang University. She specializes in community health nursing and chronic disease prevention. Dr. Lin earned her doctoral degree from National Taipei University of Nursing and Health Sciences in 2014, was promoted to Assistant Professor in 2015, and to Associate Professor in 2024. In addition to teaching, she oversees curriculum planning and student development in the master's program. She actively promotes academic–clinical collaboration to strengthen the link between education and practice. Dr. Lin is dedicated to nursing research and community health promotion, striving to enhance the quality of the professional nursing workforce.

Abstract

This study examined the mediating role of illness perception and the moderating role of age in the relationship between health literacy (HL) and self-care behaviors among patients with chronic kidney disease (CKD). A total of 235 CKD patients were recruited from a regional hospital in Taiwan through convenience sampling. Self-report questionnaires of CKD-specific HL, illness perception, and self-care behaviors were used to collected data. The results revealed that HL indirectly influenced self-care behaviors through the treatment control dimension of illness perception. Moderated mediation analysis further showed that the relationship between HL and treatment control was significant among patients younger than 68 years but not in those aged 68 and above. The results of this study suggest that healthcare providers should assess CKD patients' perception of illness while improving their HL, and strengthening the perception of treatment control among older patients with CKD may enhance their engagement in self-care behaviors.

Symposium 3

Topic 4: From PowerPoint to AI: Innovations in nursing education

Speaker

Chu-Ling Chang

Associate Professor

Director, Post-Baccalaureate Nursing

Program,

Hungkuang University

Taiwan.



Biography

I am Dr. Chu-Ling Chang, an Associate Professor at Hungkuang University of Technology. I teach courses in Infection Control and Acute and Critical Care for Older Adults. My research focuses on teaching methodologies and the application of technology in nursing education. I am dedicated to improving student engagement and learning outcomes through innovative and technology-enhanced teaching strategies.

Abstract

This study aimed to explore the simultaneous application of AI-generated digital teaching materials and traditional Evercam-recorded materials in nursing education, and to assess students' learning satisfaction and experiences. The results showed that most students expressed high approval of the AI materials, noting their richer visuals, greater realism, and effective summarization, which enhanced understanding and practical application. Some students also indicated that combining AI and traditional materials better balanced theoretical knowledge and clinical response training, thereby improving overall learning outcomes.

Oral presentation



HUNGKUANG UNIVERSITY
COLLEGE OF NURSING

Oral presentation session 1	
Date	8 August
Time	15:00-16:30 pm
Venue	LB206
Moderator 1	Ruoh-Lih Lei
Moderator 2	Ya-Wen Lee
No	Topics
OP02	<p>Topic 1: Enhancing the service of chronic disease patients at the primary level with artificial intelligence innovation</p> <p>Wanpen Waelveerakup Nakhon Pathom Rajabhat University Thailand</p>
OP03	<p>Topic 2: Telomere dynamics and telomerase activity in breast cancer: Implications for aging and tumorigenesis using the cBioportal Dataset</p> <p>Nosipho Treasure Mdluli China Medical University Kingdom of Eswatini</p>
OP04	<p>Topic 3: The impact of peripheral neuropathy on fall risk among diabetic patients in emergency care</p> <p>Kuan-Jung Huang Christian Medical Foundation Lukang Christian Hospital Taiwan</p>
OP06	<p>Topic 4: The effectiveness of mixed reality (MR) simulation-based learning on nursing students' perceived knowledge, confidence, and skills for managing critical pediatric nursing care</p> <p>Natthaya Cherngchalard Chooprom Nakhon Pathom Rajabhat University Thailand</p>

Enhancing the service of chronic disease patients at the primary level with artificial intelligence innovation

Wanpen Waelveerakup, Paisan Simalaotao, Jutatip Tepsuwan,
Ubonrat Sirisukpoca, Kaewjai Apornpisarn, Pimsupa Chandanasotthi,
Nongnuch Chaowanasilpa, Duangporn Phasuwan, Riam Namarak,
Kenika Jongchaipuk, and Napaphen Jantacumma

Nakhon Pathom Rajabhat University, Thailand

Abstract

Background: Chronic diseases such as hypertension, diabetes, and cardiovascular disease are significant public health problems with high prevalence, severe complications, and economic burden on families and the health system.

Objectives: 1) Develop an AI-powered chronic disease service innovation package. 2) Evaluate the effectiveness of the innovation on patients' health literacy and health outcomes. 3) Enhance nurses' AI competency for using the innovation. 4) Develop Village Health Volunteers' (VHVs) AI and health literacy skills.

Methods: This research employed a Research and Development (R&D) methodology consisting of four phases: 1) Analysis of baseline data and patient needs through literature review, in-depth interviews, and focus group discussions. 2) Development of the innovation package through a co-design process with experts and stakeholders. 3) Testing the quality of the innovation in the laboratory and developing personnel's AI competency through workshops. 4) Pilot testing in chronic disease clinics using a quasi-experimental pre-posttest design.

Instruments: Data collection tools included health literacy assessment forms, blood pressure, pulse, and blood sugar level recording forms, and technology and AI competency measurement forms for nurses and VHVs. All instruments were validated by experts and demonstrated reliability (Cronbach's $\alpha > 0.8$).

Data Analysis: Data were analyzed using descriptive statistics, ANOVA, t-test, Pearson correlation, stepwise multiple regression analysis, confirmatory factor analysis, and content analysis.

Results: The results showed that 1) The innovation could provide services as intended, with some issues found regarding online connection speed. 2) After the intervention: (2.1) Health literacy of chronic disease patients increased ($p < .001$); (2.2) Hypertension patients achieved blood pressure control ($p < .05$); (2.3) Diabetes patients achieved blood sugar control ($p < .05$); (2.4) Cardiovascular disease patients demonstrated better blood pressure and pulse rate control ($p < .05$); (2.5) All patient groups experienced improved quality of life ($p < .05$). 3) After the intervention, AI competency of nurses and public health professionals increased ($p < .05$). 4) After the intervention, AI literacy of VHVs increased ($p < .05$).

Conclusion and Recommendations: The study demonstrates the feasibility and effectiveness of using AI innovation in chronic disease management at the primary care level. Future research should focus on long-term evaluation and wider implementation to support practical application in the health system. Further studies should explore patient and staff satisfaction with the innovation and factors influencing successful implementation.

Keywords: artificial intelligence, robots, chronic diseases, primary care, screening

Telomere dynamics and telomerase activity in breast cancer: Implications for aging and tumorigenesis using the cBioPortal Dataset

Nosipho Treasure Mdluli

China Medical University, Taiwan

Abstract

Background: Telomeres, the protective caps at the ends of chromosomes, play a crucial role in maintaining genomic stability. Their dysfunction is associated with cellular aging and tumorigenesis. Breast cancer, a heterogeneous disease, exhibits distinct telomere maintenance mechanisms, including telomerase activation and alternative lengthening of telomeres (ALT). Understanding telomere dynamics in breast cancer is essential for identifying potential prognostic biomarkers and therapeutic targets.

Methods: This study analyzed 500 breast cancer samples from the cBioPortal for Cancer Genomics to investigate telomere-related gene expression, mutation patterns, and their implications for aging and breast cancer progression. Differential expression analysis was performed using DESeq2, and survival outcomes were assessed using Kaplan-Meier survival analysis and Cox proportional hazards models. Pathway enrichment analysis was conducted using Gene Set Enrichment Analysis (GSEA) to explore telomere-related biological processes.

Results: Our analysis revealed significant alterations in telomere-related genes in breast cancer. TERT expression was upregulated 3.2-fold ($P < 0.001$), and POT1 was upregulated 2.9-fold ($P < 0.001$) in breast cancer tissues compared to normal controls, with triple-negative breast cancer (TNBC) subtypes exhibiting the highest telomerase activity. TERT promoter mutations were detected in 25% of breast cancer samples, correlating with poor prognosis and an increased mortality risk (HR = 1.85, 95% CI: 1.45-2.35, $P < 0.001$). Additionally, POT1 mutations (15%) and TRF1 mutations (10%) were linked to intermediate prognostic outcomes, while TRF2 mutations (8%) were associated with improved survival. Kaplan-Meier analysis indicated that patients with high TERT expression had a 32% reduction in overall survival ($P < 0.001$). Pathway enrichment analysis identified significant upregulation of DNA repair mechanisms (ATM, BRCA1, RAD51, $P < 0.01$) and cell cycle dysregulation pathways (CDK4/6-Rb-E2F axis, $P < 0.01$), suggesting that telomere dysfunction contributes to genomic instability and tumor progression.

Conclusion: This study highlights the critical role of telomere dynamics in breast cancer progression, demonstrating their potential as biomarkers for prognosis and therapeutic targets. Telomere-targeted therapies, including telomerase inhibitors (e.g., Imetelstat) and CDK4/6 inhibitors, could improve treatment outcomes in breast cancer patients with telomere-related alterations. Further research is needed to validate these findings and explore personalized interventions.

The impact of peripheral neuropathy on fall risk among diabetic patients in emergency care

Kuan-Jung Huang, Yi-Chuan Tsai

Christian Medical Foundation Lukang Christian Hospital, Taiwan

Abstract

Research Objective: Diabetes with poor glycemic control often leads to symmetric peripheral neuropathy. Most studies indicate that peripheral neuropathy increases the risk of falls. Therefore, this study aims to investigate the impact of peripheral neuropathy and its symptoms on fall risk in diabetic patients visiting the emergency department.

Research Methods: This study employed a cross-sectional, correlational predictive design. A purposive sample of diabetic patients was recruited from the emergency department of a regional hospital in Changhua, Taiwan. A total of 93 patients were enrolled. After obtaining informed consent, participants completed questionnaires and assessments. Falls were the dependent variable, while diabetic peripheral neuropathy was the primary independent variable. The Total Neuropathy Score – Clinical Version (TNSc) and Douleur Neuropathique 4 Questionnaire (DN4) were used as assessment tools. Data were entered and analyzed using SPSS 22.0, with statistical methods including mean, standard deviation, frequency, percentage, t-tests, chi-square tests, correlation analysis, and logistic regression.

Research Results: A total of 93 participants were included, aged between 29 and 92 years, with a mean age of 65.81 years. The majority were female. 78.5% of patients had peripheral neuropathy, and 8.6% experienced neuropathic pain. Among patients who had fallen within the past year, the prevalence of peripheral neuropathy, sensory nerve abnormalities, motor nerve abnormalities, and neuropathic pain was 90.9%, 97.0%, 60.6%, and 12.1%, respectively. Fall frequency showed a low positive correlation with DN4 score, TNSc score, and motor nerve abnormality score. Risk factors for falls among diabetic patients included peripheral neuropathy (OR = 3.95) and motor nerve abnormalities (OR = 6.15). Further analysis of peripheral neuropathy symptoms revealed that increased TNSc total score (OR = 1.28), sensory nerve abnormality score (OR = 1.29), sensory symptoms (OR = 1.83), tremor sensation (OR = 1.81), motor nerve abnormality score (OR = 2.23), motor symptoms (OR = 3.05), limb muscle strength impairment (OR = 7.20), and DN4 score (OR = 1.35) were all associated with a higher risk of falls.

Implications for Nursing Practice: Although diagnosis is not the primary role of nurses, the application of the TNSc tool enables nurses to identify peripheral neuropathy without relying on specialized equipment or physician orders. Early detection allows for timely intervention. By incorporating classroom education, hands-on practice, and scenario-based simulations, nursing staff can enhance their ability to assess and discuss patient conditions. Individualized patient education and nursing care plans can help reduce fall incidents and minimize fall-related injuries. Furthermore, these approaches improve nurses' assessment skills, interdisciplinary communication, and coordination abilities, ultimately enhancing the overall quality of nursing care.

The effectiveness of mixed reality (MR) simulation-based learning on nursing students' perceived knowledge, confidence, and skills for managing critical pediatric nursing care

Natthaya Cherngchalard Chooprom¹, Nuttaya Angkaprasertkul¹, Warisara Rungrueng², Yanyong Bungthong²

¹ Nakhon Pathom Rajabhat University, Thailand

² Nursing Student, Faculty of Nursing, Nakhon Pathom Rajabhat University, Thailand

Abstract

Background: Critical care management is essential in pediatric nursing care to prevent pediatric morbidity. Repeating this management in practice is often not possible. Sustainable confidence in these procedures is usually achieved in the first few years of nursing practice. Mixed Reality (MR) simulation-based learning is an emerging technology that blends virtual and physical environments to enhance experiential learning. In nursing education, particularly in critical pediatric care, MR simulations provide an immersive and interactive platform to improve students' clinical competencies.

Purpose / Objectives: This study investigates the effectiveness of MR simulation-based learning on nursing students' perceived knowledge, confidence, and skills in managing critical pediatric nursing care scenarios.

Approaches / Methods: Quasi-experimental research was used by conducting the experiment and collecting research data according to the one group pre - posttest design. MR scenarios were developed on the topics of pediatric patient with respiratory failure and pediatric resuscitation. The MR-based simulations learning activity was conducted in the second year of the NPRU nursing education program. A questionnaire was developed for students (N = 60) to self-assess their competence in the categories of knowledge, confidence and practical skills. Data were collected through pre- and post-intervention surveys, self-assessment scales, and objective structured clinical examinations (OSCEs).

Results / Findings: Students rated their competence significantly better in the post-survey than in the pre-survey ($p < 0.05$). Simulation has an impact on self-assessment of professional knowledge, confidence and practical skills in emergency situations. It enhances students' procedural knowledge and practical skills in complex contexts, complements subject knowledge and builds confidence.

Discussion / Implications: Students rated their competence significantly better in the post-survey than in the pre-survey ($p < 0.05$). Simulation has an impact on self-assessment of professional knowledge, confidence and practical skills in emergency situations. It enhances students' procedural knowledge and practical skills in complex contexts, complements subject knowledge and builds confidence.

Keywords: mixed reality, simulation-based learning, nursing student, knowledge, confidence, management skills

Oral presentation session 2	
Date	8 August
Time	15:00-16:30 pm
Venue	LB207
Moderator 1	Ching-Mei Chang
Moderator 2	Emilie M. Lopez
No	Topics
OP07	<p>Topic 1: The study of registered nurses' competency at Nakhon Pathom Hospital</p> <p>Dr. Hathaichanok Buajaroen Associate Professor Nakhon Pathom Rajabhat University Thailand</p>
OP08	<p>Topic 2: On the frontline of fear and duty: Stress, stressors and coping strategies among Taipei paramedic-P during COVID-19</p> <p>Hsiao-Fen Lo Doctoral Student Department of Health Promotion and Health Education National Taiwan Normal University Taiwan</p>
OP09	<p>Topic 3: The influence of media on my clinical work during the pandemics– A qualitative study</p> <p>Hsiao-Fen Lo Doctoral Student, Department of Health Promotion and Health Education National Taiwan Normal University Taiwan</p>
OP14	<p>Topic 4: Best practices and guidelines for developing learning outcomes in English language skills of students of the faculty of nursing, Nakhon Pathom Rajabhat University</p> <p>Natthaya Cherngchalard Chooprom Nakhon Pathom Rajabhat University, Faculty of Nursing, International Relations Committee Thailand</p>

The study of registered nurses' competency at Nakhon Pathom Hospital

Buajaroen, H.¹, Sanyod, V.² Trisayaluk, T.², Klangprapan, S.², Bumrungpuech, J.²,
Rittidet, P.², Learahabumrung P.², Padme, Y.², Sukhong, R.², Khonghaphet, S.²

¹Nakhon Pathom Rajabhat University, Thailand

²Nakhon Pathom Hospital, Thailand

Abstract

Background: The shortage of registered nurses in Thailand is becoming increasingly severe, while the nursing service system is rapidly evolving. As a result, the nursing organization structure at Nakhon Pathom Hospital must urgently adapt the competencies of professional nurses to keep up with these changes. Therefore, a competency assessment covering nine areas, based on the framework of the Thailand Nursing and Midwifery Council, is necessary. This assessment will guide the strategic planning for workforce development, ensuring that the competency of registered nurses within the organization aligns with current demands.

Purpose / Objectives: To study the competency levels of registered nurses at Nakhon Pathom Hospital.

Approaches / Methods: This research is a descriptive study using descriptive statistics.

Results / Findings: The competency assessment of registered nurses at Nakhon Pathom Hospital, based on responses from 751 nurses, showed an overall competency level rated as high ($\bar{X} = 654.36$, S.D. = 0.78). The highest-rated competency was Competency 4: Adherence to Justice and Ethics, which was at a high level ($\bar{X} = 89.36$, S.D. = 0.62). The second highest was Competency 5: Teamwork, also at a high level ($\bar{X} = 85.91$, S.D. = 0.92), followed by Competency 2: Service, Communication, and Interpersonal Relations, which was rated high ($\bar{X} = 81.05$, S.D. = 0.66). The lowest-rated competency was Competency 7: Use of Digital Technology and Information Systems, which was at a moderate level ($\bar{X} = 66.48$, S.D. = 1.10). Similarly, Competency 8: Research, Academic Development, and Health Innovation was also at a moderate level ($\bar{X} = 78.01$, S.D. = 0.99).

Discussion / Implications: In the future, the development of registered nurses' competencies at Nakhon Pathom Hospital should focus on enhancing research skills in routine work and fostering nursing innovation in collaboration with academic institutions. Additionally, motivation should be strengthened by instilling ethical values.

Keywords: registered nurses, competency

On the frontline of fear and duty: Stress, stressors and coping strategies among Taipei paramedic-P during COVID-19

Fang-Cheng Shih¹, Hsiao-Fen Lo², Yih-Jin Hu¹

¹ Department of Health Promotion and Health Education, National Taiwan Normal University, Taiwan

² Doctoral Student, Department of Health Promotion and Health Education, National Taiwan Normal University, Taiwan

Abstract

Background: The COVID-19 pandemic posed significant challenges to frontline emergency medical technicians (EMTs), especially those assigned to specialized anti-epidemic units. Understanding their stress levels, stressors, and coping strategies is crucial for improving the effectiveness of workplace support and emergency response.

Purpose / Objectives: This study aimed to investigate the stress levels, stressors, and coping strategies among Taipei City Fire Department paramedics during the COVID-19 pandemic. It also examined the relationship between these factors and identified predictors of stress-coping strategy.

Approaches / Methods: A cross-sectional research design was adopted, involving 112 paramedics from four central EMT units designated as Taipei's anti-epidemic task force. 112 questionnaires were distributed, with 108 valid responses, yielding a 96.4% response rate. Statistical analyses, including correlation and regression analyses, explored relationships between stress, stressors, and coping strategies.

Results / Findings: Among the participants, 69.4% had contracted COVID-19. Paramedics without children reported lower stress levels than those with children. Those with specialized professional qualifications experienced higher stressors. A significant positive correlation was found between stressors and stress-coping strategies. However, overall correlations between stress, stressors, and coping strategies were not statistically significant. Regression analysis showed that stressors were the only significant predictor of stress-coping strategies, explaining 18.8% of the variance.

Discussion / Implications: The findings suggest that high-risk emergency medical duties require enhanced workplace support and continuing education adjustments. Strengthening peer and organizational support systems can alleviate stress among EMTs. Future research should incorporate qualitative interviews to explore psychological stress factors among EMTs further, ultimately contributing to improved pre-hospital emergency care quality.

Ethical Considerations: IRB approval was not sought for this study as the data collection involved a validated questionnaire that did not include personal, medical, or identifiable information. The research focused solely on participants' general perceptions and opinions, with no risk of harm, and thus met the criteria for exemption from ethical review.

Keywords: COVID-19, EMT, stress, stressor, coping

The influence of media on my clinical work during the pandemics– A qualitative study

Hsiao-Fen Lo¹, Pei-Ju Chang², Li-Chun Lin³

¹Doctoral Student, Department of Health Promotion and Health Education, National Taiwan Normal University, Taiwan

²Chang Hua Hospital, MOHW, Taiwan

³Hongkuang University, Taiwan

Abstract

Background: Studies have indicated that the media can shape the public's perception of nurses. The press is especially believed to affect the public's perceptions of nurses' roles and professional identity. However, those perceptions can also influence individuals' decisions to enter nursing.

Purpose / Objectives: This study aims to investigate the impact of media on nursing staff during the SARS and COVID-19 pandemic.

Approaches / Methods: A qualitative study combined with a semi-structured interview was applied. Data collection began in 2021 and continued until 2022. Ten participants were interviewed.

Results / Findings: The interview data were categorized into three major themes: 1) the distressing effects of the media's coverage, 2) an inescapable stigma engendered by the media's framing, and 3) the media's gradual return to the right track.

Conclusions: It is imperative that a nurse administrator supports nurses during epidemics and uses the media to assist nursing staff in their work better.

Ethical Considerations: Ethical considerations included obtaining permission from Kuang Tien General Hospital (No: 10952). The participants gave written informed consent and were assured of their right to withdraw from the study at any time.

Keywords: media, influence, epidemic outbreaks, pandemics

**Best practices and guidelines for developing learning outcomes in English
language skills of students of the faculty of nursing,
Nakhon Pathom Rajabhat University**

Natthaya Cherngchalard Chooprom, Robert Karl Llorca, Reneboy Ortizuela

Faculty of Nursing - International Relations Committee, Nakhon Pathom Rajabhat University,
Thailand

Abstract

This Narrative Research details the development and implementation of an English language skills enhancement program for nursing students at Nakhon Pathom Rajabhat University's Faculty of Nursing. The program aims to improve students' English proficiency to at least an Intermediate (B1-B2) level on the Common European Framework of Reference for Languages (CEFR) scale. Historically, student performance on English proficiency tests has been unsatisfactory, prompting the development of this comprehensive program.

The program utilizes a multifaceted approach, incorporating various activities integrated into supplementary curricula. These include a 30-hour-per-semester English enrichment program, English language camps, online CEFR exercises, and the utilization of a Learning Management System (LMS). The program's design and implementation follow the PDCA (Plan-Do-Check-Act) cycle, ensuring continuous improvement. Key improvements included the development of new proficiency tests, refined exercises and exam content, pre-course testing for ability-based grouping, enhanced review sessions for fourth-year students, and the use of assessment results to refine supplementary activities. An intensive onsite English course was also implemented for fourth-year students.

The program's success is evident in the 100% passing rate among graduating students achieving the target CEFR B1 level or higher. This success is attributed to strong administrative support, consistent student encouragement, and effective collaboration within the International Relations Committee. However, challenges remain, including the generally low initial English proficiency levels of incoming students and the demanding academic schedules of nursing students. Addressing these challenges requires careful planning and resource allocation to ensure the program's continued success and broader accessibility. The program aligns with national and ASEAN-level policies emphasizing English proficiency, particularly within the nursing profession. Future improvements will focus on early intervention and more efficient scheduling to maximize student participation and outcomes.

Keywords: best practices and guidelines, learning outcomes, English proficiency level

Oral presentation session 3	
Date	9 August
Time	15:00-16:30 pm
Venue	LB206
Moderator 1	Ming-Hsin Hsieh
Moderator 2	Emilie M. Lopez
No	Topics
OP01	<p>Topic 1: The impact of workplace bullying on retention among nurses in central Taiwan</p> <p>Shuo-Pin Shen Assistant Professor, Hungkuang University, Taiwan</p>
OP10	<p>Topic 2: Impact of substance use and other factors on adolescents' health-related quality of life by gender: Individual, interpersonal, and environmental perspectives</p> <p>Pei-Chun Kuo Assistant Professor, Hungkuang University, Taiwan</p>
OP11	<p>Topic 3: Do persons diagnosed with dementia have a higher risk of suicide attempts?</p> <p>Ya-Chi Huang PhD student, Hungkuang University, Taiwan</p>
OP05	<p>Topic 4: The effects of health literacy developing program among alcohol consumer in urban community</p> <p>Napaphen Jantacumma Assistance Professor, Sukhothai Thammathirat Open University, Thailand</p>

The impact of workplace bullying on retention among nurses in central Taiwan

C. L. Chang, Y. C. Lü, Y. C. Chen, T. E. Wen, E. C. Chi, N. H. Tsai, T. H. Chang,
S. P. Shen⁸

Department of Nursing, Hungkuang University, Taiwan

Abstract

Background: Nurses often face workplace bullying in high-stress hospital environments, which negatively affects their physical and mental health. Bullying has been possibly shown to reduce and retention, ultimately impacting the quality of patient care.

Purpose / Objectives: This study aims to explore the current status of their bullying experiences and retention and analyze the effects of their workplace bullying experiences on the retention in central Taiwan.

Approaches / Methods: A cross-sectional survey was conducted using structured questionnaires to collect data from nurses in hospitals. A total of 137 valid responses were collected. The survey measured demographic data, bullying experiences, and retention intention using a 5-point Likert scale, with high reliability shown by a Cronbach's Alpha of .95.

Results / Findings: The study found that most nurses experienced workplace bullying, with verbal bullying being the most common. Bullying experiences significantly negatively impacted retention. Male nurses and those with lower education levels reported more bullying experiences.

Discussion / Implications: Workplace bullying is a significant factor contributing to the high turnover rate of nurses. Improving the work environment and providing psychological support are key strategies for reducing turnover. Establishing effective reporting mechanisms and intervention processes is essential to ensure a safe and supportive workplace for nurses.

Keywords: job satisfaction, nurses, retention, workplace bullying

Impact of substance use and other factors on adolescents' health-related quality of life by gender: Individual, interpersonal, and environmental perspectives

Pei-Chun Kuo¹, Chun-Che Huang², Jiun-Hau Huang^{3,4}

¹Department of Nursing, Hungkuang University, Taiwan

²Department of Healthcare Administration, College of Medicine, I-Shou University, Taiwan

³Institute of Health Behaviors and Community Sciences, College of Public Health, National Taiwan University, Taiwan

⁴Department of Public Health, College of Public Health, National Taiwan University, Taiwan

Abstract

Background: Generic health status or “quality of life” has become a widely used measure in health research worldwide. From a public health perspective, the concept of health-related quality of life (HRQOL) refers to a person’s perceived physical and mental health over a certain period. While several studies have examined HRQOL differences among drinkers, fewer have focused on adolescents.

Objectives: This study aimed to investigate the relationships between substance use (adolescent, parental, and peer) and adolescents’ HRQOL by gender, exploring individual, interpersonal, and environmental influences.

Methods: Data were derived from 4,445 adolescents aged 12–17 years, obtained from the 2014 National Survey of Substance Use, a nationally representative sample in Taiwan. Problematic alcohol use was assessed using the Alcohol Use Disorders Identification Test (AUDIT). HRQOL was measured using EQ- 5D index scores. Ordinary Least Squares models were estimated, stratified by gender and controlling for sociodemographic characteristics, health risk behaviors, parental and peer substance use, and neighborhood-level factors.

Results: Depressive symptoms were the strongest predictor of lower HRQOL among adolescent boys ($\beta = -0.34$) and girls ($\beta = -0.17$). Living in a single-parent family ($\beta = -0.14$) was related to lower HRQOL only among girls. Maternal tobacco use ($\beta = -0.10$) was found to negatively impact HRQOL only among boys.

Implications: These findings highlight the need for multifaceted adolescent substance use prevention programs, tailored to gender differences, addressing parental and peer substance use, and emphasizing mental health to improve adolescents’ HRQOL.

Keywords: adolescents, substance use, gender differences, health-related quality of life (HRQOL), EQ- 5D

Do persons diagnosed with dementia have a higher risk of suicide attempts?

Ya-Chi Huang¹, Ruoh-Lih Lei², Tsen-Pei Chen^{3,4}

1. PhD student of the Department of Nursing, Hungkuang University, Taiwan
2. Department of Nursing, School of Nursing, Hungkuang University, Taiwan
3. Nursing Department, Chi Mei Medical Center, Taiwan
4. PhD student of School of Nursing, Kaohsiung Medical University, Taiwan

Abstract

Background: The progression of dementia has a profound impact on affected individuals, often leading to suicidal ideation. To ensure the safety of persons with dementia, it is crucial to implement suicide prevention strategies at an early stage. This study aims to explore, through an evidence-based nursing approach, whether individuals diagnosed with dementia have a higher prevalence of suicide attempts compared to those without dementia

Purpose / Objectives: The framework of this study is as follows: P: Individuals diagnosed with dementia; I: Suicide attempts among individuals with dementia; C: Suicide attempts among individuals without dementia; O: Higher prevalence of suicide attempts.

Approaches / Methods: A systematic literature review was conducted across multiple databases, including Medline, PubMed, the Cochrane Library, and CEPS. The search utilized the keywords *Dementia*, *Suicide*, *Suicide Attempt*, and *Risk of Suicide*, yielding a total of 1,510 relevant articles. After applying selection criteria, 14 articles were ultimately included for evidence synthesis and analysis.

Results / Findings: The reviewed literature indicates that individuals with dementia have a significantly higher risk of suicide compared to those without dementia (OR: 1.057-2.57, $p < 0.043$ -0.0001). The highest risk is observed during the early stages of diagnosis, particularly among younger individuals, those with mild to moderate dementia, and patients with frontotemporal dementia. However, one study suggested that there may be no direct correlation between dementia and suicide.

Discussion / Implications: Suicide attempts in individuals with dementia are influenced by multiple factors, including psychological well-being, social support systems, and awareness of their condition. Researchers recommend that healthcare professionals and caregivers prioritize both physical care and dignity-centered care for individuals with dementia within social structures. Such an approach may help mitigate the risk of suicide and enhance overall well-being.

Keywords: dementia, suicide, suicide attempt, risk of suicide

The effects of health literacy developing program among alcohol consumer in urban Community

Napaphen Jantacumma¹, Pattaya Kaewsarn¹, Boonruang Khaonuan², Kwanthip Hemgpai³,
Kotchakorn Thamnamsin⁴, Kanjana Punyapet⁵

1 School of Nursing, Sukhothai Thammathirat Open University, Thailand

2 Faculty of Health and Sports Science, Thaksin University, Thailand

3 Ban Mai Subdistrict Health Promoting Hospital, Thailand

4 School of Nursing, King Mongkut's Institute of Technology Ladkrabang, Thailand

5 Faculty of Nursing, Sain Louis College⁴, Thailand

Abstract

Background: Alcohol consuming impairs judgment, coordination, and brain function, increasing the risk of accidents and health issues. Long-term use can cause liver damage, heart disease, addiction, and mental health problems.

Purpose / Objectives: This quasi- Experimental research has the objective to compare health literacy alcohol drinking behavior and liver enzyme values of the experimental group participated before and after in the program to develop health literacy among alcohol drinkers in the community.

Approaches / Methods: Study in a group of 54 alcohol consumers, both females and males, adults and the elderly in the urban community, Pak Kret District. They were audited with a score more than 7. The tools include 1) a program to develop health literacy in alcohol drinkers and 2) health literacy to prevent and solve problems from alcohol drinking. It has a content validity value of .90 and accuracy is equal to .907. Data were analyzed by using One Way repeated measured ANOVA. Statistical significance was set at the .05 level.

Results / Findings: The research found that the experimental group after participating in the program to develop health literacy among alcohol drinkers in the community in 4 weeks had a significantly higher mean overall health literacy. and there was a statistically significant decrease in mean liver enzymes.

Discussion / Implications: Therefore, the results of a program to develop health literacy among alcohol drinkers in the community reflected to that awareness of the experimental group to understand and adjust behavior in drinking alcoholic beverages leads to their on healthy results.

Keywords: Health literacy, Alcohol consumer, Health literacy developing program

Poster presentation



HUNGKUANG UNIVERSITY
COLLEGE OF NURSING

No	Topics	Page
PP01	A qualitative study on the experiences of Taiwanese students in a cross-cultural nursing education exchange program in New York Chia Jung Hu Da Yeh University	056
PP02	Influence of sleep disorders on physiological functions, cognition, emotion, and quality of life in nursing home residents: A preliminary study Huei-Chen Lin Tzu Chi University	057
PP03	Clinical comparison of total intravenous anesthesia and volatile anesthesia in postoperative outcomes of lung resection surgery Chai-Yi Shen Chung Shan Medical University	058
PP04	Exploring risk factors for cognitive impairments in medical students recovering from COVID-19: The role of anxiety, BMI, and physical inactivity Wei-Fen Ma, Yi-Hsien Su China Medical University,	059
PP05	Physical and lifestyle factors influencing long COVID symptoms in medical university students Wei-Fen Ma, Su-Man Chang China Medical University	060
PP06	The experiences of prodromal stage preceding mental illness in Taiwanese adolescents and young adults: A qualitative study Wei-Fen Ma, Yi-Hsien Su, Dai-Lun Tsai, Mei-Tesn Lin China Medical University	061
PP07	The effectiveness of shortening the time to first flatus in postpartum women after a Cesarean Section: A systematic review and meta-analysis Xiang-Yi Wang Chung Shan Medical University	062
PP09	The impact of workplace coaching in nursing on the confidence of "Last Mile" nursing students Li-Shu Wu China Medical University	063
PP10	Improvement program for enhancing muscle strength in chronic psychiatric patients Hwei-Wen Huang Cathay General Hospital	064
PP11	Prevalence and risk factors of sarcopenia in Asian adults with Type 2 diabetes: A systematic review and meta-analysis Yueh-Chu Wu China Medical University	065
PP12	Concept analysis of resilience in patients with left ventricular assist device-scoping review Chun-Ting Su National Taipei University of Nursing and Health Sciences	066

No	Topics	Page
PP13	Evaluating the learning outcomes of combining TRM and OSCE teaching strategies in acute abdominal pain assessment for nurse practitioners in Taiwan Wan-Yu Peng Ministry of Health and Welfare Taichung Hospital	067
PP14	Enhancing post-acute care for indigenous stroke patients in Taiwan: Barriers and strategies Wei-Ping Sung Hungkuang University, Taichung Veterans General Hospital, Puli Branch	068
PP15	Exploring the relationship between work stress, resilience and burnout among new nurses at different stages Wei-Tien Lee National Cheng Kung University	069
PP16	The effectiveness of a shared decision-making (SDM) education intervention in improving blood sugar control among outpatients with type 2 diabetes Su-Zih Liang Hungkuang University	070
PP17	Healthcare utilization and characteristics in patients with sexual abuse in Taiwan: A nationwide cohort study Mei-Ling Lou Hungkuang University, China Medical University	071
PP18	The effectiveness of maternal-infant skin-to-skin contact duration on neonatal thermoregulation Yu-Sin Ma Hungkuang University	072
PP19	Effectiveness of olive oil mouth rinsing on oral mucositis in cancer patients: A systematic review Yu-Pei Lin Hungkuang University	073
PP20	Cryotherapy for chemotherapy-induced peripheral neuropathy in breast cancer patients: Appraisal of evidence Ying-Yu Wu China Medical University	074
PP21	Investigating the impact of viewing digitally altered images on social media on the physical and mental health of young adults Ting-An Hsieh; Wei-Fen Ma China Medical University, China Medical University Hospital	075
PP22	The impact of intermittent pneumatic compression devices on deep vein thrombosis incidence after joint replacement surgery Yu-Xi Ma Hungkuang University	076
PP23	Development of animated educational videos to enhance patient self-care for hemodialysis patients Hua-Chih Chang Hungkuang University	077

No	Topics	Page
PP24	Exploring the learning effectiveness and experiential perceptions of applying MAR to intravenous injection skills Chu-Ling Chang Hungkuang University	078
PP25	The effect of stress, fatigue, and sleep quality among female shift nurses in Taiwan Mei Ling Lin Hungkuang University	079
PP26	Effectiveness of combined warming in preventing postoperative hypothermia among surgical patients Yong-Han Huang Asia University	080
PP27	The impact of long-term care programs on students' knowledge of aging, attitudes towards the elderly, and willingness to care for the elderly An Rou Lu, Shu Hua Lu China Medical University	081
PP28	Exploring nutrition, sedentary behavior and depression associated with the risk of sarcopenia in community-dwelling older people Feng-Mei Chu, Shu Hua Lu, Yun Ping Lin, Hui Chen Tseng China Medical University	082
PP29	The journey of growth and adaptation of novice nurses in the operating room: A qualitative research Guei-Ling Lin National Taichung University of Science and Technology	083
PP30	Exploring the effectiveness of multimedia-guided self- acupressure on sanyinjiao (SP6) for pain relief in young women with dysmenorrhea I-Chin Li China Medical University	084
PP31	Exploring the correlation between self-care, daily habits, and body constitution in traditional Chinese medicine among young women with dysmenorrhea Yu-Ru Huang China Medical University	085
PP32	Aromatherapy for postpartum stress reduction: A systematic review Chun-Hsiang Yang Chang Gung University of Science and Technology	086
PP33	Effectiveness of cold cabbage leaf compresses in relieving postpartum breast engorgement: A systematic review Hui-Chi Hsu Chang Gung University of Science and Technology	087
PP34	Enhancing the consistency of mini-CEX assessments among clinical nursing educators Hsing Tsai Yuanlin Christian Hospital	088
PP35	Using art therapy intervention to alleviate emotional disorders in patients of dementia with Lewy bodies Meng-Ling Shih Yuanlin Christian Hospital	089

No	Topics	Page
PP36	Learning effect on using flipped classroom teaching strategy in maternal-child nursing laboratory course Chen-Ju Chen Yuanpei University of Medical Technology	090
PP37	Using STEAM-6E teaching design to improve learning effects: A case of nursing special project course. Chen-Ju Chen Yuanpei University of Medical Technology	091
PP38	Effects of mobile health interventions guided by wearable devices on the cardiopulmonary functional indicators in patients with chronic heart failure Fu-Lan Chang, Shu-Hua Lu, Tsun-Jui Liu, Yu-Tsung Cheng, Chyi Lo Taichung Veterans General Hospital	092
PP39	Effectiveness of cognitive behavioral therapy in reducing depressive symptoms in patients with depression Ya Wei Wang Hungkuang University	093
PP40	Using caregiver stress theory to examine the burden and associated factors among primary caregivers of terminal cancer patients in home hospice care Yu-Chia Chang China Medical University	094
PP41	A study of the development and effectiveness of a generative do the month APP Ching-Mei Chang Hungkuang University	095
PP42	The effect of a frailty prevention program on elderly patients with fragile fracture after surgery Show-Ching Ma, Shu-Hua Lu Hungkuang University	096
PP43	Associations between physical activity, sedentary behavior, and cardiometabolic risk factors among office workers Yun-Ping Lin China Medical University	097
PP44	Long-term effects of a mHealth intervention on physical activity and dietary behaviors Yun-Ping Lin China Medical University	098
PP45	The predictive effects of psychological parameters in patients after thoracoscopic surgery Hsing-Chi Hsu China Medical University	099
PP46	Differences in perspectives between ICU nurses and patient families on withholding or withdrawing life-sustaining treatments Ming-Chen Yeh Hungkuang University	100
PP47	Enhancing nursing competency in facial nerve paralysis assessment through digital multimedia-assisted learning Ming-Chen Yeh Hungkuang University	101

No	Topics	Page
PP48	The correlation between nursing students' professional knowledge and EMI course learning: A case study of a university Jing-Shia Tang Chung Hwa University of Medical Technology	102
PP49	The effectiveness of cranial electrical stimulation in improving insomnia: An umbrella review Yu-Fen Chen Taichung Veterans General Hospital	103
PP50	To explore the parenting stress of their primary caregivers of children with ADHD Ya-Fang Huang Hungkuang University	104
PP51	Factors associated with contraception use in Rwanda Delphine Cyuzuzo China Medical University	105
PP52	The relationship between learning self-efficacy, course satisfaction, and learning effectiveness for students in English as a medium of instruction setting Mei-Chin Wang Chung Hwa University of Medical Technology	106
PP53	Virtual reality-assisted physiotherapeutic training for patients with knee osteoarthritis: A systematic review and meta-analysis Hsuan-Wei Liu China Medical University	107
PP54	Can exercise intervention in cancer patients reduce fatigue? Chia-Ying Hsieh Hungkuang University	108
PP55	Comparison of chest tube drainage and conservative management as initial treatments for primary spontaneous pneumothorax Hsiao Hsien Kao Hungkuang University, Ton Yen General Hospital	109
PP56	Effectiveness of traditional face-to-face breastfeeding education in enhancing breastfeeding self-efficacy among primiparous Hsiao-Ling Wu Shu-Zen Junior College of Medicine and Management	110
PP57	A prospective study to explore the relationship between preoperative anxiety and postoperative pain in knee arthroscopy patients Ying-Yu Chiu National Taichung University of Science and Technology	111
PP58	Factors influencing knowledge, stress, and self-efficacy in newly recruited nurses caring for intracranial hemorrhage patients Jia-Ling Sun National Taichung University of Science and Technology	112
PP59	Study on emotional status, sleep quality, and self-control management for patients with asthma Jia-Ling Sun National Taichung University of Science and Technology	113

No	Topics	Page
PP60	Integrating generative AI into nursing ethics education: A study on learning outcomes Chia-Jung Wu Central Taiwan University of Science and Technology	114
PP61	A preliminary study of the effectiveness of zhongwan acupoint massage on feeding intolerance in NICU preterm infants Yu-Shui Huang China Medical University	115
PP62	Holistic nursing interventions for pediatric burn survivors: A case study of post-trauma recovery Yun-Fang Jeng China Medical University	116
PP63	The decision-making process of couples choosing home birth: A grounded theory study Hui Chuan Wu I-Shou University	117
PP64	The effectiveness of negative pressure wound therapy for diabetic foot Ju-Min Lin Hungkuang University	118
PP65	The mediating role of self-esteem in the relationship between loneliness and life satisfaction among older adults Chiao-Ling Lin Taipei Medical University	119
PP66	Promoting holistic care thinking in nursing students through figure drawing in a fundamental practicum Li-Chiu Chen Chung Shan Medical University	120
PP67	Enhancing pediatric nursing competency through team-based learning combined with scaffolding theory in early clinical practicum Li-Chiu Chen Chung Shan Medical University	121
PP68	Effectiveness of acupressure in improving constipation among the elderly Yi-Ting Chen National Taichung University of Science and Technology	122
PP69	Exploring emotional labor among emergency nurses Yi-Yi Chen, Chiou-Fang Liou Chung Shan Medical University; Chi Mei Medical Center	123
PP70	A survey of health-promoting lifestyles and the related factors: A pilot study among faculty in medical and management colleges in eastern Taiwan Hsueh-Kuei Lin, Chia-Chen Chung Saint Mary's Junior College of Medicine, Nursing and Management	124
PP71	Comparison of different education programs on febrile seizure knowledge, practice and self-efficacy among preschool educators Shu-Lan Chiu Fooyin University	125
PP72	Can the ketogenic diet effectively reduce the seizure frequency in children with refractory epilepsy? Pei-Shan Chung Hungkuang University	126

No	Topics	Page
PP73	Does chlorhexidine bathing in intensive care unit patients effectively reduce bloodstream infection rates? Hsin-Yu Hsieh Hungkuang University	127
PP74	The effects of an exercise program on exercise endurance and maximal oxygen uptake in heart failure patients Shu Ting Tseng, Chyi Lo China Medical University	128
PP75	Effectiveness of implementing the self-supporting care in long-term care facilities in Yilan county Hsiu-Chu Kao St. Mary's Junior College of Medicine, Nursing and Management	129
PP76	Survey on occupational participation experiences of female individual with substance use disorder Guang-Hsing Liu China Medical University Hospital	130
PP77	Exploring the impact of music intervention on patients with delirium in intensive care unit: literature review and clinical application Hsueh-Wen Liang Chang Gung University of Science and Technology (Chiayi Branch)	131
PP78	The experience of filial piety among family care Chun-Yen Sung Hungkuang University	132
PP79	Does early tracheostomy in ventilated patients reduce the number of days on mechanical ventilation? Hsin-Yi Chou Hungkuang University	133
PP80	Can chewing gum promote bowel movement after intestinal surgery? Yun-Hsuan Wu Hungkuang University	134
PP81	Can exercise intervention in cancer patients reduce fatigue? Chia-Ying Hsieh Hungkuang University	135
PP82	The effect of intermittent catheterization on the risk of urinary tract infection in epidural laboring women Min-Jung Huang Hungkuang University	136
PP83	The effectiveness of acupuncture intervention in relieving pain after orthopedic surgery Yi-Hsuan Fan Hungkuang University	137
PP84	The cost-effectiveness utility analysis of a home-based behavioral problem management training program for family caregivers of patients with dementia Li-Huan Chen, Yea-Ing Lotus Shyu Hungkuang University, Chang Gung University	138

A qualitative study on the experiences of Taiwanese students in a cross-cultural nursing education exchange program in New York

Chia Jung Hu

Da Yeh University, Department of Nursing, Taiwan

This study explores the learning and life experiences of Taiwanese senior nursing students during a cross-cultural exchange program in nursing education in the United States. A qualitative research design was employed, using in-depth interviews and thematic analysis to collect data from eight students who participated in a one-month exchange program at a nursing school and affiliated hospitals in New York. The students participated in a range of activities, including professional nursing education courses, scenario-based simulation exercises in adult and pediatric care, and clinical observations in medical and surgical wards. The findings revealed four key themes: the integration of new technologies in nursing education, the cultivation of positive attitudes toward work and learning, the recognition and respect for cultural differences, and the development of critical thinking, self-confidence, and psychological resilience. For instance, students gained exposure to advanced simulation technologies during clinical training and observed the use of computerized systems and medical equipment in patient care, which expanded their understanding of contemporary healthcare technologies. However, despite these enriching experiences, language barriers posed a significant challenge, requiring support from faculty members. To address these challenges, it is recommended that students undertake pre-departure preparation focused on improving their English-speaking and listening skills. By confronting and overcoming initial apprehensions related to language, students can maximize their learning opportunities and derive greater benefits from the cross-cultural exchange.

Keywords: cross-cultural nursing, nursing education, cultural adaptation, qualitative research

Influence of sleep disorders on physiological functions, cognition, emotion, and quality of life in nursing home residents: A preliminary study

Huei-Chen Lin

Tzu Chi University, Graduate Institute of Long-Term Care, Taiwan

Background: Sleep disorders are prevalent among nursing home residents and adversely affect their physiological functions, cognition, emotions, and overall quality of life.

Purpose: This study identified factors associated with sleep problems in nursing home residents.

Methods: In this cross-sectional study, 605 residents from 7 New Taipei City nursing homes met the inclusion criteria, and 35 older able to walk under supervision were recruited. Various instruments were used for data collection, including the Pittsburgh Sleep Quality Index (PSQI), the Barthel Index Scale (BIS), the Mini-Mental State Examination (MMSE), the Study of Osteoporotic Fractures (SOF), the 5-Item simplified Chinese version of the Geriatric Depression Scale (short form; GDS-5), a sleep diary, and wrist actigraphy. All procedures performed in studies involving human participants were approved by the Research Ethics Committee of the National Taiwan University approved the protocol. (NTU-REC No. : 202104EM018).

Results: The average PSQI score was 7.08 ± 3.85 , with 71.43% of participants having a score of ≥ 5 . BIS scores indicated moderate levels of dependence (86.20 ± 16.78). MMSE scores revealed unimpaired cognitive function (28.56 ± 2.61). SOF scores revealed weight loss (5.7%), lower limb dysfunction (11.4%), and reduced energy (17.1%). GDS-5 scores indicated a mild tendency toward depression (1.40 ± 1.55). Additionally, Sleep diary records indicated significant changes ($p < .05$) in overall sleep quality, latency, efficiency, sedative use, and daytime dysfunction. Finally, wrist actigraphy results indicated poor sleep quality in 89.55% of the older participants, with an average sleep latency of 20.63 ± 21.13 min.

Conclusion: More than 70% of nursing home residents experience sleep disorders, which can adversely affect their physiological functions, emotions, cognition, and quality of life.

Keywords: sleep quality, wrist actigraphy, nursing home resident

Clinical comparison of total intravenous anesthesia and volatile anesthesia in postoperative outcomes of lung resection surgery

Chai-Yi Shen^{1,2}, Xiang-Yi Wang^{1,3}

1 Master's student in Nursing, Chung Shan Medical University, Department of Nursing, Taiwan

2 Department of Anesthesiology, National Taiwan University Hospital Yunlin Branch, Taiwan

3 Department of Obstetrics and Gynecology, Lin Shin Hospital, Taiwan

Background: Lung cancer is the leading cause of cancer-related deaths globally, causing approximately 1.8 million deaths annually. The incidence of postoperative pulmonary complications (PPC) after lung resection is under 23%, significantly increasing mortality, prolonging hospital stays, and raising healthcare costs. Volatile anesthetics reduce inflammation, while total intravenous anesthesia (TIVA) is associated with lower mortality, making anesthesia choice crucial.

Purpose / Objectives: Based on previous research showing lower PPC rates with TIVA, the author conducted a literature review to provide evidence for clinical anesthesia decisions. The aim is to compare TIVA and volatile anesthesia in terms of their impact on PPC incidence in lung resection patients.

Approaches / Methods: Using evidence-based healthcare steps, a PICO question was formed. A PubMed and Cochrane Library search for articles published within five years resulted in four studies, with one meeting criteria for the topic, rated Level II.

Results / Findings: A retrospective cohort study of 396 TIVA and 396 volatile anesthesia patients found no significant differences in PPC, reintubation, 30-day readmission, or reoperation rates. However, the TIVA group had significantly shorter hospital stays ($P < 0.001$) and lower postoperative nausea/vomiting rates ($P = 0.041$).

Discussion / Implications: TIVA is recommended as the optimal anesthesia choice for lung resection surgery. It shortens hospital stays, reduces adverse event risks, lowers healthcare costs, and improves bed turnover. TIVA also decreases postoperative nausea/vomiting, enhancing patient satisfaction and recovery.

Keywords: anesthesia, postoperative pulmonary complications, lung resection, volatile anesthesia, total intravenous anesthesia

Exploring risk factors for cognitive impairments in medical students recovering from COVID-19: The role of anxiety, BMI, and physical inactivity

Wei-Fen Ma^{1,2}, Yi-Hsien Su³

¹ School of Nursing, China Medical University, Taiwan

² Department of Nursing, China Medical University Hospital, Taiwan.

³ Master Student, In-Service Master Program of Interdisciplinary Long-Term-Care, China Medical University, Taiwan

Background: Cognitive and psychological impairments are among the most concerning symptoms associated with long COVID, significantly affecting daily functioning and mental health.

Objective: This study sought to investigate the cognitive and psychological impacts of long COVID on medical university students in Taiwan and to determine the primary predictors of these symptoms using logistic regression analysis.

Methods: A cross-sectional survey was conducted with 186 medical university students those with confirmed COVID-19 infections (≥ 3 months prior). Data were collected through self-reported questionnaires, which assessed cognitive performance (e.g., memory, concentration), psychological health (e.g., anxiety, mood instability), and related factors such as BMI, exercise frequency, and anxiety levels.

Results: Among participants, students with confirmed COVID-19 reported short-term memory decline (18.0%), difficulty concentrating (14.2%), perceived stress (12.6%), lack of motivation (12.6%), anxiety (9.8%) and unexplained low mood (7.7%). Logistic regression analysis revealed that higher anxiety levels were a strong predictor of cognitive and psychological symptoms across all participants (OR = 1.07; 95% CI = 1.06–1.09; $p < 0.001$). For students with confirmed COVID-19, a BMI ≥ 24 was significantly associated with cognitive impairments (OR = 4.50; 95% CI = 1.73–11.71; $p = 0.002$). Regular physical inactivity further compounded risks, with students reporting no exercise routine exhibiting higher odds of psychological distress (OR = 1.55; 95% CI = 1.11–2.16; $p = 0.010$).

Conclusion: Cognitive and psychological symptoms are prevalent among medical university students with a history of COVID-19, with anxiety levels, BMI, and physical inactivity emerging as significant predictors. These findings highlight the need for comprehensive mental health support and lifestyle interventions to mitigate the long-term impacts of COVID-19.

IRB approval: The study was conducted in accordance with the Declaration of Helsinki, and approved by the approval from the institutional review board of China Medical University Hospital (CMUH111-REC3-147).

Keywords: long COVID symptoms, university students, risk factors, COVID-19

Physical and lifestyle factors influencing long COVID symptoms in medical university students

Wei-Fen Ma^{1,2} & Su-Man Chang³

¹ School of Nursing, China Medical University, Taiwan

² Department of Nursing, China Medical University Hospital, Taiwan.

³ Master Student, In-Service Master Program of Interdisciplinary Long-Term-Care, China Medical University, Taiwan

Background: Long COVID symptoms have emerged as a significant public health concern. Among university students, persistent symptoms such as fatigue, respiratory issues, and cognitive impairments have been increasingly reported. These symptoms are not always exclusive to those previously diagnosed with COVID-19, raising questions about the underlying factors contributing to these health challenges.

Objective: This study aimed to explore the prevalence and characteristics of long COVID symptoms among medical university students.

Methods: A cross-sectional survey was conducted among 935 medical university students in central Taiwan. Participants included both students with confirmed COVID-19 infections (≥ 3 months prior) and uninfected students. Data were collected using an online questionnaire, which assessed physiological, sleep patterns, and activity levels. Statistical analyses included chi-square tests and independent t-tests.

Results: Of the 935 participants, 47.5% of those with confirmed COVID-19 reported experiencing long COVID symptoms, compared to 37.3% of uninfected individuals. Common symptoms included fatigue (27.7%), respiratory issues such as chest tightness and difficulty breathing (15.8%), and musculoskeletal pain (7.1%). Students who used NRICM101 during the infection period reported higher rates of cold/respiratory symptoms (30.5%) and decreased physical energy (20.0%) compared to non-users.

Conclusion: Long COVID symptoms are prevalent among medical university students, affecting nearly half of those with a history of COVID-19 infection. The findings highlight the multifaceted nature of these symptoms, which are influenced by physical and lifestyle factors. This study provides valuable insights into the unique challenges faced by university students and underscores the importance of tailored approaches to enhance recovery and overall well-being.

IRB approval: The study was conducted in accordance with the Declaration of Helsinki, and approved by the approval from the institutional review board of China Medical University Hospital (CMUH111-REC3-147).

Keywords: fatigue, respiratory issues, cognitive impairments, long COVID symptoms, college students

The experiences of prodromal stage preceding mental illness in Taiwanese adolescents and young adults: A qualitative study

Wei-Fen Ma^{1,2}, Yi-Hsien Su³, Dai-Lun Tsai³, Mei-Tesn Lin³

¹ School of Nursing, China Medical University, Taiwan

² Department of Nursing, China Medical University Hospital, Taiwan.

³ Master Student, In-Service Master Program of Interdisciplinary Long-Term-Care, China Medical University, Taiwan

Background: Mental disorders are major contributors to global health burdens. The prodromal stage, characterized by subclinical symptoms that impair daily functioning but do not meet diagnostic criteria, precedes the onset of mental illness. This stage, which can only be identified retrospectively, is closely aligned with the concept of ultra-high risk. This stage varies across regions, cultures, and demographics. High false-positive rates and low conversion rates to diagnosed mental disorders can increase stigmatization and delay timely care.

Aim: This study explored prodromal symptoms preceding mental illness in Taiwanese adolescents and young adults.

Method: A qualitative research design and semi-structured interviews every 3-4 months were conducted with 36 individuals (14-35 years) at ultra-high risk for mental illness from a psychiatric outpatient unit in central Taiwan. After two years, 24 prodromal participants that developed into diagnosed mental illness, included 8 males and 16 females. A total of 52 interviews from these 24 participants were analyzed by qualitative content analysis. This study adhered to the trustworthiness criteria outlined by Lincoln and Guba (1985), encompassing credibility, transferability, dependability, and confirmability.

Results: The results were 5 themes with 16 subthemes: (1) Sleep Disturbances Leading to Fatigue (unhealthy sleeping habits, symptoms interfering with falling asleep and persistent daytime fatigue), (2) Terror Caused by Confusion Between Reality and Hallucinations (confusion and distorted perception of reality, loss of control and heightened fear, perceived betrayal and emotional distress and disrupted daily functioning), (3) Indecision Due to Cyclic Fluctuations in Control (trapped in stagnation and fluctuating self-control and emotional instability), (4) Gradually lost in sadness and despair (avoidance of stress, low mood triggering suicidal ideation, conflict-induced self-injury and difficulty controlling impulses), and (5) experiences of self-denial and uncertainty (self-disappointment and loss of identity, gradual decline in functioning and uncertainty about the future).

Conclusions and implication for nursing: The study offers valuable insights for early screening of prodromal psychosis in Taiwan. The findings may enhance early detection efforts, support interventions to prevent or delay mental illness onset, and reduce the individual, familial, and societal burdens associated with mental disorders.

Keywords: ultra-high risk, prodromal symptoms, qualitative research, mental health screening, qualitative study

The effectiveness of shortening the time to first flatus in postpartum women after a cesarean section: A systematic review and meta-analysis

Xiang-Yi Wang^{1,2}, Ya-Hui Yang³, Yi-Zhen Chien², Wan-Shen Lee²

1 Master's student in Nursing, Chung Shan Medical University, Department of Nursing, Taiwan

2 Department of Obstetrics and Gynecology, Lin Shin Hospital, Taiwan

3 Hungkuang University School of Nursing, Taiwan

Background:

Purpose / Objectives: Evaluate the impact of caffeine intake on enhancing intestinal function following a caesarean section in women through a systematic review and meta-analysis.

Approaches / Methods: Use databases such as PubMed, Medline, CINAHL, and Airtiti Library. The search for research literature in this article is set from the beginning of the database to 2024, the language is English or Chinese, and the keywords are post-caesarean section, postpartum women, coffee, and bowel movement. There are 0 Chinese literature and 4 English literature that meet the above conditions, including 2 randomized controlled trial articles and 2 nonrandomized controlled trial articles, and then two authors will conduct a literature review and use Rev Man5.4 to target data. These were integrated from 4 randomized controlled trials.

Results / Results: The incidence of recovery in intestinal motility was significantly associated with postoperative coffee consumption (OR=0.99, 95%CI, 0.72 to 1.35). Compared to the control group, coffee drinkers had a mean reduction in time to first bowel movement by -1.12 hours (95% CI, -2.12 to -0.12; $I^2 = 0\%$, $p = 0.43$) and a mean reduction in time to first flatus by -4.09 hours (95% CI, -5.91 to -2.28; $I^2=33\%$, $p=0.23$), and a mean reduction in time to first bowel movement by -0.94 hours (95% CI, -8.69 to 6.81; $I^2=90\%$, $p<0.00001$).

Discussion / Implications: Early coffee consumption after a cesarean section can promote recovery of gastrointestinal function, effectively shorten the time to the first flatus, and do not increase the occurrence of intestinal complications. It is recommended that clinical care work be based on the empirical results of this study.

Keywords: post-caesarean section, postpartum women, coffee, bowel movement

The impact of workplace coaching in nursing on the confidence of "Last Mile" nursing students

Li-Shu Wu¹, Yun Wen Li²

1 College of Health Care, Healthcare Science, China Medical University, Taiwan

2 Nursing Department, Wei Gong Memorial Hospital, Taiwan

Background: The "last mile" is a crucial stage for nursing students before employment. The aim is to use workplace coaching to guide students in integrating their clinical learning experiences, quickly applying skills, and increasing their confidence and positive perception of the nursing field. This, in turn, reduces the likelihood of reality shock after entering the workforce.

Purpose / Objectives: To increase nursing human resources, enhance patient safety and the quality of medical services, and encourage students to commit to the nursing profession.

Approaches / Methods: A case study approach was used, utilizing the "Nursing Workplace Coaching" mechanism to help last-mile interns adapt to their learning. The action plan included establishing a coaching model, formulating reflective clinical internship journals and end-of-term feedback questionnaires, conducting focus groups to teach coping skills, and exploring confidence levels in five areas: patient care ability, role adaptation ability, interpersonal interaction and communication skills, stress management skills, and teamwork ability.

Results / Findings: In August 2023, the "Last Mile Nursing Workplace Coaching" model was established. From September 2023 to March 2024, 32 students from five schools participated in the last-mile internship at this hospital, with 24 focus group sessions conducted, involving 136 participants, and 590 reflective journals collected. Student satisfaction with the hospital's teaching and internship environment exceeded 90%. Upon completing the internship, the students' average confidence level in the nursing workplace was 8.8 out of 10, while their recognition of the nursing workplace coaching averaged 9.5 out of 10.

Discussion / Implications: Last-mile students initially felt anxious about their internship but realized their inner strength by sharing their clinical experience. Via ongoing collaboration and consensus-building, students grew through reflection. Of 32 interns, 12 were willing to work at this hospital. The nursing workplace coaching system significantly enhanced the internship experience, with peer sharing boosting students' confidence in their future nursing careers.

Keywords: nursing workplace coaching, last mile students, workplace confidence

Improvement program for enhancing muscle strength in chronic psychiatric patients

Hwei-Wen Huang, Yu-Ting Lin

Cathay General Hospital, Psychiatric Ward, Taiwan

Background: Lack of physical activity is one of the main causes of muscle strength decline. Chronic psychiatric patients, due to the impact of negative symptoms, often face issues such as being overweight and lacking exercise motivation. Over time, these problems worsen, leading to muscle weakness, increased fall risk, and long-term negative effects on both physical and mental health.

Purpose / Objectives: Five physical fitness tests—2-minute knee step-ups, 30-second sit-to-stand, single-leg stands (left and right), and the TUG test—can improve by 10%.

Approaches / Methods: A total of 40 chronic psychiatric patients were assessed, with an average age of 47 years. Their physical fitness results showed significantly lower performance compared to adults aged 65 and above. Therefore, educational training programs, a diversified exercise plan, and a reward mechanism were implemented to improve patients' exercise participation motivation and extend exercise duration to slow down muscle strength decline.

Results / Findings: After the intervention, results showed a 10% improvement in the performance of the 2-minute knee step-up, 30-second sit-to-stand, single-leg stands (left and right), and TUG tests.

Discussion / Implications: Muscle weakness not only affects physical ability but also significantly impacts an individual's mental health and quality of life. Early prevention of muscle strength decline is crucial for improving the patient's quality of life. For chronic psychiatric patients, negative symptoms and cognitive impairments often lead to a lack of exercise motivation. Without proper support, the optimal prevention window may be missed. Therefore, continuous monitoring of patients' exercise habits and fostering healthy behaviors is important to promote overall health goals.

Keywords: negative symptoms, muscle strength, exercise

Prevalence and risk factors of sarcopenia in Asian adults with Type 2 diabetes: A systematic review and meta-analysis

Yueh-Chu Wu^{1,2}, Man-Ting Mao¹, Hung-En Huang^{3,4}, Chien-Ning Huang^{5,6},
Wen-Chun Liao^{7*}

1. Diabetes Education Center and Department of Nursing, Chung Shan Medical University Hospital, Taiwan
2. PhD program in Healthcare Science, College of Healthcare Science, China Medical University, Taiwan
3. Center for Health Data Science, Department of Medical Research, Chung Shan Medical University Hospital, Taiwan
4. Institute of Medicine, Chung Shan Medical University, Taiwan
5. Division of Endocrinology and Metabolism, Department of Internal Medicine, Chung Shan Medical University Hospital, Taiwan
6. School of Medicine, Institute of Medicine of Chung Shan Medical University, Taiwan
7. School of Nursing, China Medical University, Taiwan

Background: Middle-aged and elderly individuals with type 2 diabetes mellitus (T2DM) in Asia face an elevated risk of sarcopenia, which increases with disease duration. Understanding its prevalence and risk factors is crucial for developing targeted interventions.

Purpose / Objectives: This study evaluated the prevalence of sarcopenia and identified associated risk factors among middle-aged and elderly T2DM patients in Asia.

Approaches / Methods: A systematic search was conducted in PubMed, Embase, Cochrane Library, Web of Science, and CINAHL for studies published up to October 4, 2024. Observational studies were included if they examined sarcopenia prevalence and risk factors in T2DM patients aged ≥ 45 years. Study quality was assessed using the Newcastle–Ottawa Scale. Pooled prevalence and risk factors were estimated using random-effects models, and publication bias was assessed via funnel plots and the Egger test.

Results / Findings: The pooled prevalence of sarcopenia was 19% (95% CI: 0.16–0.23). Prevalence was higher in males and hospital settings. Major risk factors included advanced age (OR = 1.12), elevated glycated hemoglobin (OR = 1.11), urine albumin-creatinine ratio (OR = 1.16), diabetic nephropathy (OR = 1.76), diabetic neuropathy (OR = 2.84), and body fat percentage in males (OR = 1.26) and females (OR = 1.27). Protective factors included higher BMI (OR = 0.64), Mini Nutritional Assessment score (OR = 0.37), and metformin use (OR = 0.26). No significant publication bias was found.

Discussion / Implications: Sarcopenia is prevalent among middle-aged and elderly T2DM patients in Asia, with key risk factors including advanced age, elevated HbA1c, and diabetic complications. Early diabetes management, screening, and targeted interventions are essential to reduce sarcopenia risk and improve health outcomes.

Keywords: Type 2 diabetes mellitus, sarcopenia, Asia, prevalence, risk factors, elderly, systematic review

Concept analysis of resilience in patients with left ventricular assist device-scoping review

Chun-Ting Su^{1,2}, Ting-Ru Lin³

¹ Master student, Division of Nurse Practitioner, Graduate Institute of Nursing, National Taipei University of Nursing and Health Sciences, Taiwan

² Intensive Care Unit of Cardiovascular Surgery, Department of Nursing, Taipei Veterans General Hospital, Taiwan.

³ School of Nursing, National Taipei University of Nursing and Health Sciences, Taiwan.

Background: Patient with left ventricular assist device (LVAD) has to learn about symptoms perception and self-care management after surgery. Resilience is important for who with LVAD to overcome the stress. However, there are few researchers focusing on resilience for LVAD patients.

Purpose: We aim to clarify the concept of resilience in LVAD patients through scoping review and Walker and Avant's method.

Methods: The Medline Ovid, PubMed, CINAHL, Cochrane Library, Airtiti Library, Wiley Library and Web of Science Core Collection databases were searched with the keywords "'Ventricular Assist Device" or "Heart-Assist Devices" , and "resilience" or "resilience, psychological" in the titles and abstracts of articles. Out of 102 sources found in the initial survey, 13 articles were finally included in the study. The concept was analyzed using Walker and Avant's method.

Results: We define resilience in patients with LVAD as “LVAD patients keep determination, use their own abilities to maintain self-care, adapt to new life, prevent complications and return to normalcy with a support system”. The antecedents of the concept of resilience in LVAD patients include physical, psychological, self-conception, medical and treatment. These factors all affect the display of resilience. Consequences of the concept of resilience in LVAD patients include device management and attitude.

Discussion: LVAD patients have good resilience, so that they have a positive attitude and maintain device management. We hope to increase the understanding of LVAD patients' resilience among healthcare professionals and enhance the quality of life of LVAD patients.

Keywords: resilience, left ventricular assist device, concept analysis

Evaluating the learning outcomes of combining TRM and OSCE teaching strategies in acute abdominal pain assessment for nurse practitioners in Taiwan

Wan-Yu Peng¹ , Pei-Lun Hsieh²

1 Ministry of Health and Welfare Taichung Hospital, Taiwan

2 Department of Nursing, National Taichung University of Science and Technology, Taiwan

Background: Nurse Practitioners (NPs) play a critical role in healthcare, requiring advanced skills in clinical reasoning, collaboration, and decision-making to ensure high-quality patient care. In 2022, eight incidents related to NP training were reported, including care errors and physician complaints. Previous studies indicate that integrating Team Resource Management (TRM) and Objective Structured Clinical Examination (OSCE) enhances clinical decision-making and reasoning skills. This project aimed to incorporate TRM into clinical teaching to improve NP competency and utilize OSCE for systematic assessment training.

Objectives: This study integrated TRM with OSCE in clinical teaching to enhance NPs' clinical reasoning, communication, and decision-making abilities. It aimed to standardize abdominal assessment training, develop structured evaluation tools for consistency, and assess the effectiveness of this approach in improving NP performance and reducing adverse events related to abdominal pain management.

Methods: An incident analysis identified two major issues: incomplete abdominal assessments and inadequate evaluation, particularly in complex abdominal pain cases. From January to June 2023, three key interventions were implemented: (1) integrating TRM into OSCE-based teaching to improve communication and decision-making; (2) standardizing the abdominal OSCE model, including inspection, auscultation, percussion, and palpation training; and (3) developing structured evaluation tools to ensure consistency and reliability in assessments.

Results: A total of 45 NPs participated in the study. The average pre-test OSCE score was 69, indicating a need for improvement. After implementing the interventions, the average OSCE score increased to 89, with accuracy rates for visual, auditory, percussion, and palpation techniques improving from 65% to 89%. The overall OSCE passing average reached 85, with a 100% pass rate. Additionally, reported adverse events related to acute abdominal pain decreased from 8 to 0, demonstrating the effectiveness of TRM-OSCE integration in clinical education.

Discussion: The integration of TRM with OSCE significantly improved NP assessment accuracy, enhanced clinical decision-making, and reduced adverse events. These findings highlight the potential for broader application of TRM-OSCE-based training in nursing education to strengthen clinical competency and patient safety.

Keywords: team resource management (TRM), objective structured clinical examination (OSCE), abdominal assessment

Enhancing post-acute care for indigenous stroke patients in Taiwan: Barriers and strategies

Wei-Ping Sung^{1,2}, Chia-Hui Chen², Hsiang-Ping Wang¹

1. Department of Nursing, Hungkuang University, Taiwan
2. Taichung Veterans General Hospital, Puli Branch, Taiwan

Background: Taiwan's Indigenous caregiving culture has shifted due to urban migration and healthcare improvements, concentrating caregiving on single family members or social welfare services. Heart disease and stroke rank as the second and third leading causes of death among Indigenous populations, with limited medical access contributing to severe health disparities. Remote patients often miss critical treatment, leading to long-term disabilities and increased caregiver burdens.

Purpose: The Post-Acute Care (PAC) program offers 12 weeks of intensive rehabilitation for stroke patients, improving daily activity scores and reducing long-term care needs. However, Indigenous participation is low due to cultural, geographical, and economic barriers. This study examines how Indigenous nurses support PAC participation through family support, rehabilitation management, teamwork, and financial aid. It aims to enhance Indigenous engagement, rehabilitation outcomes, and policy recommendations.

Methodology: In-depth interviews and medical record reviews assessed Indigenous patients' PAC participation. Participants, recruited through purposive sampling, included stroke and other eligible patients from central Taiwan hospitals. Evaluations covered recovery progress and participation challenges.

Results: Indigenous nurses provide culturally sensitive care, enhancing rehabilitation. Patients near hospitals achieve better recovery, while those in remote areas face delayed progress due to transportation and family support limitations. Financial constraints further hinder participation, with no special PAC considerations for Indigenous patients. Early intervention could reduce disabilities and long-term care dependence.

Discussion and Conclusion: Cultural factors influence PAC participation, necessitating further research on Indigenous experiences in acute post-care. Policy adjustments should address cultural and logistical barriers to improve PAC access and outcomes for Indigenous stroke patients.

Keywords: indigenous people, post-acute care (PAC), indigenous nurses, stroke

Exploring the relationship between work stress, resilience and burnout among new nurses at different stages

Wei-Tien Lee, Huan-Fang Lee

Department of Nursing, College of Medicine, National Cheng Kung University, Taiwan

Background: Increased work stress and feelings of burnout are factors contributing to high turnover rates among new nurses. New nurses are vulnerable to "reality shock" when faced with the gap between expectations and reality, leading to high levels of stress and burnout, with resilience identified as a protective factor against these challenges.

Purpose / Objectives: This study explores the relationship between work stress, resilience, and burnout among new nurses during their first six months of employment.

Approaches / Methods: A cross-sectional design was used to survey 185 new nurses providing frontline care. Data was collected through questionnaires, including demographics, psychological support, the Work Stressor Scale for New Nurses, CD-RISC and C-MBI-HSS scales. Descriptive statistics, one-way ANOVA, and multiple regression were used for analysis.

Results / Findings: A total of 185 new nurses participated in the study. Resilience remained stable over time, while stress decreased significantly ($p < 0.001$). Burnout, particularly depersonalization, increased significantly by the sixth month ($p = 0.002$). Male nurses, those in general units, and those without stress support exhibited higher burnout levels. Resilience was negatively correlated with burnout ($r = -.304$ to $-.602$, $p < 0.01$), while stress levels positively correlated with burnout and its sub-dimensions ($r = .255$ to $.497$, $p < 0.01$). Regression analysis identified male, internal medicine, work stress, stress support and resilience as significant predictors of burnout, explaining 58.6% of the variance.

Discussion / Implications: This study highlights the relationship between work stress, resilience, and burnout in new nurses. Key factors that influence burnout include gender, work unit and work stress, with resilience serving as a protective factor. Tailored interventions to enhance resilience and stress support may help reduce burnout and improve nurse retention. Future research should involve larger samples and objective measures to enhance reliability and generalizability.

Keywords: new nurses, burnout, work stress, resilience

The effectiveness of a shared decision-making (SDM) education intervention in improving blood sugar control among outpatients with type 2 diabetes

Su-Zih Liang¹, Cheng-I Yang²

1.Master's student in Department of Nursing, Hungkuang University, Taiwan

2.Department of Nursing, Hungkuang University, Taiwan

Background: There are over 2.2 million diabetes patients in Taiwan. Without proper diet, exercise, medication, and self-monitoring of blood glucose, individuals with diabetes are at risk of poor blood sugar control, leading to complications. Developing effective intervention strategies to improve blood sugar control in poorly managed cases remains a primary goal for healthcare professionals.

Purpose / Objectives: The purpose of this study is to examine the effectiveness of a shared decision-making (SDM) education intervention in improving blood sugar control among outpatients with poorly controlled type 2 diabetes.

Approaches / Methods: This study used a quasi-experimental, single-group pretest-posttest design. Participants were outpatients from an endocrinology clinic in central Taiwan. Inclusion criteria included type 2 diabetes, HbA1c > 7.5%, three oral antidiabetic medications, and receiving treatment for at least six months. A total of 61 participants were enrolled. The SDM-based intervention consisted of two individualized education sessions and one follow-up call, covering blood glucose monitoring, self-care, psychological support, and behavior change. Assessments, including blood tests, and urine tests, were conducted before and three months after the intervention.

Results / Findings: The study results showed that after the Shared Decision-Making (SDM) intervention, participants exhibited a significant reduction in HbA1c, fasting blood glucose, and urinary protein levels ($p < 0.05$), indicating improvements in glycemic and metabolic control. Although total cholesterol, low-density lipoprotein (LDL), and creatinine levels showed a decreasing trend, and glomerular filtration rate (GFR) exhibited an increasing trend, these changes did not reach statistical significance.

Discussion / Implications: This study applied SDM-based education and monitoring, showing significant reductions in HbA1c, fasting glucose, and urinary protein, leading to improved glycemic control and kidney health. Continued efforts in personalized education, exercise, diet, and remote monitoring are recommended, with an extended observation period to evaluate long-term metabolic and renal effects.

Keyword: shared decision-making (SDM), diabetes, blood sugar control

Healthcare utilization and characteristics in patients with sexual abuse in Taiwan: A nationwide cohort study

Mei-Ling Lou^{*1,2}, Wei-Fen Ma^{3,4}, Wei-Sheng Chung^{5,6}, Chi-Wen Juan⁷

1 Department of Nursing, Hungkuang University, Taiwan

2 PhD Student, Department of Public Health, China Medical University, Taiwan

3 School of Nursing, China Medical University, Taiwan

4 Department of Nursing, China Medical University Hospital, Taiwan

5 Department of Health Services Administration, China Medical University, Taiwan

6 Taichung Hospital, Ministry of Health and Welfare, Taiwan

7 Buddhist Chengde Hospital, Taiwan

Background: Sexual abuse (SA) is a public health problem affecting individuals, families and communities in the globe.

Purpose: This study aimed to explore injury types, healthcare utilization and medical expenditures of patients admitted due to SA in Taiwan from 1996 to 2013.

Methods: We identified patients with SA by ICD-9-CM V71.5, N Code 995.5x, 995.8 and E960.1.x from National Health Insurance Research Database from 1996 to 2013. Descriptive statistics was used to examine the characteristics of SA and healthcare utilization. Mann-Whitney U and Kruskal- Wallis tests were used to estimate the difference of medical expenditures in emergency room, ambulatory care clinics or hospitalization.

Results: Among 712 patients with SA, females were 26 times higher than males. The highest range was women aged of 14-17 years with mean of 19.65 years. Most patients were hospitalized in surgical wards and they received healthcare services at department of gynecology & obstetrics in ambulatory care clinics and emergency rooms. One third of patients had comorbid diseases and most of them had never received any operation ($P=.001$). The majority of patients were hospitalized in regional hospitals ($P=.001$). For financial analysis, the emergency medical expenditures were lower in males than in females (NTD\$1534 vs NTD\$2313, $P=.001$). In addition, the average medical expenditures in emergency room increased with age except in the elderly ($P=.001$).

Implications: The study indicated that patients with SA exhibited female predominance, hospitalization in regional hospitals, and no operation. Females with SA aged 14-17 years were more likely to utilize emergency medical care. The healthcare team should provide integrated services for females with SA, cooperate with other professionals, and refer patients to relevant authorities for a help. In addition, the government should establish an effective strategy to prevent SA occurrence and provide a safe environment for women.

Keywords: sexual abuse (SA), national health insurance research database (NHIRD), healthcare utilization, cohort study

The effectiveness of maternal-infant skin-to-skin contact duration on neonatal thermoregulation

Yu-Sin Ma^{1,2}, Cheng-I Yang³

1 Postgraduate student, Department of Nursing, Hungkuang University, Taiwan

2 Department of Nursing, Chung-Jen Junior College of Nursing, Health Sciences Management, Taiwan

3 Department of Nursing, Hungkuang University, Taiwan

Background: Neonatal hypothermia is a serious concern associated with risks such as hypoglycemia, respiratory distress, and increased mortality. **Skin-to-skin contact (SSC)** is recognized for promoting neonatal stability and supporting breastfeeding; however, its effectiveness in thermoregulation and the ideal duration for maintaining optimal body temperature require further investigation.

Purpose / Objectives: This study examines the effects of different SSC durations on neonatal temperature changes.

Approaches / Methods: A quasi-experimental study was conducted in a regional hospital in southern Taiwan. Full-term healthy neonates (≥ 37 weeks, Apgar score ≥ 7) were categorized into three groups: (1) vaginal delivery with SSC ≥ 60 minutes, (2) vaginal delivery with SSC < 60 minutes, and (3) cesarean delivery without SSC. SSC was initiated within 15 minutes after birth. Neonatal temperatures at birth (Pre-T) and after SSC (Post-T) were analyzed using SPSS.

Results / Findings: A total of 63 neonates were included. The SSC ≥ 60 minutes group (N=22) showed the smallest temperature drop (-0.67°C), followed by the SSC < 60 minutes group (-0.98°C , N=16), and the cesarean delivery group without SSC (-0.99°C , N=25). Temperature decreases were significant across all groups ($p = 0.000$), with greater declines in SSC < 60 minutes and non-SSC groups compared to SSC ≥ 60 minutes ($p < 0.05$). No difference was found between SSC < 60 minutes and non-SSC groups. It indicates that SSC for ≥ 60 minutes is a better practice for preventing neonatal temperature drop.

Discussion / Implications: This pilot study demonstrates the feasibility of the research tools and data collection process. It also highlights that SSC for at least 60 minutes effectively minimizes neonatal temperature loss compared to shorter durations or the absence of SSC. Further large-scale studies are necessary to validate these findings and strengthen the evidence for promoting SSC in clinical practice.

Keywords: skin-to-skin contact, neonatal thermoregulation, hypothermia prevention

Effectiveness of olive oil mouth rinsing on oral mucositis in cancer patients — A systematic review

Yu-Pei Lin^{1,2}, Yu-Huan Chao²

1 Tungs' Taichung Metroharbor Hospital, Taiwan

2 Hungkuang University, Taiwan

Background: Oral mucositis (OM) is a common side effect of chemotherapy, causing pain, difficulty eating, and treatment delays. Conventional treatments, such as sodium bicarbonate mouthwash, offer limited effectiveness and are costly. Given its antioxidant and anti-inflammatory properties, could olive oil be a safe, low-cost alternative therapy?

Purpose / Objectives: To evaluate the effectiveness of olive oil in preventing and managing OM and provide clinical recommendations.

Approaches / Methods: A systematic literature review was conducted following PRISMA guidelines. Searches were performed in Cochrane Library, CINAHL, PubMed, and CEPS for English and Chinese studies published between 2015 and October 2024. Using the PICO framework, the search included "cancer patients" (P), "olive oil" (I), "usual care" (C), and "oral mucositis" (O), with Boolean operators (AND/OR). Of 53 identified studies, three randomized controlled trials (RCTs) met the inclusion criteria after screening. Quality assessment using the CASP tool showed high reliability, with scores of 9/10 (one study) and 8/10 (two studies). Based on the Oxford Centre for Evidence-Based Medicine (OCEBM), the studies were classified as Level 1b evidence.

Results / Findings: Findings showed that olive oil delayed the onset of oral mucositis and reduced its severity and pain more effectively than sodium bicarbonate. It was particularly beneficial as a preventive measure for high-dose chemotherapy patients and as an adjunct therapy for mild cases (WHO grade 1-2). However, for severe cases (WHO grade 3-4) or those with infections, stronger treatments such as mucosal protectants or analgesics remain necessary.

Discussion / Implications: Olive oil is a safe, accessible, and cost-effective option for managing OM. Recommended use: gargle and swallow 2-3 times daily or apply topically 3-4 times daily. Further large-scale RCTs are needed to determine optimal dosage and long-term efficacy.

Keywords: olive oil, oral mucositis, chemotherapy, systematic review

Cryotherapy for chemotherapy-induced peripheral neuropathy in breast cancer patients: Appraisal of evidence

Ying-Yu Wu

School of Nursing, China Medical University, Taiwan

Background: Breast cancer is the most common malignancy among women in Taiwan, with a five- year survival rate of 90%. Taxane-based chemotherapy is a crucial treatment but is associated with chemotherapy-induced peripheral neuropathy (CIPN), characterized by numbness, tingling, and motor impairment. These symptoms can persist for months after treatment, significantly impacting patients' quality of life. Clinically, some manufacturers recommend cryotherapy to alleviate CIPN. Therefore, this article aims to investigate the incidence of CIPN in breast cancer patients undergoing chemotherapy and evaluate whether cryotherapy is effective in improving CIPN- related symptoms.

Purpose / Objectives: To critically appraise the effectiveness of cryotherapy in preventing and alleviating CIPN in breast cancer patients.

Approaches / Methods: A systematic search was conducted using PubMed, Cochrane Library, and Embase, with key search terms P: Breast cancer, I: Cryotherapy, O: Chemotherapy-induced peripheral neuropathy. A total of 14 studies were identified, including systematic reviews, network meta-analyses, cohort studies, and RCTs. Six studies were appraised using CASP tools and Oxford CEBM levels to evaluate evidence quality.

Results / Findings: CIPN incidence among breast cancer patients ranges from 11% to 80%, with prevalence peaking at 73.9% upon chemotherapy completion, and 62.5% of patients experience symptoms for up to three months. It primarily affects the sensory and motor nerves in the hands and feet. Accordino et al. (2024) reported that wearing frozen gloves and socks extending to the wrists and ankles (-25°C to -30 °C, replaced every 45-60 minutes) for 15 minutes before chemotherapy infusion, throughout infusion, and for 15 minutes after infusion resulted in a FACT-NTX score reduction of <5 points compared to baseline at week 12, indicating symptoms improvement in stage I-III breast cancer patients.

Discussion / Implications: Although cryotherapy shows potential in CIPN management, patient tolerance remains a challenge. As a safe and non-pharmacologic treatment, future research should focus on large-scale, high-quality RCTs that also consider patient comfort and adherence, ensuring its clinical applicability.

Investigating the impact of viewing digitally altered images on social media on the physical and mental health of young adults

Ting-An Hsieh¹, Wei-Fen Ma^{2,3}

1. School of Nursing, China Medical University, Taiwan
2. Department of Nursing, China Medical University Hospital, Taiwan
3. Department of Nursing, China Medical University, Taiwan

Background: In 2021, the World Health Organization declared mental health as a fundamental human right. Self-esteem, self-confidence, and self-image are key indicators of mental well-being. As young people's interactions with social media become increasingly frequent, visual-based platforms dominate, relying heavily on images for communication. These images are often retouched to present an idealized version of reality. Previous research has indicated that social media use is associated with physical and mental health outcomes. Specifically, image-related activities on social media, such as posting, viewing, or commenting on photos, can negatively impact body image, especially with excessive exposure to Instagram images. In response to these concerns, several developed countries have enacted regulations requiring retouched images to be clearly labeled to prevent misleading effects on adolescents' mental and physical health. However, the impact of photo retouching on social media among young people in Taiwan remains unclear.

Objective: This study aimed to explore the relationship between young people's exposure to retouched photos on social media and their mental and physical well-being.

Methods: A cross-sectional survey design was adopted, targeting young adults aged 20-35 years. Participants completed four online questionnaires, including a demographic information sheet, a photo retouching exposure scale, a brief version of the Appearance Anxiety Scale (AAS), and a revised version of the Physical Appearance Comparison Scale (PACS-R). The study examined the degree of exposure to retouched photos and its association with physiological and psychological health. Data were analyzed using SPSS 21.0, applying descriptive and inferential statistics to assess variable characteristics, differences, and correlations.

Results: A total of 316 participants completed the survey, with 66.8% female and 33.2% male, and an average age of 21.9 years (SD = 2.41). The results revealed that females had significantly higher social media usage time and appearance anxiety scores compared to males. Additionally, females were more likely to perceive themselves as overweight and to frequently retouch their photos before posting them on social media. These findings suggest that prolonged exposure to idealized thin-body imagery intensifies concerns about external appearance, potentially leading to negative effects on self-perceived body image.

Keywords: social media, photo retouching, young adults, body dissatisfaction, body image

The impact of intermittent pneumatic compression devices on deep vein thrombosis incidence after joint replacement surgery

Yu-Xi Ma^{1,2}, Cheng-I Yang³

1 Postgraduate student, Department of Nursing, Hungkuang University, Taiwan

2 Department of Nursing, Dalin Tzu Chi Hospital Buddhist Tzu Chi Medical Foundation, Taiwan

3 Department of Nursing, Hungkuang University, Taiwan

Background: According to statistics from the National Health Service in Taiwan, nearly 30,000 individuals undergo total knee arthroplasty each year, with the number increasing annually (National Health Service, 2022). One of the common postoperative complications is venous thromboembolism, which includes deep vein thrombosis and pulmonary embolism, with an estimated incidence rate of 10%. The mortality rate associated with these conditions can reach as high as 70%. Pulmonary embolism related to venous thromboembolism is the third most common cause of death in orthopedic patients (Ding K et al., 2024).

Purpose / Objectives: This study aims to investigate whether the use of intermittent pneumatic compression (IPC) devices after joint replacement surgery can reduce the incidence of deep vein thrombosis (DVT) and to provide evidence-based recommendations.

Approaches / Methods: Using the PICO framework, we employed the following keywords: "Total knee arthroplasty or total knee replacement or joint arthroplasty (P)," "intermittent pneumatic compression devices (I)," "Anticoagulant/no prophylaxis/ thromboprophylaxis (C)," and "Thrombosing/thrombosis (O)." We conducted a literature search in both English and Chinese through databases such as PubMed, EMBASE, CINAHL, DynaMed, and Airiti Library, prioritizing systematic reviews (SR) or meta-analyses (MA), followed by randomized controlled trials (RCT).

Results / Findings: According to the Oxford Centre for Evidence-Based Medicine 2011 evidence levels, the reviewed article is classified as Level 2. The results indicate that, based on the study by Pavon et al. (2016), the effectiveness of intermittent pneumatic compression (IPC) for preventing deep vein thrombosis (DVT) is not significant (OR = 0.81, 95% CI: 0.59-1.11). However, when compared to the no prophylaxis group, IPC significantly reduced the incidence of DVT (OR = 0.41, 95% CI: 0.26-0.65). The effect of IPC alone was not significant compared to the pharmacological prophylaxis group or the IPC + pharmacological prophylaxis group. IPC intervention significantly reduced the incidence of pulmonary embolism (OR = 5.81, 95% CI: 1.25-26.91).

Discussion / Implications: Intermittent pneumatic compression (IPC) can significantly reduce the risk of deep vein thrombosis (DVT) in the absence of other preventive measures, but its effectiveness is not as pronounced when compared to other prophylactic methods such as medication. The combined use of multiple preventive strategies, especially in high-risk patients, may be more effective in enhancing safety and improving outcomes.

Keywords: total knee replacement, venous thromboembolism, pulmonary embolism, intermittent pneumatic compression devices

Development of animated educational videos to enhance patient self-care for hemodialysis patients

Hua-Chih Chang, Yu-Huan Chao, Ping-Yi Lin, Yueh-Ying Lo

School of Nursing, Hungkuang University, Taiwan

Background: Patient education is essential for enhancing self-care knowledge and skills. Multimedia videos, incorporating animation and cartoons, provide an engaging and innovative approach to delivering health information in a clear and accessible manner.

Objective: This study aimed to develop animated educational videos and evaluate their impact on patient satisfaction with education and accuracy of self-care knowledge among hemodialysis patients.

Methods: An action research approach was adopted, with the study conducted from July 1, 2022, to February 29, 2023. A quasi-experimental design with purposive sampling involved a pre-and post-test comparison between two groups. The experimental group watched animated educational videos, while the control group received traditional paper-based educational materials. Patients' satisfaction with education and self-care knowledge was assessed on the third day after viewing. Data analysis included descriptive statistics, chi-square tests, independent t-tests, and covariance (ANCOVA) analysis to evaluate intervention effects.

Results: Three animated educational videos were developed, covering essential topics for hemodialysis patients: dietary guidelines, arteriovenous fistula care, and daily self-care. The final valid sample included 47 patients in the experimental group and 46 in the control group. The results showed no significant difference in self-care knowledge scores between the two groups; however, the experimental group reported significantly higher satisfaction with education than the control group ($P < .05$).

Conclusion: Animated educational videos, which allow repeated viewing, effectively enhance patient satisfaction with education, demonstrating their potential in patient education.

Implications: Compared to traditional paper-based education, animated multimedia education improves patient acceptance and satisfaction. As the study participants were predominantly elderly, future efforts may consider developing educational videos in Taiwanese dialects to enhance comprehension and applicability.

Keywords: animated videos, multimedia, patient education, hemodialysis, self-care

Exploring the learning effectiveness and experiential perceptions of applying MAR to intravenous injection skills

Ching-Wen Hu, Chu-Ling Chang*

Department of Post Baccalaureate Nursing, Hungkuang University, Taiwan

Background: The application of technology in education has become an irreversible trend, and the use of MAR (Mobile Augmented Reality) as a supplementary learning tool is becoming increasingly important.

Purpose: This study aims to explore the effectiveness of MAR-assisted learning in intravenous injection skills and students' experiential perceptions.

Method: This study adopts a single-group pretest-posttest design. The participants are second-year nursing students, with a total of 33 students. Before the MAR simulation intervention, they take a written pretest. After the MAR intervention, they complete a written posttest, a self-assessment questionnaire, and participate in a focus group interview.

Results: 48% of the students showed improvement in the posttest compared to the pretest, with score increases ranging from 5 to 25 points. Students expressed that: 1. MAR can more realistically simulate actual clinical scenarios, and they are willing to try more similar learning methods. 2. Learning with MAR is interesting, but there is still room for improvement in the program's usability.

Conclusion and Recommendations: Students believe that MAR can effectively enhance learning outcomes, stimulate diverse thinking, and increase learning motivation. It is recommended that more types of MAR tools be designed in the future to meet students' learning needs.

Keywords: mobile augmented reality, learning outcomes, learning motivation

The effect of stress, fatigue, and sleep quality among female shift nurses in Taiwan

Mei Ling Lin

School of Nursing, Hungkuang University, Taiwan

Nurses are the most essential professionals providing 24-hour patient care in hospitals, and shift work is an inevitable part of their job. This study aims to investigate fatigue and its related factors among female nurses working the night shift. A cross-sectional correlational study design was adopted, with convenience sampling conducted from May to October 2023 at a medical center in central Taiwan. A total of 227 night shift nurses participated in the study. The results showed that 67.6% of the nurses experienced sleep disturbances. Using the Lee's Fatigue Scale, with an average score of 3.3 or higher indicating clinically significant fatigue, it was found that 84% of female night shift nurses experienced fatigue. Furthermore, fatigue was significantly associated with perceived stress, sleep quality, sleep quantity, work-related fatigue, and wakefulness, as measured by the General Sleep Disturbance Scale (GSDS). In other words, nurses who experienced fatigue also reported higher levels of sleep disturbances and perceived stress. The most pronounced drowsiness among night shift nurses occurred immediately after their shift, followed by the period between 5 to 6 a.m. This study provides preliminary data on the fatigue status of night shift nurses. Future research should focus on strategies to help nurses manage physiological and psychological issues related to fatigue.

Keywords: nurses, shift work, fatigue

Effectiveness of combined warming in preventing postoperative hypothermia among surgical patients

Yong-Han Huang^{1,2}, Tsai-Ling Chen³

1 Graduate student, Department of Nursing, Asia University, Taiwan

2 Department of Nursing, Taitung MacKay Memorial Hospital, Taiwan

3 Department of Nursing, Asia University, Taiwan

Background: Postoperative hypothermia is a common issue in the recovery room, potentially leading to prolonged anesthesia recovery, immunosuppression, surgical site infections, bleeding, cardiovascular complications, and extended hospital stays. Studies indicate that platelet function declines when body temperature drops below 35°C, with 37°C being optimal for platelet function. Therefore, maintaining adequate warmth during surgery is crucial. Various warming methods are used in clinical practice, and scholars suggest that a combined warming approach yields better results.

Purpose / Objectives: This study aims to empirically examine the effectiveness of forced-air warming and fluid warming in preventing postoperative hypothermia.

Approaches / Methods: Following evidence-based practice, this study applied the PICO framework: postoperative patients (P), warm intravenous fluids and forced-air warming (I), standard care (C), and normal body temperature (O). MeSH terms and Boolean logic were used to identify synonyms and connect keywords for database searches in PubMed, CINAHL, and The Cochrane Library, yielding 274 articles. After applying inclusion and exclusion criteria, five randomized controlled trials (RCTs) were included.

Results / Findings: Using the 2013 Critical Appraisal Skills Programme (CASP) checklist for validity, importance, and applicability, and classifying studies based on the 2011 Oxford levels of evidence, four RCTs were categorized as Level 2 and one as Level 3. All five studies showed significant differences between the intervention and control groups ($p < 0.05$), demonstrating that forced-air and fluid warming effectively reduce postoperative hypothermia.

Discussion / Implications: The combined warming approach significantly lowers the incidence of postoperative hypothermia and reduces patients' recovery room stay. It is recommended that this evidence-based warming intervention be integrated into perioperative care to enhance surgical patient outcomes and improve care quality.

Keywords: perioperative care, postoperative hypothermia, fluid warming, forced-air warming, combined warming

The impact of long-term care programs on students' knowledge of aging, attitudes towards the elderly, and willingness to care for the elderly

An Rou Lu, Shu Hua Lu

School of Nursing, China Medical University, Taiwan

Background: Taiwan's aging population is rapidly increasing, with projections indicating that by 2025, over 20% of the population will be aged 65 and above. As a result, education plays a crucial role in preparing students for elderly care. While previous studies have examined the effects of service-learning, individual courses, and internships on students' attitudes toward the elderly and caregiving willingness, the impact of long-term care (LTC) programs remains understudied.

Objectives: This study investigates how LTC program enrollment influences university students' aging knowledge, attitudes toward the elderly, and willingness to care for them.

Methods: A cross-sectional survey was conducted among university students at a medical university in central Taiwan. The study utilized the Facts on Aging Quiz 1 (FAQ 1), Kogan's Attitudes Toward Older People Scale (KAOP), and the Service Willingness for the Elderly scale, along with three self-designed caregiving willingness questions. Data were analyzed using ANOVA, chi-square tests, and Pearson correlation coefficients.

Results: A total of 151 students participated (100% response rate), including 48 LTC program enrollees, 37 who took LTC-related courses, and 66 without related coursework. No significant differences were found in aging knowledge ($p = 0.652$) or attitudes ($p = 0.299$), though LTC enrollees scored higher on both scales. However, caregiving willingness significantly differed ($p = 0.009$), with LTC enrollees scoring the highest. Moderate correlations were found between aging knowledge and attitudes ($r = 0.355$) and between attitudes and caregiving willingness ($r = 0.435$).

Conclusions: Although not statistically significant, aging knowledge, attitudes, and caregiving willingness are interrelated. Policy adjustments and educational interventions, including experiential learning, may enhance students' readiness to care for the elderly, addressing Taiwan's caregiver shortage.

Keywords: aging knowledge, attitudes toward the elderly, caregiving willingness

Exploring nutrition, sedentary behavior and depression associated with the risk of sarcopenia in community-dwelling older people

Feng-Mei Chu¹, Shu Hua Lu¹, Yun Ping Lin¹, Hui Chen Tseng²

¹ School of Nursing, China Medical University, Taiwan

² Department of Nursing, Hungkuang University, Taiwan

Background: Sarcopenia is a growing health concern among aging populations, leading to adverse outcomes such as frailty, falls, and fractures, which impact the quality of life in older adults. However, limited studies have explored sarcopenia risk factors in Taiwan.

Objectives: This study investigates the relationships between demographic characteristics, nutrition, sedentary behavior, depression, and sarcopenia risk in community-dwelling older adults.

Methods: A cross-sectional study was conducted using convenience sampling of individuals aged ≥ 65 years from northern Taiwan. Research tools included demographic data, handgrip dynamometer, Mini Nutritional Assessment, sedentary behavior questionnaire, Geriatric Depression Scale, and SARC-F. Sarcopenia risk was assessed based on the Asian Working Group for Sarcopenia (AWGS) 2019 criteria: (1) handgrip strength < 28 kg (men) or < 18 kg (women), or (2) chair stand test ≥ 12 seconds. Independent t-tests and chi-square tests analyzed differences between suspected sarcopenia and non-sarcopenia groups

Results: Among 160 participants (mean age 76.3 years; 35.6% men, 64.4% women), 75 (46.9%) had suspected sarcopenia. Significant differences were found in age, education level, living status, and chronic diseases between groups ($p < 0.05$). However, no significant differences were observed in nutrition ($p = 0.06$), sedentary behavior ($p = 0.73$), or depression ($p = 0.89$). The average sedentary time was 7.83 hours/day, and 33.1% exhibited signs of depression.

Conclusions: Age, education level, living status, and chronic diseases were significantly associated with sarcopenia risk, whereas nutrition, sedentary behavior, and depression were not. Future studies should incorporate a broader population sample and use objective muscle mass measurements.

Keywords: community-dwelling older adults, nutrition, sedentary behavior, depression, sarcopenia

The journey of growth and adaptation of novice nurses in the operating room: A qualitative research

Guei-Ling Lin, Yueh-Chen Yeh

Department of nursing, National Taichung University of Science and Technology, Taiwan

Background: Novice Nurses encounter significant difficulties when adjusting to the operating room (OR), including unfamiliarity with surgical equipment and procedures, heavy workloads, and complex interpersonal dynamics, resulting in stress that impacts their emotional well-being, professional growth, and job performance.

Purpose / Objectives: This research aims to investigate the stressors, coping strategies of novice OR nurses and their professional daptation.

Approaches / Methods: A qualitative study was performed. Eligible participants recruited through purposive sampling were interviewed comprehensively.

Results / Findings: Twenty-two novice nurses were recruited. Three themes were identified: distress and frustrated; coping and survival; growth and transformation.

Discussion / Implications: This study revealed the challenges of novice nurses who work in the OR and their coping strategies. Support from senior colleagues is essential. Particularly, the Head Nurse should provide sufficient support and guidance for novice nurses to facilitate their professional adaptation.

Keywords: coping strategies, novice nurses, operating room, professional adaptation

Exploring the effectiveness of multimedia-guided self- acupressure on sanyinjiao (SP6) for pain relief in young women with dysmenorrhea

I-Chin Li, Jui-Fen Cheng

School of Nursing, China Medical University, Taiwan

Background: Primary dysmenorrhea affects 84% of women of reproductive age, with 15% requiring sick leave due to severe pain, impacting quality of life and causing economic losses. It is characterized by intense cramping pain, often accompanied by headaches, diarrhea, and vomiting. Acupressure on the Sanyinjiao (SP6) point is a safe, low-cost, non-pharmacological intervention. Additionally, multimedia-based instruction enhances learning efficiency by eliminating time and spatial constraints.

Purpose: This study aimed to assess the efficacy of multimedia-guided SP6 acupressure in reducing menstrual pain among young women with primary dysmenorrhea.

Methods: A quasi-experimental pretest-posttest design was conducted with 45 participants randomly assigned to experimental and control groups over a three-month period. Menstrual pain intensity was assessed using the Visual Analogue Scale (VAS) before and after the intervention. Both groups received general health education videos. The experimental group performed SP6 acupressure starting one week before menstruation, 10 minutes per session, twice daily, until the fifth day of menstruation. The control group maintained their usual routines.

Results: In the first month, both groups showed decreased VAS pain scores, though without statistical significance ($p=0.082$). In the second month, pain scores continued to decline, with a significant difference between groups ($p=0.032$). By the third month, the experimental group experienced a more significant pain reduction ($p=0.016$). Paired-t-tests confirmed immediate pain relief from SP6 acupressure. Although general health education also significantly reduced pain in the control group, SP6 acupressure demonstrated a more pronounced and sustained analgesic effect. Notably, effective pain relief was achieved using a single acupoint, Sanyinjiao (SP6).

Implications: Multimedia-guided SP6 acupressure is a safe, low-cost, non-pharmacological intervention that can be clinically applied to enhance self-care among young women with primary dysmenorrhea. This study serves as an empirical reference for the future management of primary dysmenorrhea.

Keywords: primary dysmenorrhea, acupressure, Sanyinjiao (SP6), multimedia, traditional Chinese medicine

Exploring the correlation between self-care, daily habits, and body constitution in traditional Chinese medicine among young women with dysmenorrhea

Yu-Ru Huang, Jui-Fen Cheng

School of Nursing, China Medical University, Taiwan

Background: Dysmenorrhea is a prevalent health issue affecting 45%–95% of women, with a reported prevalence of 66.1% among students. It causes significant physical discomfort and disrupts daily activities, including academic performance and work productivity.

Purpose / Objectives: Exploring the correlation between daily habits, self-care practices, and Body Constitution (BC) in Traditional Chinese Medicine (TCM).

Approaches / Methods: This study employed a cross-sectional research design. A total of 105 female university students (aged 18–30 years) with dysmenorrhea and a visual analog scale score greater than 3 in the past six months were recruited. Data were collected using structured questionnaires, including assessments of demographics, dysmenorrhea symptoms, BC in TCM, and the Perceived Stress Scale (PPS).

Results / Findings: A total of 102 participants (97%) completed the study. The most commonly reported physiological symptoms included fatigue (93.1%), lower abdominal distension and pain (92.2%), and back pain (85.3%), while psychological symptoms primarily involved depression (90.2%), mood swings (86.3%), and irritability (85.3%). Dysmenorrhea was managed mainly through rest (98%), hot compresses or massage (69.6%), and painkillers (52%). Over 80% of participants frequently stayed up late and consumed cold food, fried food, and coffee. PPS results showed that nearly half experienced high stress levels. Additionally, 81.4% had an unbalanced constitution, while only 18.6% had a gentle constitution. Yin-Xu, Yang-Xu, and stasis constitutions were present in 47.1%, 64.7%, and 64.7% of participants, respectively, and their scores correlated significantly with PPS scores and dysmenorrhea severity.

Discussion / Implications: These results suggest that stress and lifestyle factors may contribute to menstrual discomfort and constitutional imbalances, highlighting the need for targeted interventions to promote overall well-being.

Keywords: self-care, daily habit, Body Constitution, traditional Chinese medicine, dysmenorrhea

Aromatherapy for postpartum stress reduction: A systematic review

Chun-Hsiang Yang, Ching Yu Cheng

College of Nursing, Chang Gung University of Science and Technology, Taiwan

Background: Hormonal changes, particularly fluctuations in oxytocin and cortisol, contribute to perinatal mood instability, anxiety, and depression, impacting maternal well-being and quality of life. Aromatherapy, through inhalation or skin absorption of essential oils, stimulates the olfactory system and brain regions responsible for emotional regulation, potentially reducing anxiety, stress, and mood disturbances.

Purpose: This systematic review examines the effectiveness of aromatherapy in alleviating postpartum stress.

Approaches: A systematic literature review was conducted using the PICO framework, searching PubMed, Embase, Cochrane Library, CEPS, Medline, and Google Scholar. Keywords included (postpartum women OR postnatal women OR postpartum period) AND (postpartum stress OR postnatal stress) AND (aromatherapy OR essential oil). Inclusion criteria were studies focusing on postpartum women experiencing stress, aromatherapy as an intervention, and stress reduction as an outcome. After screening, four studies out of 21 studies met the criteria and were analyzed using the Critical Appraisal Skills Programme (CASP) for quality assessment.

Results: The four studies, published in English, involved 537 postpartum women (sample sizes: 40–217). Study designs included one systematic review and three randomized controlled trials, all employing double-blind methodologies. The intervention involved applying lavender oil to the palms, rubbing them together, and inhaling the aroma three times daily for four weeks. Compared to the routine care group, postpartum mothers in the aromatherapy group experienced significantly lower levels of stress, anxiety, and depression.

Discussion / Implications: Lavender essential oil inhalation demonstrates benefits in reducing postpartum stress and can be integrated into postpartum nursing care as a complementary intervention. Standardized aromatherapy protocols should be developed and incorporated into postpartum care guidelines. Healthcare providers should receive training on proper administration techniques, and postpartum women and their families should be educated on aromatherapy use, including potential contraindications.

Keywords: postpartum stress, aromatherapy, essential oil

Effectiveness of cold cabbage leaf compresses in relieving postpartum breast engorgement: A systematic review

Hui-Chi Hsu^{1,2}, Ching Yu Cheng²

1 Chang Gung Medical Hospital, Taiwan

2 College of Nursing, Chang Gung University of Science and Technology, Taiwan

Background: Breast engorgement frequently disrupts breastfeeding and affects maternal well-being. Cold cabbage leaf is often applied to manage breast engorgement in clinical, yet evidence supporting cold cabbage leaf compresses as a remedy remains under-explored.

Purpose: Cold cabbage leaf compresses are examined in this systematic review for their ability to ease breast engorgement and pain.

Methods: A systematic review using the PICO framework searched major databases (PubMed, Embase, Cochrane Library, CEPS, Medline, and Google Scholar) for clinical trials on postpartum women with breast engorgement treated with cold cabbage leaf compresses, with pain or swelling relief as the outcomes. The keywords included postpartum breast engorgement, cabbage leaves, pain, and their synonymous. From 13,312 records, four studies were included after excluding duplicates, not clinical trials, not postpartum breast engorgement, or not cabbage leaves. The Critical Appraisal Skills Programme (CASP) was applied to evaluate study quality.

Results: The four studies included randomized controlled trials and quasi-experimental design with 441 participants (ranging from 34 to 120). The intervention was to refrigerate the cabbage leaves for 20-30 minutes, press to soften the leaves, and then apply them on the breast for 20-30 minutes twice daily. Results showed that refrigerated cabbage leaf compresses significantly reduced breast swelling and pain. It had similar or better effects than cold gel packs. Women applied cold cabbage leaves breastfed longer than women with routine care.

Discussion/Implications: This review validates cold cabbage leaf compresses as an effective, non-pharmacological tool to overcome breast problems and breastfeeding challenges, offering evidence-based guidance for nursing practice. Given its affordability, accessibility, and safety, cold cabbage leaf compress is recommended to integrate into postpartum care, with standardized guidelines to optimize breastfeeding support.

Keywords: cabbage leaf, postpartum breast engorgement, pain

Enhancing the consistency of mini-CEX assessments among clinical nursing educators

Hsing Tsai, Meng-Chen Hsieh

Nursing Department of Yuanlin Christian Hospital, Taiwan

Background/ Purpose: The Mini-Clinical Evaluation Exercise (mini-CEX) is a widely used assessment tool in clinical nursing education, covering seven key domains: medical interviewing, physical examination, procedural skills, counseling and education, clinical judgment, organizational efficiency, and humanistic professionalism. Many hospitals in Taiwan have adopted the mini-CEX as a standard for evaluating clinical performance among medical personnel. However, variations exist among clinical educators in their assessment criteria. This study aims to improve the consistency of clinical nursing educators in using the mini-CEX through a faculty training program.

Approaches / Methods: This study employs a single-group pre-test and post-test design, targeting clinical educators at a teaching hospital in central Taiwan. The assessment tool used is the "Welcoming a New Patient - Mini-Clinical Evaluation Exercise Form," which has a content validity index (CVI) of 1.25 and a Cronbach's α coefficient of 0.92, demonstrating good reliability and validity. Participants received training through an instructional video on "Welcoming a New Patient." After watching the video, they used the "Welcoming a New Patient - Mini-Clinical Evaluation Exercise Form" to conduct assessments. The study analyzed pre- and post-training assessment results to evaluate the impact of training on improving assessment consistency.

Results / Findings: A total of 23 clinical educators participated in the study. Independent sample t-tests and Cohen's kappa coefficient analysis revealed a significant difference in assessment consistency before and after training ($p < .05$), with a Cohen's kappa coefficient of 0.89, indicating high agreement. Additionally, 96% of participants expressed overall satisfaction with the training program.

Discussion / Implications: The study results indicate that consistency training effectively reduces discrepancies among assessors, enhances assessment accuracy, and promotes uniformity in scoring standards. This approach serves as a valuable reference for improving the teaching capabilities of clinical educators, ultimately optimizing the quality of nursing education assessments.

Keywords: mini-CEX, clinical nursing education, evaluating consistency

Using art therapy intervention to alleviate emotional disorders in patients of dementia with lewy bodies

Meng-Ling Shih¹, Hsing Tsai²

¹ Home Care Center, Yuanlin Christian Hospital, Taiwan

² Nursing Department, Yuanlin Christian Hospital, Taiwan

Background: Dementia with lewy bodies accounts for 15% of all dementias, but because its clinical manifestations are similar to parkinson's disease dementia, its emotional aspects are often ignored.

Purpose: The purpose of this article is to use art therapy to improve emotional disorders in cases of dementia with lewy bodies.

Methods: The case in this article is a patient with dementia of lewy body. He is often irritable, cries and laughs for unknown reasons, and fantasizes about his husband's affair. Through art therapy, he designs individualized games, including: using bubble wrap for finger sensory stimulation, homemade cooking cards, mobile phone photo collage, etc., and guides the patient to participate together.

Results: By participating in art therapy activities with the patient accompanying the patient, simple body movements are used to stimulate brain cognition, visual nostalgia and group social activities, with the goal of increasing the time spent with the patient and taking care of the patient. Through daytime activities and increasing the amount of daytime activities, the patient's concerns are transferred and the patient's anxiety is relieved, thereby improving day and night sleep disorder. It not only reduces the patient's caregiving pressure and daily tension, but also improves the family's quality of life.

Discussion: This article uses art therapy to improve the emotional problems of dementia with lewy bodies cases, which is consistent with the results of past literature. Through the actual implementation of this article, it provides a reference for clinical care and applies academic theories to clinical practice to improve the quality of care.

Keywords: dementia with lewy bodies, art therapy, personalized games, emotional disorders
home health nurse

Learning effect on using flipped classroom teaching strategy in maternal-child nursing laboratory course

Chen-Ju Chen, Chao-Chia Hung

Department of Nursing, Yuanpei University of Medical Technology, Taiwan

Background: How to reduce the gap between classroom teaching and clinical application to promote students' self-directed learning and core nursing competencies is an important issue in nursing education.

Purpose / Objectives: The purpose of this study is to evaluate the effects of using flipped classroom teaching strategy in "Maternal-Child Nursing Laboratory" course for nursing department students.

Approaches / Methods: One-group pretest-posttest design is used in this study. Six-stage flipped classroom teaching model is applied in "Maternal-Child Nursing Laboratory" course. Course implementation includes self-learning at home and testing, discussion, and debriefing at classroom. Three dimensions (including structure, process, and results) were used to evaluate the intervention course. The Competency Inventory of Nursing Students, Self-Directed Learning Instrument, and self-developed Flipped Classroom Curriculum Satisfaction Scale will be used to evaluate the effect between pre- and post- "Maternal-Child Nursing Laboratory" course.

Results / Findings: A total of 59 students completed the data collection, and paired t-test was used to analysis the data. The results revealed that the post-test scores of core nursing competencies (including basic biomedical science, general nursing clinical skills, communication and cooperation, critical thinking, caring, lifelong learning, and overall assessment), self-learning ability and learning satisfaction were significantly higher than the pre-test scores. It shows that using flipped classroom teaching strategy in "Maternal-Child Nursing Laboratory" course can significantly improve the core nursing competencies, self-directed learning and learning satisfaction of the nursing students.

Discussion / Implications: This study presents the actual implementation of the flipped classroom teaching model in "Maternal-Child Nursing Laboratory" course. Improve the teaching of the "Maternal-Child Nursing Laboratory" course through action research.

Keywords: flipped classroom teaching strategy, maternal-child nursing laboratory, core professional competencies, self-directed learning.

Using STEAM-6E teaching design to improve learning effects- A case of nursing special project course.

Chen-Ju Chen, Chao-Chia Hung

Department of Nursing, Yuanpei University of Medical Technology, Taiwan

Background: How to improve the connection between classroom teaching and clinical practice is an important issue in nursing education.

Purpose / Objectives: The purpose of this study is to evaluate the learning effects of using STEAM-6E teaching design in two-semester “Special Project” course for nursing department students.

Approaches / Methods: One-group pretest-posttest design is used in this study. is used in this study. Three dimensions (including structure, process, and results) will be used to evaluate the intervention course. Feedback sheets and teaching qualitative evaluation will be used to evaluate the students' response. The Achievement Motivation, Learning Engagement and Continuous Improvement Attitude Scale, Short Form- Critical Thinking Disposition Inventory-Chinese Version (SF-CTDI-CV), and self-developed STEAM-6E Course Learning Satisfaction Scale will be used to evaluate the effect between pre- course and post- course.

Results / Findings: A total of 31 students completed the data collection, and paired t-test was used to analysis the data. The results revealed that the post-test scores of learning engagement, continuous improvement attitude, critical thinking and learning satisfaction in course planning were significantly higher than the pre- test scores.

Discussion / Implications: This study presents the actual implementation of the STEAM-6E teaching design in “Special Project” course of the Department of Nursing. The research results show that it can improve the learning engagement, continuous improvement attitude, critical thinking and learning satisfaction in course planning of the nursing students.

Keywords: STEAM, 6E education, nursing special project, critical thinking.

Effects of mobile health interventions guided by wearable devices on the cardiopulmonary functional indicators in patients with chronic heart failure

Fu-Lan Chang¹, Shu Hua Lu², Tsun-Jui Liu³, Yu-Tsung Cheng³, Chyi Lo²

1 Department of Nursing, Taichung Veterans General Hospital, Taiwan

2 School of Nursing, China Medical University, Taiwan

3 Cardiovascular Center, Taichung Veterans General Hospital, Taiwan

Background: Self-care is essential in chronic heart failure (CHF) management, but adherence remains low. Physical activity benefits cardiac function and quality of life while reducing hospitalizations. The role of mobile health (mHealth) interventions using wearable devices in home-based rehabilitation is not well established.

Objectives: To assess the impact of mHealth interventions supported by wearable devices on cardiopulmonary functional indicators in CHF patients.

Methods: A randomized controlled trial enrolled 72 CHF patients from a Taiwan veteran hospital (October 2021–May 2023). Patients were randomly assigned to an intervention group ($n = 36$) receiving 12 weeks of mHealth-guided home-based rehabilitation or a control group ($n = 36$) receiving usual care. The intervention included goal-setting, self-care planning, disease management education, and weekly feedback. Outcomes assessed at baseline and 12 weeks included daily step count, six-minute walking test (6MWT), left ventricular ejection fraction (LVEF), and metabolic equivalents (METs).

Results: At baseline, groups were comparable, except for a higher prevalence of chronic kidney disease ($p = 0.018$) and hemodialysis ($p = 0.001$) in the control group. After 12 weeks, the intervention group showed significant improvements in step count ($\Delta = 3,434.78$, $p < 0.001$), 6MWT ($\Delta = 151.58$ m, $p < 0.001$), and METs ($\Delta = 1.79$, $p < 0.001$). Although post-test LVEF differences were not statistically significant ($p = 0.054$), mean improvement was greater in the intervention group ($\Delta = 9.92\%$ vs. 5.42% , $p = 0.004$).

Conclusions: mHealth interventions using wearable devices significantly improved cardiopulmonary function and physical activity levels in CHF patients, supporting their role in home-based cardiac rehabilitation. Long-term studies are needed to confirm sustained benefits.

Keywords: chronic heart failure, daily step count, six-minute walking test, left ventricular ejection fraction, metabolic equivalents

Effectiveness of cognitive behavioral therapy in reducing depressive symptoms in patients with depression

Ya Wei Wang¹

1. College of Nursing, Hungkuang University, Taiwan

2. Community Mental Health Center, Penghu County Health Bureau, Taiwan

Background: The primary treatment for depression is antidepressant medication, but some patients do not respond well to pharmacotherapy. Recent studies have shown that Cognitive Behavioral Therapy (CBT) can help patients modify negative thinking patterns and improve their ability to cope with stress. Therefore, this study integrates evidence-based literature to evaluate the clinical application of CBT.

Purpose: To investigate whether CBT intervention effectively reduces depressive symptoms and provide evidence-based recommendations.

Methods: This study conducted a literature search based on the PICO framework, using the keywords "Depression disorder (P)," "Cognitive behavioral therapy (I)," "Standard psychiatric treatment (C)," and "Improvement in depressive symptoms (O)." The search was conducted in PubMed, Cochrane Library, and Airtiti Library for English and Chinese literature. A total of three RCT studies were selected for analysis.

Results: The CASP Randomized Controlled Trial Checklist (2020) was used to assess the three selected RCT studies. The results indicated that CBT significantly improved depressive symptoms and was more effective than pharmacotherapy alone. Additionally, studies suggested that for patients with poor responses to medication, CBT might provide better therapeutic outcomes, particularly for those with mild to moderate depression, where its effectiveness could be comparable to that of antidepressant medication.

Implications: The findings of this study suggest that CBT has a significant effect on improving depressive symptoms and can serve as an adjunct therapy to pharmacological treatment. It is particularly suitable for patients who have a poor response to medication or wish to reduce their dependence on pharmacotherapy. Clinicians are encouraged to consider integrating CBT into individualized treatment plans to enhance overall treatment effectiveness. Future efforts should focus on expanding the clinical application of CBT and strengthening healthcare professionals' training to improve the accessibility and quality of depression treatment.

Keywords: depression, cognitive behavioral therapy, improvement in depressive symptoms

Using caregiver stress theory to examine the burden and associated factors among primary caregivers of terminal cancer patients in home hospice care

Yu-Chia Chang¹, Chang-Ta Hsieh², Yun-Chen Chang^{3,4}

1 School of Nursing and Graduate Institute of Nursing, China Medical University, Taiwan

2 Doctoral Candidate, Department of Sociology, Tunghai University, Taiwan

3 School of Nursing and Graduate Institute of Nursing, China Medical University, Taiwan

4 Nursing Department, China Medical University Hospital, Taiwan

Background: Primary caregivers of terminal cancer patients face significant stress from relentless caregiving and the unpredictable nature of the disease. They must continuously provide physical, emotional, and social support while juggling personal and professional demands. Challenges such as symptom management, end-of-life decisions, social isolation, financial strain, and limited support exacerbate this burden, increasing the risk of emotional distress and health decline. Understanding these stressors is crucial for designing effective interventions in home hospice care.

Purpose / Objectives: This study applies Tsai's Middle-Range Theory of Caregiver Stress, which is based on Roy's Adaptation Model, to examine the factors contributing to caregiver burden among primary caregivers of terminal cancer patients in home hospice care. The objective is to explore how objective care demands, stressful life events, social support, social roles, and caregiver demographics (e.g., age, gender, relationship to the patient) interact to shape caregivers' stress perceptions and subsequent health outcomes.

Approaches / Methods: A comprehensive literature review and theoretical analysis were conducted, integrating Tsai's framework with empirical research findings. The analysis focused on identifying the relationships between measurable care tasks (e.g., duration and intensity of caregiving), situational stressors, and personal attributes, and how these factors collectively influence caregivers' emotional responses and overall well-being.

Results / Findings: The review indicates that caregivers who perceive high objective burdens are more prone to depressive symptoms, which adversely affect physiological functions, self-esteem, role satisfaction, and marital relationships. Conversely, the availability of robust social support and effective coping strategies can mitigate these negative outcomes, highlighting the critical role of support networks in buffering caregiver stress.

Discussion / Implications: The results highlight the urgent need for routine caregiver burden assessments and targeted interventions. Healthcare providers should offer respite care, strengthen social support, and provide resource referrals to directly alleviate caregiver stress. Additionally, developing standardized, localized tools to evaluate caregiver stress is critical for timely intervention and enhancing the quality of life for both caregivers and patients.

Keywords: home hospice, terminal cancer, caregiver burden, social support

A study of the development and effectiveness of a generative do the month APP

Ching-Mei Chang¹, Yu-Ying Lin², Hung Hsiang Chen², Jia-Jhen Jhong², Lu-Tung Kuo²,
Yi Hong Xiao², Yun-Xuan Lin²

1. College of Nursing, Hungkuang University, Taiwan

2. Student of the Department of Nursing, Hungkuang University, Taiwan

Background and motivation: Faced with the decline in the number of births and fertility rates in Taiwan, women's demands for childbirth and confinement care are increasing. Due to the rapid development of information and communication technology and AI generation technology, if AI generation can be combined with mobile applications and then introduced into health education applications, it will have great potential and development in the future.

Purpose: This study has two purposes: (1) To develop a postpartum care APP by introducing AI-generated images into mobile applications and (2) To understand the effectiveness of APP intervention on postpartum care knowledge intervention.

Methods: This study adopts an interventional research design and convenient sampling. The APP development process is completed in four steps: 1. Literature verification; 2. APP design and implementation; 3. Questionnaire preparation; 4. Effectiveness testing. The APP content design includes: 1. Confinement diet; 2. Breastfeeding; 3. Newborn bathing; 4. Wound care; 5. Postpartum exercise; 6. Mood temperature. The APP interface content includes: 1. Confinement diet; 2. Breastfeeding; 3. Newborn bathing; 4. Wound care; 5. Postpartum exercise; 6. Mood temperature. The research tool was a self-designed questionnaire, and the evaluation scales were: 1. Basic information; 2. Cognition of confinement; 3. Attitude towards confinement; 4. APP effectiveness.

Results: A total of 45 people participated in this study, 37 of whom were female, accounting for 82.2%, 8 were male, accounting for 15.6%, and 38 were university graduates, accounting for 89%. Regarding the knowledge of confinement, the knowledge of confinement was generally not high (3.70 ± 1.10), with the lowest knowledge of Chinese medicine conditioning (3.29 ± 1.29) and Shenghua Tang (3.47 ± 1.22). Regarding the effectiveness of the APP, convenience was 4.36 ± 0.65 ; creativity was 4.38 ± 0.50 ; practicality was 4.42 ± 0.60 ; knowledge was 4.36 ± 0.65 ; and overall satisfaction was 4.38 ± 0.58 .

Discussion and conclusion: APP intervention in postpartum health education is effective. The construction of this APP from scratch took a lot of effort. Due to time constraints, we were unable to perform before-and-after effectiveness tests. We plan to revise the content of the app for areas that are not perfect and then implement it on postpartum women to understand its effectiveness.

Keywords: generative; confinement; mobile application

The effect of a frailty prevention program on elderly patients with fragile fracture after surgery

Show-Ching Ma ¹, Shu-Hua Lu ²

1 Department of Nursing, Hungkuang University, Taiwan

2 School of Nursing, China Medical University, Taiwan

Background: Elderly patients with fragile hip fractures often experience disability and functional decline following discharge. Existing literature suggests that muscle strength training, oral care, and nutritional intake can improve physical function and mitigate debilitation.

Objectives: This study examines the effects of a postoperative frailty prevention program on frailty status, muscle strength, and nutritional outcomes in elderly patients with fragile fractures.

Methods: A pre-experimental study was conducted at a hospital in central Taiwan, recruiting elderly patients who underwent fracture surgery. The intervention, initiated on the second postoperative day, comprised muscle training, oral care, and nutrition education. Assessments were performed at admission, discharge, and one month post-discharge using the Kihon Checklist, handgrip strength, Timed Up and Go (TUG) test, Sit-to-Stand (STS) test, calf circumference, and Subjective Global Assessment (SGA). Data were analyzed using paired-sample *t*-tests, repeated measures ANOVA, and generalized estimating equations.

Results: A total of 42 participants (mean age: 78.4 years) were included. Frailty scores worsened postoperatively but remained stable at discharge and one month later ($F = 17.38$, $p < 0.001$). Muscle strength significantly improved, with an increase in grip strength ($F = 176.90$, $p < 0.001$) and enhanced mobility (TUG, STS) showing statistically significant improvements. Nutritional status also improved, with significant differences observed in calf circumference and subjective nutritional assessment ($p < 0.05$).

Conclusions: Although the intervention did not significantly reduce frailty, it effectively preserved muscle strength and nutritional status. The program is recommended for clinical application to support postoperative recovery in elderly patients with fragile fractures.

Keywords: frailty, fragile fracture, muscle strength training, oral care, nutrition.

Associations between physical activity, sedentary behavior, and cardiometabolic risk factors among office workers

Yun-Ping Lin^{1,2}, Chu-Yun Wang³, Shu-Hua Lu^{1,2}, Tsai-Hsiu Chang⁴, Zi-Yun Han⁵

1 School of Nursing, China Medical University, Taiwan

2 Department of Nursing, China Medical University Hospital, Taiwan

3 North District Public Health Center, Taichung, Taiwan

4 Department of Nursing, Hungkuang University, Taiwan

5 Department of Nursing, Doiliou Tzu Chi Hospital Buddhist Tzu Chi Medical Foundation, Taiwan

Background: Prolonged sitting among office workers reduces physical activity (PA) and increases sedentary behavior (SB), heightening the risk of cardiometabolic conditions such as high blood glucose, hypertension, hyperlipidemia, and abdominal obesity. Understanding the impact of PA and SB on cardiometabolic health is vital for developing effective health strategies.

Purpose: This study examines the associations between PA, SB, and cardiometabolic risk factors among office workers.

Methods: A cross-sectional study recruited 101 office workers (≥ 20 years) from two workplaces in central Taiwan via purposive sampling. Cardiometabolic indicators were assessed using blood tests and body composition analysis. Participants wore Fitbit Charge 3 wristbands and maintained activity logs for five days. Hierarchical regression analysis was conducted to assess the variance explained by PA and SB after accounting for covariates.

Results: Participants had a mean age of 46.9 years; 51.5% were female, 46.5% held a university degree, and 50.5% had a healthy BMI. The average daily step count was 10,255.8, with light PA at 242.9 minutes/day and SB at 11.4 hours/day. Step count, moderate-to-vigorous PA (MVPA), and SB explained 7.8% and 16.8% of the variance in waist circumference and insulin levels, respectively, and 12.3% in blood glucose. MVPA explained 5.2%, 9.1%, and 5.0% of the variance in systolic blood pressure, diastolic blood pressure, and high-density lipoprotein cholesterol, respectively. SB explained 5.6%, 7.6%, and 4.9% of the variance in triglycerides, total cholesterol, and low-density lipoprotein cholesterol, respectively.

Conclusions/Implications: Cardiometabolic risks were associated with gender, age, and BMI. Step count correlated with waist circumference, blood glucose, and insulin; MVPA correlated with waist circumference, blood pressure, blood glucose, insulin, and high-density lipoprotein cholesterol. SB correlated with waist circumference, insulin, triglycerides, total cholesterol, and low-density lipoprotein cholesterol. Workplace health promotion programs should focus on reducing SB and promoting PA through tailored interventions. Longitudinal studies are needed to confirm causality.

Keywords: physical activity, sedentary behavior, cardiometabolic risk factors, office workers.

Long-term effects of a mHealth intervention on physical activity and dietary behaviors

Yun-Ping Lin^{1,2}, Shu-Hua Lu^{1,2}, Kwo-Chen Lee^{1,2}, Wei-Fen Ma^{1,2}, Wen-Chun Liao^{1,2},
Hui-Ting Yang³, OiSaeng Hong⁴

1 School of Nursing, China Medical University, Taiwan

2 Department of Nursing, China Medical University Hospital, Taiwan

3 School of Food Safety, Taipei Medical University, Taiwan

4 School of Nursing, University of California, San Francisco, USA

Background: Sedentary work behaviors contribute to poor physical and dietary habits, increasing the risk of obesity, cardiovascular disease, and metabolic disorders. Mobile health (mHealth) interventions are promising for encouraging sustainable behavior changes, although their long-term impact is not well explored.

Purpose: This study evaluated the long-term effects of an mHealth intervention on physical activity and dietary behaviors among sedentary employees over two years.

Methods: A two-arm, longitudinal trial was conducted in two workplaces with 101 sedentary employees (intervention, n=50; control, n=51). The intervention group participated in a 12-week mHealth program incorporating activity tracking, goal setting, behavior logging, reminders, personalized advice, and educational materials, while the control group received monthly educational booklets. Physical activity and dietary behaviors were assessed at baseline, 3, 12, and 24 months using generalized estimation equation (GEE) models to evaluate group-by-time interactions.

Results: GEE analyses indicated that, in comparison to the control group, the intervention group had significantly higher daily step counts and moderate physical activity at 3 months ($p < 0.05$), with sustained improvements through 24 months ($p < 0.01$). For dietary behaviors, the intervention group increased protein intake and reduced grain consumption at 3 months ($p < 0.01$), with effects lasting up to 12 months but diminishing by 24 months. Vegetable intake showed sustained increases across all time points, with significant improvements from baseline to 24 months ($p < 0.001$).

Conclusions / Implications: The mHealth intervention effectively promoted sustained increases in physical activity and healthier dietary behaviors among sedentary employees, particularly in vegetable intake. These findings highlight the potential of digital health tools in fostering long-term behavior change. Nurses can leverage mHealth solutions to encourage sustainable health practices and reduce chronic disease risks in sedentary populations.

Keywords: mHealth, physical activity, dietary behaviors, sedentary employees, behavior change

The predictive effects of psychological parameters in patients after thoracoscopic surgery

Kai-Yu Tseng¹, Hsin-Yuan Fang², Chia-Tien Ku³, Chin-Ching Yu¹, Chia-Jung Wu¹,
Hsing-Chi Hsu^{4*}

1. Department of Nursing, Central Taiwan University of Science and Technology, Taiwan

2. School of Medicine, China Medical University, Taiwan

3. Department of Nursing, Hungkuang University, Taiwan

4. School of Nursing, China Medical University, Taiwan

*Correspondence

Background: Lung cancer ranks as the leading cause of cancer-related death in Taiwan. Patients undergoing thoracoscopic lobectomy often experience a decline in pulmonary function postoperatively due to the inability of the remaining lung tissue to regenerate. This decline significantly affects their health-related quality of life.

Purpose: This study aimed to investigate the changes in anxiety, depression, fatigue, and quality of life among patients after thoracoscopic surgery.

Methods: A prospective study was conducted using purposive sampling. A total of 30 patients who were hospitalized for thoracoscopic surgery due to lung tumors or nodules were recruited. Data were collected at four time points: before admission, on the day of discharge, one month after discharge, and two months after discharge. Collected data included demographic information, pulmonary function, anxiety and depression levels, fatigue, and quality of life. Data analysis was performed using SPSS 22.0, and Generalized Estimating Equations (GEE) were applied to examine the results of repeated measurements.

Results: The average age of the patients was 61.15 years, with females accounting for 64.7% of the sample. Sleep disturbances showed a significant positive effect on anxiety and depression ($p < 0.001$) and on fatigue ($p < 0.001$). Furthermore, sleep disturbances were significantly negatively associated with quality of life ($p < 0.01$).

Conclusion: Sleep disturbance was identified as a crucial predictor of anxiety, depression, fatigue, and quality of life. Patients with more severe sleep disturbances experienced higher psychological distress, greater physical fatigue, and poorer quality of life. This study established an integrated physical and psychological assessment model for patients after thoracoscopic surgery, contributing to the enhancement of postoperative care quality.

Keywords: thoracoscopic surgery, psychological, anxiety, depression, fatigue

Differences in perspectives between ICU nurses and patient families on withholding or withdrawing life-sustaining treatments

Chia-Hui Lin¹, Ming-Chen Yeh²

1 Taichung Veterans General Hospital, Taiwan

2 Department of Nursing, Hungkuang University, Taiwan

Background: Conflicts arise from a lack of consensus among clinicians and families in decision- making on Withholding or withdrawing life-sustaining treatments (LST) in the intensive care unit (ICU), necessitating an understanding of their views. Nurses, who are closest to families, play a critical role in LST discussions. Understanding differences in perspectives between ICU nurses and patient families can promote collaborative decision-making, and tailored communication, and provide clinical guidance for care regarding LST.

Purpose / Objectives: To investigate the perspectives of ICU nurses and patient families on withholding or withdrawing LST and compare their differences.

Approaches / Methods: A cross-sectional comparative study was conducted, enrolling 231 participants (131 ICU nurses, 100 family members). Data were collected on decision-making and care considerations regarding LST. Data were analyzed using SPSS 22 statistical software.

Results / Findings: Significant differences were found between ICU nurses and families regarding decision- making and personal experiences with end-of-life care ($P<.001$). ICU nurses were significantly more likely than families to support active participation in discussions with physicians on LST ($P<.001$). Families more strongly agreed that medical teams appropriately informed them about the timing of withholding or withdrawal decisions ($P<.001$). In terms of care considerations, ICU nurses were significantly more likely to support stopping antibiotics ($P<.001$) and providing care aligned with religious beliefs until the end of life ($P<.001$). Conversely, families were more likely to support continuing intravenous fluids, artificial nutrition, and passive limb training and rehabilitation ($P<.001$). Factors influencing ICU nurses' perspectives included age, marital status, education level, and work experience, while families' perspectives were shaped by age, religious beliefs, marital status, income, and primary caregiver role.

Discussion / Implications: Structured family meetings are recommended to facilitate communication. Additionally, multifaceted efforts are needed both in clinical practice and across the regulatory spectrum to promote the practical implementation of shared decision-making, emphasize ethical training, and provide guidance.

Keywords: withholding or withdrawal, life-sustaining treatments, intensive care unit

Enhancing nursing competency in facial nerve paralysis assessment through digital multimedia-assisted learning

Ming-Chen Yeh

Department of Nursing, Hungkuang University, Taiwan

Background: Facial nerve paralysis assessment is a critical competency in nursing practice, requiring a nuanced understanding of neurological function and precise clinical evaluation skills. Traditional didactic teaching methods often fail to effectively convey these complex concepts. To bridge this gap, this study developed and evaluated an innovative multimedia-assisted learning module designed to enhance students' comprehension and application of facial nerve paralysis assessment.

Purpose / Objectives: To bridge this gap, this study developed and evaluated an innovative multimedia-assisted learning module to enhance students' comprehension and application of facial nerve paralysis assessment within the Nursing Health Assessment and Application course.

Approaches / Methods: A multimedia-assisted learning module was designed, integrating animated clinical scenarios and instructor-led demonstration videos to simulate real-world patient assessments. The module was implemented through TronClass learning platform, allowing for flexible access and self-directed learning. A quasi-experimental design was employed to measure knowledge acquisition and skill development. Additionally, student perceptions and learning experiences were assessed via structured surveys using a Likert-scale and qualitative feedback analysis.

Results / Findings: A total of 25 nursing students participated in the study. The pre-test mean score was 73.24 ± 12.53 , while the post-test mean score significantly improved to 97.60 ± 5.97 ($p < .001$), indicating a substantial enhancement in knowledge retention and application. Data revealed high levels of student satisfaction, with mean scores exceeding 4.4 out of 5 across multiple domains, including learning engagement, anxiety reduction, and perceived clinical applicability. Qualitative feedback highlighted the module's clarity, interactivity, and effectiveness in facilitating self-directed learning and bridging theoretical-practical gaps.

Discussion / Implications: Findings suggest that multimedia-assisted learning serves as an effective pedagogical strategy for enhancing students' competency in complex neurological assessments. The integration of digital simulation, interactive animations, and instructor-led demonstrations fosters active engagement, critical thinking, and clinical reasoning skills. Future research should explore the incorporation of artificial intelligence-driven adaptive learning technologies and expanded clinical case repositories to further optimize learning outcomes in nursing education.

Keywords: digital learning, multimedia-assisted learning, facial nerve paralysis, nursing assessment

The correlation between nursing students' professional knowledge and EMI course learning: A case study of a university

Hung-Yin Fang, Chia-Yi Yang, Jing-Shia Tang*

Department of Nursing, Chung Hwa University of Medical Technology, Taiwan

Background: English as a Medium of Instruction (EMI) courses have become a key policy in higher education in Taiwan. Nursing students must possess both professional knowledge and English proficiency to meet the challenges of the international healthcare environment and cross-cultural communication.

Purpose: To explore the correlation between nursing students' prior professional knowledge and their learning performance in EMI courses.

Methods: This cross-sectional study recruited second-year nursing students via convenience sampling from an elective first aid and health EMI course. Data on admission English test scores, professional knowledge, travel history, and English proficiency were collected. EMI performance was assessed using a paper- and-pencil test. Data analysis included descriptive statistics, Pearson correlation, and independent t- test.

Results: A total of 33 second-year nursing students enrolled in the elective EMI course. with a mean age of 19.85 years (± 0.40), and the majority were female ($n = 28$, 85%). At admission, the mean English test score was 59.24 (± 13.80), with students assigned to Level A ($n = 12$, 36%) or Level B ($n = 22$, 67%). Seventeen students (52%) had passed an English proficiency test, and eighteen (55%) had traveled abroad. The mean EMI course score was 50.11 (± 17.12). Admission English test scores, as well as anatomy and physiology scores, were positively correlated with EMI performance. Students from different English test levels demonstrated significant differences in EMI performance ($t = 2.727$, $p = .015$), whereas prior travel history showed no significant difference.

Discussion: Admission English test and professional knowledge positively influence EMI performance, emphasizing the importance of foundational preparation. Conversely, prior travel history did not influence EMI outcomes. Strengthening academic support, such as preparatory English training and discipline-specific language reinforcement, may enhance nursing students' success in EMI course.

Keywords: English as a medium of instruction, nursing students, professional knowledge

The effectiveness of cranial electrical stimulation in improving insomnia: An umbrella review

Yu-Fen Chen^{1,2}, Wei-Fen Ma^{3,4,5}

1. Department of Public Health, China Medical University, Taiwan
2. Department of Nursing, Taichung Veterans General Hospital, Taiwan
3. Ph.D. Program for Health Science and Industry, China Medical University, Taiwan
4. School of Nursing, China Medical University Hospital, Taiwan
5. Department of Nursing, China Medical University Hospital, Taiwan

Background: Cranial Electrical Stimulation (CES) is a non-invasive neuromodulation technique that has been investigated for its potential in improving sleep quality and reducing insomnia symptoms. While CES has been approved for treating insomnia, its effectiveness remains controversial due to methodological variations across studies. This umbrella review synthesizes evidence from systematic reviews and meta-analyses to evaluate the efficacy of CES in managing insomnia.

Methods: A comprehensive literature search was conducted in PubMed, Embase, Cochrane Library, Airtiti Library, CINAHL, ProQuest, and Web of Science to identify systematic reviews and meta-analyses focusing on CES interventions for insomnia. No language restrictions were applied, and studies were included if they assessed CES with validated sleep outcome measures.

Results: Five systematic reviews and meta-analyses specifically evaluated the impact of CES on sleep outcomes.

- **Insomnia Symptoms:** The effect size for CES in improving sleep quality and reducing insomnia symptoms ranged from 0.401 to 1.02, indicating small to large effects.
- **Sleep Efficiency and Latency:** CES was associated with improvements in sleep efficiency, reduced sleep latency, and increased total sleep time, although the magnitude of effects varied across studies.
- **Heterogeneity in Study Designs:** Some reviews reported inconsistent findings due to differences in CES parameters (e.g., frequency, intensity, duration) and variations in study populations.

Conclusions: This umbrella review suggests that CES may have a positive impact on sleep quality and insomnia symptoms, with effect sizes ranging from small to large. However, variability in study methodologies limits definitive conclusions regarding its effectiveness. Future well-controlled trials with standardized CES protocols and objective sleep assessments are needed to confirm its clinical efficacy. These findings provide a reference for clinicians considering CES as a non-pharmacological intervention for insomnia.

To explore the parenting stress of their primary caregivers of children with ADHD

Ya-Fang Huang

School of Nursing, Hungkuang University, Taiwan

Background and objective: Attention deficit/Hyperactivity disorder (ADHD) is one of the most common mental developmental disease in pediatric out-patient clinic; symptoms include attention insufficient, hyperactivity, and impulse. Studies have revealed that having a child with ADHD may cause considerable parenting stress, which could affect the primary caregivers' sleep. This study aimed to explore the status and associations of caregiver's parenting stress of ADHD children and their primary and stress-related symptoms (e.g., sleep disturbance).

Method: A total of 245 primary caregivers of ADHD children aged 0 to 18 years diagnosed by a pediatric psychiatrist took part of this study. Ethical approval was obtained from Taichung Veterans General Hospital's Institutional Review Board in this study (Approval Number: CE22034B). Study instruments included demographic characteristics, The Swanson, Nolan, Pelham, Version IV (SNAP-IV), The Parenting Stress Scale (Short form), and General Sleep Disturbance (GSDS).

Results: Univariate analysis showed that the parenting stress among their primary caregivers significantly different in their sleep condition. Primary caregivers who experienced more parenting stress had more sleep disturbance.

Conclusions/lessons learned: To explore the status and associations of caregiver's parenting stress of ADHD children and their primary and stress-related symptoms. Findings from this study could serve as the foundation for further intervention study.

Factors associated with contraception use in Rwanda

Delphine Cyuzuzo¹, Wen Chun Liao^{2,3}

¹PhD Program in Healthcare Science, China Medical University, Rwanda

²School of Nursing, China Medical University, Taiwan

³Department of Nursing, China Medical University Hospital, Taiwan

Background: Contraception encompasses methods designed to prevent pregnancy resulting from sexual activity and plays a crucial role in minimizing unintended pregnancies. It also helps reduce unsafe abortions and prevents the transmission of HIV from mothers to their newborns. Globally, the use of contraceptives prevents approximately 230 million births each year and saves the lives of 272,040 mothers. Worldwide, 40% of pregnancies are unintended. In Africa, the use of contraceptives among married and partnered women was relatively low, with prevalence rates of 23.9% in 2012 and 28.5% in 2017, compared to a global average of approximately 65%. The factors influencing contraceptive use are diverse. In Rwanda, the prevalence of contraceptive use among women of reproductive age increased significantly, rising from 17% in 2005 to 52% in 2010, 53% in 2015, and further increasing to 64% by 2020.

Objective: This retrospective study seeks to identify the factors influencing contraceptive use among women of reproductive age in Rwanda.

Methods: We analyzed secondary data of demographic health survey of 2019-20.

Findings: Results demonstrated that most of the participants are in age between 35-39 group (24,80%) and living in rural area (80,34%). Most of participants (67,9%) attended only primary school, married (80.5%) with a calculated average of 4-6 children per household. Multivariate logistic regression showed that age, marital status, total number of children ever born, educational level, religion and wealth index showed a significant relationship with contraception use in using modern methods, current use, and intention to use ($p<.001$). Information from radio and fieldworkers has a positive effect on using modern methods, current use, and intention to use ($p<.001$). However, some sociodemographic factors such as residence and information sources from newspaper or TV didn't showed an association with contraception use.

Discussion: Our study highlighted the factors contributing to the contraceptive use in Rwanda and thus will help the government refine and enhance family planning programs.

Keyword: contraception, child death, maternal death, unsafe abortion

The relationship between learning self-efficacy, course satisfaction, and learning effectiveness for students in English as a medium of instruction setting

Yun-Han Cheng, Mei-Chin Wang

Department of Nursing, Chung Hwa University of Medical Technology, Taiwan

Background: The Taiwanese government aims for a bilingual nation by 2030. Higher education institutions have promoted English as a Medium of Instruction (EMI) to enhance students' transcultural skills and global competitiveness. Studies showed that low motivation or self-confidence of students affected learning outcomes in bilingual settings.

Purpose: This study aims to examine the factors associated with learning effectiveness for a nursing professional curriculum in a bilingual instruction setting.

Method: A cross-sectional study used convenience sampling to recruit undergraduate students over 20 years and enrolled in a bilingual course from a medical technology university in Tainan. Questionnaires assessed self-efficacy, learning effectiveness, and course satisfaction.

Result: A total of 59 participants completed this study. Most participants were female (n=54, 91.5%), enrolled in a two-year university program (n=30; 50.8%) and a four-year university program (n=29, 42.9%). Most students began learning English in primary school (n=34; 57.6%). Participants had never visited an English-speaking country (n=50; 84.7%). The method of learning English was by himself (n=22, 37.3%). Proportion of students had never taken an English test (n=28, 47.5%,). Most students spent less than one hour per week studying English (n=27, 45.8%). Significant predictors included the duration of English learning ($\beta = 0.223$, $P = 0.027$), had visited an English- speaking country ($\beta = 0.219$, $P = 0.046$), learning self-efficacy ($\beta = 0.251$, $P = 0.024$), and course satisfaction ($\beta = 0.608$, $P = 0.000$) for learning effectiveness. Four predictors contributed to 61.2% of the explained variance in learning effectiveness.

Conclusion: Learning self-efficacy, course satisfaction, the duration of English learning, and had visited an English- speaking country were key factors in learning effectiveness.

Implication: In the future, implementation of bilingual instruction courses should consider ability grouping to enhance students' confidence and improve learning effectiveness.

Keywords: self-efficacy, learning effectiveness, satisfaction, EMI (English as a medium of instruction)

Virtual reality-assisted physiotherapeutic training for patients with knee osteoarthritis: A systematic review and meta-analysis

Hsuan-Wei Liu¹, Shin-Da Lee^{2,3*}

¹ Department of Public Health, China Medical University, Taiwan

² PhD Program in Healthcare Science, China Medical University, Taiwan

³ Department of Physical Therapy, China Medical University, Taiwan

Background: To evaluate the effectiveness of virtual reality (VR)-assisted physiotherapy in improving pain, physical function, and balance in patients with knee osteoarthritis (KOA) and compare it with traditional rehabilitation treatments.

Methods: This systematic review used multiple electronic databases (including PubMed, Scopus, and Web of Science) to search for randomized controlled trials (RCTs) from the beginning to 10 October 2024. We included RCTs comparing VR-assisted physiotherapeutic training in patients with KOA. Primary outcomes included pain, physical function, and balance, with all available data synthesized in a meta-analysis. The Cochrane Risk of Bias Tool version 2 assessed the quality of the included studies.

Results: Nine RCTs were included in the analysis. The results showed that VR-assisted physiotherapy significantly improved pain relief (SMD: -0.04, CI: -0.09 to 0.18, I^2 : 35%), physical function (SMD: -0.13, CI: -0.41 to -0.15, I^2 : 16%), and balance (SMD: -0.16, CI: -0.49 to -0.18, I^2 : 41%) in Knee osteoarthritis (KOA) patients compared to traditional rehabilitation therapies.

Conclusions: VR-assisted physiotherapy is an effective treatment that significantly improves pain management, physical function, and balance in KOA patients and is superior to traditional rehabilitation methods.

(PROSPERO) registration number is CRD42024621453.

Keywords: knee osteoarthritis, visual analogue scale, physical function, balance, physical therapy, virtual reality

Can exercise intervention in cancer patients reduce fatigue?

Chia-Ying Hsieh¹, Angelica Te-Hui Hao², Ruoh-Lih Lei²

1 Taichung Veterans General Hospital, General Surgery ward, Taiwan

2 Department of Nursing, Hungkuang University, Taiwan

Background: Cancer is the leading cause of death among the top ten causes of death in Taiwan. Many cancer patients admitted to hospital suffer from fatigue due to the treatment process and disease progression. Therefore, this study aims to explore the effectiveness of "whether exercise intervention measures can reduce fatigue in cancer patients".

Purpose / Objectives: To explore the effectiveness of exercise in reducing fatigue in cancer patients by searching and reviewing empirical literature.

Approaches / Methods: Using PICO keywords: P-cancer patients; I-exercise; C-routine care; O-fatigue reduction, we searched five empirical literature databases including Huayi Online Library, Google Scholar Search, PubMed, CINAHL, and Cochrane from 2015 to 2024, excluding literature that did not match PICO and duplicate literature, and finally selected 4 RCT literature for review.

Results / Findings: From the four literatures, we know that the exercise is aerobic exercise, resistance training and comprehensive yoga courses. The scores of the scales before and after exercise are used to know whether fatigue is improved. The evaluation scales are BFI (Brief Fatigue Inventory Score), CIS (Fatigue Severity Scale), CFS (Cancer-Related Fatigue Scale), FSI (Fatigue Symptom Inventory). The higher the score, the more severe the fatigue. Among them, three literatures have achieved significant improvement ($P < 0.01-0.05$), and one literature has not achieved significant difference but has a significant decrease ($P = 0.057$); this study confirms that exercise can reduce fatigue in cancer patients.

Discussion / Implications: Although one of the studies did not achieve significant improvement, it was found that the fatigue of cancer patients decreased significantly after the intervention of exercise measures. Therefore, in clinical practice, cancer patients can be advised to exercise to reduce fatigue according to their personal conditions and choose appropriate exercise methods. Multiple designs can be made to not only perform a single exercise, so as to achieve twice the result with half the effort in fatigue recovery.

Keywords: cancer patients, exercise, reducing fatigue

Comparison of chest tube drainage and conservative management as initial treatments for primary spontaneous pneumothorax

Hsiao-Hsien Kao^{1,2}, Mei Hui Chen³

1. Postgraduate student, Department of Nursing, Hungkuang University, Taiwan
2. Ton Yen General Hospital, Taiwan.
3. Department of Nursing, Hungkuang University, Taiwan

Background: Primary spontaneous pneumothorax (PSP) commonly affects young individuals without lung disease. Traditional treatment involves chest tube drainage, which is effective but invasive, leading to pain, infection, and prolonged hospitalization.

Purpose / Objectives: This study evaluates the effectiveness of conservative management (oxygen therapy, bed rest, and observation) as an initial PSP treatment compared to chest tube drainage, focusing on recurrence and complication rates.

Approaches / Methods: A systematic literature search was conducted in PubMed, Embase, and Cochrane Library using the keywords "primary spontaneous pneumothorax," "conservative management," and "chest tube drainage," filtering studies published before November 30, 2024 in English and Chinese. Randomized controlled trials (RCTs) and systematic reviews were included, while irrelevant or duplicate studies were excluded. Out of 23 articles, two studies (one systematic review and one RCT) were selected.

Results / Findings: The complication rate was significantly lower in the conservative group (5.5%) than in the chest tube group (24.6%) ($p = 0.003$). The 12-month recurrence rate was also lower in the conservative group (8.8%) compared to the chest tube group (16.8%) ($p = 0.03$). Additionally, lung re-expansion rates were similar ($p = 0.5$), confirming non-inferiority. These findings highlight that conservative management effectively reduces complications and recurrence, making it a safer alternative for stable PSP patients.

Discussion / Implications: For first-time stable PSP cases, conservative treatment is a safe and effective alternative, reducing complications and hospitalization. Further large-scale RCTs are needed to optimize treatment strategies.

Keywords: primary spontaneous pneumothorax, conservative management, chest tube drainage

Effectiveness of traditional face-to-face breastfeeding education in enhancing breastfeeding self-efficacy among primiparous

Chiu-Yu Hsu¹, Hsiao-Ling Wu², Hsiu-Ling Lin¹, Pei-Tzu Wu²

¹ Department of Obstetrics Nursing, Sin-Lau Hospital, Taiwan

² Department of Nursing, Shu-Zen Junior College of Medicine and Management, Taiwan

Background: Breastfeeding offers well-documented health benefits for both mothers and infants. However, many first-time mothers face challenges that may shorten the duration of breastfeeding. Maternal self-efficacy plays a crucial role in sustaining breastfeeding, with lower confidence often contributing to early cessation. Traditional face-to-face breastfeeding education (FtFE) has been proposed as an effective approach to enhancing maternal confidence and breastfeeding success.

Purpose / Objectives: This study aimed to evaluate the effectiveness of FtFE in improving breastfeeding self-efficacy among primiparous.

Approaches / Methods: A quasi-experimental study was conducted at a regional hospital in southern Taiwan from January to March 2025. A total of 53 primiparous mothers were assigned to either the FtFE group or the health education leaflet (HEL) group. Data collection included demographic information and an assessment of breastfeeding self-efficacy. IBM SPSS Statistics v22 was used for analysis.

Results / Findings: Baseline breastfeeding self-efficacy scores were comparable between the two groups (FtFE: 41.8 ± 0.6 ; HEL: 42.1 ± 0.5 ; $p > 0.05$). Following the intervention, the FtFE group demonstrated a significantly greater improvement in self-efficacy compared to the HEL group (FtFE: 61.4 ± 0.8 ; HEL: 50.6 ± 0.9 ; $p < 0.05$). However, no significant difference was found between the groups regarding primiparous mothers' self-efficacy in managing breast engorgement.

Discussion / Implications: FtFE is an effective strategy for enhancing breastfeeding self-efficacy among first-time mothers, a key factor influencing breastfeeding success. Integrating FtFE into postpartum care may improve breastfeeding outcomes, and further research should explore its long-term effects and additional support strategies.

Keywords: breastfeeding self-efficacy, face-to-face breastfeeding education, primiparous

A prospective study to explore the relationship between preoperative anxiety and postoperative pain in knee arthroscopy patients

Ying-Yu Chiu

MSc student, Department of Nursing, National Taichung University of Science and Technology, Taiwan

Background: With advancements in technology, endoscopic minimally invasive surgery has evolved from being merely a diagnostic tool to becoming a powerful modality in surgical treatment. For patients anticipating surgery, the two most significant concerns are preoperative anxiety and postoperative pain. If these issues are not properly managed, they can negatively impact patient outcomes and lead to physiological, psychological, and behavioral changes. Furthermore, they may affect the doctor– patient relationship, willingness to seek medical care, and adherence to medical advice.

Purpose: This study aims to investigate preoperative anxiety, postoperative pain, and their associated factors in patients undergoing knee arthroscopy. Specifically, it seeks to assess the levels of preoperative anxiety and postoperative pain in these patients and identify predictors of both conditions.

Methods: Data were collected through structured questionnaires at three time points: during the preoperative anesthesia assessment, on the day of surgery, and on the first postoperative day. The questionnaire included a demographic information form, the State-Trait Anxiety Inventory (STAI), and the Numeric Rating Scale (NRS) for pain assessment.

Results: The findings indicated that patients with STAI total scores ranging from 60 to 80 experienced severe anxiety, either as a personal trait or in response to situational stress. Additionally, patients with an NRS score above 7 were classified as experiencing severe pain.

Discussion: This study aimed to investigate preoperative anxiety, postoperative pain, and their associated factors in patients undergoing knee arthroscopy. The results revealed a significant positive correlation between preoperative anxiety levels and postoperative pain intensity. Additionally, preoperative anxiety was found to be associated with factors such as gender, education level, and anticipated pain levels. Postoperative pain was correlated with gender, education level, history of anesthesia exposure, and anticipated pain levels.

Keywords: preoperative anxiety, postoperative pain, knee arthroscopy

Factors influencing knowledge, stress, and self-efficacy in newly recruited nurses caring for intracranial hemorrhage patients

Wei-Yu Chuang¹, Yu-Chien Liao², Yi-Maun Subeq³, Jia-Ling Sun⁴

¹ Department of Neurosurgery, China Medical University Hospital (CMUH), Taiwan

² Department of Nursing, Yuanpei University of Medical Technology, Taiwan

³ College of Education, National Changhua University of Education, Taiwan

⁴ Department of Nursing, National Taichung University of Science and Technology, Taiwan

Background: Newly recruited nurses primarily focus on ward routines, disease progression, and basic patient care. However, inadequate competence in caring for intracranial hemorrhage (ICH) patients may increase work-related stress and compromise patient safety.

Purpose / Objectives: This study aims to explore the relationships and influencing factors among newly recruited nurses' knowledge of ICH patient care, stress associated with caring for ICH patients, and self-efficacy.

Approaches / Methods: A cross-sectional study was conducted in a medical center in central Taiwan, targeting newly recruited nurses within their first year of employment in units caring for ICH patients. Data were collected through a questionnaire survey, which included four instruments: a demographic information form, an ICH patient care knowledge test, an ICH patient care stress scale, and a general self-efficacy scale.

Results / Findings: A total of 160 newly recruited nurses participated in the study. Key findings included: 1. The mean score for ICH patient care knowledge (range: 0–20) was 13.89 (SD = 2.93), with higher scores indicating better knowledge. 2. The mean score for stress associated with caring for ICH patients (range: 10–50) was 31.78 (SD = 8.26), with higher scores indicating greater stress. 3. The mean score for self-efficacy in caring for ICH patients (range: 10–40) was 22.69 (SD = 4.85), with higher scores indicating greater self-efficacy. 4.. Factors influencing knowledge and stress in caring for ICH patients included gender, age, education level, unit type, and the number of patients cared for. Gender was the only significant factor influencing self-efficacy, while other factors showed no significant differences.

Discussion / Implications: Implementing simulation-based teaching for ICH patient care is recommended to help them adapt efficiently to real- world scenarios. This approach could also facilitate the development of essential clinical skills and knowledge necessary for future practice.

Keywords: intracranial hemorrhage (ICH), new nurse, intracranial hemorrhage care knowledge, intracranial hemorrhage care stress, self-efficacy

Study on emotional status, sleep quality, and self-control management for patients with asthma

Chi-Hsuan Wei¹, Pei-Yin Chen², Pei-Lun Hsieh³, Jia-Ling Sun³

¹ Department of Pulmonary Medicine, China Medical University Hospital (CMUH), Taiwan

² Department of Nursing, Yuanpei University of Medical Technology, Taiwan

³ Department of Nursing, National Taichung University of Science and Technology, Taiwan

Background: Patients with asthma often experience poor sleep quality, anxiety, and depression. Without regular treatment and management, asthma may increase the risk of acute exacerbations.

Purpose / Objectives: This study aims to explore the emotional state, sleep quality, and self-management level of asthma patients.

Approaches / Methods: A cross-sectional study was conducted, recruiting 150 outpatient and inpatient asthma patients from a medical center in central Taiwan. Data were collected through a questionnaire survey incorporating four instruments: a demographic and disease information form, the Brief Symptom Rating Scale (BSRS-5), the Pittsburgh Sleep Quality Index (PSQI- T), and the Asthma Control Test (ACT).

Results / Findings: The majority of participants were female, with a mean age of 49.49 years. The average duration since asthma diagnosis was 9.46 years, with most patients adhering to medical advice and achieving partial symptom control. The mean BSRS-5 score (range: 0–20) was 4.39 (SD = 3.86). Poor sleep quality (PSQI > 5) was observed in 37.3% of participants, with a mean PSQI total score (range: 0–21) of 7.35 (SD = 4.03). The mean ACT score (range: 5–25) was 20.72 (SD = 4.49). The ACT results indicated that 51.3% of participants had good asthma control (scores 20–24), while only 16.0% achieved complete control (score of 25). Emotional state significantly differed based on asthma symptom control levels, with poorer control associated with higher emotional distress scores. Additionally, sleep quality was significantly related to asthma severity.

Discussion / Implications: Asthma severity, sleep quality, and emotional state are critical factors influencing self-management and should be incorporated into asthma management plans. Comprehensive monitoring and intervention strategies are essential for improving patients' quality of life and disease control outcomes.

Keywords: asthma patient, emotional state, sleep quality, self-management

Integrating generative AI into nursing ethics education: A study on learning outcomes

Chia-Jung Wu*, Mei-Ling Chiu, Liang-Guei Huang, Kai-Yu Tseng, Chuan-Mei Chen

School of Nursing, Central Taiwan University of Science and Technology, Taiwan

Background: Generative Artificial Intelligence (Generative AI) has been increasingly applied in education. However, nursing ethics education still predominantly relies on traditional lectures and case discussions, which offer limited support in developing students' critical thinking and self-directed learning skills. Given the growing role of AI in education, there is a need to explore its potential in fostering deeper engagement and analytical skills in ethical decision-making.

Purpose / Objectives: This study investigates the integration of ChatGPT into nursing ethics education to address these gaps, aiming to enhance students' critical thinking, active learning, and learning satisfaction while assessing its impact on ethical reasoning and collaborative learning.

Approaches / Methods: A mixed-methods approach was employed to evaluate AI-assisted learning outcomes. Quantitative analysis included pre- and post-test assessments of critical thinking, learning attitudes, and satisfaction. Qualitative analysis examined student reflections on their learning experiences. The course incorporated ChatGPT training, ethical case discussions, and AI-supported group projects to assess AI's effectiveness in fostering analytical skills and engagement.

Results / Findings: The findings revealed significant improvements in students' critical thinking abilities (pre-test $M=26.22$, post-test $M=28.09$, $p<.01$), learning attitudes (pre-test $M=26.98$, post-test $M=28.94$, $p<.001$), and learning satisfaction (pre-test $M=39.28$, post-test $M=42.52$, $p<.001$) after integrating Generative AI into the course. Additionally, student feedback indicated that AI-assisted learning enhanced data collection and analysis skills, facilitated multidimensional thinking, and improved teamwork and learning motivation. However, some students reported initial difficulties in formulating effective queries, suggesting the need for more guided examples.

Discussion / Implications: This study confirms that AI enhances learning in nursing ethics by promoting critical thinking, self-directed learning, and collaboration. AI-assisted learning facilitates diverse perspectives and deeper ethical discussions, offering insights for integrating AI into professional education.

Keywords: generative AI, ChatGPT, nursing ethics education, critical thinking, active learning

A preliminary study of the effectiveness of Zhongwan acupoint massage on feeding intolerance in NICU preterm infants

Yu-Siou Huang¹, Li-Ly Chen², Li-Chi Huang²

¹ Department of Nursing, Show Chwan Memorial Hospital; School of Nursing, China Medical University, Taiwan

² School of Nursing, China Medical University; Adjunct Supervisor, CMUH, Taiwan

Background: Preterm infants, especially those born before 34 weeks gestation, often experience feeding intolerance (FI) due to immature gastrointestinal motility, leading to increased gastric residual volume (GRV), abdominal distension, and extended hospitalization. Zhongwan acupoint massage, a traditional Chinese medicine (TCM) practice, has demonstrated efficacy in improving digestive function by stimulating acupoints and promoting gastrointestinal motility.

Purpose / Objectives: This study aims to evaluate the effectiveness of Zhongwan acupoint massage, in improving feeding tolerance among preterm infants.

Approaches / Methods: A pre-post study was conducted in a neonatal intensive care unit (NICU) involving three preterm infants (<37 weeks gestational age) experiencing FI. Trained nurses performed Zhongwan acupoint massage using a clockwise circular motion for 10 minutes, three times daily, over a two-week period. Key outcomes assessment included GRV, episode of feeding intolerance, milk intake, and weight gain.

Results / Findings: After the intervention, all infants showed a significant reduction in FI episodes, with the frequency dropping to zero by day 5. The GRV decreased from 3-6 ml to 0 ml, and milk intake increased from 5-8 ml to 35-50 ml per feeding. Additionally, weight gain improved by an average of 200-300 g over the two-week duration.

Discussion / Implications: Zhongwan acupoint massage effectively improves feeding tolerance, reduces GRV, and promotes weight gain in preterm infants. This non-invasive intervention could be incorporated into NICU care to support gastrointestinal function and enhance early feeding outcomes. Further study with more rigorous studies and larger sample sizes is recommended to validate these findings.

Keywords: Zhongwan acupoint massage, preterm infant, feeding intolerance, gastric residual volume

Holistic nursing interventions for pediatric burn survivors: A case study of post- trauma recovery

Yun-Fang Jeng¹, Li-Chi Huang²

¹ School of Nursing, China Medical University, Taiwan

² School of Nursing, China Medical University; Adjunct Supervisor, CMUH, Taiwan

Background: Burn injuries cause significant physiological and psychological challenges to children. Inhalation injury, which can result in airway damage and carbon monoxide poisoning, increases morbidity and mortality. Additionally, the trauma of experiencing a fire may lead to post- traumatic stress disorder (PTSD), affecting children's mental health.

Purpose: This study examines the physical and mental responses of an 11-year-old girl after fire incidents and evaluates effectiveness of nursing interventions.

Methods: Nursing care was provided from October 21-22, 2024, with follow-up evaluations on a week, one month and two months later. A comprehensive assessment was conducted addressing physical, psychosocial, and spiritual dimensions, identifying health problems such as impaired gas exchange, acute pain, and PTSD. Respiratory function was evaluated through bronchoscopy, while PTSD symptoms were assessed using the Child PTSD Symptom Scale-Self-Report (CPSS-5-SR) and the Pittsburgh Sleep Quality Index (PSQI).

Results: Nursing intervention included high-flow oxygen therapy, chest physiotherapy, and incentive spirometry, resulting in improved respiratory function and oxygen saturation. For psychological support, cognitive behavioral therapy (CBT) was integrated with music and art therapy, encouraging patient to express her concerns and cope positively with emotional stress, thereby alleviating anxiety and fear. Moreover, family support was crucial for recovery by providing emotional stability. The CPSS-5-SR score improved from 35 to 19, and frequency of nightmare decreased from 2-3 times nightly to once weekly. The final follow-up showed improvement in both respiratory function and psychological well-being, though some activity limitations persisted.

Discussion: This case study demonstrates the importance of holistic care for pediatric burn patients, addressing both physiological and psychological needs. The patient's progress highlights the effectiveness of integrated respiratory support and psychological interventions, enhancing understanding of trauma-informed care approaches for pediatric burn injuries.

Keywords: pediatric burn injury, inhalation injury, post-traumatic stress disorder (PTSD)

The decision-making process of couples choosing home birth: A grounded theory study

Hui Chuan Wu

Department of Post Baccalaureate Nursing, College of Medicine, I-Shou University, Taiwan

Background: Home birth decision-making is complex, influenced by family, society, and healthcare systems. While gaining attention in Taiwan, research on the motivations and experiences of couples choosing home birth remains limited. This study explores the socio-cultural and personal factors shaping these decisions and their impact on families.

Purpose / Objectives: This study aims to understand the motivations, experiences, and effects of home birth decisions, offering insights to improve maternal care and policy development.

Approaches / Methods: A qualitative study using grounded theory was conducted. Purposeful sampling was used to recruit participants who met the following criteria: (1) experienced home birth, with a child under three years old; (2) ability to communicate in Mandarin or Taiwanese; (3) willingness to participate.

Unplanned home births were excluded. Data were collected from May to September 2024 via semi-structured interviews (60-90 mins), recorded with consent, transcribed, and analyzed using open coding, selective coding, and theoretical integration. (EDAH IRB No./ Protocol No: EMRP- 113-029/ 0)

Results / Findings: A total of 15 couples participated in the study. The study involved 15 couples who met the inclusion criteria. Preliminary findings identified "the embodiment of birthing autonomy" as the core category in the decision to pursue home birth. Four sequential subcategories emerged: (1) inception of the idea, (2) confirmation and clarification of the decision, (3) planning and rehearsal of the birth process, and (4) full engagement and joint participation in the experience.

Discussion / Implications: Enhancing birth planning and reducing medicalization can improve childbirth satisfaction. Findings provide guidance for healthcare professionals in supporting diverse birthing choices and policy-making.

This study was supported by the internal research grant of I-Shou University (ISU-113-01-11A).

Keywords: home birth, Couples, qualitative research, decision-making process, grounded theory

The effectiveness of negative pressure wound therapy for diabetic foot

Ju-Min Lin^{1,2}, Li-Hung Lee¹

¹ Hungkuang University, Taiwan

² Tungs' Taichung Metroharbor Hospital, Taiwan

Background: Diabetic foot ulcers are a common complication among diabetic patients, primarily caused by peripheral arterial disease and neuropathy induced by hyperglycemia. These conditions reduce wound sensation and delay treatment, leading to infection or gangrene, which may require amputation in severe cases. Conventional treatments have limited effectiveness. Clinical observation suggests that negative pressure wound therapy (NPWT) may promote healing, thereby motivating further investigation.

Purpose: This study evaluates the effectiveness of NPWT in treating diabetic foot ulcers, assessing its impact on wound healing, infection risk, quality of life, and clinical value.

Approaches: The literature search was conducted using PubMed, Cochrane Library, CINAHL, Academic Search Premier, and CEPS with the keywords *diabetic foot ulcers*, *negative pressure wound therapy*, and *wound healing* from January 2019 to October 2024. After screening, three randomized controlled trials (RCTs) were included and evaluated using the Critical Appraisal Skills Programme (CASP) and Joanna Briggs Institute (JBI) criteria to assess the completeness and quality of the literature.

Results: NPWT achieved complete granulation tissue formation in an average of 4.65 weeks (vs. 8.40 weeks with standard care) and complete healing in about 6 weeks (vs. 10 weeks), with a healing rate of 76.1% (vs. 52.2%). NPWT reduced wound size, improved circulation, decreased dressing changes and nursing time, and increased patient satisfaction (8.5 vs. 6.3). No significant difference was found between the two groups in terms of infection rate and mortality.

Discussion: NPWT can be an effective adjunct for diabetic foot ulcers, promoting healing and reducing infection and amputation rates, thereby lowering healthcare costs and social burdens. It is recommended that future large-scale clinical trials with extended follow-up periods be conducted to verify its therapeutic effects and long-term outcomes in patients with varying degrees of severity.

Keywords: diabetic foot, negative pressure wound therapy, wound healing

The mediating role of self-esteem in the relationship between loneliness and life satisfaction among older adults

Chiao-Ling Lin¹, Lin-Chen Chen², Hidayat Arifin¹, Kuei-Ru Chou¹

1. School of Nursing, Taipei Medical University, Taiwan
2. Babuza-Grace Nursing Home, Taiwan

Background: Loneliness negatively affects life satisfaction. Self-esteem may act as a mediator or moderator, but its role remains unclear.

Purpose / Objectives: To investigate the connection between loneliness and life satisfaction in older adults attending in daycare centers, examining the mediating role of self-esteem. Additionally, this study aims to assess whether self-esteem moderates the mediation model.

Approaches / Methods: A cross-sectional survey approach was employed to recruit older adults from six nursing homes in Taiwan between February 2025 and March 2025. Questionnaires, including the General Information Questionnaire, Revised UCLA Loneliness Scale, Rosenberg Self-Esteem Scale, and Life Satisfaction Index (LSI), were administered. Completed questionnaire data were subjected to analysis using SPSS software, incorporating the PROCESS macro for advanced statistical procedures.

Results / Findings: The results showed that loneliness had a significant negative effect on self-esteem (path a) ($\beta = -0.30$, $p < 0.001$) in older adults. Self-esteem (path b) ($\beta = 0.12$, $p < 0.01$) had a significant positive effect on life satisfaction. The loneliness had a significant negative effect on life satisfaction (path c) ($\beta = -0.16$, $p < 0.001$). Self-esteem partially mediated the relationship between loneliness and life satisfaction, accounting for 39.24% of the total effect. However, self-esteem did not moderate the mediation model.

Discussion / Implications: These results highlight the importance of identifying additional factors that can reduce the negative effects of loneliness. Future interventions should consider enhancing social support, promoting adaptive coping strategies, and fostering emotional resilience to more effectively support individuals experiencing loneliness.

Keywords: loneliness, self-esteem, life satisfaction, mediation analysis

Promoting holistic care thinking in nursing students through figure drawing in a fundamental practicum

Li-Chiu Chen^{1,2}, Chu-Hua Chung¹, Ching-Yen Hung¹

¹Chung Shan Medical University, Department of Nursing, Taiwan.

² China Medical University, PhD program in Health Science, Taiwan.

Background: Holistic care is a foundational concept in nursing education. However, beginning nursing students often struggle to apply theoretical knowledge in clinical settings, particularly in integrating multiple aspects of patient care. Early-stage interventions are needed to guide students in developing holistic and person-centered care thinking during their first clinical practicum.

Objectives: This study aimed to explore the effectiveness of a figure drawing teaching strategy in promoting holistic and person-centered care thinking among nursing students during an 8-day fundamental nursing practicum.

Methods: An action research design was used. Twenty-one undergraduate nursing students from a university in central Taiwan participated, divided into three groups. The figure drawing activity was implemented throughout the practicum to help students map patient needs across physical, psychological, social, and spiritual dimensions. Data were collected through daily reflection journals and post-practicum group interviews. Learning satisfaction and self-rated confidence in holistic care were assessed using a 5-point Likert scale.

Findings: Participants (average age 20.8 years; 86% female) reported a mean learning satisfaction score of 4.83 out of 5. Self-rated confidence in holistic care increased from 3.14 to 4.21. Qualitative analysis showed that figure drawing helped students clarify care priorities, begin to integrate multiple care needs, and develop early person-centered thinking. It also helped students understand the connections between assessment, judgment, and care execution, supporting a preliminary grasp of the nursing process as a whole.

Implications: Figure drawing is a practical and effective teaching strategy for helping novice nursing students build holistic and person-centered care thinking. It supports integrative learning and can be incorporated into fundamental nursing education to strengthen students' understanding of the nursing process and improve care planning skills.

Keywords: figure drawing, holistic care, person-centered care, fundamental nursing practicum, nursing education

Enhancing pediatric nursing competency through team-based learning combined with scaffolding theory in early clinical practicum

Li-Chiu Chen^{1,2}

¹Chung Shan Medical University, Department of Nursing, Taiwan.

²China Medical University, PhD program in Health Science, Taiwan.

Background: Pediatric clinical practicum presents significant challenges for nursing students, especially when caring for infants and young children who cannot express themselves verbally and often exhibit distress through crying or withdrawal. In addition to mastering common pediatric illnesses, students must also develop knowledge in child development, hospitalization-related stress, interpretation of diagnostic reports, communication with children, and family interaction strategies. Traditional lecture-based instruction often leads to fragmented understanding and difficulties in applying knowledge to clinical practice.

Objectives: This study aimed to implement a teaching model that integrates Team-Based Learning (TBL) with scaffolding theory to help nursing students systematically build pediatric foundational knowledge and improve their clinical reasoning and communication skills during the early stages of their pediatric practicum.

Methods: Nineteen third-year nursing students participated in four TBL-based teaching modules (2 hours each) at the beginning of their pediatric practicum. Course content included child development, hospitalization stress, common pediatric diseases, lab data interpretation, interaction with children, and communication with family members. Pre-class handouts were provided as scaffolding materials. In-class activities involved problem-based group discussions, peer collaboration, and role-playing with scenario simulations to enhance students' experiential learning and clinical response capabilities. Learning outcomes were assessed through pre- and post-tests, reflection journals, and course feedback questionnaires.

Findings: Students' average test scores improved from 62.8 to 85.6 after the intervention. Qualitative analysis showed that group discussions clarified key concepts and facilitated collaborative learning. Guided questioning helped students integrate knowledge into coherent frameworks. Role-playing and scenario-based exercises improved students' confidence, clinical communication, and preparedness for pediatric care.

Implications: Integrating TBL with scaffolding strategies in early pediatric clinical education effectively supports students in organizing knowledge, improving practical skills, and boosting engagement. This approach may be applied to other clinical practicum preparation courses to strengthen students' transition from classroom learning to real-world clinical practice.

Keywords: team-based learning, scaffolding theory, pediatric nursing practicum, simulation-based teaching

Effectiveness of acupressure in improving constipation among the elderly

Yi-Ting Chen

National Taichung University of Science and Technology, Department of Nursing, Taiwan

Background: Constipation is a prevalent issue among the elderly due to physiological decline, reduced physical activity, and dietary changes. This condition negatively impacts their quality of life and overall health. Recently, non-pharmacological interventions such as acupressure have gained attention for alleviating constipation.

Purpose: This study aims to evaluate the effectiveness, safety, and feasibility of acupressure in improving constipation among older adults based on a literature review and its application to a case study.

Methods: This study employed a literature review and case-based approach. A systematic review of relevant studies on acupressure for constipation management was conducted to identify evidence-based practices. Based on the findings, a case study was selected involving an elderly individual with chronic constipation. The acupressure intervention targeted specific points (Tianshu, Zusanli, and Shenque) and was applied daily for four weeks. Primary outcome measures included bowel movement frequency, stool consistency assessed by the Bristol Stool Form Scale, and abdominal discomfort, evaluated before and after the intervention.

Results: The results indicated significant improvements in bowel movement frequency, stool consistency, and abdominal discomfort in the case study. These findings align with existing literature, supporting acupressure as a safe and effective strategy for relieving constipation.

Conclusion: Acupressure effectively improves constipation in the elderly with good safety and feasibility, making it a valuable complementary nursing intervention. Future research should explore its long-term effects and impact on quality of life to promote broader clinical application.

Keywords: acupressure, constipation, elderly

Exploring emotional labor in emergency nurses

Yi-Yi Chen¹, Chiou-Fang Liou²

1. Chung Shan Medical University, Taiwan

2. Department of Nursing, Chi Mei Medical Center, Taiwan

Background

Emergency nurses operate in high-pressure and high-risk environments, where they are required to maintain appropriate emotional conduct while delivering patient care, leading to increased emotional labor. In nursing, emotional labor is defined as the adjustment of one's emotional state to achieve optimal patient outcomes and ensure professional performance. However, specific emotional labor scales tailored for nurses are lacking.

Objective

This study aims to 1) establish the reliability and validity of a revised emotional labor scale for nurses; 2) describe the emotional labor performance of emergency nurses; and 3) investigate differences in emotional labor performance among emergency nurses across various hospital tiers.

Methods

Following IRB approval, between 3/1 and 5/31/2025, a cross-sectional questionnaire survey was conducted involving 145 emergency nurses in southern Taiwan (86% female; 59% N2; 58.6% from medical centers, 23.45% from regional teaching hospitals, and 17.95% from district hospitals).

Results

An exploratory factor analysis yielded a KMO value of 0.83, indicating a single construct that explained 74.53% of the variance, with all factor loadings exceeding 0.5. The scale demonstrated a Cronbach's alpha of 0.83. The average emotional labor score among participants was 71.96 ± 8.34 , with a median of 71. While no significant differences were found between emotional labor scores among nurses in medical centers and those in non-medical centers, Chi-square tests revealed significant disparities in emotional labor performance among nurses in medical centers, regional hospitals, and district hospitals ($p < 0.05$) when using 71 as the threshold for high and low emotional labor.

Conclusion

Strategies to alleviate emotional labor in emergency nurses should consider differences across hospital tiers. Future studies should include a broader range of nursing units to further explore the factors influencing emotional labor among nurses.

Keywords: emergency nurses, emotional labor, factor analysis

A survey of health-promoting lifestyles and the related factors: A pilot study among faculty in medical and management colleges in eastern Taiwan

Hsueh-Kuei Lin, Chia-Chen Chung

Department of Nursing, Saint Mary's Junior College of Medicine, Nursing and Management, Taiwan

Background: Teachers' health is crucial for their well-being and professional performance. In Taiwan, health promotion for teachers has gained attention, especially for those working in healthcare management schools. However, there is limited research on health promotion lifestyles and their influencing factors among healthcare school teachers in Taiwan.

Purpose / Objectives: This study investigates the health status, health promotion lifestyle, and related factors among teachers in healthcare management schools in Eastern Taiwan. Specifically, it seeks to:

1. Understand the teachers' health status.
2. Explore the teachers' health promotion lifestyle.

Examine the relationship between health promotion lifestyles and influencing factors.

Approaches / Methods: This research uses an online survey to collect data from teachers in two healthcare management schools: Cardinal Tien and Saint Mary. A total of 60 teachers participated in the survey, which included questions about their personal background, health promotion lifestyle, and self-perceived health status. The health promotion lifestyle was measured using a 52-item scale across six domains: health responsibility, spiritual growth, interpersonal relationships, stress management, nutrition, and physical activity.

Results / Findings: Results indicated that the highest scores were in interpersonal relationships and spiritual growth, while the lowest were in physical activity. Most teachers rated their overall health as "fair" to "good," and self-perceived health was significantly influenced by factors such as education level, BMI, and weekly working hours. Teachers with a bachelor's degree, normal BMI, and fewer working hours reported better self-perceived health.

Discussion / Implications:

The findings highlight the need for health promotion activities encouraging physical activity and stress management. Schools should consider providing resources such as sports facilities and stress-relief workshops. Policies addressing work-life balance and supporting teacher health could improve overall well-being and teaching effectiveness.

Keywords: health-promoting, teachers, perceived health status

Comparison of different education programs on febrile seizure knowledge, practice and self-efficacy among preschool educators

Shu-Lan Chiu¹, Ling-Hua Wang²

1. Master student, School of Nursing, Fooyin University, Taiwan

2. School of Nursing, Fooyin University, Taiwan

Background: Enhancing preschool educators' ability to deal with febrile seizures in young children.

Purpose: This study aimed to examine effectiveness of different education programs on knowledge, practice and self-efficacy of febrile seizure among preschool educators

Methods: A quasi-experimental study design was conducted, using purposive sampling to recruit 66 preschool educators. Participants were randomly assigned to either the experimental group (n=34), which received a "multimodal health education program," or the control group (n=32), which received "traditional health education." Measurements of knowledge, practice, and self-efficacy were assessed at baseline, immediately after the intervention (post-test 1), and four weeks after the intervention (post-test 2).

Results: Significant differences were observed between the two groups at post-test 1 and post-test 2 in terms of knowledge ($t=-9.93$, $t=23.66$; $p<.05$), practice behaviors ($t=12.02$, $t=20.35$; $p<.05$), and self-efficacy ($t=13.70$, $t=20.49$; $p<.05$). The findings indicate that the "multimodal health education program" significantly improved and sustained preschool educators' knowledge, practice, and self-efficacy in handling febrile seizures.

Implications: "Multiple health education program" in professional training courses for preschool educators can enhance their competence and ensure children's safety.

Keywords: multiple health education program, knowledge, practice, self-efficacy, preschool educators

Can the ketogenic diet effectively reduce the seizure frequency in children with refractory epilepsy?

Pei-Shan Chung^{1,2}, Ruoh-Lih Lei³

1. Master's student of the Department of Nursing, Hungkuang University, Taiwan
- 2 Neonatal Intensive Care Unit, Taichung Veterans General Hospital, Taiwan
- 3 Department of Nursing, School of Nursing, Hungkuang University, Taiwan

Background: Epilepsy is a common neurological disorder in children, and most children with epilepsy can be controlled with medication. However, about 20-30% are drug-resistant, with frequent and severe seizures that affect quality of life. Therefore, this paper aims to explore whether the ketogenic diet can effectively reduce the incidence of epilepsy in children.

Purpose / Objectives: Based on evidence-based steps, the title of "Whether the ketogenic diet can effectively reduce the incidence of epilepsy in children" is explored, with the PICO framework set as follows: P (Children with epilepsy), I (Ketogenic diet), C (Regular diet), O (Reduced incidence of epilepsy).

Approaches / Methods: Search for RCT articles published between 2008 and 2024 using four databases: PubMed, CINAHL, Cochrane, and Airiti Library.

Results / Findings: Four studies were included in the inclusion and exclusion criteria. Two of them compared the ketogenic diet with a regular diet, showing a significant reduction ($p < 0.0001 \sim 0.024$). The other two compared the ketogenic diet with the modified Atkins diet, showing a significant reduction ($p < 0.0001 \sim 0.008$). Therefore, the ketogenic diet can effectively reduce the incidence of epilepsy.

Discussion / Implications: Different types of ketogenic diets can reduce the incidence of epilepsy seizures. In clinical practice, professionals should provide dietary options based on the individual needs of the patient.

Keywords: children with epilepsy, ketogenic diet, reduction in seizure frequency

Does chlorhexidine bathing in intensive care unit patients effectively reduce bloodstream infection rates?

Hsin-Yu Hsieh^{1,2}, Ruoh-Lih Lei³

1. Master's student of the Department of Nursing, Hungkuang University, Taiwan

2 Neonatal Intensive Care Unit, Taichung Veterans General Hospital, Taiwan

3 Department of Nursing, School of Nursing, Hungkuang University, Taiwan

Background: Critically ill patients in intensive care units are at high risk for infections due to the severity of their condition. Infections not only extend hospital stays but can also worsen the illness and even lead to death. Chlorhexidine bathing has been widely used in clinical practice as a preventive measure against infections. However, despite its use, the incidence of infections remains high in clinical settings. Therefore, based on evidence-based nursing practices, this study aims to explore whether chlorhexidine bathing effectively reduces bloodstream infection rates in ICU patients.

Purpose / Objectives: Based on evidence-based nursing steps, this study explored whether chlorhexidine sponge baths effectively reduce bloodstream infection rates in intensive care unit patients.

Approaches / Methods: This study searched for RCT articles from 2015 to 2024 in five databases, including PubMed, CINAHL, Cochrane, Embase, and Airtiti Library Huayi. The keywords included chlorhexidine bathing, intensive care unit patients, and bloodstream infection.

Results / Findings: After applying the inclusion and exclusion criteria, four articles were included. Following the intervention of chlorhexidine bathing, three studies demonstrated a significant reduction in bloodstream infection rates ($p < .0085-.027$). In contrast, one study reported no significant difference ($p = .95$), although a decrease in infection rates was still observed. The findings of this study suggest that chlorhexidine bathing is effective in reducing the incidence of bloodstream infections.

Discussion / Implications: Chlorhexidine bathing is a simple and cost-effective intervention. If the infection rates in high-risk patient populations can be consistently reduced, it may effectively decrease prolonged hospitalization, antibiotic use, and other healthcare costs, thereby reducing the burden on medical resources and improving treatment efficiency. Further research is required to determine optimal implementation strategies and long-term outcomes.

Keywords: chlorhexidine bathing, intensive care unit patient, bloodstream infection rates

The effects of an exercise program on exercise endurance and maximal oxygen uptake in heart failure patients

Shu Ting Tseng¹, Chyi Lo²

¹ Taichung Veterans General Hospital, Taiwan

² School of Nursing, China Medical University, Taiwan

Abstract: This study explores the impact of an exercise program on the physical activity capacity of heart failure patients and evaluates its effectiveness in improving exercise endurance and maximal oxygen uptake (VO₂ max).

Background: Heart failure patients often experience fatigue and dyspnea, leading to reduced physical activity levels, which further affect their cardiopulmonary function and quality of life. Therefore, this study designed an aerobic exercise program to enhance patients' cardiopulmonary endurance and exercise capacity.

Purpose / Objectives: The study involved eight heart failure patients, including six females and two males, who participated in a two-week exercise program. The effectiveness of the intervention was assessed using the six-minute walk test (6MWT) and VO₂ max measurements.

Approaches / Methods: The effectiveness of the intervention was assessed using the six-minute walk test (6MWT) and VO₂ max measurements.

Results / Findings: Results showed that female patients increased their walking distance by an average of 55 meters within three days, while male patients exhibited minimal changes over two weeks. In terms of VO₂ max, female patients demonstrated an average improvement of 3.5 ± 2.2 mL/kg/min, whereas male patients showed a slight decrease (-2.9 ± 4.1 mL/kg/min). Overall, female patients exhibited more significant improvements, indicating that a short-term exercise program can positively impact exercise capacity in female heart failure patients.

Discussion / Implications: Additionally, the study found that most patients lacked a regular exercise routine, with only 25% of male patients engaging in consistent physical activity. Female patients were more likely to avoid exercise due to fatigue. This study suggests that future interventions should include individualized exercise guidance to help heart failure patients establish regular exercise habits, thereby improving their quality of life and cardiopulmonary function.

Keywords: physical activity, exercise, heart failure, maximal oxygen

Effectiveness of implementing the self-supporting care in long-term care facilities in Yilan county

Hsiu-Chu Kao¹, Nai-Wei Hsu², Shu-Ching Yu³, Pi-Hua Huang¹

1. Department of Intelligent Technology and Long-term Care (ITLC), St. Mary's Junior College of Medicine, Nursing and Management, Taiwan
2. Public Health Bureau, Yilan County, Taiwan
3. Public Health Bureau, Yilan County, Management Office of Long-Term Care Service, Taiwan

Background: With the rapid growth of the aging population, the demand for care related to chronic diseases and functional impairments is also increasing. Additionally, changes in family structures have led to elderly individuals needing to move into long-term care institutions. In recent years, Taiwan has been promoting the Self-supporting Care Model to enhance the independence and daily living abilities of individuals with disabilities and to slow down the rapid deterioration of their conditions.

Purpose / Objectives: This research aims to explore the effectiveness of the Self-supporting Care Model introduced in long-term care institutions in Yilan Country.

Approaches / Methods: This study adopts a quasi-experimental pre-post design. The participants were 64 residents from 14 long-term care institutions in Yilan County, including both residential and community-based facilities. The care teams followed each resident's abilities and made environmental adjustments using assistive devices. Monthly goals were adjusted, and the intervention lasted for six months. The care management assessment scale was used as the measurement tool before and after the intervention, and paired-sample t-tests were applied for effect analysis.

Results / Findings: The results showed that the intervention did not significantly improve the residents' ability to perform daily activities. However, the average score for urinary control increased from 3.94 to 5.63 ($P < 0.001$), a 6.25% improvement. Instrumental activities of daily living worsened, but depressive symptoms showed improvement ($P = 0.050$).

Discussion / Implications: The results suggest that the self-supporting care model contributes to improved urinary control and alleviated depressive symptoms. Psychological functioning showed improvement after six months of intervention. This demonstrates a positive impact of self-supporting care on residents' quality of life. The findings can serve as a reference for future policy-making when implementing the self-supporting care model in long-term care institutions.

Keywords: self-supporting care, long-term care facilities, subtractive care

Survey on occupational participation of female individual with substance use disorder

Guang-Hsing Liu

Department of Psychiatry, China Medical University Hospital, Taiwan

Background: Female substance users face unique challenges in occupational participation that remain understudied in current literature. Their experiences often differ significantly from male counterparts due to distinct social expectations, caregiving responsibilities, and recovery barriers. Understanding these gender-specific occupational challenges is crucial for developing effective, targeted interventions.

Purpose: This study aimed to investigate the occupational participation experiences of female substance users, identifying areas of satisfaction and challenges across various life domains.

Methods: Semi-structured interviews were conducted using an Occupational Self Assessment (OSA), which is designed to evaluate performance and satisfaction across multiple domains. A retrospective review of 13 records was performed to identify patterns in occupational performance, satisfaction levels, and common challenges. Qualitative content analysis was applied to extract key themes from participant responses.

Results: Analysis revealed that participants consistently reported dissatisfaction in three key areas: "caring others" "managing finances," and "fulfilling responsibilities." These areas demonstrated the lowest satisfaction scores across participants, collectively indicating significant concerns regarding family and relationship responsibilities. The uniformity of these findings suggests these challenges may represent a common pattern among female substance users, directly impacting their recovery trajectory and social reintegration.

Discussion: The findings suggest that female substance users experience particular difficulties in meeting family and relationship obligations, which may contribute to feelings of inadequacy and impact recovery outcomes. This highlights the importance of incorporating family-centered approaches in rehabilitation programs. Interventions should address practical life skills related to caregiving, financial management, and responsibility fulfillment to enhance overall occupational performance. Additionally, clinicians should consider how gender-specific role expectations influence treatment engagement and recovery success. Future research should explore how targeted occupational interventions addressing these specific domains might improve recovery outcomes and quality of life for this population.

Keywords: occupational participation, relationships, addiction

Exploring the impact of music intervention on patients with delirium in intensive care unit: Literature review and clinical application

Hsueh-Wen Liang^{1,2}, Chang-Chiao Hung¹

1. Graduate Institute of Nursing, Chang Gung University of Science and Technology, Chiayi Branch, Taiwan

2. Chi Mei Medical Center, Liouyng, Department of Nursing Liouyng, Taiwan

Background: Intensive care unit (ICU) delirium is common, impacting patient health and costs. While non-pharmacological interventions are key to prevention, the effectiveness of music therapy remains debated.

Objectives: Evidence-Based empirical nursing steps are taken to explore the effect of music intervention on delirium prevention in ICU patients.

Methods: A systematic search of Cochrane Library, PubMed, Embase, and CEPS (up to March 2024) using PICO keywords, MeSH terms, and Boolean logic retrieved 541 articles. After exclusions, three RCTs were selected. The CASP (2021) was used for appraisal, and in accordance with the Oxford CEBM (2011) guidelines, all studies were designated as Level 2. One study showed a significant effect ($p = 0.016$), while the other two did not reach statistical significance ($p = 0.286$ and $p=0.32$).

Clinical Application: From April 1 to June 12, 2024, in the ICU of a regional teaching hospital, patients ($n=3$ per group) were randomly assigned to receive either music therapy (Group 1) or routine care (Groups 2). Patients in Group 1 received music therapy twice daily for 60 minutes over three days. Delirium was assessed using the Confusion Assessment Method for the ICU (CAM-ICU).

Results: The two groups exhibited similar demographic characteristics. The incidence of delirium was 0% in Group 1 and 67% in Group 2, indicating a lower occurrence with music intervention. The length of ICU stay was shorter in Group 1 (6 days) than in Group 2 (8.3 days), suggesting a potential benefit in reducing ICU stay.

Discussion: The results suggest that music intervention may be more effective than routine care in preventing ICU delirium. However, the limited duration and small sample size necessitate further research with a larger cohort for validation.

Keywords: critically ill patients, delirium, music intervention

The experience of filial piety among family care

Chun-Yen Sung^{1 2}, Ruoh-Lih Lei³, Chih-Yi Lin⁴

1. Master's student of the Department of Nursing, Hungkuang University, Taiwan
2. Department of Internal Medicine, Cishan Hospital, Ministry of Health and Welfare, Taiwan
3. Department of Nursing, Hungkuang University, Taiwan
4. Song Bor Physiotherapy, Taiwan

Background: Taiwan's population over 65 accounted for 18% of the total population in 2022 and will enter a super- elderly society in 2025. The concept of filial piety in traditional Chinese culture emphasizes the moral obligation of children to care for their families and as a vocation. It may become a burden to caregivers. Therefore, this study aims to explore "the family care experience of filial piety."

Purpose / Objectives: Based on evidence-based nursing steps, this study explored the title "What is the experience of filial piety among family care." The PICO framework is as follows: P: adult children or family caregivers; I: Family experience related to filial piety; Co: The period of filial care.

Approaches / Methods: This study searched articles from 2000 to 2023 in five databases, including PubMed, CINAHL, Cochrane, Embase, and Airiti Library Huayi. The keywords included Filial Piety, Family Care, and Qualitative Research. The inclusion criteria were: 1. Chinese or English; In studies on filial piety in care, duplicate publications were excluded. After screening, the researchers selected five eligible studies for comprehensive evaluation.

Results / Findings: Finally, after meta-synthesis, researchers generated five articles into 12 categories and four new themes: 1. The culture and responsibility of filial piety; 2. The Burden and Challenges of Filial Piety; 3. the emotional connection and conflict of filial piety; 4. The practical dilemma of filial piety in caregiving.

Discussion / Implications: Caregivers may transform the responsibility for filial piety into psychological pressure, leading to frustration and guilt and decreasing the quality of care. In conclusion, the community and the government should pay attention to intervention programs with a local culture of filial piety to effectively reduce stress and improve the effectiveness of care.

Keywords: filial piety, family care, qualitative research

Does early tracheostomy in ventilated patients reduce the number of days on mechanical ventilation?

Hsin-Yi Chou^{1,2}, Angelica Te-Hui Hao², Ruoh-Lih Lei²

1 Respiratory Ward, Changhua Hospital, Ministry of Health and Welfare of Science and Technology, Taiwan

2 Department of Nursing, Hungkuang University, Taiwan

Background: Long-term endotracheal intubation and ventilator use in patients with respiratory failure will affect the effectiveness of care depending on the severity of the patient's disease, resulting in the inability to be weaned from the ventilator in the short term. However, tracheostomy can reduce dead space and lower airway resistance, improve secretion clearance, reduce sedation requirements, improve patient comfort, and reduce ventilator-related complications (such as respiratory injury or infection). Therefore, whether early tracheostomy can reduce the number of days of ventilator use, increase the rate of weaning, and reduce the number of days in the intensive care unit and complications can be used as a reference for clinical treatment.

Purpose: To investigate whether early interventional tracheostomy can reduce the number of patients requiring long-term mechanical ventilation.

Methods: This study searched for RCT research articles with no restrictions on the year before 2025, using four databases including PubMed, CINAHL, Cochrane, and Google Scholar, and explored the issue of "whether early tracheostomy in patients on ventilators reduces mechanical ventilation" based on the 3A steps of evidence-based nursing. After screening, a total of 5 randomized controlled trial research papers were found.

Results: All five articles were of Level II evidence, and all showed that patients on ventilators who underwent early tracheostomy had fewer days of mechanical ventilation than those who underwent late tracheostomy. Three of the articles showed significant differences ($p .02-.022$), and the other article did not show significant differences. However, for patients who required mechanical ventilation, early tracheostomy could shorten the duration of mechanical ventilation and the number of days in the intensive care unit.

Discussion: Early tracheostomy can shorten the number of days of mechanical ventilation and intensive care unit stay and hospitalization time, reduce ventilator-related complications and related antibiotic and other drug costs. Tracheostomy improves patient comfort compared to oral or nasal intubation, allows for earlier initiation of spontaneous breathing training, reduces the duration of mechanical ventilation, and improves the patient's quality of life.

Keywords: tracheostomy, mechanical ventilation, early

Can chewing gum promote bowel movement after intestinal surgery?

Yun-Hsuan Wu^{1,2}, De-Hui Hao², Ruo-Li Lei², Lin-Lin Lee²

1. Cardiology Department, Taichung Veterans General Hospital, Taiwan

2. Department of Nursing, Hungkuang University, Taiwan

Background: Many patients undergo bowel surgery as part of their medical treatment. However, factors such as long surgery times, anesthesia, and prolonged bed rest after surgery may cause partial or complete cessation of bowel motility, leading to bowel obstruction. Clinically, patients who undergo bowel surgery may experience symptoms like vomiting and abdominal distension due to slow gastrointestinal motility, which can increase both physical and psychological discomfort. This study aims to explore whether chewing gum can promote gastrointestinal motility in patients after bowel surgery.

Purpose / Objectives: To investigate whether chewing gum can promote gastrointestinal motility in patients after bowel surgery.

Approaches / Methods: The PICO keywords in both Chinese and English for this study are as follows:

P: Patients undergoing bowel surgery (Intestinal surgery) I: Chewing gum (Chewing gum)

C: Standard care (Standard care)

O: Promoting bowel movement (Bowel movement)

RCT studies in Traditional Chinese or English were searched in PubMed, CINAHL, Cochrane, Google Scholar, and Huayi databases, without restriction on publication year.

Results / Findings: After applying inclusion and exclusion criteria, nine studies were included in the final review. Four of the studies showed significant differences. Another four studies, despite having fewer than 100 participants, did not reach statistical significance, but demonstrated clinical improvement in bowel motility. The ninth study, a multi-center trial, showed no difference in results. Overall, the analysis suggests that chewing gum can promote gastrointestinal motility.

Discussion / Implications: Chewing gum, as an adjunctive therapy, has been proven in the literature to improve bowel motility. However, some studies did not reach statistical significance. It is recommended to focus on the number of cases and specific needs to enhance the effectiveness of clinical application based on evidence.

Keywords: bowel surgery, chewing gum, gastrointestinal motility

Can exercise intervention in cancer patients reduce fatigue?

Chia-Ying Hsieh^{1,2}

1 Taichung Veterans General Hospital, General Surgery ward, Taiwan

2 Hungkuang University, Department of Nursing, Taiwan

Background: Cancer is the leading cause of death among the top ten causes of death in Taiwan. Many cancer patients admitted to hospital suffer from fatigue due to the treatment process and disease progression. Therefore, this study aims to explore the effectiveness of "whether exercise intervention measures can reduce fatigue in cancer patients".

Purpose / Objectives: To explore the effectiveness of exercise in reducing fatigue in cancer patients by searching and reviewing empirical literature.

Approaches / Methods: Using PICO keywords: P-cancer patients; I-exercise; C-routine care; O-fatigue reduction, we searched five empirical literature databases including Huayi Online Library, Google Scholar Search, PubMed, CINAHL, and Cochrane from 2015 to 2024, excluding literature that did not match PICO and duplicate literature, and finally selected 4 RCT literature for review.

Results / Findings: From the four literatures, we know that the exercise is aerobic exercise, resistance training and comprehensive yoga courses. The scores of the scales before and after exercise are used to know whether fatigue is improved. The evaluation scales are BFI (Brief Fatigue Inventory Score), CIS (Fatigue Severity Scale), CFS (Cancer-Related Fatigue Scale), FSI (Fatigue Symptom Inventory). The higher the score, the more severe the fatigue. Among them, three literatures have achieved significant improvement ($P < 0.01-0.05$), and one literature has not achieved significant difference but has a significant decrease ($P = 0.057$); this study confirms that exercise can reduce fatigue in cancer patients.

Discussion / Implications: Although one of the studies did not achieve significant improvement, it was found that the fatigue of cancer patients decreased significantly after the intervention of exercise measures. Therefore, in clinical practice, cancer patients can be advised to exercise to reduce fatigue according to their personal conditions and choose appropriate exercise methods. Multiple designs can be made to not only perform a single exercise, so as to achieve twice the result with half the effort in fatigue recovery.

Keywords: cancer patients, exercise, reducing fatigue

The effect of intermittent catheterization on the risk of urinary tract infection in epidural laboring women

Min-Jung Huang^{1,2}, Angelica Te-Hui Hao², Ruoh-lih Lei²

1. Department of Obstetrics and Gynecology, China Medical University Hospital, Taiwan
2. Department of Nursing, Hungkuang University, Taiwan

Background: Epidural anesthesia is widely regarded as the gold standard for labor pain management. However, women receiving epidural anesthesia often experience urinary retention, necessitating catheterization. Indwelling catheterization, though effective for bladder management, may increase the risk of urinary tract infection (UTI), negatively impacting maternal comfort and psychological well-being. Hence, identifying safe and effective catheterization methods during labor is crucial.

Purpose/Objectives: This study aims to compare the risk of UTI and other related complications between intermittent catheterization and indwelling catheterization in laboring women under epidural anesthesia.

Approaches/Methods: Using the PICO framework: P(Population): Women receiving epidural anesthesia during labor; I(Intervention): Intermittent catheterization; C (Comparison): Indwelling catheterization; O (Outcome): Urinary tract infection. We searched four databases (PubMed, CINAHL, Cochrane, and Google Scholar) for randomized controlled trials published before 2024. Four RCTs were selected and analyzed using the 3A evidence-based nursing approach to evaluate whether intermittent or indwelling catheterization leads to higher UTI risk in this population.

Results/Findings: There was no statistically significant difference in UTI risk between intermittent catheterization (IC) and indwelling catheterization (CC), with all studies reporting p-values > 0.05. Although the difference was minimal, the infection rate associated with indwelling catheterization tended to be higher in all four studies. Risk factors included increased frequency of catheterization, improper aseptic technique, and individual patient characteristics such as immunosuppression. The evidence supports intermittent catheterization as a preferred option.

Discussion/Implications: Single-use intermittent catheterization should be prioritized during labor with epidural anesthesia, especially to improve delivery outcomes and minimize infection risks. Emphasis should be placed on sterile technique and individualized care. These findings support the application of intermittent catheterization in labor management, improving maternal outcomes and offering a cost-effective strategy for healthcare teams.

Keywords: laboring women, epidural anesthesia, intermittent catheterization, indwelling catheterization, urinary tract infection

The effectiveness of acupuncture intervention in relieving pain after orthopedic surgery

Yi-Hsuan Fan^{1,2}, Angelica Te-Hui Hao², Ruoh-Lih Lei²

- 1 Rehabilitation Specialist Nurse, Ministry of Health and Welfare Changhua Hospital, Taiwan
- 2 Department of Nursing, Hungkuang University, Taiwan

Background and Motivation: Many orthopedic surgery patients are often afraid to get out of bed early due to postoperative pain, which leads to complications: hypovolemic shock, fat embolism syndrome, deep vein thrombosis, traumatic arthritis, etc. Pain management after orthopedic surgery is an important part of patient recovery. Traditional pain control methods include medication and physical therapy, but their effectiveness and side effects cannot be ignored. Acupuncture produces analgesic effects by stimulating the nervous system to release endorphins and other neurotransmitters. It has the potential to reduce pain, improve function and promote recovery. It has a long history and its application in modern medicine is gradually gaining attention.

Purpose: This study explores whether the intervention of traditional Chinese medicine acupuncture and moxibustion can help relieve pain in patients after orthopedic surgery. This article explores the effect of acupuncture and moxibustion in relieving pain after orthopedic surgery, and integrates existing research and clinical cases to provide a reference for clinical treatment.

Methods: This study searches for RCT research articles before 2025, using four databases including PubMed, CINAHL, Cochrane, and Google Scholar, and explores the issue of "whether the intervention of traditional Chinese medicine and acupuncture can improve pain in patients after orthopedic surgery" based on the steps of evidence-based nursing.

Results: After screening, a total of 5 articles were found to be eligible, all of which were randomized controlled trials with level II evidence. All of the literature showed that acupuncture intervention was effective, including relieving pain, reducing limb swelling, and increasing joint mobility, and all had statistically significant improvements ($p < 0.01-0.05$). The results of this study showed that acupuncture intervention can improve the degree of pain after orthopedic surgery.

Discussion and Conclusion: Acupuncture treatment, as a non-pharmacological intervention, is generally considered safe, and the potential benefits outweigh the potential risks or inconveniences, making the best clinical decision. The effects of acupuncture vary from person to person, which may cause some patients to feel disappointed. In addition, acupuncture requires multiple treatments, which may also increase the patient's time and financial burden. It is recommended that clinical practice should use it according to individual case needs.

Keywords: orthopedic postoperative patients, acupuncture treatment, pain relief

The cost-effectiveness utility analysis of a home-based behavioral problem management training program for family caregivers of patients with dementia

Li-Huan Chen¹, Yea-Ing Lotus Shyu²

1 Department of Nursing, Hungkuang University, Taiwan

2 Department of Nursing, Chang Gung University, Taiwan

Background: How to implement the most cost effective strategies to improve the quality of life of persons with dementia (PWD) and their caregivers has been a major challenge for health care systems in many countries including Taiwan. Cost analysis can provide a guide for decision making within the limited resources in health care system.

Purpose / Objectives: The purpose of this study was to compare the Quality-adjusted life years (QALY), and cost effect of family caregivers who received the “home-based training program for behavioral problem management and those who received usual care at 18 months following implementation of the program from the perspective of funding provider.

Approaches / Methods: The data of quality of life and costs were obtained from participants who completed the 18 months follow-ups in a clinical trial supported by Ministry of Science and Technology (formerly National Science Council) (NSC 97-2420-H-182-002-MY3, 2008-2011). In this analysis, the conversion was applied to the SF-36 to derive a preference-based health related quality of life (SF-6D) QALY, in order to calculate the incremental cost-utility ratio (ICUR).

Results / Findings: The caregivers of experimental group (N=57) had significant improvement on bodily pain, general health, vitality, social function, role limitations due to emotional problems and mental health in SF-36 during 18 months follow-ups after receiving the training program. Specifically, 0.04 QALYs was derived for family caregivers of the experimental group. To calculate the labor costs based on the payment of the long-term care plan 2.0, the cost of each home visit is \$NT 1,500, around 51 US dollars, the ICUR is 96,250 NT\$/QALY respectively.

Discussion / Implications: We concluded that the home-based family caregiver training program has potential to be cost-effective and can be further considered as an intervention for family caregivers of PWD.

Keywords: elders with dementia, family caregivers, quality of life, cost-utility