WANS World Academy of Nursing Science | Thailand Nursing and Midwifery Council | The Nurses' Association of Thailand

The 2nd International Nursing Research Conference
"Future Nursing Research and Innovation for Sustainable Global Health"

to Commemorate the 125th Anniversary of the Birth of HRH Princess Srinagarindra

Jointly Organised by WANS, TNMC & NAT

Summary Report

2 – 4 December 2025

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Welcome Speech for the 2nd International Nursing Research Conference

Speech by Assoc. Prof. Dr. Suchittra Luangamornlert

President of Thailand Nursing and Midwifery Council

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Honorable Chairperson of Organizing Committee and Chairperson of Board of Directors of World Academy of Nursing Sciences, Assoc. Prof. Dr. Tassana Boontong,

Prof. Dr. Somchit Hanuchareunkul, Vice Chairperson Organizing Commiittee,

Prof. Dr. Siriorn Sindhu, President of Nurses' Association of Thailand,

Distinguished guests and dear colleagues,

On behalf of the Thailand Nursing and Midwifery Council (TNMC), it is my great pleasure to extend our warmest welcome to all of you to the 2nd **International Nursing Research Conference on "Future Nursing Research and Innovation for Sustainable Global Health."** This gathering is the culmination of a multi-year effort and is jointly organized by the TNMC, the Nurses' Association of Thailand and the World Academy of Nursing Science (WANS). We are honoured to host you here in Bangkok from **2–4 December 2025**, and to commemorate two remarkable milestones—the **125th anniversary** of Her Royal Highness Princess Srinagarindra's birth and the **40th anniversary** of the TNMC. Her Royal Highness, our beloved "Princess Mother," recognized long before it became widely acknowledged that nurses are at the heart of health care and that scientific inquiry is essential for progress. She supported nursing, nursing education, research and innovation, and her vision inspires our theme today.

Our world faces unprecedented challenges: emerging diseases, rapid social transitions, and population aging. To address these complexities, nurses must lead with evidence-based practice and innovation. Research generates new knowledge and challenges assumptions, while innovation translates that knowledge into policies, protocols, and technologies that improve patient outcomes. As the largest group of health professionals, embedded in every level of health care, nurses are uniquely positioned to promote health literacy, advocate for policies that address social determinants of health, and champion health equity.

The world is demanding a new vision. This is why our conference theme, "Future Nursing Research and Innovation for Sustainable Health," is not just an academic topic. It is a declaration of our professional identity and our readiness to lead.

Together we can ensure that nursing remains a beacon of hope and a driver of equitable health outcomes for all. As the President of the TNMC, Welcome to the 2nd **International Nursing Research Conference**, and thank you for joining us.

Welcome Speeches for the 2nd International Nursing Research Conference

Speech by Prof. Dr. Siriorn Sindhu

President, Nurses' Association of Thailand

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Honorable Chairperson of Organizing Committee and Chairperson of Board of Directors of World Academy of Nursing Sciences, Assoc. Prof. Dr. Tassana Boontong,

Prof. Dr. Somchit Hanuchareunkul, Vice Chairperson Organizing Commiittee,

Assoc. Prof. Dr. Suchittra Luangamornlert, President, Thailand Nursing and Midwifery Council,

Distinguished guests and dear colleagues,

On behalf of the Nurses' Association of Thailand (NAT), it is my great honor and pleasure to welcome you all to the 2nd International Nursing Research Conference on "Future Nursing Research and Innovation for Sustainable Global Health." My heart is full as I see this room filled with brilliant minds and caring hearts. To our friends who have traveled from around the world, a special, warm welcome to Thailand, our "Land of Smiles." We are truly delighted to have you here and hope you feel the genuine warmth of our welcome, not just as colleagues, but as part of our extended family.

We are all here today to share in an important dream, reflected in our theme: "Future Nursing Research and Innovation for Sustainable Health." While this theme may sound grand, its meaning is simple and deeply human. The theme of our conference is incredibly relevant in an era where society faces complex challenges, from demographic shifts to emerging diseases. As the President of NAT, I wish to emphasize the importance of leadership and professional advocacy.

With over 800 participants from more than 10 countries, this conference presents an excellent opportunity to exchange experiences, build professional networks, and inspire new directions in nursing research. Let us use this occasion to learn from one another and to strengthen our profession.

In closing, I would like to thank the organizing committees, all our sponsors, and most importantly, every participant who has traveled to join us today. We are gathered not just to exchange knowledge, but to co-create a future where nurses lead change and to show that investing in nursing is a powerful strategy for building a healthy society and achieving sustainable development goals.

Welcome once again to the conference and thank you for your dedication to the nursing profession and to the people we serve.

Reporting Remarks

To be delivered by Professor Dr. Somchit Hanucharurnkul

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Associate Professor Dr. Tassana Boontong, President of the World Academy of Nursing Science, and Chair of the Steering Committee of the 2nd International Nursing Research Conference, Distinguished guests, colleagues, ladies and gentlemen.

On behalf of the organizing committee, it is my great honor to report on the 2nd International Nursing Research Conference on *"Future Nursing Research and Innovation for Sustainable Global Health."* This conference commemorates the 125th anniversary of the birth of *Her Royal Highness Princess Srinagarindra* and is being held from 2nd to 4th December 2025 at the Miracle Grand Convention Hotel, here in *Bangkok*. It is jointly organized by the Thailand Nursing and Midwifery Council, the Nurses' Association of Thailand, and the World Academy of Nursing Science.

Since 1992, the Thailand Nursing and Midwifery Council, or TNMC, has continuously organized national nursing research conferences every four years — alternating with the National Nurses Conference in the intervening years.

The first international conference, held in collaboration with the World Academy of Nursing Science, or WANS, took place in 2016.

This year, 2025, the Council proudly hosts this second international conference, which also marks both the 125th anniversary of the birth of *Her Royal Highness Princess Srinagarindra* and the 40th anniversary of the TNMC.

To commemorate these milestones, the Council has elevated this academic forum to the international level once again, in partnership with WANS.

In today's world of rapid change, we face complex global health challenges — emerging diseases, social transitions, and population aging. To meet these challenges, *nurses must lead* with evidence-based practice and innovation.

To set the stage, a pre-conference field trip titled *"Nurses Leading Change – Exemplary Practices from Thailand"* was held on 1st December 2025. This visit allowed participants to observe innovative nursing services and research in real settings, to build collaborative networks, and to witness Thailand's nursing achievements firsthand.

Over the next three days, the conference will feature an opening ceremony, a research and innovation exhibition, keynote and plenary sessions, concurrent research

presentations, and a closing ceremony. The program is designed to exchange best practices, strengthen international collaboration, and inspire new directions in nursing research.

We are honored to welcome around 800 participants, including policymakers, experts, administrators, clinical nurses, educators, and students from Thailand and more than ten countries. We hope this gathering will promote knowledge sharing, expand global networks, and highlight the strength of Thai nursing on the world stage.

Ladies and gentlemen, it is now my privilege to invite Associate Professor Dr. Tassana Boontong to officially open the 2nd International Nursing Research Conference. Dr. Tassana Boontong, please.

The 2nd International Conference
on "Future Nursing Research and Innovation for Sustainable Health"
Opening Remarks
by
Associate Professor Dr. Tassana Boontong
Chair, World Academy of Nursing Science
Chair, Organizing Committee of the International Research Conference
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The President of Thailand Nursing and Midwifery Council (TNMC),
The President of the Nurses' Association of Thailand (NAT),
The Former President World Academy of Nursing Science (WANS),
The members of World Academy of Nursing Science (WANS),
and members of WANS,
Distinguished Guests, Colleagues,
Ladies and Gentlemen,

I'm truly delighted and deeply honored to preside over the opening of the 2nd International Nursing Research Conference on **"Future Nursing Research and Innovation for Sustainable Global Health".** On behalf of the World Academy of Nursing Science (WANS), I would like to express my sincere appreciation to the Thailand Nursing and Midwifery Council and the Nurses' Association of Thailand for co-hosting this important event with us.

It is also my great pleasure to warmly welcome Prof. Dr. Hiroko Minami, the Founder Member of WANS and a co-host of the WANS Conference in 2017 with Thailand Nursing and Midwifery Council and the Nurses' Association of Thailand. We are deeply honored by her presence today.

I extend my warmest welcome to all participants. Your presence signifies our shared commitment to strengthening nursing science and advancing nursing practice for the betterment of communities worldwide.

Today, we gather here not only to advance scholarly discourse but also to commemorate the 125th anniversary of the birth of Her Royal Highness Princess Srinagarindra—our beloved "Princess Mother", "Somdet Ya". Her Royal Highness dedicated her life to improving the health and well-being of the Thai people. She championed nursing education

and practice long before these became global imperatives. She recognized that nurses are at the heart of healthcare and that scientific inquiry is essential to societal progress.

In honoring her legacy, we embrace the theme, **" Future Nursing Research and Innovation for Sustainable Global Health. "** This theme underscores the critical role of research and innovation in generating knowledge, guiding evidence-based practice, informing policy, and advancing nursing profession. Ultimately it emphasizes our contribution to sustainable global health and the well-being of populations everywhere.

Furthermore, this conference marks two important milestones. We celebrate the 40th anniversary of the establishment of Thailand Nursing and Midwifery Council, the key organization dedicated to protecting the public and ensuring the quality of nursing practice. We also commemorate the 25th anniversary of the Princess Srinagarindra Award, which honors outstanding nurse-midwives, nurses or midwives worldwide for their remarkable contributions to the advancement of the profession and the health of the population.

This conference is built upon two strategic pillars - Nursing Research and Innovation. Together, they challenge us to move beyond theory and to ensure that our work remains evidence-based, practical and meaningful.

As the largest group of health professionals embedded across all levels of the health systems, nurses are the backbone of healthcare and champions of health equity. We are uniquely positioned to lead transformative change—whether by promoting health literacy or by advocating for policies that address the social determinants of health.

Over the coming days, this conference will serve as a crucible of ideas, dialogue, and inspiration. I encourage each of you to participate actively, share your experiences, and build new collaborations. Let us strengthen the global community of nurse researchers and innovators, united by our commitment to sustainable global health.

I express my heartfelt gratitude to the organizing committees, our partners, sponsors, and all delegates who have travelled from near and far to join this conference.

It is now my great honor to officially declare the International Conference on "Future Nursing Research and Innovation for Sustainable Health" open.

Thank you.

Program Schedule

The 2nd International Nursing Research Conference on

"Future Nursing Research and Innovation for Sustainable Global Health"

to Commemorate the 125th Anniversary of the Birth of HRH Princess Srinagarindra

Jointly Organized by WANS, TNMC & NAT

2 - 4 December 2025

The Miracle Grand Convention Hotel, Bangkok, Thailand

Date/Time/ (Venue)	Activities
Day 1	2 December 2025
MC	Asst. Prof. Dr. Thanee Glomjai Asst. Prof. Dr. Roshinee Oupra
8.00 - 9.00 a.m.	Registration
9.00 - 9.30 a.m (Grand Ballroom)	**Opening Conference Ceremony** **Reported by** Prof. Dr. Somchit Hanuchareunkul Vice Chairperson Organizing Committee **Opening Inauguration** Assoc. Prof. Dr. Tassana Boontong Chairperson Organizing Committee and Chairperson Board of Directors of World Academy of Nursing Sciences **Welcome Address** Assoc. Prof. Dr. Suchittra Luangamornlert President, Thailand Nursing and Midwifery Council Prof. Dr. Siriorn Sindhu President, Nurses' Association of Thailand **Group Photo**
9.30 - 10.00 a.m.	**Opening Ceremony of Exhibition on Research and Innovation in Nursing** Assoc. Prof. Dr. Tassana Boontong Assoc. Prof. Dr. Suchittra Luangamornlert

Date/Time/ (Venue)	Activities
	Prof. Dr. Siriorn Sindhu WANS Representatives
10.00 - 10.30 a.m.	**Refreshment** **Visiting Exhibition & Poster Presentation (Poster session 1)**
10.30 - 11.00 a.m. (Grand Ballroom)	**Keynote 1: Global Health Challenges and Health System Strengthening** Prof. Dr. Suttipong Wacharasindhu School of Global Health, Faculty of Medicine Chulalongkorn University, Thailand **Moderator:** Assoc. Prof. Dr. Prakin Suchaxaya
11.00 - 12.00 p.m. (Grand Ballroom)	**Plenary Session 1: Contributions of Nursing Research and Innovation to Global Health** Prof. Dr. Adelais Markaki (Online) University of Alabama at Birmingham, School of Nursing, USA Assist. Prof. Dr. Thitipong Tankumpuan Faculty of Nursing, Mahidol University, Thailand Assoc. Prof. Dr. Manee Arpanantikul **(**Moderator**)** Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand
12.00 - 1.00 p.m	**Lunch** **Exhibition & Poster Presentation (Poster session 2)**
1.00 - 2.30 p.m (Grand A)	**Concurrent Special Topic 1: Challenges in Nursing Research Methodology Toward Global Health** **Room 1: Randomized Controlled Trials** Assoc. Prof. Dr. Piyanee Klainin-Yobas Alice Lee Center for Nursing Studies, National University of Singapore Prof. Dr. Ratsiri Thato Faculty of Nursing, Chulalongkorn University, Thailand **Chair**: Assoc. Prof. Dr. Wantana Maneesriwongkul **Secretary**: PhD Student: Miss Userow Lohmae

Date/Time/ (Venue)	Activities
1.00 - 2.30 p.m (Grand B)	**Concurrent Special Topic 1: Challenges in Nursing Research Methodology Toward Global Health** **Room 2: Mixed methods research** Assoc. Prof. Dr. Sarah A. Stoddard (Online) School of Nursing & Health Behavior and Health Education, School of Public Health Research, University of Michigan, USA Assoc. Prof. Dr. Arpaporn Powwattana Department of Public Health Nursing, Faculty of Public Health, Mahidol University, Thailand **Chair**: Assoc. Prof. Dr. Surintorn Kalampakorn **Secretary**: PhD Student: Mrs. Nuchanath Leelawapa
(Venus)	**Room 3: Qualitative research** Prof. Dr. Wen-Yu Hu School of Nursing, National Taiwan University, Taipei, Taiwan Assoc. Prof. Dr. Karnsunaphat Balthip Faculty of Nursing, Prince of Songkla University, Thailand **Chair**: Prof. Dr. Praneed Songwathana **Secretary**: PhD Student: Mrs. Kacharat Prechon

Date/Time/ (Venue)	Activities
(Grand C)	**Room 4: Implementation research** Assoc. Prof. Dr. Craig Lockwood (Online) University of Adelaide, Australia Assist. Prof. Dr. Pikul Phornphibul Faculty of Nursing, Panyapiwat Institute of Management, Thailand APN Ratanaporn Jerawatana Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand **Chair**: Asst. Prof. Dr. Pikul Phornpibul **Secretary**: PhD Student: Miss Nattanicha Sinjan
2.30 - 3.30 p.m	**Concurrent Session 1: Research Presentation (Oral Presentation)**
3.30 - 3.45 p.m.	**Refreshment** **Exhibition & Poster Presentation (Poster session 3)**
3.45 - 5.00 p.m.	**Concurrent Session 2: Research Presentation (Oral Presentation)**
6.00 - 9.00 p.m.	**Welcome Reception**
Day 2	**3 December 2025**
MC	Dr. Kantaphon Chueahor Asst. Prof. Dr. Kamolrat Turner
8.00 - 8.30 a.m.	**Registration**
8.30 a.m. - 12.00 p.m.	**Chair**: Prof. Dr. Ratsiri Thato **Secretary**: PhD Students: Miss Sirimas Phoomchaiya, Miss Siriporn Rumtiammak
8.30 - 9.15 a.m. (Grand Ballroom)	**Keynote 2: Nursing Research in Genomics and Precision Health** Prof. Dr. Mei R. Fu School of Nursing and Health Studies, University of Missouri-Kansas City, USA

Date/Time/ (Venue)	Activities
9.15 - 10.15 a.m. (Grand Ballroom)	**Plenary Session 2: Ethical Considerations of Emerging Nursing Research** Prof. Dr. Kwanchanok Yimtae Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand Dr. Sumarno Adi Subrata (Online) Muhammadiyah University of Magelang, Indonesia Prof. Dr. Noppawan Piaseu (Speaker & Moderator) Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand
10.15-11.00 a.m. (Grand Ballroom)	**Plenary Session 3: Entrepreneurship in Nursing: Challenges, Opportunities, and Obstacles** Assist. Prof. Dr. Arunrat Thepna The Princess Agrarajakumari Faculty of Nursing, Chulabhorn Royal Academy, Thailand Dr. Ruchee Phonchai Neuro.mirotech com, LTD, Thailand Ms. Sasiwimol Singhanet Mee suk Society, Thailand Assoc. Prof. Dr. Thitinut Akkadechanunt (Moderator) Faculty of Nursing, Chiang Mai University, Thailand
11.00-11.45 a.m. (Grand Ballroom)	**Plenary Session 4: Future of Nursing Research in Workforce and Development** Assoc. Prof. Dr. Prakin Suchaxaya Former Health Program Coordinator, WHO Country Office for India Former Regional Adviser, Nursing and Midwifery, WHO Regional Office for South-East Asia Dr. Fely Marilyn Elegado-Lorenzo University of the Philippines, Philippines

Date/Time/ (Venue)	Activities
	Assist. Prof. Dr. Sukjai Charoensuk (Moderator) Praboromarajchanok Institute, Thailand
11.45- 12.00 p.m.	**Exhibition & Poster Presentation (Poster session 4)**
12.00 - 1.30 p.m. (Grand Ballroom)	**Luncheon Symposium** **Symposium 1: Nursing Research and Innovations in Addressing LGBTQ+ Health Disparities** Prof. Dr. Alicia Matthews Columbia University, USA Assist. Prof. Jiraporn Arunakul Department of Pediatrics, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand Assist. Prof. Dr. Priyoth Kittiteerasack (Speaker & Moderator) Faculty of Nursing, Thammasat University, Thailand **Chair:** Dr.Kantaphon Chueahor **Secretary**: PhD student: Miss Kornwika Buatchum
	Exhibition & Poster Presentation (Poster session 5)
1.30 - 2.45 p.m.	**Concurrent Session 3: Research Presentation (Oral Presentation)**
2.45 - 3.00 p.m.	**Refreshment** **Exhibition & Poster Presentation (Poster session 6)**
3.00 - 4.00 p.m.	**Concurrent Session 4: Research Presentation (Oral Presentation)**
4.00 - 5.30 p.m. (Grand Ballroom)	**Symposium 2: Doctoral Students Forum** Special speakers: Prof. Dr. Caroline Susan Elizabeth Homer Princess Srinagarindra Awardee 2024 University of Technology Sydney, Australia Assoc. Prof. Dr. Yajai Sitthimongkol (Moderator) Faculty of Nursing, Mahidol University, Thailand **Chair**: Assoc. Prof. Dr. Yajai Sitthimongkol **Secretary**: Dr. Manasawi Srimorakot

Date/Time/ (Venue)	Activities
Day 3	**4 December 2025**
MC	Dr. Kantaphon Chueahor Asst. Prof. Dr. Kamolrat Turner
8.00-8.30 a.m.	Registration
8.30-10.30 a.m.	**Chair**: Assoc. Prof. Dr. Yaowarat Matchim **Secretary**: PhD student: Sqn.Ldr. Supreeya Phromsuttirak
8.30-9.15 a.m. (Grand Ballroom)	**Keynote 3: Challenges and Mega-Trends in Collaborative Research and Leadership for Policy Development** Prof. Dr. Caroline Susan Elizabeth Homer Princess Srinagarindra Awardee 2024 University of Technology Sydney, Australia
9.15-10.30 a.m. (Grand Ballroom)	**Plenary Session 5: Nursing Research and Innovation in Disaster Management and Public Health Emergency** Prof. Dr. Sonoe Mashino University of Hyogo, Kobe, Japan Assist. Prof. Dr. M.L. Somjinda Chompunud Srisavarindhira Thai Red Cross Institute of Nursing, Thailand Assist. Prof. Dr. Varunyupa Roykulcharoen (Moderator) Srisavarindhira Thai Red Cross Institute of Nursing, Thailand
10.30-10.45 a.m.	**Refreshment** **Exhibition & Poster Presentation (Poster session 7)**
10.45 a.m.-12.00 p.m. (Venus)	**Concurrent Special Topic 2: Nursing Research on Integrated Complementary Therapy and Modern Medicine** Assoc. Prof. Dr. Piyanee Klainin-Yobas Alice Lee Center for Nursing Studies, National University of Singapore Prof. Dr. Wen-Yu Hu School of Nursing, National Taiwan University, Taipei, Taiwan Dr. Jung-Ah Lee (Online) Asian American/ Pacific Islander Nurse Association, Inc Sue & Bill Gross School of Nursing, University of California, Irvine,

Date/Time/ (Venue)	Activities
	USA **Chair**: Assoc. Prof. Dr. Chantira Chiaranai **Secretary**: PhD student: Miss Waewdao Kamkhieo
(Grand C)	**Concurrent Special Topic 3: Nursing Research and Innovations on Digital Health Technology in Nursing Practice** Prof. Dr. Melissa O'Connor (Online) Villanova University, Pennsylvania, USA Dr. Bordin Sapsomboon Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand Prof. Dr. Usavadee Asdornwised (Speaker & Moderator) Faculty of Nursing, Mahidol University, Thailand **Chair**: Assoc. Prof. Dr. Suchira Chaiviboontham **Secretary**: PhD student: Miss Panisa Boonyaratkalin
(Grand B)	**Concurrent Special Topic 4: Digital Health Technology in Nursing Education** Assoc. Prof. Dr. Ameporn Ratinthorn Faculty of Nursing, Mahidol University, Thailand Assoc. Prof. Jeanette Ignacio Alice Lee Centre for Nursing Studies, Yong Loo Lin School of Medicine, Singapore Assoc. Prof. Dr. Piyanut Xuto (Speaker & Moderator) Faculty of Nursing, Chiang Mai University, Thailand **Chair**: Prof. Dr. Patraporn Bhatarasakoon **Secretary**: PhD student: Miss Phenrung Wandee

Date/Time/ (Venue)	Activities
(Grand A)	**Concurrent Special Topic 5: Nursing Research and Innovation in Elderly Care** Prof. Dr. Siriorn Sindhu President of Nurses Association of Thailand Mr. Yuki Takata Visiting Nursing Station of Care- pro Tokyo- Adachi Station, Care-pro Home Medical Care Co., Ltd., Japan Prof. Dr. Suparb Aree-Ue (Speaker & Moderator) Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand **Chair**: Assoc.Prof. Dr. Sangthong Terathongkum **Secretary**: PhD student: Sqn.Ldr. Prapaisri Supangphorn
10.30 a.m.– 12.30 p.m.	**Presentation of Research Award Contestants** **Chair**: Prof. Dr. Warunee Fongkaew **Secretary**: Assoc.Prof. Dr. Arpaporn Powwattana
12.00 - 1.00 p.m.	**Lunch** **Exhibition & Poster Presentation (Poster session 8)**
1.00 - 4.00 p.m.	**Chair**: Asst.Prof. Dr. Kamolrat Turner **Secretary**: PhD student: Mr. Naruebeth Koson
1.00- 2.00 p.m. (Grand Ballroom)	**Keynote 4: Strengthening Nursing Research and Innovation in Primary Care** Assoc. Prof. Dr. Tassana Boontong Chair, Board of Directors, World Academy of Nursing Sciences Founder Dean, the Princess Agrarajakumari Faculty of Nursing, Chulabhorn Royal Academy, Thailand
2.00-2.30 p.m. (Grand Ballroom)	**Outstanding Nursing Research and Innovation Awards and Recognition Award** **Reported by** Prof. Dr. Warunee Fongkaew **Award by** Prof. Dr. Siriorn Sindhu President of Nurses Association of Thailand

Date/Time/ (Venue)	Activities
2.30-3.00 p.m. (Grand Ballroom)	**Meeting Resolutions by** Assist. Prof. Dr. Sukjai Charoensuk Prof. Dr. Noppawan Piaseu
3.30-4.00 p.m. (Grand Ballroom)	**Closing Ceremony** Assoc. Prof. Dr. Suchittra Luangamornlert President, Thailand Nursing and Midwifery Council

Summary of the Sessions

Keynote 1

Title : Global Health Challenges and Health System Strengthening

Date : 2 December 2025 at 10.30 - 11.00 a.m.

Moderator : Associate Professor. Dr. Prakin Suchaxaya

Speaker : Professor. Dr. Suttipong Wacharasindhu, School of Global Health, Faculty of Medicine, Chulalongkorn University, Thailand

Rapporteur Team Members :

1. Assistant Dr. Panarut Wisawatapnimit, Boromarajonani College of Nursing, Bangkok, Thailand, Faculty of Nursing, Praboromarajchanok Institute, Thailand (Focal point)
2. Assistant Dr. Sukjai Charoensuk, Praboromarajchanok Institute, Thailand

Summary :

Key Messages from the Presentation by Speaker

Global health, global health challenges, and health system strengthening to prepare for future risks were focused on this topic, as follows:

- Definition of Global Health: Defined as "the area of **study, research, and practice** that places a ***priority on improving health and achieving equity*** in health for all people worldwide" (LANCET)
- Global health challenges: Refers to a health issue that significantly affects populations across multiple countries or continents. It affected widespread social, economic, and environmental impacts that require international cooperation to prevent, manage, and resolve. Global risks include social, technology, economic, environmental, and political risks.
- Shift to Planetary Health: There is a critical need to recognize the interdependence of human health and the Earth's natural systems. Human health is directly threatened by the degradation of the environment (climate change, pollution, and resource depletion).
- Interdisciplinary Approach: Solving modern health crises requires moving beyond medical silos. It necessitates collaboration between medicine, nursing, social sciences, engineering, and international organizations.
- Preparedness for Future Risks: Health systems must prepare for foreseeable global risks identified by the World Economic Forum, specifically misinformation/disinformation, geopolitical conflict, and climate-related crises

Major Issues or Problems Being Raised/Discussed

Several interconnected crises affecting public health were highlighted:

- The Aging Crisis (Demographic Shifts):
  - Thailand is facing a "Super Aged Society" with a rapid increase in the elderly population and a declining birth rate.
  - Caregiver Burden: Families previously had 6–7 people to care for an elderly relative; this ratio is dropping to less than 1 or 2 people per elderly person.
  - Health Burden: An increase in the aging population correlates with a rise in Non-Communicable Diseases (NCDs) such as cancer and cardiovascular disease, leading to skyrocketing healthcare costs.
- Urbanization and Mental Health:
  - Urbanization leads to overcrowded living, increased loneliness among the elderly, increased traffic accidents, occupational hazards, and stress and mental Health issues.
- Technological Disparities (The Digital Divide):
  - While technology is advancing, the elderly are often left behind.
  - Rising in Technology and Artificial Intelligence: Technology and AI are rising to become normal life; however, for people that are not familiar with AI may be the victim of AI technology. High device costs and lack of digital literacy are barriers.
- Environmental and Planetary Health Threats:
  - Air Pollution: PM 2.5 pollution is strongly linked to lung cancer, particularly in Northern Thailand.
  - Plastic Pollution: High usage of single-use plastics leads to microplastics entering the body, causing endocrine disruption, infertility, and reproductive problems.
  - Climate Change: Direct threats include heatwaves and flooding (e.g., in Southern Thailand), which also drive the spread of infectious diseases.
- Geopolitics and Migration:
  - Conflict leads to migration crises.
  - Outcomes include disrupted health supply chains, overcrowded border sanitary issues, and the spread of communicable diseases and infectious diseases.

Suggested Solutions/Recommendations/Conclusion

Many solutions to solve global challenges and prepare for future risks are suggested, as follows:

- Educational Reform: Institutions must integrate Global Health and Planetary Health concepts into curricula (both degree and non-degree courses) and develop a "Global Health Mindset" among all health professionals.
- The Role of Nurses and Health Professionals: Nurses need to act as the frontline and disaster leadership, focus on prevention, continue professional development by participating in research or quality improvement projects regarding global health and planetary health, and use digital health and health information systems, such as EMR, telehealth, mobile health apps for patient care for improving health outcomes.
- Strategic Partnerships: Foster cross-border and cross-sector partnerships (public, private, national, and international) are needed to conduct research and innovation. "Big Data" is needed to develop to predict health outcomes and manage population health more effectively.

In conclusion, to protect future generations, the healthcare sector must embrace innovation and cross-disciplinary collaboration.

Plenary Session 1

Title: Contributions of Nursing Research and Innovation to Global Health

Date: 2 December 2025, 11.00–12.00 p.m.

Speakers:
1. Professor Dr. Adelais Markaki, University of Alabama at Birmingham School of Nursing and WHO Collaborating Center for International Nursing, USA (online)
2. Assistant Professor Dr. Thitipong Tankumpuan, Faculty of Nursing, Mahidol University, Thailand (onsite)

Moderator: Associate Professor Dr. Manee Arpanantikul, Ramathibodi School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Thailand

Rapporteur Team Members:

1. Assistant Professor Dr. Ausanee Wanchai, Boromarajonani College of Nursing, Buddhachinaraj, Faculty of Nursing, Praboromarajchanok Institute, Thailand (Focal point)
2. Assistant Professor. Dr. Nantaga Sawasdipanich, Srisavarindhira Thai Red Cross Institute of Nursing, Thailand
3. Assistant Professor Sirimas Phoomchaiya, PhD student, Faculty of Nursing, Prince of Songkla University, Thailand

Summary:

Key Messages from the Presentation by Speakers

The session underlined that nursing research and innovation are crucial for navigating a turbulent global health context shaped by the SDGs, the aftermath of COVID-19, and rapid digital and social change. Professor Markaki framed this in terms of a shared “global conscience” and the 2030 Agenda, arguing that nurses have a moral responsibility to respond to widening health inequities. She introduced the VUCA (volatility, uncertainty, complexity, ambiguity) and BANI (brittle, anxious, non-linear, incomprehensible) frameworks as practical lenses for understanding fragile health systems, anxious workforces, and unpredictable outcomes. She showed how these concepts can guide nursing leadership, education, and research.

Building on this, she highlighted the growing global policy role of nursing through initiatives such as the WHO Chief Nursing Officer, Nursing Now, the State of the World’s Nursing reports, and the Global Strategic Directions for Nursing and Midwifery, which focus on education, jobs, leadership, and service delivery. Using examples from the Region of the

Americas and networks of WHO Collaborating Centers, she showed that equitable, long-term partnerships can strengthen workforce capacity, data systems, and policy influence. She pointed to emerging “mega-trends” in AI, genomics, precision health, and entrepreneurship, stressing that these must be coupled with strong systems, fair workforce conditions, and compassion so that technology reduces, rather than deepens, inequity. Professor Dr.Markaki also underscores the importance of future nurse competencies like adaptability, emotional resilience, and technological literacy to prepare for global health complexities.

Assistant Professor Dr. Thitipong Tankumpuan highlighted that global health now demands nurses move beyond bedside roles to act as patient educators and system architects, especially to advance SDG 3. He stressed that multimorbidity in aging, low- and middle-income populations, and health systems focused on single diseases lead to fragmented care and poor outcomes, requiring integrated, nurse-led, patient-centered models. He emphasized addressing social determinants of health through structural, context-specific, and frugal innovations, aligned with the WHO health impact pyramid, rather than relying only on individual behavior change. He concluded that strengthening nurse-led community care and investing in workforce resilience, retention, and fair migration policies are essential to sustainable, equitable global health.

Major Issues or Problems Being Raised/Discussed

Both speakers stressed that many health systems are fragile and hard to manage: structures are easily disrupted, staff work under high pressure and uncertainty, and rapid technological and organizational change often makes services confusing for providers and communities. These weaknesses are closely linked to persistent global health inequities, especially in Asian LMICs, where urbanization, climate threats, income gaps, and cultural barriers create large differences in access, quality, and outcomes. Professor Markaki warned that uncritical use of AI and digital tools can deepen these gaps if basic conditions of “staff, stuff, space, systems, and support” are not in place, Assistant Professor Dr. Thitipong raised the challenges about the current clinical nursing practice guideline that developed always conflict with other guidelines so patients stay at the middle and they are reluctant at which guideline they should follow, especially polypharmacy issue.

Suggested Solutions/Recommendations/Conclusion

The session recommended applying the VUCA and BANI frameworks in nursing

education, leadership, and research to strengthen adaptability, resilience, digital skills, and ethical, systems-based thinking. Professor Markaki emphasized building and evaluating equitable long-term partnerships and introducing AI and digital health only where Paul Farmer's "5S" (adequate staff, stuff, space, systems, and support) are in place, with reciprocal learning between high- and low-/middle-income countries. She also suggested how to scale up nursing innovations that a new approach to improve local health in high-income countries through partnerships with experts and communities in low and middle-income countries where shared health challenges exist.

Assistant Professor Dr. Thitipong concluded that nursing must shift from fragmented, disease-focused care toward integrated care, with nurses acting as system architects and advanced care managers for complex chronic conditions. He emphasized that sustainable impact depends on tackling social determinants of health at the foundational level of the health impact pyramid, rather than focusing solely on individual behavior change. He highlighted nurse-led community models and clinics as the most effective pathway to managing multimorbidity and advancing Universal Health Coverage, calling for strategic investment in upskilling, reskilling, and developing new competencies in the nursing workforce.

Concurrent Special Topic 1:

Title : Challenges in Nursing Research Methodology Toward Global Health: Randomized Controlled Trails

Date : 2 December 2025 at 1.00 - 2.30 p.m.

Chair : Associate Professor Dr. Wantana Maneesriwongkul

Secretary: Assistant Professor Userow Lohmae, PhD Student

Speakers :
1. Associate Professor Dr. Piyanee Klainin-Yobas, Alice Lee Center for Nursing Studies, National University of Singapore
2. Professor Dr. Ratsiri Thato, Faculty of Nursing, Chulalongkorn University, Thailand

Rapporteur Team Members :

1. Associate Professor Dr. Sopen Chunuan, Faculty of Nursing, Prince of Songkla University, Thailand (Focal point)
2. Assistant Professor Dr. Yupaporn Tirapaiwong, Boromarajonani College of Nursing, Udon Thani, Faculty of Nursing, Praboromarajchanok Institute, Thailand
3. Assistant Professor Userow Lohmae, PhD student, Faculty of Nursing, Prince of Songkla University, Thailand

Summary :

Key Messages from the Presentation by the Speakers

Prof. Dr. Thato emphasized that the **Randomized Controlled Trial (RCT)** remains the *gold standard* for evaluating the effectiveness of nursing and health interventions because it provides the most substantial evidence for establishing causal relationships. Prof. Ratsiri began by clarifying the similarities and differences between true experimental research and RCTs, noting that both rely on the three essential elements of **manipulation, control, and randomization.** She emphasized that **"RCT is a subset of true experimental research,"** illustrating that although RCTs share foundational principles with traditional true experiments, they are conducted in far more complex real-world environments. Unlike laboratory-based experiments that occur under tightly controlled conditions, RCTs take place in clinical settings where patients, providers, and healthcare systems introduce unavoidable variability. These external influences make RCTs more challenging to control and implement, thereby requiring stronger methodological rigor to maintain both internal and external validity.

Randomization, she stressed, is the cornerstone of high-quality research because it ensures unbiased group allocation, reduces the influence of confounding variables, and strengthens internal validity. She explained that **"even a simple coin toss"** can serve as an appropriate randomization method, as long as each participant has an equal probability of assignment. Prof. Ratsiri also clarified the important distinction between **random sampling** and **random assignment,** explaining that random sampling enhances external validity while random assignment enhances internal validity.

Furthermore, she highlighted that selecting an appropriate research design must depend on the **existing knowledge gap.** Using a visual hierarchy, she demonstrated the progression of research designs, beginning with surveys and descriptive studies, moving through correlational, predictive, and quasi-experimental approaches, and culminating in true experimental designs. She emphasized that RCTs should be conducted only after earlier studies have sufficiently clarified the research problem and established a clear need to examine causal relationships. She then elaborated on several methodological issues essential to conducting high-quality RCTs, including defining novelty and clinical significance, selecting appropriate randomization strategies, protecting internal and external validity, preventing contamination between groups, standardizing intervention procedures, and ensuring strong data management practices.

Both **Prof. Ratsiri and Prof. Yobas** underscored the importance of transparent reporting, including adherence to **CONSORT guidelines,** detailed documentation of randomization procedures, and complete reporting of all study findings. Prof. Ratsiri concluded her session with a light-hearted reminder that despite rigorous methodology and careful design, **"luck still plays a part"** when aiming to publish RCTs in high-impact journals—before wishing all researchers good luck.

Major Issues or Problems Being Raised/Discussed

Prof. Ratsiri's presentation identified multiple methodological and operational challenges associated with conducting RCTs in nursing research. One of the central issues she raised concerns the difficulty of controlling real-world clinical environments, where extraneous variables cannot be regulated as strictly as in laboratory settings. Because nursing interventions involve human behavior, organizational systems, and multidisciplinary teams, maintaining the necessary degree of manipulation and control is often challenging. She also highlighted several threats to internal validity, including selection bias, attrition bias, and the Hawthorne effect.

For instance, without proper allocation concealment or when dropout rates differ between groups, the credibility of the study's findings can be compromised. Similarly, she discussed the placebo effect and demand characteristics, emphasizing the importance of single- or double-blind procedures to minimize bias.

Another major challenge involves threats to external validity, which limit the generalizability of RCT findings. Prof. Ratsiri noted that many nursing trials rely on convenience samples or are conducted at only one or two sites. Such limitations make it difficult to extend the findings to broader populations or different clinical settings. She stressed the need for broader inclusion criteria, diverse participant characteristics, and the use of multiple study sites whenever possible. In addition, she pointed out the technical difficulties involved in implementing rigorous randomization procedures, such as block or stratified randomization, which require careful planning, software tools, and competent personnel. Failure to implement these procedures correctly can lead to unbalanced groups or predictable allocation sequences.

Prof. Ratsiri also emphasized the problem of contamination between intervention and control groups, which frequently occurs when both groups are located in the same clinical unit. When participants or providers unintentionally share information, it can dilute the intervention effect. She further discussed the risk of inconsistent intervention implementation, which arises when nurses or intervention providers vary in how they deliver the treatment. Without proper standardization, these inconsistencies undermine the reliability of the findings. On the data side, she noted challenges related to missing data, improper handling of multiple comparisons (which increases the risk of Type I errors), and overreliance on statistical significance without attention to clinical relevance. Lastly, she described the ethical complexities of RCTs, including obtaining informed consent, maintaining participant safety, securing IRB approval, and registering the trial publicly. These challenges highlight the demanding nature of RCT research in nursing.

Suggested Solutions/Recommendations/Conclusion

In response to the challenges identified, Prof. Ratsiri presented several practical and methodological recommendations to guide nursing researchers conducting RCTs. First, she emphasized the need to establish a strong theoretical foundation and a clear rationale for the study. Researchers must clearly define their primary and secondary outcomes and demonstrate the clinical significance of the problem, ensuring that the research question

addresses an important gap in practice or policy. Second, she recommended using rigorous randomization procedures, such as computer-generated sequences, permuted block randomization, or stratified randomization for key subgroups. These procedures minimize selection bias, balance groups, and enhance the study's validity. She reiterated the importance of allocation concealment and the use of CONSORT reporting standards to ensure transparency and credibility.

To strengthen internal validity, she suggested using blinding whenever possible, adopting standardized protocols, minimizing environmental variations, maintaining strict follow-up procedures to reduce attrition, and applying intention-to-treat analysis. She also stressed the need to document reasons for participant withdrawal to promote transparency. To enhance external validity, she recommended employing probability sampling when feasible, reducing unnecessary exclusion criteria, selecting diverse participants, and conducting multi-site studies. She also emphasized performing a power analysis to ensure an adequate sample size that maintains statistical precision while accounting for anticipated dropout.
Regarding intervention implementation, Prof. Ratsiri and Prof. Yobas highlighted the importance of standardizing treatment delivery through detailed manuals, clear intervention guidelines, and adequate training for all intervention providers. Regular monitoring and fidelity checks are also necessary to ensure that the treatment is delivered consistently across all participants. For data management, Prof. Ratsiri advised using validated and reliable tools, establishing strong data management systems, properly handling missing data, adjusting for multiple comparisons, and reporting effect sizes in addition to p-values. She also reiterated the need to interpret findings accurately, balancing statistical significance with clinical relevance. In addition, Prof. Yobas suggested dividing participants into *three groups* rather than two to reduce bias further and improve the robustness of comparisons, especially in studies where multiple intervention doses or conditions could be examined. This approach may also help researchers more effectively control confounding influences and enhance the interpretability of outcome differences.

Finally, Prof. Ratsiri stressed the importance of ethical practice and transparent reporting, which includes IRB approval, informed consent, trial registration, and publication of both significant and non-significant findings. She concluded by reminding researchers that despite the methodological rigor required, RCTs remain essential for advancing the science of nursing. When designed and implemented well, they provide powerful evidence that can improve practice, shape policy, and contribute to global health. Her final message, tempered

with humor, encouraged researchers to stay committed to quality and rigor, while acknowledging that perseverance and a bit of good fortune also influence successful publication in high-impact journals. **Regarding ethical practice, an important recommendation is that researchers should ensure the control group receives an effective intervention, either after the trial or through an ethically justified alternative, so that participants are not disadvantaged by their assignment.** This principle supports fairness, protects participant welfare, and aligns with ethical standards in clinical research.

Concurrent Special Topic 1:

Title : Challenges in Nursing Research Methodology Toward Global Health : Mixed Methods Research

Date : 2 December 2025 at 1.00-2.30 p.m.

Chair : Associate Professor Dr. Surintorn Kalampakorn

Secretary: Mrs. Nuchanath Leelawapa, PhD Student

Speakers :
1. Associate Professor Dr. Sarah A. Stoddard, School of Nursing & Health Behavior and Health Education, School of Public Health Research, University of Michigan, USA (Online)
2. Associate Professor Dr. Arpaporn Powwattana, Department of Public Health Nursing, Faculty of Public Health, Mahidol University, Thailand

Rapporteur Team Members :

1. Dr. Marisa Suwanraj, Boromarajonnani College of Nursing, Songkhla, Faculty of Nursing, Praboromarajchanok Institute, Thailand (Focal point)
2. Assistant. Professor. Dr.Yupawan Tongtanunam, Boromarajonnani College of Nursing, Chonburi, Faculty of Nursing, Praboromarajchanok Institute, Thailand
3. Mrs. Nuchanath Leelawapa, PhD Student, Faculty of Nursing, Thammasat University, Thailand

Summary :

The presentation, "Challenges in Nursing Research Methodology Toward Global Health: Mixed Methods Research," given by Sarah A Stoddard, PhD, RN, CNP, FSAHM, FAAN, Associate Professor of Nursing at the University of Michigan, addressed the characteristics, designs, and challenges of utilizing mixed methods research (MMR).

The following is a summary of the presentation.

Key Messages from the Presentation by Speaker

The core message emphasized by the speaker, Sarah A Stoddard, is that rigorous mixed methods research intentionally combines the strengths of both qualitative (qual) and quantitative (quant) data to answer complex research questions and achieve a greater meaning than either method could provide separately.

Characteristics and Purpose of Mixed Methods:

A rigorous mixed methods study is designed with theory in mind, ensuring that each strand of data should hold up on its own with rigor. The design must be driven by a research question, ensuring the mixing occurs across all aspects of the project, from theory through analysis and dissemination. While quantitative research asks specific questions to generalize information (e.g., "how many," "how often"), qualitative research seeks to identify previously unknown processes or variables and understand the meaning behind things in a richer way. Mixed methods enhance health-related research by helping to generate hypotheses, provide a comprehensive understanding of a phenomenon's magnitude and nature, describe outcomes and process together, increase confidence in findings, and inform interventions or instrument development.

Core Mixed Methods Designs:

The presentation highlighted three core designs that serve as building blocks for more advanced frameworks:

1. Exploratory Sequential Design: Begins with qualitative inquiry (e.g., interviews) whose data and results build into a quantitative phase (e.g., developing a new instrument or theory, then testing it). This approach is useful when little is known about the area of interest.

2. Explanatory Sequential Design: Starts with quantitative data and results, followed by qualitative data to help explain the quantitative findings in more depth—particularly useful for understanding *why* results occurred, as numbers alone do not provide depth. This is considered the most straightforward design and is popular among quantitative researchers.

3. Convergent Design: Quantitative and qualitative data are collected separately but simultaneously (or closely together) with the plan to merge the two datasets to acquire both breadth and depth of understanding.

Major Problems and Issues Raised/Discussed

A key issue in conducting mixed methods research is ensuring genuine integration, as the goal is not to simply collect qualitative and quantitative data separately that never interact, interface, or integrate. For research to qualify as mixed methods, there must be a purposeful plan for how the data will meet, greet, and interact to maximize the strengths of both components. The timing, priority (whether qual or quant is central), and point of interface between the two data types are critical differences between the designs. Furthermore, the complexity of these designs means researchers must consider financial and time resources during the design phase.

Suggested Solutions/Recommendations/Conclusion

The sources offer several recommendations regarding design decisions, integration, and reporting: 1) Design and Planning: Researchers should ground their study in philosophy or theory, carefully consider the research problem, and think about the reasons for using a mixed methods approach. Study aims and research questions should clearly call for all components the study offers. The selection of the design must best address the research question and incorporate specific data collection and integration procedures, 2) Integration Methods (Where data "meet, greet, and interact"): Intentional planning for integration is crucial.

Three ways data can be linked include: 1) Informing: The results of one strand inform the development or execution of another strand (e.g., using thematic analysis results from a qualitative component to develop a quantitative instrument), 2) Merging: Qualitative and quantitative data/results are brought together, compared, or related simultaneously to generate a meta inference (the bigger idea/interpretation). This is often used with a convergent design, and 3) Embedding: Qualitative data is used to augment or support the quantitative data, often "nesting" the qual component within a larger quantitative study, such as in intervention designs.

Reporting and Interpretation: To facilitate a unified understanding, researchers can use data transformation, which involves converting one type of data to match the other (e.g., quantizing qualitative data into numeric codes).

The use of joint displays is highly recommended to represent and report the integration of qualitative and quantitative findings. Joint displays juxtapose results (e.g., side-by-side, statistics by themes, or interview questions linked to quantitative results) to facilitate direct comparisons and provide deeper explanations. Creative approaches, such as incorporating visuals, graphs, charts, or maps, are encouraged to simplify complex data, highlight patterns, and enhance interpretability and the meta inferences drawn from the combined results.

The presentation by Assoc. Prof. Arpaporn Powwattana Ph.D. focuses on the methodology of Mixed Methods Research (MMR), drawing heavily on the experiences and studies.

Key Messages from the Presentations by Speakers

The central message of the presentation is the paramount importance of integration in mixed methods designs. Integration is defined as the way quantitative and qualitative data

are mixed to achieve a comprehensive understanding of the research questions. Dr. Arpaporn emphasized that MMR is a third research approach, alongside quantitative and qualitative research, representing a beautiful combination of both methodologies. It involves two strong methodologies that must go together. The focus should be on starting with the research questions, not merely deciding to "do mixed methods".

Three basic mixed methods designs were discussed and exemplified:

1. Exploratory Sequential Designs (QUAL ⟶ QUAN): Starts with qualitative data collection and analysis to explore a phenomenon in depth, using those results to build up (inform) the quantitative phase. Dr. Arpaporn used this design for her study on mother-daughter sexual communication.

2. Explanatory Sequential Designs (QUAN ⟶ QUAL): Starts with the quantitative phase, where the results require further explanation through subsequent qualitative data collection and analysis.

3. Convergence/Concurrent Parallel Designs (QUAL + QUAN): Quantitative and qualitative paths are conducted simultaneously to compare or relate findings during interpretation. The key point here is discussing the divergence and convergence between the results.

Dr. Sarah (the other speaker) stressed that effective integration must lead to new insights—a meta-inference—that goes beyond what two separate studies might provide. Researchers must explicitly describe how and where integration occurs, both in the methodology and in the results and discussion sections.

Major Problems and Issues Raised/Discussed (Common Pitfalls)

Several common pitfalls and challenges associated with conducting and publishing MMR were identified: 1) Insufficient Integration: This was highlighted as the "big issue" in MMR papers, where it is often unclear how data from the two phases are integrated or how this integration guides the study. 2) Lack of Rationale: Researchers sometimes approach MMR without specific research questions that necessitate combining both quantitative and qualitative methods, which inevitably leads to integration difficulties. 3) Cultural Sensitivity and Taboo Subjects: Dr. Arpaporn’s work demonstrated that research topics like sexual communication can be culturally driven and related to gender roles and traditional family interaction, often being considered a taboo in contexts like Thailand, which makes intervention design challenging. 4) Publication Strategy: A major concern raised by attendees was whether

to publish MMR findings as a single comprehensive paper or separate the findings into multiple publications (e.g., one qualitative, one quantitative, one mixed). Separate qualitative papers risk rejection if they are not considered comprehensive or detailed enough. 5) Ethical Review: There is concern regarding applying to the Ethics Committee (EC) for the whole mixed-method design, particularly when the intervention (quantitative phase) is dependent on the results of the initial qualitative phase. 6) Rigor in Quasi-Experimental Designs: When using MMR in intervention studies, concerns arise regarding the difficulty of controlling variables or factors inherent in the quantitative quasi-design.

Suggested Solutions/Recommendations/Conclusion

The discussion provided concrete strategies to overcome the identified problems: 1) Prioritize Integration Tools: To ensure integration is clear, researchers should utilize techniques such as Joint Displays. These displays are helpful for connecting and comparing information between phases, showing, for instance, how qualitative themes or quotes led to new items in the quantitative questionnaire. 2) Maintain Rigor: Both the qualitative and quantitative components must maintain rigor: the quantitative part needs validity (e.g., CVI), and the qualitative part needs trustworthiness. 3) Publishing Recommendations: Dr. Arpaporn recommended submitting the findings as a single, comprehensive mixed-method paper because this makes the connection and integration clearer to reviewers. Alternatively, if publishing separately, the subsequent intervention paper should explicitly use the previous qualitative findings as the basis for the intervention design. When submitting manuscripts, they must be written precisely and not be overly long (e.g., not 50 pages) to avoid burdening reviewers. 4) Ethical Review Strategy: Researchers can apply to the EC for the whole mixed-methods research project at one time. If an intervention needs to be refined after the first phase, a protocol amendment can be filed. 5) Research Progression: Based on personal experience, Dr. Arpaporn recommended starting with the basic MMR designs (Exploratory, Explanatory, Convergence) to build experience before moving to more advanced, multi-stage designs. Integration is the crucial element; like a blueprint showing how two different wings of a building (the qualitative and quantitative data) connect to form a cohesive, single structure (the research findings), MMR designs must clearly demonstrate how the data streams merge to provide deeper insights.

Concurrent Special Topic 1:

Title : Challenges in Nursing Research Methodology Toward Global Health : Qualitative Research

Date : 2 December 2025 at 1.00 - 2.30 p.m.

Chair: Professor Dr. Praneed Songwathana

Secretary: Mrs. Kacharat Prechon, PhD Student

Speakers : Prof. Dr. Wen-Yu Hu, School of Nursing, National Taiwan University, Taipei, Taiwan
Assoc. Prof. Dr. Karnsunaphat Balthip, Faculty of Nursing, Prince of Songkla University, Thailand

Rapporteur Team Members :

1. Assistant Dr. Panarut Wisawatapnimit, Boromarajonani College of Nursing, Bangkok, Thailand (Focal point)
2. Ms. Khwannapha Khwansatapornkoon, Nursing Division, Ministry of Public Health, Thailand
3. Mrs. Kacharat Prechon, PhD Student, Thammasat University, Thailand

Summary :

Key Messages from the Presentation by Speakers

Prof. Dr. Wen-Yu Hu highlighted how post-pandemic changes, rapid digital-health expansion, and the rise of AI are reshaping nursing research methodology globally. Digital technologies, virtual interviews, online ethnography, and global digital-health strategies have transformed how qualitative research is conducted. At the same time, AI tools, especially text-based systems, offer new possibilities to enhance efficiency, coding, and theory development when used alongside strong methodological foundations such as thematic analysis and grounded theory. She recommended researchers who use AI to “be humane. Whoever uses it is responsible!” Therefore, the human-in-the loop is important for qualitative research. Despite these shifts, core principles of qualitative rigor, trustworthiness, reflexivity, and human judgment remain essential.

Assoc. Prof. Dr. Karnsunaphat Balthip emphasized the importance of qualitative research in understanding rapidly changing global health issues and in capturing people’s lived experiences, contexts, and cultural meanings, such as gratitude in Thai cultures. Qualitative methods help reveal hidden challenges in groups such as adolescents, especially regarding mental health, meaning in life, and spirituality. She also shared her long-term development

of the substantive theory “Living life with wisdom for oneself and others,” highlighting the need for trustworthiness, rich data, and simultaneous data collection and analysis.

Major Issues or Problems Being Raised/Discussed

Key problems include global digital inequality, weak governance, privacy and security concerns, and limited skilled personnel. Technology-based research risks losing trust, emotional depth, and dignity, while AI introduces issues such as reduced interpretive depth, cultural misrepresentation, data-ownership concerns, hallucinations, and bias. Methodological challenges persist, including misuse of thematic analysis, fragmented cross-national data, and difficulty aligning AI-assisted analysis with qualitative philosophies. Additional issues include misunderstanding of adolescents’ spirituality, limited nonverbal cues in online interviews, inadequate rigor among novice researchers, and cultural mismatch in imported measurement tools. Students and educators also face difficulty selecting appropriate AI tools and maintaining confidence in research rigor.

Suggested Solutions/Recommendations/Conclusion

Recommendations include strengthening global digital-health collaboration, building robust data platforms, and promoting people-centered digital systems. Researchers should maintain transparency, follow standards such as Consolidated criteria for reporting qualitative research (COREQ), and ensure rigorous coding using grounded theory or thematic analysis. AI should be used with a human-in-the-loop approach through careful prompting, verification, and ethical oversight. Educators encourage manual analysis before AI comparison to strengthen methodological competence. AI should assist—not replace—researchers, and its use should be documented clearly. Building reflective thinking, theoretical sensitivity, and cultural awareness, along with mentorship and strong qualitative foundations, is essential for ensuring trustworthiness and responsible integration of AI in nursing research.

Concurrent Special Topic 1

Title : Challenges in Nursing Research Methodology Toward Global Health : Implementation Research

Date : 2 December 2025 at 1.00 - 2.30 p.m

Chair: Assistant Professor Dr. Pikul Phornpibul

Secretary: Miss Nattanicha Sinjan, PhD Student

Speakers :
1. Associate Professor Dr. Craig Lockwood, University of Adelaide, Australia (online)
2. Assistant Professor. Dr. Pikul Phornphibul, Faculty of Nursing, Panyapiwat Institute of Management, Thailand
3. APN Ratanaporn Jerawatana, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand

Rapporteur Team Members :

1. Dr. Nusara Prasertsri, Boromarajonani College of Nursing, Sunpasitthiprasong, Faculty of Nursing, Praboromajchanok Institute, Thailand (Focal point)
2. Assistant Professor Dr. Kamonthip Tanglakmankhong, Boromarajonani College of Nursing, Udon Thani, Faculty of Nursing, Praboromajchanok Institute, Thailand
3. Ms. Natthanicha Singjan, PhD Student, Faculty of Nursing, Chulalongkorn University, Thailand

Summary :

Title: Implementation Research: Implementation Science and the Next Frontier for Systematic Reviews

Speaker: Assoc. Prof. Dr. Craig Lockwood (JBI)

Key messages from the Presentation by Speaker

A presentation focused on "Rethinking Systematic Reviews Through the Lens of Implementation Science". The critical philosophical distinction between **Value** and **Worth.** "Value" is the monetary cost (cheap vs. expensive), "worth" is the nourishment or the social aspect of a shared meal. Similarly, in nursing, the "value" might be the cost of a uniform, but its "worth" is the professional commitment, compassion, and respect it represents.

There were number of scoping reviews is increasing rapidly, the questioned whether these publications achieve true "worth" beyond the "value" of academic recognition. He

suggested that true worth is measured by reduced bias, informed policy, resource allocation, and improvements in patient care.

Dr. Lockwood addressed the concept that "EBP (Evidence-Based Practice) is broken," citing the "Evidence-based medicine manifesto," which highlights systematic bias and wastage. He emphasized that clinical decision-making is not just about empirical research but requires integrating three types of knowledge: **Expertise** (cumulative knowledge/skill), **Patient Preferences** (which affect adherence and effectiveness), and **Evidence**. He noted that currently, 30-40% of patients do not receive proven treatments, while 20-25% receive unnecessary or harmful care.

To solve this, the speaker introduced the concept of **"Systematic Review Plus" (SR+)**. Unlike traditional meta-analyses that ask "does it work?", SR+ answers "how does it work," "for whom," and "in what circumstances". This was illustrated using the COVID-19 face mask debate. Initial RCTs provided insufficient evidence or cautioned against cloth masks (value/lab focus), whereas a broader review including observational studies (SR+) found significant reductions in infection risk (worth/public health focus).

- **Distinction between Value and Worth:** "True worth of rice or in our case, EBP is more than the cost or value, it's the contribution it makes beyond the immediate process.".
- **The Three Components of Clinical Decision Making:** Effective decision-making must integrate 1) Expertise (context-driven reasoning), 2) Patient Preferences (which drive adherence), and 3) Empirical Evidence.
- **The Need for "Systematic Review Plus" (SR+):** We must move beyond simple efficacy questions. "The search for perfect evidence may be the enemy of good policy. as with parachutes for jumping out of airplanes, it is time to act without waiting for randomized controlled trial evidence.".
- **Redefining Evidence:** Evidence should be viewed not as a hierarchy but as an "ecology of evidence" constellations of overlapping, partial insights.

Major Issues or Problems Being Raised/Discussed:

- **The "Broken" State of EBP:** There is systematic bias, error, and fraud in research underpinning patient care, leading to a "rational actor fallacy" where we assume evidence automatically translates to practice.
- **Failure of Translation:** There is consistent evidence of failure to translate research findings into clinical practice, with significant percentages of patients receiving suboptimal care.

- **Limitations of Traditional Reviews:** Traditional systematic reviews (SRs) of RCTs were unable to answer important questions during crises like COVID-19 because they ignored literature describing "how" and "for whom" interventions work.
- **Isolation of Evidence Synthesis:** The legitimacy of evidence synthesis is not the challenge; the challenge is its isolation from implementation and real-world application.

Suggested Solutions/Recommendations/Conclusion

- **Adopt the JBI EBHC Conceptual Model:** utilize the FAME heuristics (Feasibility, Appropriateness, Meaningfulness, Effectiveness) to guide sense-making and decision processes.
- **Implement "Systematic Review Plus":** Incorporate currently "ignored literature" that provides plausible, explanatory, and theoretically rich descriptions of contexts.
- **Evolve Academic Systems:** Academic success indicators must change to measure "worth" in practice, not just "value" in publication.
- **Embed Implementation:** Implementation must be a core framework for evidence synthesis.
- **Build Partnerships:** Researchers should develop programmatic partnerships outside the academy, specifically with government and service providers, to ensure reviews have meaningful recommendations.

Title: Implementation Science and Implementation Research: A Move Forward in Improving Nursing Outcomes

Speakers: Dr. Pikul Phornphibul

Key Messages from the Presentation by Speaker

The presentation outlines the critical relationships between Knowledge Translation (KT), Implementation Science (IS), and Implementation Research (IR) to improve nursing outcomes. Knowledge Translation as a dynamic, iterative process involving the synthesis, dissemination, and ethical application of knowledge to strengthen healthcare systems. The KT Model as a conceptual framework designed to bridge the gap between knowledge creation and application, emphasizing that this process is often nonlinear and adaptive.

The **Implementation Science**, defined as the study of methods to promote the systematic uptake of research findings into routine practice. The goal of implementation science is to bridge the gap between research and practice, thereby maximizing investment

and reducing variability in care. The session detailed the "Inner Setting" (organizational culture, leadership) and "Outer Setting" (policies, incentives) as critical contexts that influence success.

Finally, the distinguished **Implementation Research** as the subset of implementation science that applies rigorous, empirical methods to answer specific questions about strategies and contexts. While implementation science provides the theoretical foundation, implementation research is the investigative process that tests and refines that map in real-world settings. The session concluded with an overview of methodologies, including mixed-methods designs and frameworks like CFIR and RE-AIM, to evaluate adoption, fidelity, and sustainability.

- **The Definition of Knowledge Translation:** It is not just sharing information; it is a dynamic and iterative process that includes the synthesis, dissemination, exchange, and ethically sound application of knowledge to improve health services.
- **The Role of Implementation Science:** It serves to bridge the gap between what is known through research and what is actually practiced ensuring effective interventions are delivered consistently.
- **Distinction between Science and Research:**
    - *Implementation Science* provides the theoretical foundation and frameworks.
    - *Implementation Research* applies methodical inquiry to test hypotheses and evaluate strategies (the investigation).

The presentation advocated for using established frameworks such as CFIR (Consolidated Framework for Implementation Research) to analyze contexts and RE-AIM (Reach, Effectiveness, Adoption, Implementation, Maintenance) to measure outcomes.

Major Issues or Problems Being Raised/Discussed

- **Healthcare Complexity:** The variability in settings, resources, and workflows complicates the standardized implementation of new practices.
- **Resistance to Change:** Nurses and staff may be skeptical or hesitant, which negatively affects adoption and fidelity.
- **Resource Limitations:** Insufficient staffing, time, and funding hinder the ability to sustain implementation efforts.
- **Measurement Difficulties:** It is challenging to accurately assess fidelity, outcomes, and contextual factors in real-world settings.

- **Contextual and Regulatory Barriers:** Organizational culture, lack of external policies, and ethical constraints can delay or restrict implementation activities.

Suggested Solutions/Recommendations/Conclusion:

- **Utilize Mixed-Methods Approaches:** Combine qualitative and quantitative methods to gain comprehensive insights into both the "what" and the "how" of implementation.
- **Engage Stakeholders:** Involve diverse stakeholders throughout the process to ensure relevance, buy-in, and practical applicability, which helps identify barriers early.
- **Tailor Strategies:** Use findings from barrier assessments to develop tailored strategies, such as providing skills training to overcome low confidence or adapting interventions to fit the context.
- **Apply Iterative Testing:** Use tools like Plan-Do-Study-Act (PDSA) cycles to pilot test interventions and scale them up based on feedback.
- **Focus on Leadership:** Cultivate strong leadership support and a positive organizational culture to act as facilitators for change.

Title: From evidence to action: An APN's experience in implementation research for diabetes care

Speaker: APN Ratanaporn Jerawatana

Key Messages from the Presentation by Speaker

The role of an Advanced Practice Nurse (APN) in Thailand encompasses a wide range of skills, including direct care, care management, collaboration, consultation, empowerment, teaching, coaching, mentoring, outcome management, evidence-based practice (EBP), ethical reasoning and decision-making. Clinical Nursing Practice Guidelines (CNPG) are systematically developed statements based on the best available evidence to effect decisions on clear and good evidence and the key findings. CNPG develops and implements aims to improve quality (PDCA) with outcomes as the measure. The steps include: 1) identifying the clinical problem, often through Practice triggers; 2) searching and synthesizing best evidence, using the PICO (Patient/Population, Intervention, Comparison intervention, Outcome) format to formulate searchable clinical questions; 3) appraising evidence quality using the Levels of Evidence Pyramid; 4) developing recommendations/guidelines and using the Appraisal of Guideline for

Research & Evaluation II (AGREE II) tool to appraise the quality of the completed CNPG; and 5) piloting, evaluating, and continuously reviewing and updating the CNPG.

Major Issues or Problems Being Raised/Discussed

The resulting CNPG of Diabetes was established as a work instruction (WI) of the hospital and is easily accessible to all staff. Research confirmed that this CNPG can improve and is useful for the nursing and healthcare team. The CNPG as Diabetes Self-Management Education and Support (DSMES) Program (OPD Group Education) is problem analysis that showed low rates of education (40-48%), lecture-based sessions, and no follow-up or outcome evaluation. The new innovation, the DSMES program, is based on the ADA's recommended national standard guideline and emphasizes person-centered care. The programmed provides education and skill training in five parts: medication, SMBG, diet, foot, and dental care. Outcomes showed that over 90% of people with diabetes increased their knowledge and successfully changed self-care behaviors, leading to an average HbA1c reduction of up to 1.3%. A systematic review and meta-analysis confirmed its effectiveness in Thailand, resulting in a significant reduction in HbA1c of 0.66% and Fasting Blood Glucose (FBG) by 15.8 mg/dl. Additionally, National Policy Involvement:

Suggested Solutions/Recommendations/Conclusion:

The APN served as a committee member in developing national standards for diabetes care and successfully supported the inclusion of DSMES as a key domain in Thailand's national diabetes clinic standards, promoting standardized implementation nationwide.

Keynote 2

Title: Nursing Research in Genomics and Precision Health

Date: 3 December 2025 at 8.30–9.15 a.m.

Speaker: Professor Dr. Mei R. Fu, School of Nursing and Health Studies, University of Missouri-Kansas City, USA

Rapporteur Team Members:

1. Assistant Professor Dr. Ausanee Wanchai, Boromarajonani College of Nursing, Buddhachinaraj, Faculty of Nursing, Praboromarajchanok Institute, Thailand
2. Dr. Nusara Prasertsri, Boromarajonani College of Nursing, Sunpasitthiprasong, Faculty of Nursing, Praboromarajchanok Institute, Thailand
3. Ms. Congshan Gao, PhD Student, Faculty of Nursing, Khon Kaen University, Thailand

Summary :

Key Messages from the Presentation by Speaker

Professor Dr. Mei R. Fu highlighted that precision health uses genomics, multi-omics, big data, AI, and machine learning to deliver personalized care tailored to each person's genetic, biological, lifestyle, social, cultural, and environmental context, moving beyond traditional "one-size-fits-all" approaches. She stressed that nurses are central to making precision health a reality—integrating family history, pharmacogenomics, symptom assessment, and omics-informed interventions into routine care, and leading interprofessional collaboration and community outreach. A major message was that nursing research in symptom science (e.g., lymphedema phenotypes, microbiome–symptom links) shows how genetic and biological markers can refine risk prediction, early detection, and targeted interventions, thereby improving quality of life and outcomes. She emphasized that nursing leadership in education, practice, administration, and policy is crucial to advance precision health and ensure the "right treatment, for the right patient, at the right time, dose and route." She illustrated how the Human Genome Project and subsequent technological advances dramatically reduced the cost of genome sequencing—from about US$1,000 in the early 2000s to roughly US$1 today—and made it feasible to link genomic data with phenotypes and social, economic, and environmental factors using big data, artificial intelligence, and machine learning.

Major Issues or Problems Being Raised/Discussed

Professor Fu noted that despite rapid advances in genomics and AI, precision health remains unevenly implemented, with limited integration into everyday nursing practice and health-care systems. Many nurses still lack sufficient genomic and bioinformatics competency, and clinical workflows are not designed to capture omics data, three-generation family histories, or symptom profiles in a systematic way. She also highlighted gaps in infrastructure, workforce capacity, and policy frameworks needed to support safe, ethical use of genetic information, including protection of patients' genomic data and regulation of genetic and direct-to-consumer tests. Additionally, she pointed to persistent symptom burden and late detection in conditions such as breast cancer–related lymphedema and cancers associated with microbiome changes, where conventional models of care do not yet fully exploit precision health tools for early risk identification and tailored interventions. She also underscored ethical and privacy concerns when genomic data are linked with identifiable personal information, emphasizing the need for clear policies to prevent misuse of individuals' unique genetic "signature."

Suggested Solutions/Recommendations/Conclusion

To address these gaps, Professor Fu recommended integrating precision health concepts, skills, and measurement matrices across all levels of nursing education, including continuing education and entry-to-practice licensing exams, and encouraging nurses to pursue genomics certification. She urged investment in nursing research on symptom science, omics, microbiome, and digital interventions, along with robust outcome measures to evaluate precision health at patient, clinic, facility, and system levels. At the service and system level, she called for nurse leaders to design and optimize workflows that embed pharmacogenomics, genetic testing, and family history into routine care; to build multisector collaborations; and to develop policies that both enable innovation and protect genetic privacy. Finally, she emphasized that nursing administration and policy should recognize precision health as a strategic priority, positioning nurses as key drivers of safe, high-quality, innovative health care that advances global health and aligns with the conference goal of "Future Nursing Research and Innovation for Sustainable Global Health." In closing, she urged Thai nurse leaders to secure a place "at the table" in national conversations on genomics, AI, and health policy so that nurses can serve as a strong voice for the voiceless.

Plenary Session 2

Title: Ethical Considerations of Emerging Nursing Research

Date: 3 December 2025 at 09.15-10.30 a.m.

Moderator : Professor Dr. Noppawan Piaseu, Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand

Speakers :
1. Professor. Dr. Kwanchanok Yimtae, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand
2. Dr. Sumarno Adi Subrata, Muhammadiyah University of Magelang, Indonesia (Online)
3. Prof. Dr. Noppawan Piaseu, Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand

Rapporteur Team Members:

1. Assistant Professor Dr. Yupaporn Tirapaiwong, Boromarajonani College of Nursing, Udon Thani, Faculty of Nursing, Praboromarajchanok Institute, Thailand (Focal point)
2. Associate Professor Dr. Sopen Chunuan, Faculty of Nursing, Prince of Songkla University, Thailand
3. Mrs. Sasinaporn Lohitthai, PhD Student, Faculty of Nursing, Chalalongkorn University, Thailand

Summary :

Key Messages from the Presentation by the Speakers

Prof. Dr. Kwnchanok Yimtae, opened the session by exploring the rapidly evolving landscape of healthcare technology, emphasizing that nurses are not just users but active creators of innovation. She outlined several emerging technologies reshaping the field, including wearable and portable devices, robotics and automation, 3D printing, VR, telehealth, and AI. A key highlight was the evolution of “Tele-Nursing,” where biometric data is transmitted wirelessly to central stations, enabling real-time monitoring and timely interventions. To illustrate the power of nurse-led innovation, Prof. Yimtae showcased the “Hemorrhoid Ligator”, a single-use device developed by nurses at Ramathibodi Hospital. This invention replaced expensive, reusable metal tools with a cost-effective plastic alternative, significantly increasing accessibility and reducing complications for patients. The core of her presentation focused on a major case study: a Randomized Controlled Trial (RCT) involving a

Mobile CT scan unit integrated with AI-assisted diagnostic software and telemedicine. The project aimed to address a critical gap in healthcare access, specifically for stroke patients in rural areas who are often miles away from tertiary centers. The study protocol involved deploying mobile units to meet ambulances halfway, using AI to rapidly confirm diagnoses, and allowing paramedics to administer life-saving thrombolytic agents while still in transit. This innovative approach demonstrates a proactive effort to reduce disparities in care, as only a fraction of patients currently have timely access to CT imaging.

Dr. Sumarno Adi Subrata opened the session by highlighting the exponential growth of nursing research over the last decade, emphasizing that this expansion requires renewed commitment to ethical rigor. He grounded his presentation in the six foundational principles of bioethics—Autonomy, Justice, Beneficence, Nonmaleficence, Confidentiality, and Honesty—and detailed the pivotal role of Ethics Committees (ECs) in upholding these standards through rigorous protocol review and risk-benefit analysis. Dr. Subrata further situated these responsibilities within the Nursing Metaparadigm (Person, Health, Nursing, Environment) and connected them to the Belmont Principles. He concluded by outlining ethical obligations across three domains: protecting research participants (ensuring privacy, informed consent, and the right to withdraw), guiding researchers (upholding competence and avoiding conflicts of interest), and evaluating the research setting (ensuring appropriate resource allocation and safeguarding personnel). Prof. Dr. Noppawan Piaseu opened the plenary session by framing nursing research within the dynamic intersection of technology, equity, and global health. She anchored her presentation in the enduring principles of the Declaration of Helsinki, asserting that despite rapid technological advancements, the core pillars of bioethics—Respect for persons (autonomy), Beneficence (maximizing benefits while minimizing harm), and Justice (ensuring fairness)—remain non-negotiable. A significant portion of her talk focused on clarifying the WHO Policy on Misconduct in Research, where she drew a clear distinction between “Wrongdoing” (intentional fraudulent behaviors such as fabrication) and “Poor Practice” (substandard conduct that, while not necessarily fraudulent, still poses risks to public health). She emphasized that reporting suspected wrongdoing is not merely an option but a professional duty, supported and protected under robust whistleblowing policies. Additionally, Prof. Dr. Noppawan reviewed essential ethical practices, including obtaining voluntary informed consent and maintaining confidentiality. She placed particular emphasis on the need to safeguard vulnerable groups—including children, patients

with dementia, and indigenous peoples—through tailored engagement strategies that prevent exploitation and ensure cultural relevance.

Major Issues or Problems Being Raised/Discussed

The session identified critical ethical tensions arising from the intersection of advanced technology and human vulnerability. A primary concern shared by all speakers was the increasing difficulty of obtaining valid informed consent. Prof. Yimtae highlighted the "4.5-hour window" in stroke care, where incapacitated patients cannot provide consent under the immense pressure of emergency intervention. Dr. Subrata expanded this issue to Community-Based Research (CBR), noting the challenges of working with vulnerable populations—such as the homeless, those with mental health conditions, and those with AIDS—where communication barriers and health inequities complicate ethical compliance. Prof. Piaseu added a digital dimension to this problem, warning that online platforms and AI tools often obscure the consent process, increasing the risk of coercion or misunderstanding, particularly in remote trials.

Significant discussion was also dedicated to the "ethical minefield" of Artificial Intelligence and Digital Health. Both Dr. Subrata and Prof. Dr. Piaseu warned that AI systems are not neutral; they often inherit human prejudices, leading to algorithmic bias that results in unfair diagnoses and treatments. They described complex AI as a "black box" lacking transparency, making it difficult for clinicians to validate decisions. Prof. Dr. Piaseu further emphasized the risk of inequity, noting that high-tech research tools often benefit privileged groups while widening health disparities for underserved populations.

Finally, the speakers addressed key operational and data-related risks. Prof. Yimtae cautioned that reliance on "Software as a Medical Device" introduces significant cybersecurity vulnerabilities, and noted that satellite instability in remote areas can directly compromise patient safety during telemedicine procedures. Complementing this, Prof. Dr. Piaseu emphasized that the rapid expansion of data from wearables and genomic technologies raises critical concerns about data privacy and ownership—particularly questions about who truly owns patient-generated data and the potential for surveillance or misuse. Prof. Yimtae also discussed conflicts of interest (COI), urging researchers to remain vigilant and avoid bias when evaluating technologies in which they may have a personal or financial stake.

Suggested Solutions/Recommendations/Conclusion

To navigate the ethical and practical complexities of emerging research, the speakers collectively proposed a clear roadmap grounded in regulatory rigor, professional integrity, and human-centered education.

Prof. Yimtae emphasized that researchers must move beyond merely demonstrating utility; once an innovation is classified as a "medical device," strict adherence to formal design verification and validation processes becomes mandatory. She recommended early engagement with regulatory frameworks to ensure that safety mechanisms are integrated from the outset. Complementing this technical oversight, Dr. Subrata outlined a clear framework for maintaining ethical compliance in academic publishing. He strongly advocated for adherence to the Committee on Publication Ethics (COPE) guidelines, particularly the "10 Core Practices": (1) study design and ethical approval, (2) data analysis, (3) authorship, (4) conflicts of interest, (5) peer review, (6) redundant publication, (7) plagiarism, (8) duties of editors, (9) responsibilities of authors and reviewers, and (10) media and advertising practices. He also encouraged the use of verification resources, such as Retraction Watch and the ICMJE Recommendations, to support standardized medical publishing and monitor issues related to scientific integrity.

Prof. Dr. Piaseu expanded the solutions to the policy level with a strong "Call to Action." She proposed developing ethical frameworks tailored to AI and digital health to ensure responsible governance of data and algorithms. She further advocated for capacity building in low-resource settings to enable nurses to participate as equal partners, and for fostering global partnerships grounded in fairness and sustainability. A key recommendation for the profession was the need for AI literacy; nurses must be equipped with the knowledge and skills to understand these technologies and uphold human-centered values as the digital landscape continues to evolve.

The session concluded with a unified consensus on the role of the human element in a high-tech future. Prof. Yimtae called for a balance where innovation revolutionizes health without stifling patient rights. Dr. Subrata asserted that "honesty is an ethics in research" that cannot be automated, making human oversight the ultimate safeguard. Finally, Prof. Dr. Piaseu concluded with the guiding mantra: "Ethics first, equity always, innovation with humanity"

Plenary Session 3

Title: Entrepreneurship in Nursing: Challenges, Opportunities, and Obstacles

Date: 3 December 2025 at 10.15–11.00 a.m.

Moderator: Associate Professor Dr.Thitinut Akkadechanunt, Faculty of Nursing, Chiang Mai, Thailand

Speakers:
1. Assistant Professor Dr. Arunrat Thepna, The Princess Agrarajakumari Faculty of Nursing, Chulabhorn Royal Academy, Thailand
2. Dr. Ruchee Phonchai, Neuro.mirotech com, LTD, Thailand
3. Ms. Sasiwimol Singhanet, Mee suk Society, Thailand

Rapporteur Team Members:

1. Assistant Professor Dr. Nantaga Sawasdipanich, Srisavarindhira Thai Red Cross Institute of Nursing, Thailand
2. Dr. Marisa Suwanraj, Boromarajonani College of Nursing, Songkhla, Faculty of Nursing, Praboromarajchanok Institute, Thailand
3. Mr. Wuttipong Cheumnok, PhD Student, Faculty of Nursing, Khon Kaen University, Thailand

Summary:

Key Messages from the Presentation by Speakers

Nurses are positioned as key professionals for validation, innovation, and advanced nursing science within global health systems. The scope of nursing business has expanded to reflect the diversity of nursing skills and the evolving demands of the health system, including areas such as nursing homes, home care, and quality of care consulting.

Ms. Sasiwimol shared her experience in MEESUK SOCIETY, a pioneering senior living community, designed for active seniors and young-olds aged 60 to early 70s, emphasizing personalized happiness through a "Small is Beautiful" approach. This approach was able to individually serve every resident including: In home, Independent Living, Assisted Living, Alzheimer's care, Nursing Home, and Hospice Care. It integrates beautiful network, prevention lifestyle, medical treatment, and traditional for long-term well-being. Moreover, Ms. Sasiwimol addressed key success of her business in two factors: concern with the customer or senior needs and work with the DNA.

Dr. Ruchee's journey exemplifies a shift from Bedside to Bench to Business, advocating for nursing-led healthcare innovations and entrepreneurship. She pointed five core nursing competencies to drive innovation and success in healthcare business: 1) Patient safety protocol, 2) Clinical observation skills, 3) Coordination of care, 4) Commitment to evidence-based practice, and 5) Interdisciplinary collaboration. She also addressed opportunities arise from advancing technologies (regenerative medicine, AI), demographic health challenges, stronger policy support, and successful nurse-led ventures, pointing to a growing space for nurses as healthcare innovators. A crucial message underscored by Dr. Ruchee is that innovation must be firmly focused on ethical, patient-centered care to enhance compassionate care rather than compromise it.

Assistant Professor Dr. Arunrat clarified terms of nurse entrepreneurship and nurse intrapreneur. Nurse entrepreneurship refers to nurses who have their own business, while nurse intrapreneur means nurses who have setting in the hospital and integrate their specialists to link and create some business. She emphasized that the starting point for nursing entrepreneurship should be identifying systemic problems rather than just a business idea. These problems include managing non-communicable diseases (NCDs), addressing gaps in continuity of care, and serving underserved or rural communities.

Major Issues or Problems Being Raised/Discussed

A significant challenge is the lack of robust outcome evidence. Few studies explore the effectiveness or success of nursing businesses, and there is a critical need for data on sustainability and cost-effectiveness to convince policymakers and investors. The field suffers from conceptual confusion and inconsistency. Definitions of nursing entrepreneurship often overlap, sometimes focusing only on the independence of the business, while other definitions combine various aspects, resulting in a lack of clear conceptual models or frameworks to guide entrepreneurial behavior or the development of necessary competencies. There is a major geographical research gap, with most existing evidence originating from the US, Australia, and Western nations, and not much coming from Asia, including Thailand. Moreover, there is limited evidence regarding the specific role of nurse entrepreneurs in communities and primary care systems.

Structural and educational barriers also hinder development: 1) The lack of entrepreneurial training is a significant hurdle, as many nursing education programs focus heavily on clinical sufficiency rather than business and innovation concepts, 2) Policy

limitations have previously eliminated opportunities for nurses in health-related businesses, and educational support remains inadequate, 3) The risk of innovation being dismantled due to accreditation systems is present, particularly in the industry membership sector, 4) Translating scientific research into marketable solutions remains a critical challenge, and 5) Gender and structural barriers are recognized as areas that require further study.

Suggested solutions/recommendations/conclusion

A core recommendation is to start with the problem, not the business and utilize appropriate frameworks, such as the Business Model Canvas (for finance and value proposition) and the Opposition Canvas (to pinpoint issues and evaluate improvements). A four-phase process for developing nursing businesses was suggested: 1) Discovery Phase: Exploring context and identifying stakeholder needs, 2) Development Phase: Creating a detailed business plan, 3) Evaluation Phase: Using mixed methods to assess clinical outcomes, business outcomes, cost-effectiveness, and patient satisfaction, 4) Scale-Up Phase: applying implementation science to ensure sustainability and successful scaling.

To overcome training and support deficits, it is critical to build an ecosystem that supports mentorship, funding, and interdisciplinary collaboration. Partnerships with industry leaders are necessary to help nurses translate scientific research into commercial solutions. Interdisciplinary collaboration (bringing together scientists, specialists, and medical doctors) ensures a holistic approach to product development. Ultimately, there is a need to shift the perception of nurses from being passive recipients of change to active creators of healthcare innovation.

The conclusion emphasized that the foundation for nursing entrepreneurship must be the combination of nursing expertise, scientific research, and an understanding of global healthcare challenges, equipping nurses for transformative initiatives. Ethical, patient-centered innovation is the fundamental principle that ensures technological advances enhance, rather than compromise, compassionate care.

Plenary Session 4

Title : Future of Nursing Research in Workforce and Development

Date : 3 December 2025 at 11.00 - 11.45 a.m.

Moderator : Assistant Professor Dr.Sukjai Charoensuk, Praboromarajchanok Institute, Thailand

Speakers : 1. Associate Professor Dr. Prakin Suchaxaya, Former Health Program Coordinator, WHO Country Office for India, Former Regional Adviser, Nursing and Midwifery, WHO Regional Office for South-East Asia

2. Dr. Fely Marilyn Elegado-Lorenzo, University of the Philippines, Philippines

Rapporteur Team Members :

1. Assistant Professor. Dr. Chularat Howharn, Praboromarajchanok Institute, Thailand (Focal point)
2. Assistant Professor. Dr. Suparpit Maneesakorn von Bormann, Institute of Nursing, Suranaree University of Technology, Thailand
3. Mr. Worapot Khampeera, PhD student, Faculty of Nursing, Chiang Mai University, Thailand

Summary :

Key Messages from the Presentation by Speakers

Assoc. Prof. Dr. Prakin Suchaxaya share information highlighted future directions in nursing workforce and development research as follows:

It is very difficult to answer how healthcare challenges affect and challenge the nursing workforce. Nursing research provides appropriate answers. Nursing research should be invest most in digital health. Nurses cannot ignore digital health. Nurses should not be only digital health users. The imperative to invest in the nursing and midwifery (NM) workforce is essential for strengthening health systems and is considered a key factor in achieving both Universal Health Coverage (UHC) and the Sustainable Development Goals (SDGs). Investment is crucial to ensure health systems are efficient, effective, resilient, and sustainable. To guide this necessary development and address shortages—estimated at 4.5 million nurses and 0.31 million midwives globally by 2030—Member States are strongly encouraged to implement the World Health Assembly (WHA) Resolution 74.15 (2021) on Strengthening Nursing and Midwifery. This resolution mandates the implementation of the Global Strategic Directions for Nursing and Midwifery (SDNM) 2021-2025, a roadmap that has been expanded to 2030, covering four primary areas of investment: Jobs, Education, Leadership, and Service Delivery.

For **Jobs**, countries must focus on workforce planning, ensuring an adequate number of positions, and implementing strategies to attract, recruit, and retain personnel. This also requires the effective implementation of the WHO Global Code of Practice on the International Recruitment of Health Personnel, which has been noted as currently ineffective in many countries. In **Education**, investment should aim to align education levels with professional roles, optimize domestic production of graduates, ensure programs are competency-based, uphold quality standards, and properly train faculty members. Regarding **Leadership**, it is necessary to establish and strengthen senior leadership positions and invest in skills development. While most countries (82%) have a Chief Nursing or Midwifery Officer (CNO/CMO), these leaders require the necessary There are many factors challenge and effect the nursing workforce. resources, political skills, authorities, and decision-making power to be effective. Finally, **Service Delivery** requires strengthening regulatory systems and capacity building while ensuring the creation of safe and supportive workplaces.

The future sustainability of the workforce is inextricably linked to **Digital Health (DH)**, and nurses must urgently acquire the necessary skills and competencies to deliver high-quality, safe, optimized, and person-centred care within this environment. Furthermore, nurse leaders must be supported and resourced to lead the digital transformation for the nursing workforce. The International Council of Nurses (ICN) posits that nurses must participate in national and global DH decision-making forums, including the planning, design, testing, implementation, monitoring, and evaluation of DH products and systems. Complementing this, research and strong data systems are essential, as timely and accurate data on the NM workforce at organizational, national, and global levels is crucial for effective planning, regulation of practice, and policy formation. WHO advocates for countries to adopt standardized workforce information systems, including a minimal data set for registries, to guide policy and investment decisions.

The message from organizations like the ICN and the International Confederation of Midwives (ICM) emphasizes the need for investment in the NM workforce, supporting the concept of **"the economic power of care"**. This investment is mandatory, and robust research on the NM workforce is required to provide strong evidence that shapes better healthcare systems and facilitates the achievement of UHC–SDGs.

In conclusion, the future of nursing workforce development depends on the availability of timely and accurate workforce data, sustained investment in nursing and midwifery, and a strong research foundation to inform policy decisions. Digital transformation, global workforce

shortages, and evolving health system needs highlight the urgency of advancing workforce research. Strengthening the nursing and midwifery workforce is not only a professional or organizational priority—it is an economic and public health imperative essential for building resilient, efficient, and equitable health systems worldwide. International workforce research network is one design that drive global workforce policy, quality decision, and good governance.

Dr.Fely Marilyn Elegado-Lorenzo highlight future of nursing research in workforce and development specific to an academic synthesis area as follows:

Human Resources for Health (HRH) development and research are fundamentally significant for the functioning of health systems and services, and are vital for attaining global policy priorities such as Universal Health Coverage (UHC) and the UN Sustainable Development Goals (SDGs). Effective HRH management is necessary to ensure the quality and efficiency of healthcare delivery. It is important to modernize the way HRH is managed due to the central role of the workforce, the challenges posed by health system reforms, and the influence of macroscopic social trends. Effective HRH development and research should result in practical policies that guarantee an adequate health workforce is available at the right place and time. A significant limitation of current health policies is the neglect of human resource issues. Existing HR strategies often exhibit weaknesses, including a reactive and ad hoc approach to problems, fragmentation of responsibility within Human Resources Management (HRM), a narrow view of personnel administration, and a short-term focus in practices. Therefore, the development of explicit HR policies is a crucial link needed to address workforce imbalances and foster the implementation of health services reforms.

HRH research has undergone considerable expansion over the past three decades, with a steady increase in the number of published articles, covering 93 countries or regions. Most publishing countries remain developed nations, such as the USA, Australia, and the UK, although developing countries are catching up. Current research focuses primarily on topics clustered around performance, job satisfaction, HRM, occupational/mental health, quality of care, and the impact of COVID-19. Most interesting, keywords found among these publications are nurses and nursing. Moreover, monitoring health working densities and distribution is crucial to health systems analysis and planning of both national and international levels. Literature suggests that key elements in shaping patient safety culture include effective communication, strong and committed leadership, clear work procedures, and the crucial role of human factors.

Despite the growth in research, a substantial global workforce expansion is necessary to achieve high levels of UHC. A GBD study identified that to achieve a UHC effective coverage score of 80 out of 100 (UHC 80), the minimum density threshold for **Nurses and Midwives** is **70.6 per 10,000 population**. Based on this high standard, the study quantified a massive shortage: in 2019, 75.5% of countries globally faced workforce gaps in this cadre, amounting to a total global shortage of **30.6 million** Nurses and Midwives.

Several gaps exist in current HRH research. These include limited expertise and professionalism among HRM managers, weak theoretical methods and technical applications, insufficient oversight of regulations, and management functions that are too fragmented and operational. Future research directions should focus on less researched areas like **Compensation Management** and **Employee Relations Management** to create a systematic roadmap. Research also needs to consider contextual variances, as retention issues differ between countries with high migration challenges versus those reliant on foreign-educated HRH. Research grants and publication grants can be used to encourage more research in the under researched area. Ultimately, HRH management must be evidence-based to ensure that health workers are potent contributors to the effective performance of health care systems, as UHC cannot be attained without an available, committed, motivated, and highly skilled workforce.

Suggested Solutions/Recommendations/Conclusion

We still need more nursing research in which the results should be use for strengthen the nursing workforce and management.

Luncheon Symposium 1

Title : Nursing Research and Innovation in Addressing LGBTQ+ Health Disparity

Date : 3 December 2025 at 12.00 – 1.30 p.m.

Moderator : Assistant Professor Dr. Priyoth Kittiteerasack, Faculty of Nursing, Thammasat University, Thailand

Speakers :
1. Professor Dr. Alicia Matthews, Columbia University, USA
2. Assistant Professor Jiraporn Arunakul, Department of Pediatrics, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand
3. Assistant Professor Dr. Priyoth Kittiteerasack, Faculty of Nursing, Thammasat University, Thailand

Rapporteur Team Members :

1. Assistant Professor Dr. Yupawan Tongtanunam, Boromarajonnani College of Nursing, Chonburi, Faculty of Nursing, Praboromarajchanok Institute, Thailand (Focal point)
2. Assistant Professor Dr. Kamonthip Tanglakmankhong, Boromarajonani College of Nursing, Udon Thani, Faculty of Nursing, Praboromarajchanok Institute, Thailand
3. Miss Kornwika Buatchum, PhD Student, Faculty of Nursing, Prince of Songkla University, Thailand

Summary

Key Messages from the Presentation by the Speakers

This symposium illuminated the critical mental health challenges facing LGBTQ+ populations globally, with particular focus on Thailand, while offering evidence-based strategies for nursing professionals to provide affirming, culturally competent care. Dr. Priyoth opened the session by establishing the fundamentals of nursing research regarding SGM populations. He distinguished between the terms "LGBTQ+" and "SGM," noting that while LGBTQ+ is commonly used for community, identity, and culture, SGM is preferred in clinical and academic contexts to ensure inclusivity and focus on health disparities. Utilizing the "Genderbread Person" model, he emphasized that biological sex, sexual orientation, gender identity, and gender expression are four distinct, separate traits. Furthermore, he stressed the necessity of using valid, linguistically tested measurement tools for research in Thai populations to ensure data accuracy.

Dr. Alicia addressed the critical issue of suicidality, framing mental health as a global crisis where 70% of people receive no treatment. Highlighting a "Real Pandemic" of suicide, He noted that Thailand currently holds the highest suicide rates among ASEAN countries, with a rising trend from 2018 to 2021. To explain these disparities, the Minority Stress Theory (MST) framework posits that stigma and discrimination create chronic stress, leading to poor mental health outcomes. Global data indicate that SGM adults have 4.32 times higher odds of suicide attempts compared to non-SGM adults, with bisexual individuals facing the highest risk. A study of 411 Thai LGBTQ+ adults reinforced this, showing high rates of victimization (76.2%) and future suicide risk (25%). Asst. Prof. Jiraporn focused on the biological and clinical aspects of caring for transgender youth. She debunked the "Gender Hoax" that suggested gender is learned, citing the tragic case of David Reimer and twin studies showing a 39.1% concordance in monozygotic twins to prove that gender identity is innate and biological. She emphasized that family acceptance is a lifesaver, as data show that high family acceptance significantly reduces suicidal thoughts and depressive symptoms. She categorized interventions into fully reversible (GnRH analogues), partially reversible (hormones), and irreversible (surgery), urging health providers to support families in empowering unconditional love. Finally, Dr. Priyoth returned to discuss the specific situation in Thailand, highlighting a "Paradox of Acceptance." Despite high visibility, pervasive stigma remains, particularly for transgender individuals, 77% of whom reported job refusals due to their identity. He identified a significant "Nursing Knowledge Gap" where Thai nurses generally have positive attitudes, but their specific knowledge regarding SGM health needs remains low. Barriers to care include inexperienced staff, lack of insurance coverage, and non-inclusive policies.

Dr. Priyoth emphasized the distinction in terminology, stating that researchers must distinguish between LGBTQ+ for community contexts and SGM for research and health disparities to ensure precision. He also highlighted the paradox of acceptance in Thailand, where high visibility does not equate to full acceptance, and discrimination remains severe, particularly in employment for transgender people. Additionally, he noted that effective SGM affirmative care requires both positive attitudes and high specific knowledge, yet currently, nurses possess the attitudes but lack the specific knowledge needed. Dr. Alicia K. Matthews argued that minority stress is the primary driver of disparities, explaining that it is not identity itself, but the social environment characterized by stigma and discrimination that drives mental health issues. Dr. Matthews also pointed out the disproportionate risk SGM adults face, noting they are significantly more likely to attempt suicide than non-SGM adults, with bisexual

individuals at the highest risk. Furthermore, Dr. Matthews framed this as a human rights issue, stating that stigma and violence against LGBTQ+ individuals are fundamental violations that undermine health. Asst. Prof. Jiraporn stressed that gender identity is innate, asserting that biological factors such as genetics and hormones outweigh social learning. She identified family acceptance as a critical determinant of health, noting that adolescents with supportive parents have significantly better mental health outcomes. Finally, she clarified the role of professionals, stating that mental health professionals must not impose binary views and should reject conversion therapy as unethical.

A primary concern discussed in this symposium was the mental health crisis, specifically the rising trend in suicide mortality in Thailand, where SGM individuals face disproportionately high risks due to minority stress. Workplace discrimination was also a major issue, with a high percentage of SGM individuals in Thailand, especially transgender people (77%), facing job refusal due to their identity. Systemic barriers to healthcare were identified, including inexperienced staff, lack of insurance coverage, and institutional bias. The speakers also highlighted data deficiencies, noting that traditional demographics often exclude Sexual Orientation and Gender Identity (SOGI) data, which hinders accurate research and policy making. Lastly, the persistence of societal misconceptions regarding etiology, specifically the belief that gender identity is a choice or result of upbringing, was noted as contradicting biological evidence.

The symposium concluded with a comprehensive overview of the research landscape in Thailand, revealing both progress and gaps. Current Thai research focuses primarily on stress, anxiety, loneliness, depression, and suicide among LGBTQ+ populations, with limited attention to protective factors and resilience. A recent study of over 400 Thai nurses examined knowledge, attitudes, and provision of affirming care, finding that while 70% supported same-sex marriage legislation, "the mean score of knowledge quite low—that's only 2.9 range 0 to 8," and attitudes remained moderate. Critically, the study found that "SGM affirmative care among our nursing profession significantly associated with both knowledge and attitude," suggesting that education can directly improve care quality. The speakers announced the establishment of a Research Unit in Sexual and Gender Minority at Thammasat University, covering health, education, and social equality. This unit aims to conduct collaborative research, disseminate publications, develop measurement tools (with nearly 30 scales already created), provide consultation, and host academic conferences, with the inaugural conference planned for May 2026.

This symposium powerfully demonstrated that addressing LGBTQ+ health disparities requires multifaceted approaches spanning mental health intervention, foundational education, family-centered clinical care, and systemic policy change. As Professor Matthews emphasized, "It is our responsibility to further human rights among all patient populations, including LGBTQ." The path forward requires nurses to embrace inclusive education, create supportive healthcare environments, advocate for policy protections, and above all, provide care grounded in the understanding that, as Doctor Jiraporn memorably stated, every person deserves to "be who they are."

Major Issues or Problems Being Raised/Discussed:

- Rising Suicide Rates: There is a concerning upward trend in suicide mortality in Thailand, rising from 12.76 to 16.59 per 100,000 population over four years.
- Adolescent Vulnerability: Data indicates extreme vulnerability among LB (Lesbian/Bisexual) adolescent girls, with 72% having thoughts of suicide and 52.4% attempting suicide.
- High Victimization in Thailand: A study of Thai LGBTQ+ individuals showed that 76.2% had experienced victimization and 53.7% experienced discrimination.
- Literature Gaps: Current research is heavily biased toward Western, English-speaking countries, with limited exploration of how minority stress operates in non-Western or legally hostile environments.

Suggested Solutions/Recommendations/Conclusion

- Inclusive Nursing Education: Curricula must integrate LGBTQ mental health and suicide prevention to effectively prepare the workforce.
- Trauma-Informed Care: Practitioners should employ trauma-informed and culturally sensitive care to support marginalized individuals.
- Early Identification: Integrate mental health screening into routine nursing assessments to identify suicidality early.
- Advocacy: Nurses must advocate for anti-discrimination laws and increased mental health funding to drive systemic change.
- Community Awareness: Increase awareness within LGBTQ+ communities regarding risk factors and warning signs (e.g., hopelessness, giving things away, drastic mood changes).

Luncheon Symposium 2

Title : Doctoral Students Forum

Date : 3 December 2025 at 4.00 - 5.30 p.m.

Moderator : Associate Professor Dr. Yajai Sitthimongkol, Faculty of Nursing, Mahidol University, Thailand

Secretary: Dr. Manasawi Srimorakot

Speaker : Professor Dr. Caroline Susan Elizabeth Homer, Princess Srinagarindra Awardee 2024, University of Technology Sydney, Australia

Rapporteur Team Members:

1. Mr. Naruebeth Koson, PhD Student, Faculty of Nursing, Mahidol University, Thailand (Focal point)
2. Miss. Siriporn Rumtiammak, PhD Student, Faculty of Nursing, Mahidol University, Thailand
3. Sqn.LDr. Supreeya Phromsuttirak, PhD Student, Faculty of Nursing, Mahidol University, Thailand

Summary:

Key Messages from the Presentation by the Speaker

Prof. Caroline Homer shared insights drawn from her extensive experience in global health and work with the World Health Organization (WHO), emphasizing the critical intersection of nursing, midwifery, research, and policy. A central message concerned the structural challenges embedded within many health systems particularly hierarchical professional cultures and the absence of robust midwifery frameworks which constrain the influence of nurses and midwives in policy development. These systemic limitations underscore the urgency of producing research that has clear significance and demonstrable system-level impact.

She highlighted that effective research begins with conceptual clarity. PhD students must articulate the significance of their research in a single, compelling sentence capable of communicating its value to policymakers, funders, and collaborators. Developing a concise three-sentence overview and a one-page summary enhances the accessibility of research and facilitates dialogue with decision-makers. In line with this, she emphasized that policy briefs are indispensable tools for transforming research findings into actionable recommendations.

A strong message throughout the session was that policy-relevant research requires active, sustained, and meaningful collaboration. Researchers should work with policymakers, hospital leaders, and other stakeholders from the inception of a project to its conclusion. Early involvement of decision-makers ensures relevance, increases the likelihood that findings will be generalizable, and strengthens pathways to policy uptake. While journal publications remain important for academic advancement, Prof. Homer reiterated that policy briefs and stakeholder engagement are often the mechanisms through which research leads to rule or policy change.

The speaker also situated research within broader societal and demographic changes, noting that population ageing, low fertility rates, and shifting disease patterns are reshaping global health priorities. Nurses, being the frontline of primary and community-based care—are uniquely positioned to respond to these transitions, particularly in supporting individuals and communities navigating difficult life circumstances. Her message reinforced the idea that nurses and midwives bridge clinical, community, and policy domains, giving them substantial potential to influence system transformation.

Leadership, courage, and professional identity were recurring themes. One statement resonated strongly with participants: *"Sometimes we must be brave enough to take power, not because we seek it, but because the system needs us to use it."* She emphasized that advancing health systems requires nurses and midwives to embrace leadership roles, assert the value of their evidence, and cultivate strategic relationships across disciplines. Mentorship, too, was described as foundational, with the metaphor of "holding the ladder" illustrating how senior, peer, and multidisciplinary mentors can elevate early-career researchers and build long-term capacity.

Major Issues or Problems Being Raised and Discussed

Several critical challenges were identified during the presentation and subsequent discussion. First, hierarchical systems in many countries hinder interdisciplinary collaboration and limit open communication between professional groups, especially between physicians and nurses or midwives. These dynamics reduce opportunities for evidence-informed decision-making and restrict the influence of nursing research on policy. The lack of formal midwifery structures in many settings further contributes to marginalization within policy spaces.

Second, the demographic and societal pressures associated with population ageing, declining fertility rates, and chronic disease burdens were emphasized as urgent concerns.

These transitions place unprecedented strain on health systems, long-term care infrastructure, and workforce planning. Nurses must be prepared to address complex community needs, promote preventive strategies, and engage in new models of primary care.

Third, limitations in research translation emerged as a major issue. Many health studies fail to influence national agendas because they do not incorporate economic evaluations, feasibility considerations, or stakeholder perspectives. Policymakers consistently prioritize economic implications; therefore, studies that lack evidence on cost-effectiveness or system sustainability are less likely to shape policy decisions. Prof. Homer also noted gaps in research capacity-building, including weaknesses in mentorship systems, limited research literacy, and insufficient training in policy-oriented communication.

Challenges specific to the doctoral journey were also discussed. Students often begin their projects without a clearly defined research question or prematurely select methodological approaches without alignment to the problem. Lack of planning can lead to burnout, disengagement, or students “disappearing” when overwhelmed. Additionally, both positive and negative pressures surrounding PhD work can impact student wellbeing. Without adequate support, mentoring, and resilience strategies, students may struggle with motivation and productivity.

Academic integrity and AI use constituted another area of concern. While generative AI can assist with grammar, clarity, and early drafting, inappropriate or undeclared use poses risks, including plagiarism and misrepresentation. Similarly, literature review skills remain an area in need of improvement, with students often relying on abstracts rather than critically appraising full texts, methods, and source accuracy. The speaker also emphasized that requiring students to publish their research before graduation should not be mandated, noting that such pressure may compromise academic integrity, create inequitable learning conditions, and shift the focus from developing rigorous research competencies to meeting publication targets.

Finally, professional identity and empowerment were recognized as ongoing challenges. Working in entrenched hierarchical cultures can be difficult, especially for nurses seeking to assert leadership within multidisciplinary teams. Building collaborative relationships, initially with one supportive colleague and gradually expanding outward was acknowledged as a practical strategy for overcoming these systemic barriers.

Suggested Solutions, Recommendations, and Conclusion

The speaker offered a set of clear strategies aimed at strengthening the visibility, relevance, and impact of nursing and midwifery research within health systems and policy structures. First, she emphasized that research must originate from well-articulated, meaningful, and contextually grounded questions. Students should take time to refine their conceptual focus before selecting methods, avoiding premature decisions that misalign with research aims. Structured planning and consistent project management were recommended to ensure timely progress, prevent overwhelm, and maintain engagement.

Second, she promoted early and sustained collaboration with policymakers, hospital leaders, clinicians, and community stakeholders. Integrating these actors at the conceptual stage increases relevance, enhances feasibility, and facilitates later policy uptake. She encouraged researchers to demonstrate generalizability of findings and articulate economic implications, including cost-effectiveness or long-term system benefits, as these are primary considerations for policymakers.

Third, strengthening mentorship was identified as a cornerstone of research capacity-building. Students should seek mentors across levels, senior mentors, peer mentors, and multidisciplinary mentors, who can provide guidance, accountability, and professional growth. Mentorship should be understood as a reciprocal process that “holds the ladder” for emerging scholars, fostering leadership rather than reinforcing hierarchy.

Fourth, she recommended that researchers develop strong skills in communicating evidence. This includes crafting succinct summaries, preparing one-page project descriptions, and learning to write high-quality policy briefs. These tools bridge the gap between academic research and policy action. Journal publications remain essential for scientific credibility, but policy briefs, stakeholder meetings, and cross-sector collaborations are the pathways through which research shapes rules, programs, and institutional practices.

Regarding doctoral persistence, the speaker encouraged students to use positive pressure as motivation while employing healthy strategies to manage negative stress. Time management, regular breaks, and celebrating incremental achievements can sustain motivation. Reflecting annually on one’s purpose for pursuing a PhD helps re-anchor commitment. It is also acceptable to pause, recalibrate, and seek support when needed.

Finally, she underscored the importance of academic integrity. AI tools may be used to refine writing or improve clarity, but their use must be declared, and students must remain

responsible for critical thinking, methodological rigor, and accurate interpretation of evidence. Literature reviews should extend beyond abstracts to include detailed evaluation of methods, assumptions, and the reliability of findings.

In conclusion, Prof. Homer's insights underscore the pivotal role of nurses and midwives in addressing complex health system challenges. By producing rigorous, policy-relevant research; cultivating multidisciplinary partnerships; embracing mentorship; and communicating evidence effectively, nursing scholars can influence national health agendas and contribute to more equitable, sustainable, and resilient health systems.

Keynote 3

Title : Challenges and Mega-Trends in Collaborative Research and Leadership for Policy Development

Date : 4 December 2025 at 8.30 - 9.15 a.m.

Speaker: Professor Dr. Caroline Susan Elizabeth Homer, Princess Srinagarindra Awardee 2024
University of Technology Sydney, Australia

Rapporteur Team Members:

1. Assistant Professor Dr. Chularat Howharn, Boromarajonani College of Nursing Changwat Nonthaburi, Faculty of Nursing, Praboromarajchanok Institute, Thailand (Focal point)
2. Ms. Khwannapha Khwansatapornkoon, Nursing Division, Ministry of Public Health, Thailand

Summary:

Key Messages from the Presentation by Speaker

The keynote on *Challenges and Mega-Trends in Collaborative Research and Leadership for Policy Development* highlights the critical pressures facing global health systems and the essential role of nursing and midwifery leadership in addressing these emerging challenges to all our countries. Although many countries deliver increasingly high-quality healthcare, the sustainability of these systems is threatened by escalating costs, inequitable access, and the growing burden of climate-related health risks. In this context, the integration of research, innovation, and evidence-based policy becomes indispensable, with nurses and midwives positioned as central actors in driving transformative change.

A fundamental challenge outlined is the steep rise in healthcare expenditure globally, often outpacing economic growth and straining national budgets. Australia, for example, is projected to increase healthcare spending from 10.2% to 13% of GDP by 2030. Yet, only about 60% of care provided aligns with evidence-based guidelines; the remaining 40% includes substantial waste, low-value care, and even practices that potentially cause harm. These inefficiencies underscore the urgent need to strengthen research translation and embed innovation into routine clinical practice.

Most countries share the same health problems including daging population, chronic disease, and mental health. Climate change represents another major threat to global health systems. Its impacts—including increased morbidity, mortality, infrastructure vulnerability, and

disruptions in service delivery—demand decisive action. Current health adaptation strategies remain insufficient, with only half of national health plans conducting adequate risk assessments. The keynote proposes three research-oriented recommendations: rebalancing the research agenda toward equity and implementation; establishing rigorous evaluation frameworks; and scaling innovations beyond local pilot projects. These measures aim to ensure that adaptation strategies are effective, equitable, and grounded in robust evidence.

Within this evolving landscape, nurses and midwives play an indispensable role: rethinking health service provision, climate stewardship education, digital preparedness, leadership in emission reduction. Positioned at the forefront of patient care and community engagement, these professionals contribute significantly to climate health advocacy, emissions reduction, digital preparedness, and sustainable service delivery. Their capacity to influence clinical practices and policy development makes them crucial in creating climate-resilient and equitable health systems.

Evidence consistently demonstrates that research-active health environments achieve superior outcomes. Empirical studies from the United Kingdom and elsewhere reveal that institutions engaged in research exhibit lower mortality rates, higher adherence to clinical guidelines, and better overall patient experiences. Participation in research not only improves care processes but also enhances organisational culture, promotes collaboration, and strengthens professional development. These environments often attract and retain skilled staff, reducing burnout by enabling clinicians to engage in meaningful, inquiry-driven work.

Given that nurses and midwives constitute approximately 60% of the global health workforce, their involvement in research is essential. However, the profession faces persistent challenges, including a global shortage of nearly seven million practitioners, undervaluation of their contributions to research, and limited access to training and funding. Hierarchical structures and siloed professional cultures further impede collaborative research and multidisciplinary policy efforts.

To address these barriers, comprehensive strategies are needed to cultivate a strong and diverse research workforce among nurses and midwives. Key approaches include enhancing undergraduate and postgraduate research education, improving doctoral and postdoctoral opportunities, and creating clinical–research hybrid roles that mirror pathways long established for medical practitioners. Increasing funding and embedding structured career frameworks are essential to support clinicians who wish to engage in research while remaining active in clinical practice. Additionally, fostering mentorship, interdisciplinary collaboration,

and equitable access to research resources can expand the pipeline of nurse and midwife leaders in research and policy development.

Consumer participation emerges as another critical component of effective research and policy formation. Engaging individuals with lived experience ensures that research priorities and policy decisions reflect real-world contexts and promote equity and trust. Strengthening consumer involvement enhances accountability and improves the relevance and impact of health system reforms.

Building a skilled and research-active health workforce is fundamental to strengthening healthcare systems and improving patient outcomes. Central to this goal is the development of nurses and midwives who are equipped not only to deliver care but also to generate, interpret, and apply evidence; thus, advancing research and innovation requires sustained funding, strong interprofessional collaboration, and active engagement with communities and patients should be highlighted. These essential components form the foundation for improving healthcare quality, reducing waste, and enhancing access to life-saving interventions.

A key challenge identified is the disconnect between academic research training and health service practice. In many settings, nurses and midwives who complete doctoral degrees often transition entirely to universities, leaving clinical environments without research-active practitioners. This absence limits hospitals' capacity to innovate and integrate evidence into practice. There are need for formalized career pathways for clinician–researchers—roles that are well established in medicine but underdeveloped in nursing and midwifery. Embedding nurse and midwife scientists in hospitals can generate sustained improvements in patient care and foster research cultures within health systems.

To cultivate such a workforce, education must be strengthened at all levels. Undergraduate students frequently report negative experiences with research courses, often due to ineffective teaching approaches that emphasize technical statistics at the expense of conceptual understanding. Educators have a responsibility to ensure that students appreciate the relevance of research to clinical decision-making. Graduates should be able to critically read methods and results sections, understand research designs, and apply findings to practice. Furthermore, postgraduate students require strong institutional support, including mentorship, publication opportunities, and roles that allow them to conduct research within clinical settings rather than only in academic faculties.

Mentorship, sponsorship, and collaborative research cultures are presented as essential mechanisms for building research capacity. Research is described as a "team sport"

that requires multidisciplinary involvement and support at every career stage. Both formal and informal mentorship structures promote career progression, enhance confidence, and foster resilience among emerging researchers. Importantly, everyone—from early-career professionals to senior scholars—has a role in supporting others along the research pathway.

Another significant component of a strong research environment is meaningful community participation. Involving consumers, or "people with lived experience," ensures that research questions, study designs, and outcomes align with what matters to patients. Rather than engaging communities only at the end of research projects, their perspectives should shape the earliest stages of inquiry. Doing so strengthens trust, promotes accountability, and ensures that public funds support work that meets societal needs. Diverse voices, particularly those from vulnerable populations, must be included to promote equity and ensure that research benefits those who face the greatest barriers to care.

Despite the challenges inherent in building research capacity—such as limited funding, hierarchical barriers, or lack of recognition for nursing and midwifery research, incremental progress can produce meaningful long-term impact. Nurses and midwives must actively claim their place in decision-making spaces, advocate for funding, and communicate the value of their research in formats accessible to policymakers. Clear, concise summaries are often more persuasive to leaders than lengthy academic papers.

Ultimately, investment in research is justified not for the benefit of professionals alone but to advance patient outcomes and health equity. By integrating research into everyday practice, nurses and midwives can help ensure that vulnerable and underserved populations receive high-quality, evidence-based care. Every individual can contribute to strengthening the research ecosystem by demonstrating leadership, embracing opportunities, seeking mentorship, collaborating across disciplines, and maintaining the courage to address complex problems. Through strategic and collective effort, nursing and midwifery can significantly influence global health and wellbeing.

In conclusion, while health systems worldwide face significant challenges, including economic pressures, climate change, and structural inequities—they also possess vast opportunities for transformation through collaborative research and strong nursing and midwifery leadership. By embracing research engagement, fostering interdisciplinary cooperation, and committing to equity-focused policy development, nurses and midwives can drive meaningful improvements in health outcomes and contribute to resilient, sustainable healthcare systems.

Major Issues or Problems Being Raised/Discussed

The meaningful equality in research collaboration still requires ongoing effort. Each profession possesses specialized knowledge that contributes uniquely to patient care and research, and recognizing these complementary strengths is essential for effective teamwork. Team working leading to greater recognition and more collaborative opportunities across hospital services. Moreover, dissemination is a critical component of the research process. Sharing findings ensures that new knowledge reaches practitioners, informs decision-making, and enhances the overall quality of care. Leadership and collaboration, therefore, depend on a commitment to rigorous measurement and open communication.

Suggested Solutions/Recommendations/Conclusion

There are inefficients in the system which leading for urgent need to get research translation right. Key skill for nurse and midwives is human connection. Thus, nurses and midwives should increased research activity in their setting.

Plenary Session 5

Title : Nursing Research and Innovation in Disaster Management and Public Health Emergency

Date : 4 December 2025 at 9.15 - 10.30 a.m.

Moderator : Assistant Professor Dr. Varunyupa Roykulcharoen, Srisavarindhira Thai Red Cross Institute of Nursing, Thailand

Speakers :
1. Professor Dr. Sonoe Mashino, University of Hyogo, Kobe, Japan
2. Assistant Professor Dr. M.L. Somjinda Chompunud, Srisavarindhira Thai Red Cross Institute of Nursing, Thailand

Rapporteur Team Members :

1. Assistant Professor Dr. Yupaporn Tirapaiwong, Boromarajonani College of Nursing, Udon Thani, Faculty of Nursing, Praboromarajchanok Institute, Thailand (Focal point)
2. Assistant Professor Dr. Suparpit Maneesakorn von Bormann, Institute of Nursing, Suranaree University of Technology, Thailand
3. Miss somruethai Phadungphol, PhD Student, Faculty of Nursing, Mahidol University, Thailand

Summary :

A critical presentation on Nursing Research and Innovation in Disaster Management and Public Health Emergency, focusing on the evolution of disaster nursing beyond acute response. The following summary, based on the presentations by Dr. Sanoe Mashino and Assist. Prof. Dr. M.L. Somjinda Chompunud, outlines the key messages, major challenges, and strategic directions for the future of the field.

Key Messages from the Presentation by Speakers:

Dr. Sanoe Mashino: Advancing Resilience through Nursing

Dr. Mashino's address centered on the fundamental shift required in disaster preparedness, asserting that the global approach must move from a reactive model to a resilience-oriented system.

The core messages emphasized that disasters are now **complex and long-term disruptions**, not temporary emergencies, that reveal deep vulnerabilities in communities and health systems. Due to global trends such as unplanned deforestation, greenhouse gas emissions, population aging, and rapid urbanization, our planet is becoming more fragile and

vulnerable. To combat this, disaster nursing has critically **evolved from acute response to resilience-based practice**, encompassing ongoing continuity of care, multi-sector collaboration, and health security.

Furthermore, Dr. Mashino stressed that the effective management of disaster risk must be **integrated into the Health System**, promoting sustainable health resilience and sustaining fundamental healthcare functions via Primary Health Care (PHC). In this expanded role, **Nurses now act as coordinators, educators, policy advocates, and innovators**, supporting the safety, health, and reassurance of communities both in disasters and in everyday life. Ultimately, the key message is that "**nurses are not only responders to disasters –they are resilience builders and change agents who strengthen health systems and communities before, during, and beyond emergencies**."

Assist. Prof. Dr. M.L. Somjinda Chompunud: The Role of Nursing Throughout the Disaster Management Cycle

Dr. Chompunud focused on the indispensable and practical role of nurses within the operational phases of disaster management, using the context of Thailand, a country highly prone to floods, storms, droughts, and landslides. The key message highlighted that **nurses are essential in all stages of the Disaster Management Cycle — from risk reduction to long-term recovery**. Their comprehensive actions across all phases protect lives, maintain public health, and strengthen community resilience. Specifically, nurses serve as leaders, educators, and responders, applying **cross-cutting skills** such as leadership, ethics (ensuring equitable access), communication, and technology use (telehealth, mHealth apps).

Another central message was the crucial contribution of **research and innovation**. The presentation highlighted how specific nurse-led research, such as the development and pilot testing of a Virtual Reality (VR) simulation program, can significantly enhance nursing students' knowledge, skills, and confidence in disaster response. The concluding message underscored the synergy between these elements: **"Nursing research provides the evidence; innovation provides the tools. Together, they make disaster management comprehensive, effective, and human-centered"**.

Major Issues or Problems Being Raised/Discussed:

The speakers collectively raised several systemic challenges and specific vulnerabilities facing disaster management and the nursing research field:

Global Fragility and Increasing Risk Complexity: The world is facing growing risks due to global factors like unplanned deforestation, greenhouse gas emissions, population aging, and rapid urbanization, which make the planet more fragile and vulnerable. Data shows a high occurrence of disasters, with Asia recording 167 reported natural disaster events in 2024. Disasters are no longer seen as short-term emergencies but as **complex and long-term disruptions** that expose deep vulnerabilities in communities and health systems. This complexity is further increased by the continuous influence of the aging society and climate change.

Specific Health and System Vulnerabilities: Disasters severely impact healthcare systems by **disrupting healthcare delivery** and leading to no access to medication, particularly in rural and low-resource areas. They also lead to an **increased risk of infectious diseases, water-borne illness, and mental health issues**. Within affected communities, there is **high vulnerability** among specific groups, including older adults, children, pregnant women, people with chronic illnesses, and people with disabilities. Furthermore, during a crisis, there is often **fragmented information**, delayed response times, and mismatched resource allocation.

Gaps and Challenges in Disaster Nursing Research: Despite the critical need for evidence-based practice, disaster nursing research faces several significant limitations:

- **Methodological Challenges:** Researchers face issues related to timing, restricted access to participants, difficulties in data collection and follow-up, lack of reproducibility of disaster events, and the dual role of responders and researchers.
- **Scope Limitation:** Many existing studies remain **descriptive or qualitative**, while **policy- and governance-oriented studies are still limited**.
- **Underrepresentation:** Research focusing on **equity, social-vulnerability, and culturally appropriate care** is still underrepresented relative to the overall body of disaster nursing studies.
- **Ethical Constraints:** Ethical issues are complicated by participants' vulnerable status, the risk of triggering psychological distress, the impracticality of obtaining informed consent (IC) under crisis conditions, and the slow standard ethical review process.

Suggested Solutions, Recommendations, and Conclusion

The speakers presented a unified vision for overcoming these challenges, emphasizing the integration of resilience, innovation, and leadership into all facets of nursing education and practice.

Systemic Integration and Resilience: The key recommendation is the shift from a reactive, emergency-focused response to a proactive, **resilience-oriented system**. This requires:

- **Integrating Disaster Risk Management (DRM) into the Health System**, using Primary Health Care (PHC) as the platform to sustain fundamental healthcare functions and promote sustainable health resilience.
- Adopting the principles of the **Sendai Framework for Disaster Risk Reduction (2015-2030)**, which prioritizes understanding risk, strengthening governance, investing in resilience, and "Build back better" in recovery.

Expanded Nursing Roles and Evidence-Based Practice: Nurses must fully assume their expanded roles as **Coordinators, Educators, and Policy Advocators**. This is operationalized across the disaster cycle through concrete actions:

- **Prevention & Mitigation:** Conducting community risk assessments (e.g., identifying flood-prone areas) and developing health education programs (sanitation, hygiene).
- **Preparedness:** Leading simulation drills, training community health volunteers in first aid, and ensuring medical equipment stockpiles. Innovation through **Virtual Reality (VR) simulation programs** has been shown to significantly improve nursing student skills and confidence in initial assessment and first aid.
- **Response:** Delivering immediate emergency medical care, managing infection prevention, providing psychosocial first aid (PFA), and utilizing mobile health clinics and **tele-nursing consultations** via digital tools during isolation.
- **Recovery:** Leading rehabilitation and counseling efforts, conducting post-disaster health assessments, and advocating for community rebuilding and "Build Back Better" plans. Examples include supporting psychosocial recovery after the 2004 Tsunami.

Strategic Research and Innovation: Research is the crucial component that drives evidence-based practices and innovation. Future research must address the current gaps by focusing on:

- **Emerging Topics:** Integration with climate change, environmental sustainability, and "planetary health".

- **Technological Advancement:** Utilizing data science, informatics, modeling, and **AI for triage and situational analysis**. Case studies like the **EpiNurse platform** demonstrate the use of ICT to monitor living conditions in affected communities.
- **Vulnerability and Ethics:** Dedicated focus on ethics, equity, social justice, vulnerable populations, and long-term recovery nursing.
- **Policy Relevance:** Increasing the number of policy- and governance-oriented studies.

Educational Reform: To sustain a resilient health system, education is key, recognizing that the competence of nurses—the largest health workforce—is essential. Education should include:

- **Core disaster nursing competencies for all nurses**.
- **Advanced training** for expert practitioners.
- **Development of leaders** capable of driving system- and policy-level health security and cultivating innovation to address emerging challenges.

Conclusion: The consensus is that the future of disaster nursing research lies in innovation—combining science, technology, compassion, and evidence to strengthen the research–practice linkage and expand disaster resilience capacity across health systems. The mandate for the nursing profession is to move beyond mere response and become proactive resilience builders.

Concurrent Special Topic 2

Title: Nursing Research on Integrated Complementary Therapy and Modern Medicine

Date: 4 December 2025 at 10.45 a.m.-12.00 p.m.

Chair: Associate Professor Dr. Chantira Chiaranai

Secretary: Miss Waewdao Kamkhieo, PhD student

Speakers: 1. Associate Professor Dr. Piyanee Klainin-Yobas, Alice Lee Center for Nursing Studies, National University of Singapore

2. Professor. Dr. Wen-Yu Hu, School of Nursing, National Taiwan University, Taipei, Taiwan

3. Dr. Jung-Ah Lee, Asian American/ Pacific Islander Nurse Association, Inc Sue & Bill Gross School of Nursing, University of California, Irvine, USA (online)

Rapporteur Team Members:

1. Dr. Marisa Suwanraj, Boromarajonnani College of Nursing, Songkhla, Faculty of Nursing, Praboromarajchanok Institute, Thailand (Focal point)
2. Assistant Professor Dr. Nantaga Sawasdipanich Srisavarindhira, Thai Red Cross Institute of Nursing, Thailand
3. Miss Waewdao Kamkhieo, PhD student, Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand

Summary:

Key Messages from the Presentation by Speakers

The presentations focused on the integration of complementary and integrative therapies, specifically mindfulness and culturally appropriate care models, into modern healthcare systems to improve outcomes for vulnerable populations, including cancer survivors and dementia caregivers.

The presentation of Assoc. Prof. Dr. Piyanee Klainin-Yobas introduced mindfulness, defined as the act of paying attention to events arising through internal activities, on purpose, in the present moment, and non-judgmentally. The core message is that mindfulness is beneficial for human health, helping with stress management, emotion regulation, and thought management. Regular mindfulness practice is supported by evidence showing positive changes in the structure and function of the brain, especially in areas governing self-awareness and emotion regulation. The research focused on adapting mindfulness training for cancer survivors—a population that often experiences psychological trauma, physical symptoms,

cancer-related fatigue, depression, and anxiety. The solution, a "digital mindfulness program," involved an 8-week group intervention delivered via Zoom and using WhatsApp and self-developed YouTube videos for communication and practice. Qualitative findings using the Context-Mechanism-Outcome (CMO) framework demonstrated that the program led to: an understanding of the meaning of life, Improved emotion regulation, enhanced mental strength and a positive mindset, and increased self-compassion and loving kindness. The speaker affirmed a strong belief that mindfulness integration works well for cancer survivors and healthy individuals alike, suggesting it should be a strategy to achieve better outcomes.

The central message of Prof. Dr. Wen-Yu Hu emphasized that complementary and integrative therapies (CITs) are crucial for modern health systems as more patients seek services outside conventional medicine. Integrative medicine is defined as the intentional combination of evidence-based complementary approaches with conventional models, focusing on treating the patient as a whole person (body, mind, and spirit). This differs from complementary and alternative medicine (CAM) by its emphasis on evidence. Dr. Hu highlight that CITs are vital for holistic care and can effectively relieve physical, spiritual, and social suffering, particularly in palliative care settings where curative treatment may no longer adequate. Examples of CITs include mind-body practices (like mindfulness), manual therapies (like reflexology), biological therapies (like aromatherapy), and traditional systems (like Traditional Chinese Medicine, which focuses on regulating "Qi," or vital energy). The speaker stressed that the nursing role is unique and fundamental because nurses provide holistic, total care and frequently encounter patient suffering across different shifts. The nurse acts as the educator, advocate, and coordinator, and is considered the "soul of integrative medicine". Successfully implementing CITs requires establishing a strong theoretical base and obtaining robust, evidence-based data through rigorous clinical trials.

The key message of Dr. Jung-Ah Lee centered on the necessity of developing culturally and linguistically appropriate dementia care models to address health disparities and serve vulnerable populations. The global aging trend means the world faces a dementia crisis, with the number of people living with dementia projected to nearly triple from 55 million to 139 million by 2050. The sources emphasize that family caregivers are the "invisible second patients" who carry a heavy burden. In the U.S., immigrant ethnic minority groups (e.g., Korean and Vietnamese Americans) face significant disparities. A pilot study utilizing home-visit, language-specific interventions for these caregivers demonstrated that providing culturally appropriate care enhances equity and results in benefits, including reduced caregiving burden

and depressive symptoms, and improved self-efficacy and quality of life. The intervention included stress management skills, such as mindfulness. The conclusion is that providing culturally sensitive interventions, which respect family values and acknowledge caregiver hardship, is essential to improving outcomes for families with limited resources and English proficiency.

Major Issues or Problems Being Raised/Discussed

The presentations highlighted several systemic and practical challenges across research, clinical practice, and health equity:

1. Program Implementation Issues (Mindfulness) involved adherence to practice: the most crucial issue for successful mindfulness outcomes is ensuring participants maintain continuing or regular practice on a weekly or daily basis following the intervention; COVID adaptation: the pandemic required shifting face-to-face mindfulness sessions to an online format, which altered the intervention delivery, and logistics of home visits: for intensive home-visit interventions, logistical limitations include the time spent driving to hard-to-reach groups in geographically large areas, making face-to-face engagement difficult to scale.

2. Integration and Research Issues (Complementary Therapies) consisted of resistance to integration: some conventional healthcare providers or systems view alternative/complementary therapies as potentially interfering with Western medicine or treatment; need for evidence: to integrate complementary therapies, there is a requirement for strong evidence, adherence to research protocols, and passing IRB processes, which can be challenging for non-traditional practices; and adaptation Time: new innovations or medicines often require significant time for adaptation in the real world, and there are challenges related to managing side effects in trials.

3. Systemic and Health Equity Issues (Dementia Care) included global dementia crisis impact: the crisis disproportionately impacts underserved populations; health disparities: ethnic minority groups face major challenges in accessing and receiving quality care due to limited English proficiency (LEP), low income, low health literacy, lack of health insurance, and cultural stigma surrounding dementia; assessment challenges: for patients with limited English proficiency, it is difficult to accurately assess and diagnose cognitive decline using existing tools. There is also a lack of reliable data regarding dementia prevalence among immigrant older adults in the U.S; care model limitations: current dementia care lacks culturally and linguistically appropriate care models and often provides inadequate support for family

caregivers; technology barriers: barriers exist regarding access to and utilization of technology in marginalized communities; and caregiver hardship: family caregivers often experience profound personal hardship, exhaustion from "around-the-clock" caregiving, frustration managing patient behavioral changes, and in severe cases, report experiencing radical or suicidal thoughts.

Suggested Solutions/Recommendations/Conclusion

3.1 Dementia Care Solutions and Models

3.1.1 Community and University Partnerships: A public health model built on partnerships between community organizations and universities is recommended to effectively deliver dementia education and support.

3.1.2 Phased Intervention Approach: Research efforts utilized a phased approach: needs assessment, community-based educational workshops, followed by a home-visit-based caregiver support intervention.

3.1.3 Bilingual Delivery: Interventions must be delivered by trained bilingual Community Health Workers (CHWs) to provide language-specific and culturally sensitive care.

3.1.4 Focus on Skills: Training should focus on improving dementia caregiving skills, compassionate communication, and caregiver stress management, including the use of mind-body practices like mindfulness.

3.1.5 Technology Integration: Researchers leveraged Wearable Internet of Thing (WIOT) devices to monitor objective physiological data on caregiver stress, heart rate variability, and sleep difficulty, supporting the subjective experience with measurable outcomes.

3.1.6 Future AI Leverage: Moving forward, programs may leverage AI tools for translation and communication to address language needs and enable virtual support for offspring caregivers, provided cultural sensitivity is maintained.

3.2 Healthcare Provider Recommendations

3.2.1 Cultural Competence: Healthcare providers must emphasize cultural competence, providing language interpreters, and delivering culturally sensitive care.

3.2.2 Family-Centered Care: Providers must respect family values, acknowledge the difficulty and exhaustion experienced by family caregivers, and provide personalized emotional support.

3.2.3 Transitional Care: Comprehensive discharge planning and care coordination are vital during transitions (e.g., hospital discharge), ensuring follow-up appointments and providing resources like respite care and caregiver education.

3.3 Complementary and Integrative Therapy Implementation

3.3.1 Evidence Basis: To successfully integrate CITs, researchers must establish clear theoretical bases, validate efficacy through robust randomized controlled trials (RCTs), and control the quality of research.

3.3.2 Holistic Nursing Role: Nurses should continue to expand their role as educators and advocates, utilizing CITs to address patient suffering (pain, fatigue, sleep, emotional well-being) holistically.

3.3.3 Digital Platforms for Practice: Utilizing digital platforms (Zoom, WhatsApp, YouTube) allows for flexible and continuous practice, addressing the challenge of adherence for mindfulness interventions. Weekly sessions should start with check-ins and review of home practice to reinforce regular engagement.

3.3.4 Expansion: Successful complementary programs, like the digital mindfulness intervention, should be expanded to various settings and populations, including healthy individuals and different international contexts.

The overall conclusion derived from the sources is that integrating complementary therapies and developing culturally tailored care models, backed by scientific evidence and supported by technological innovation, is essential for promoting health equity and improving holistic outcomes for diverse, underserved populations. Implementing culturally sensitive integrative care is like building a bespoke bridge. Modern medicine provides the necessary structural components (the pillars), but complementary therapies and cultural competence provide the custom-designed ramps, pathways, and signage (stress management, bilingual support, holistic approach). This ensures that every individual, regardless of their background or proficiency, can safely and easily access the necessary support on the path to well-being.

Concurrent Special Topic 3

Title: Nursing Research and Innovations on Digital Health Technology in Nursing Practice

Date: 4 December 2025 10.45 a.m.-12.00 p.m.

Moderator: Prof.Dr. Usawadee Asdornwised

Chair: Associate Professor Dr. Suchira Chaiviboontham

Secretary: Miss Panisa Boonyaratkalin, PhD student

Speakers:
1. Dr. Bordin Sapsomboon, Faculty of Medicine, Siriraj Hospital, Mahidol University, Thailand
2. Professor Dr. Melissa O'Connor, Hunter-Bellevue School of Nursing, City College of New York (CUNY), New York City, New York, USA
4. Professor Dr. Usavadee Asdornwised, Faculty of Nursing, Mahidol University, Thailand

Rapporteur Team Members:

1. Assistant Professor Dr. Kamonthip Tanglakmankhong, Boromarajonani College of Nursing, Udonthani, Faculty of Nursing, Praboromarajchanok Institute, Thailand
2. Dr. Nusara Prasertsri, Boromarajonani College of Nursing, Sunpasitthiprasong, Faculty of Nursing, Praboromarajchanok Institute, Thailand
3. Miss Panisa Boonyaratkalin, PhD student, Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand

Summary:

Key Messages from the Presentation by the Speakers

This session provided a comprehensive overview of the digital transformation landscape within the Thai healthcare system, specifically addressing the "Digital Health Paradox" in nursing, while simultaneously defining the specific Digital Health Technologies (DHT) reshaping the field. The presentation introduced concepts of Informatics and Health Systems Science, defining health informatics as "Computer Applications in Medical Care" but emphasizing its complex nature involving people, processes, and technology.

To understand the "Digital Health Paradox," the session first established what Digital Health Technology (DHT) entails. It is not just "computer applications," but a complex integration of people, processes, and specific technologies. DHT encompasses mobile health (mHealth), wearables, virtual reality (VR), and augmented/artificial intelligence (AI). These tools

are designed to streamline clinical workflow, enhance patient safety, improve care coordination, and potentially reduce healthcare costs.

To understand the scope of this transformation, the session detailed that DHT includes mHealth, wearables, virtual reality (VR), and augmented/artificial intelligence (AI). These technologies are designed to streamline workflow, enhance patient safety, improve care coordination, and potentially reduce costs. Specifically, mHealth applications allow for healthcare support and intervention via smartphones, often designed to teach patients about self-care and disease management. This is often paired with wearables (smartwatches, fitness trackers), where data is transmitted to a repository for nurses to monitor in real-time to identify acute episodes. Additionally, AI was highlighted as a tool for Clinical Decision Support (CDS), providing clinicians with filtered, person-specific information to assist in making healthcare decisions. VR was noted for its utility in creating immersive environments for nursing education, pain management, and rehabilitation.

However, the session heavily emphasized the "Digital Health Paradox" or "Can of Worms". While digital health offers compelling possibilities like increased access, it is associated with unresolved complex issues such as privacy breaches, lack of trust, potential inequity, and environmental impacts. The speakers warned against assuming technology alone is the answer, introducing the "3P Golden Triangle" (People-Process-Technology) to explain barriers to transformation. The session concluded by presenting the "HAIT" (Hospital IT Quality Improvement Framework) as a holistic solution for hospitals with limited resources to systematically improve IT maturity. The speakers stressed that successful transformation requires collaboration, adhering to the sentiment: **"If you want to go fast, go ALONE. If you want to go far, go TOGETHER".**

DHT encompasses mHealth, wearables, VR, and AI, which streamline workflows and improve patient safety.**mHealth & Wearables:** These tools facilitate self-care education and real-time data monitoring via smartphones and trackers. **Artificial Intelligence (AI):** AI acts as Clinical Decision Support (CDS), improving quality and safety by offering contextually relevant reference information and diagnostic support.**Virtual Reality (VR):** VR provides immersive simulations useful for patient education and pain management.**The Digital Health Paradox:** While technology increases access, it brings a "Can of Worms" regarding privacy, trust, and equity that must be managed.**The 3P Barrier:** Successful digital transformation is often hindered by the "3P Golden Triangle": People (resistance to change), Process (bottlenecks), and Technology (integration complexity).**The Nurse's Evolving Role:** Nurses are central to this

shift and require new skills not just in clinical care, but in interpreting digital data, patient education regarding these tools, and participating in technology development. The integration of DHT requires a significant shift in nursing responsibilities and skills. Nurses are now expected to review and monitor data transmitted from wearables to repositories, often in real-time, to identify trends or acute episodes and intervene accordingly. Beyond clinical care, nurses in 2025 require technical skills, data handling abilities, and AI literacy. There is a need for curriculum redesign to include Nursing Informatics (NI) and value-based healthcare principles.

Major Issues or Problems Being Raised/Discussed

There is a conflict between the goal of a "Smart Hospital" and the reality of workforce shortages, limited digital literacy, and insufficient resources. Hospitals are increasingly becoming "crime scenes" due to ransomware and cyber-attacks, necessitating robust security management. Significant concerns were raised regarding data privacy, the environmental impact of data storage, and the risk that over-reliance on technology might reduce personalized care. Nurses are now expected to review and monitor data repositories in real-time to find trends, which changes their daily workflow significantly.

Suggested Solutions/Recommendations/Conclusion

- **Adopt the HAIT Framework:** Hospitals should utilize the Hospital IT Quality Improvement Framework (HAIT) to assess and improve IT maturity across systems, from Master Plans to Capacity Building.

To manage these technologies and paradoxes, the speakers proposed the **HAIT (Hospital IT Quality Improvement Framework)**.

Implementation: This framework helps hospitals with limited resources systematically assess and improve IT maturity across various systems, from IT Master Plans to Capacity Building.

Goal: It aligns with national standards to ensure that the adoption of mHealth, AI, and other tools effectively supports value-based healthcare rather than just adding technological complexity.

- **Curriculum Redesign:** Future nursing workforce development requires a curriculum that embeds Nursing Informatics (NI), AI literacy, and value-based healthcare principles.

- **Focus on Value:** Shift towards a value-based model that prioritizes patient outcomes and cost-efficiency rather than technology for technology's sake.
- **Collaborate:** Sustainable digital transformation requires deep collaboration between IT, management, and clinical staff.

Concurrent Special Topic 4

Title : Digital Health Technology in Nursing Education

Date : 4 December 2025 at 10.45 a.m.-12.00 p.m.

Moderator : Associate Professor. Dr. Piyanut Xuto, Faculty of Nursing, Chiang Mai University, Thailand

Chair: Professor Dr. Patraporn Bhatarasakoon

Secretary: Miss Phenrung Wandee, PhD student

Speakers : 1. Associate Professor. Dr. Ameporn Ratinthorn, Faculty of Nursing, Mahidol University, Thailand
2. Associate Professor. Jeanette Ignacio, Alice Lee Centre for Nursing Studies, Yong Loo Lin School of Medicine, Singapore
3. Associate Professor. Dr. Piyanut Xuto, Faculty of Nursing, Chiang Mai University, Thailand

Rapporteur Team Members :

1. Assist. Prof. Dr.Yupawan Tongtanunam, Boromarajonnani College of Nursing, Chonburi, Faculty of Nursing, Praboromarajchanok Institute, Thailand (Focal point)
2. Associate Professor Dr. Sopen Chunuan, Faculty of Nursing, Prince of Songkla University, Thailand
3. Miss Phenrung Wandee, PhD student, Department of Public Health Nursing, Faculty of Public Health, Mahidol University, Thailand

Summary

Key Messages from the Presentation by the Speakers

This symposium offered unique perspectives from each distinguished nursing educator speakers on how digital innovations are reshaping nursing education while maintaining the profession's essential human-centered ethos. Assoc. Prof. Dr. Ameporn Ratinthorn from Mahidol University opened the symposium by establishing the urgency of digital transformation in nursing education. She emphasized that healthcare is experiencing an unprecedented transformation driven by artificial intelligence, virtual simulation, telehealth, and big data analytics. Modern nurses must now navigate electronic records, interpret digital monitoring systems, communicate through virtual platforms, and engage patients in technology-enhanced care environments—skills that have transitioned from optional to essential. Assoc. Prof. Dr. Ratinthorn outlined five key benefits of digital health integration.

First, enhanced accessibility and flexibility allows students to access learning materials and consultations from anywhere, anytime. Second, improved clinical simulation through virtual and augmented reality enhances critical thinking and decision-making in safe, controlled environments. Third, personalized learning enabled by AI-powered tools tracks student progress and provides customized pathways. Fourth, interdisciplinary collaboration through digital platforms prepares students for team-based healthcare delivery. Finally, real-world preparation familiarizes students with the digital tools they will encounter in clinical practice.

Assoc. Prof. Dr. Ratinthorn showcased compelling research evidence: digital methods demonstrate very large effect sizes compared to traditional approaches, with studies showing an SMD of 1.09 in clinical performance improvement. She emphasized that "digital technology transforms nursing education, moving beyond convenience to significantly enhance clinical skills, strengthen theoretical knowledge, and prepare students for real-world clinical practice." A highlight was the Friendly Breastfeeding Learning Model developed at Mahidol University for Generation Z nursing students. This innovative approach combined online platforms with metaverse environments and game-based learning theory. The thirty-hour program integrated MUx (online platform) with an immersive "metaverse BF club" featuring game-based and scenario-based activities. Results were remarkable: 100% course completion with passing grades and 94.7% student satisfaction. The model demonstrated how thoughtfully designed digital interventions can achieve exceptional learning outcomes. Assoc. Prof. Dr. Ratinthorn candidly addressed implementation challenges, including technological access and equity, faculty training needs, curricular integration complexities, and privacy concerns. She stressed the critical importance of balancing digital tools with nursing's human essence, noting that while immersive technologies enhance practice, nurses must maintain therapeutic communication, active listening, and ethical patient engagement. Her five strategic directions for transformation included holistic digital curriculum redesign from year one, establishing digital simulation centers as core infrastructure, investing in continuous faculty development, strengthening partnerships with healthcare systems, and promoting digital professionalism with clear ethical guidelines.

The second speaker, Assoc. Prof. Dr. Jeanette Ignacio, National University of Singapore, Assoc. Prof. Dr. Ignacio continued by examining how simulation, virtual reality, augmented reality, and cognitive integration are revolutionizing nursing education. She posed a fundamental question: "How do we prepare students for a digital-first practice environment?" Healthcare today is no longer purely physical or manual—every aspect intertwines with

technology. She identified five core challenges educators must address. First, rapid adoption of new tools requires students to keep pace with constant updates. Second, learners need digital confidence, not just basic competence. Third, maintaining balance between human care and technology is essential; digital tools should never overshadow empathy and communication. Fourth, cognitive overload and learning anxiety emerge when students encounter too many complex platforms. Finally, technology must enhance rather than replace good pedagogy. Assoc. Prof. Dr. Ignacio outlined five key digital competencies future nurses require. Simulation allows learners to practice decision-making with embedded technology workflows. Virtual clinical environments develop comfort with digital interactions and hybrid care models. Digital communication prepares nurses for platform-based collaboration. Understanding technology's influence on safety, workflow, and decision support systems is crucial. Finally, reflective and adaptive thinking becomes a core competency as technology evolves rapidly. She emphasized simulation as foundational: "Simulation provides a safe learning environment for experiencing complex scenarios without fear of harmful mistakes, offers standardized and reproducible content for consistent training, and allows gradual scaling of complexity as learners gain confidence."

The transformative power of VR, AR, and mixed reality (MR) featured prominently. VR immerses students in fully simulated clinical environments; AR adds digital layers to reality, such as visual overlays on mannequins; MR combines both, allowing interaction with physical objects and digital elements simultaneously. These technologies offer scalability, psychological safety, increased engagement, and standardized exposure to diverse scenarios. Dr. Ignacio shared a compelling video demonstration showing nursing students entering a virtual world alongside peers from medicine and allied health disciplines, illustrating how immersive platforms enable communication, coordination, and clinical decision-making while developing situational awareness, teamwork, and digitally-ready clinical thinking.

The last speaker, Assoc. Prof. Dr. Piyanut Xuto, Chiang Mai University, concluded the symposium by addressing how digital technology helps overcome traditional nursing education's significant limitations. She presented a framework showing that true clinical readiness requires mastery across three essential domains defined by the American Association of Colleges of Nursing: cognitive (clinical reasoning and decision-making), psychomotor (technical proficiency in procedures), and affective (interpersonal and communication skills). Traditional assessment methods struggle particularly with cognitive and affective competencies. Assoc. Prof. Dr. Xuto introduced two groundbreaking innovations. The Virtual

Nurse Lab (VNL) represents an online platform providing standardized practice, objective measurement, and immediate, data-driven feedback. At its core is a patented "AI-Assisted Answer Assessment (4A)" engine that analyzes students' verbal explanations and demonstrated actions. Built on the TPACK framework integrating technology, pedagogy, and content, VNL operates through a four-step learning cycle: students encounter multimedia scenarios, record themselves performing and explaining procedures, receive AI analysis against predefined rubrics, and get immediate quantitative and qualitative feedback with scores below 60% prompting scenario repetition.

The evidence supporting VNL is compelling. The AI assessment engine demonstrates an intraclass correlation coefficient of 0.886 with human experts, with AI accuracy at 80.8% compared to human expert accuracy of 92.3%—showing no statistically significant difference. Most remarkably, logistic regression revealed that higher VNL scores significantly predict success on national licensure examinations, with each one-point increase in VNL scores increasing passing odds by 12.4%. Students showed progressive, statistically significant self-efficacy improvements from pre-lab (34.22) through post-lab (44.22) to after-course (56.57), with overall satisfaction reaching 4.58 out of 5. The second innovation, "Bedside to Broadcast," demonstrated an AI-enhanced patient education cycle developing both critical thinking and digital literacy. Students identify clinical problems, generate keywords using AI research tools like SciSpace, select evidence from international literature, develop digital literacy using platforms like NotebookLM, and create clear, empathetic patient communication materials. This intervention delivered significant gains: critical thinking scores increased 30.7% (Cohen's d=2.39, very large effect) and digital literacy scores increased 23.6% (Cohen's d=1.78, large effect).

Assoc. Prof. Dr. Xuto emphasized the guiding principle that "when students are required to actively evaluate, verify, and adapt AI-generated content, the technology becomes a powerful scaffold that enables them to engage in more profound cognitive processes." Student feedback captured this transformation beautifully. One noted: "Even if the AI summarizes it, I feel that we humans still have to summarize it ourselves." Another explained: "We had to ensure findings from international studies 'may not apply to our hospital.' We had to convert it into our own words"—demonstrating how students adapted Western-centric evidence to be culturally and clinically appropriate for their local Thai audience, transforming apprehension into empowerment. Her scalable model offers benefits for all stakeholders. For students: a safe, on-demand environment to practice complex skills without fear, with a

mastery learning loop building genuine confidence before clinical placement. For educators: an objective, standardized, efficient assessment tool for historically difficult-to-measure competencies, with data dashboards identifying at-risk students early for targeted support. For the profession: a powerful tool closing the persistent theory-practice gap, ensuring more consistent clinical readiness standards that directly impact patient safety and care quality. Assoc. Prof. Dr. Xuto concluded with five principles for designing AI-integrated curricula: using phased approaches to build skills incrementally, making human judgment intentionally central in assignments requiring students to evaluate and adapt AI content, emphasizing cultural context as a specific learning objective, teaching strategic tool selection to foster metacognitive awareness, and proactively addressing learning anxiety especially in early project stages.

Major Issues or Problems Being Raised/Discussed

The symposium identified critical challenges facing nursing education as it integrates digital health technologies while maintaining the profession's human-centered ethos. Healthcare is experiencing unprecedented transformation driven by artificial intelligence, virtual simulation, telehealth, and big data analytics. Five core challenges emerged: First, rapid adoption of new tools requires students to keep pace with constant updates while developing digital confidence beyond basic competence. Second, maintaining balance between human care and technology is essential—digital tools should never overshadow empathy and communication. Third, cognitive overload and learning anxiety emerge when students encounter too many complex platforms simultaneously. Fourth, technology must enhance rather than replace good pedagogy. Fifth, ensuring equitable access remains critical as not all institutions possess resources to implement advanced digital solutions. Additional challenges include faculty training needs, as many educators lack confidence with emerging technologies; curricular integration complexities in already-packed programs; privacy concerns and digital professionalism requirements; assessment difficulties for cognitive and affective competencies; the persistent theory-practice gap where classroom learning feels disconnected from clinical reality; and cultural adaptation needs as students must contextualize Western-centric evidence for local settings.

Suggested Solutions/Recommendations/Conclusion

Five Strategic Directions address these challenges: holistic digital curriculum redesign from year one; establishing digital simulation centers as core infrastructure; investing in continuous faculty development; strengthening partnerships with healthcare systems; and promoting digital professionalism with clear ethical guidelines. The Virtual Nurse Lab (VNL) offers innovative assessment solutions, providing standardized practice with AI-Assisted Answer Assessment analyzing students' verbal explanations and actions.

The guiding principle emphasizes: "When students are required to actively evaluate, verify, and adapt AI-generated content, the technology becomes a powerful scaffold that enables them to engage in more profound cognitive processes." Student feedback confirms transformation—recognizing they must contextualize findings and convert evidence into culturally appropriate forms.

In Conclusion, the future of nursing education must be human-centered and AI-augmented. As Dr. Xuto eloquently summarized, "By positioning students as evaluators and refiners, we can harness technology's potential to prepare nurses for evidence-based practice in an increasingly complex and digital world." The three presenters demonstrated that when thoughtfully integrated, digital health technologies don't replace the compassionate, human touch that defines excellent nursing—they enhance it, preparing a new generation of nurses who are both digitally fluent and deeply committed to patient-centered care.

Concurrent Special Topic 5

Title: Nursing Research and Innovation in Elderly Care

Date: 4 December 2025, 10.45 a.m. –12.00 p.m.

Moderator: Professor Dr. Suparb Aree-Ue, Ramathibodi School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Thailand

Chair: Associate Professor Dr. Sangthong Terathongkum

Secretary: Sqn.Ldr. Prapaisri Supangphorn, PhD student

Speakers:
1. Professor Dr. Siriorn Sindhu, Nurses Association of Thailand
2. Mr. Yuki Takata, Visiting Nursing Station of Care-pro Tokyo-Adachi Station, Care-pro Home Medical Care Co., Ltd., Japan
3. Professor Dr. Suparb Aree-Ue, Ramathibodi School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Thailand

Rapporteur Team Members:

1. Ms. Khwannapha Khwansatapornkoon, Nursing Division, Ministry of Public Health, Thailand (Focal point)
2. Assistant Professor Dr. Ausanee Wanchai, Boromarajonani College of Nursing, Buddhachinaraj, Faculty of Nursing, Praboromarajchanok Institute, Thailand
3. Sqn.Ldr. Prapaisri Supangphorn, PhD Student, Department of Public Health Nursing, Faculty of Public Health, Mahidol University, Thailand

Summary:

Key Messages from the Presentation by Speakers

This session focused on some of the best innovations for aging care in the community. All speakers mentioned the aging society. Almost aged population live with at least one chronic disease, cannot do anything by themself, and need assistor.

Professor Dr. Siriorn Sindhu described Thailand's integrated primary care model for dependent older persons, where nurse care managers coordinate with families, community volunteers, and local administrations. She highlighted nursing innovations—15 standard practice guideline tools, the N-CAP system (the Network Collaborative Action Plan) on Awuso.net, 18 educational videos, and a Safe Environment Assessment Tool (ECO-platform) implemented in 6 provinces across Thailand. After 12 months, older people had a better quality of life, health literacy, ADL, chronic disease control, and less frailty. In addition, Awuso.net was a technology innovation that aggregated big data from health assessments,

nursing care plans, doctor consultations, and resources supported by the Subdistrict Administration Organization. Various data were useful for research, policy development, and improvement of nursing quality outcomes.

Mr. Yuki Takata portrayed Japan as a super-aged society, with about one-third of the population already older, and demonstrated an aging care service model through home-visit nursing, which is a service innovation. He emphasized home-visit nursing as a core service, with more than 15,000 stations that deliver medical, rehabilitative, and preventive care. He explained that the Home-Visit Nursing Action Plan 2025 aims to expand these services, improve quality, and fully embed them in the Community-Based Integrated Care System so elders can stay at home longer. He described new senior housing and small-scale multifunctional homes, with day-care and overnight options that can manage older people with ventilators or tracheostomies, alongside health-exercise and dementia-prevention classes under the long-term care insurance system.

Professor Dr. Suparb Aree-Ue identified multimorbidity as a key challenge, defining it as two or more chronic conditions and using the “Geriatric Triangle” to illustrate shared biological and lifestyle risks for falls, disability, and death. She argued that single-disease guidelines are inadequate for older adults.

Major Problems and Issues Raised/Discussed

Professor Dr. Siriorn noted that many dependent older persons in Thailand live with multimorbidity, functional decline, and frailty in unsafe homes, while health, social, and local government services remain fragmented, making coordination of care difficult. She highlighted additional barriers in rural and remote areas—such as lack of reliable electricity and difficult transport—which hinder emergency transfers and home use of medical devices. Family caregivers often feel isolated and exhausted, and small local governments struggle to sustain innovative nursing tools and digital systems.

Mr. Yuki Takata explained that in Japan, rapid population aging, a shrinking workforce, and rising long-term care costs are overburdening the system, while traditional family and community support is weakening. Many elders wish to remain and die at home, yet most still die in hospitals, revealing gaps in home- and community-based end-of-life care. The limited workforce must care for growing numbers of highly dependent elders, leading to physical and mental fatigue among home-visit nurses.

Professor Dr. Suparb emphasized that multimorbidity greatly increases complexity because systems, guidelines, and research are still designed for single diseases, while older adults live with multiple conditions, polypharmacy, and interacting symptoms. This makes decision-making difficult and often neglects outcomes that matter most to elders, such as independence, function, and daily participation.

Suggested Solutions/Recommendations/Conclusion

Professor Dr. Siriorn recommended scaling up Thailand's integrated primary care model for dependent elders, with nurse care managers coordinating hospitals, primary care units, families, volunteers, and local administrations. She emphasized using digital tools such as Awuso.net, N-CAP, and the Safe Environment Assessment Tool, and providing scholarships and upskilling so primary-care nurses in remote areas can deliver safer emergency care. "For the transforming care, nurses should be the developers, not users." (Siriorn Sindhu, 2025)

Mr. Takata called for strengthening and diversifying home-visit nursing through more comprehensive stations, better quality assurance, and firm integration into the Community-Based Integrated Care System. He suggested investing in small multifunctional community hubs that combine senior housing, day-care, rehabilitation, and end-of-life care so elders can truly age in place, even with high-tech needs.

Professor Dr. Suparb urged nursing research and innovation to focus on multimorbidity and gerontechnology by designing nurse-led interventions that address clinical complexity rather than specific diseases.

Resolutions of the International Conference on "Future Nursing Research and Innovation for Sustainable Global Health"

The 3-day International Nursing Research Conference on Future Nursing Research and Innovation for Sustainable Global Health in Bangkok, Thailand collectively highlighted global health issues, critical advancements, ethical imperatives, research and innovation and strategic directions for nursing development for better health of people in a rapidly evolving global healthcare landscape.

Acknowledging the complex challenges of global health, the profound impact of health disparities, and the transformative potential of innovative research and technology in managing the challenges for sustainable global health for ALL;

Recognizing the indispensable role of nursing research and innovation in advancing equitable, resilient, people-centered health systems and better health outcomes;

Affirming nurses as the largest segment of the global health workforce, essential to the achievement of Universal Health Coverage and the SDGs, and the effectiveness of emergency preparedness and response;

Acknowledging rapid advances in genomics, precision health, digital technologies, and data science alongside persistent and emerging global health challenges;

Recalling the commitment to ethical, evidence-informed, culturally responsive nursing education, practice, leadership, and policy;

Based on 4 keynote speeches, 5 plenary discussions, 5 concurrent sessions, 2 symposiums, 392 research presentations along with the exhibition of innovation, 4 themes could be concluded as follows:

The first theme is "Strengthening Global Health Systems, Healthcare Service and Leadership in Nursing" (Keynote1,3,4; Plenary1,3,4,5)

Major global health challenges such as infectious diseases, NCDs, mental health, misinformation/disinformation, geopolitical conflict, and climate-related crises are addressed. Nurses need to act as the frontline and disaster leadership, focus on prevention, continue professional development (upskill, reskill, and new skills) by conducting research or quality improvement projects regarding global health issues, and utilize digital health and health information systems for improving health outcomes. Nursing entrepreneurship is an alternative strategy to address these global megatrends.

Leadership of nurses is also needed to strengthen nursing workforce who is backbone of the health system. The rigorous, context-specific research to guide decision-making, inform education, practice and regulation, and strengthen the workforce development in the challenging healthcare system are highlighted. Primary care is universally recognized as the cornerstone of sustainable global health. Example from Baan Lak Si research project indicated that at the primary care nurses can enhance accessibility, reduce inequity and improve health and service satisfaction of people. In addition, evidence from the research led to nation-wide policy on “Warm community nursing clinic”.

The second theme is “Advancing Health Equity and Culturally Responsive Care for Vulnerable Populations” (Symposium 1, Concurrent 2, 5)

As aging population is growing, nursing research and innovation in elderly care is required. Dementia care, especially for underserved populations, needs to be concerned by bridging cultures and technologies. Combination of culturally sensitive, complementary approaches with digital health technologies (e.g., wearables) in dementia care for underserved communities, stressing cultural and linguistic concordance, and community-based participatory research should be done. Addressing LGBTQ and health equity issue, nurses should explore the social determinants of health, discrimination, and barriers to affirming care for LGBTQ as individuals both physical and mental health. The need for culturally competent, gender-affirming care, advocating for supportive policies, legal reforms, and enhanced research capacity to reduce disparities and promote well-being was also mentioned.

The third theme is “Technological Innovation in Nursing Education and Practice” (Keynote2, Concurrent 3, 4)

Digital health and technologies must be integrated in nursing education and practice. While integrating simulation, virtual/augmented/mixed reality, and digital learning platforms to enhance nursing students' clinical competence, resilience, and cognitive skills, nurses need to maintain human-centered values. AI-driven nursing education and practice is highly beneficial, but its negative consequences need to be concerned. Research presentations and innovation exhibition at the conference show that digital transformation is no longer just an option, it is a fundamental skill for our nursing researchers. Nurses applied and developed digital technology to improve quality of nursing education and practice. The advancement of technology leads to delivery of personalized care. It does not consider only person’s genetics

and biological factors, but also lifestyle, social, cultural and environmental context. Nursing research in precision health and personalized care is still limited; therefore, it needs to be promoted to refine risk prediction, early detection, and targeted interventions. The ethical and privacy issues need to be concerned when genomic data are linked with identifiable personal information.

The fourth theme is "Ethical Rigor and Responsible Research Conduct" (Concurrent 1, Plenary 2)

Tackling challenges in nursing research methodology towards global health needs standardized practices that promote research integrity. Research for global health can be conducted through qualitative research, RCT (Randomized Controlled Trials), and mixed methods but the key is to carry out the research based on sound ethical research principles. Ethical complexities in global health nursing research, including informed consent in marginalized communities, data integrity, authorship, responsible technology use, and the critical role of Institutional Review Boards (IRBs) to ensure integrity, accountability, and inclusivity were highlighted. Implementation research is recommended to offer systematic approaches to bridge the gap between research findings and routine nursing care. Difficulties in obtaining informed consent and ensuring privacy for vulnerable populations in community-based research, advocating for clear explanations, safeguarding against negative consequences, and coordination with primary healthcare were mentioned. While recognizing AI's research facilitation, nurses need to be responsible for it "AI should assist-not replace researcher".

In essence, the conference underscores that the future of nursing research and practice must be characterized by the **responsible and ethical integration of cutting-edge technology, unwavering commitment to health equity for all populations, cultural sensitivity, and proactive nursing leadership in responding to complex global health challenges.** This requires robust research methodologies, continuous education, and strong collaborative partnerships across all sectors and all countries.

We, participants of the International Conference, **urge**

1. **Researchers** adhere to the highest ethical standards across all nursing research methodologies. This encompasses meticulous attention to informed consent, robust protection of participant privacy and safety, transparent data management, rigorous methodological design, and strict adherence to reporting standards. Ethical considerations must guide the development and integration of all digital health technologies and AI tools, preventing bias, ensuring accountability, and upholding human dignity.

2. **Educational institution and practice settings** to strategically, ethically, and collaborately integrate digital health technologies, AI-powered tools, and virtual simulations into nursing education and clinical practice. These innovations must be utilized to enhance clinical competence, foster critical thinking, bridge the theory-practice gap, and improve objective assessment, while ensuring that technology augments, rather than diminishes, human-centered care and values.

3. **Educational institutions and professional bodies** groom nurses for research competent skills and ethics within this evolving landscape and preparing for the global challenges. The mindset of global health and planetary health need to be cultivated. Professional bodies need to advocate for policy recommendation and implementation.

4. **Leaders and Innovators in Global Health** play critical role in addressing global health challenges and strengthening health systems. This requires continuous professional development, robust mentorship programs, and expanded opportunities for nurses to lead in policy development, organizational improvement, and advocacy at local, national, and global levels.

5. **Multi-sectoral and cross-institutional collaborations, both nationally and internationally**, to validate, scale, and ensure the cross-cultural applicability of nursing innovations and research. Fostering collaborative cultures is significant. Research fundings need to be supported and mobilized by collaborative funding bodies and research institutions for sustainable research practices that prioritize long-term clinical benefits, build research capacity, and foster transparency and inclusivity, thereby accelerating scientific advancement for the greater good of global health.

This resolution aims to inspire collective action and guide future endeavors in nursing research and innovation, fostering a global community dedicated to ethical, equitable, and transformative healthcare for all.

It is adopted on 4th December 2025 in Bangkok, Thailand.

Trends and Directions of Nursing Research

Nursing research is moving toward **digital health innovation, culturally responsive care, precision health, and ethical research conduct**, with strong emphasis on sustainability and global collaboration.

Major Trends in Nursing Research

1. Research Integrating Assisted Digital Health and Innovation

- Integrating digital innovation into nursing practice to improve nursing care and outcomes.
- Research focusing on digital literacy among nurses, ensuring clinical competence to foster quality human-centered care.

2. Implementation research bridging evidence into practice, education and policy to ensure findings are applied in real-world nursing care, especially in primary health systems toward sustainability

3. Health Equity and Vulnerable Populations

- **Aging populations, dementia care, and LGBTQ health equity**.
- Research that promotes **cultural sensitivity with digital tools, gender-affirming care** and community-based participatory research to reduce disparities.

4. Precision Health and Genomics

- Expanding research into **personalized nursing care**, considering genetics, lifestyle, and socio-cultural contexts.
- Research with ethical concerns on **genomic data privacy** as well as **risk prediction, early detection, and targeted interventions** in nursing-led precision health.

5. Workforce Development and Management to Promote Sustainable Health Resilience in Health Service Systems

Strategic Directions

- **Capacity Building:** Expand mentorship and training programs to prepare nurse researchers toward policy advocacy.
- **Cross-Sector Collaboration:** Encourage trans-disciplinary partnerships among universities, hospitals, government, and international bodies to scale innovations.
- **Planetary Health Mindset:** Integrate climate change, disaster preparedness, and sustainability into nursing research agendas.

- **Policy Integration:** Translate nursing research into **national health policies** (e.g., Thailand's "Warm community nursing clinic" model).
- **Global Positioning:** Position Thai nursing research as a hub in Asia for **digital health, equity-focused care, and ethical innovation**.

Closing Remarks for the International Conference on
"Future Nursing Research and Innovation for Sustainable Health"
Delivered by: Associate Professor Dr. Suchittra Luangamornlert
President, Thailand Nursing and Midwifery Council
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Honorable speakers, distinguished delegates, respective colleagues and friends,

As we reach the closure of this remarkable gathering, the 2nd International Nursing Research Conference on "Future Nursing Research and Innovation for Sustainable Global Health", it is my honor to offer a few reflections and words of gratitude. Over the past 3 days, we have celebrated the 125th anniversary of HRH Princess Srinagarindra and the 40th anniversary of the Thailand Nursing and Midwifery Council. Through your enthusiasm and engagement, we have transformed this commemoration into a vibrant forum for learning, innovation, and collaboration.

We came together with a shared purpose and a bold aspiration under the banner Future Nursing Research and Innovation for Sustainable Health. I am filled with gratitude and pride for what we have achieved together. We have moved beyond the exchange of ideas to ignite momentum that will be carried into our hospitals, clinics, universities, and communities. The journey we started here is already transforming how we think about and practice nursing. This conference has been a crucible collaboration, a forum, broadened our perspectives, and sparked energy for the future of our profession. We explored nursing research that strengthens evidence-based practice, and we celebrated innovations that extend our reach, improve care, and put patients at the heart of every decision. Our discussions reaffirmed that sustainable health; the core goal guiding our work demands resilient systems that are financially viable, environmentally mindful, and socially equitable. The most powerful innovations are not only technical.

As we depart, let us carry with a renewed sense of purpose and a sharpened commitment to sustainable health for all. The true measure of our success is not only in the ideas we have generated, but in relationships. The connections we have forged are the fertile ground from which future work will blossom, creating a lasting impact far beyond these halls. This gathering was made possible by a seamless, harmonious collaboration. To our keynote speakers and invited guests, thank you for your vision and guidance that challenged us to think bigger, deeper, and more critically. To all presenters, you are the lifeblood of this

conference, your research, and your passion have enriched us all. To session chairs and moderators, your leadership kept our discussions productive and respectful. Behind every smooth session and warm welcome stood a dedicated organizing committee and a tireless conference secretariat. Your hard work has been the backbone of our success.

As we prepare to depart, remember that this closing is not an end but a commencement for starting the new collaborations, new projects, and new opportunities to apply what we've learned here in the real world.

I wish you all a safe journey home and every success in your future endeavors. May the spirit of collaboration and innovation that has filled this conference continue to guide your work.

With heartfelt gratitude, I now declare the 2nd International Nursing Research Conference officially closed. Thank you for your dedication, your insights, and your unwavering commitment to advancing nursing and health for all.