

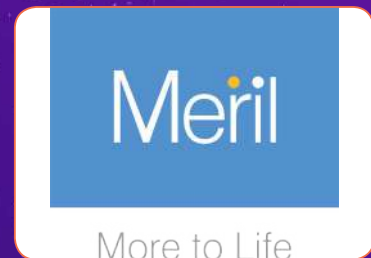
5th Edition

WORLD NURSING AND HEALTHCARE SUMMIT

23-25 September 2024 | Village Hotel Changi, Singapore



Exhibitor



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SCIENTIFIC PROGRAM

DAY 01 - September 23, 2024
Sphere 2 & 3, Village Hotel Changi,
Singapore

08:00-08:50 Registrations

08:50-09:00 Opening Ceremony

Keynote Forum

09:00-09:30 Title: Adopt Leading Practices to Mitigate Healthcare Violence

Paul Sarnese, Secured and Prepared Consulting, USA

09:30-10:00 Title: Focus on POCUS (Point of Care Ultrasound)

Shoba George, Olive View UCLA Medical Center ED and UCLA School of Nursing, USA

Title: Empowering Women: Navigating Challenges and Leading Change Across Diverse

10:00-10:30 Frontiers

Stephen Mago, Nelson Mandela University, South Africa

Group Photo

Refreshments and Networking Break 10:30-10:50 @ Sphere Foyer

Speaker Session:

Session Chair: **Stephen Mago**, Nelson Mandela University, South Africa

Session Chair: **Sara Sapharina**, Sri Ramachandra Institute of Higher Education and Research (DU), India

10:50-11:15 Title: The process of sub-healthy patients participating in their advanced decisions about end-of-life

Chia-Yu Lee, National Yang Ming Chiao Tung University, Taiwan

11:15-11:40 Title: Effectiveness of cognitive behavioral therapy on depression and anxiety among elderly residing at old age homes

Nalini S, Sri Ramachandra Institute of Higher Education and Research (DU), India

11:40-12:05 Title: Effectiveness of Nurse Led Caregiver Empowerment Program (NCEP) on stress, coping and Quality of Life (QOL) among caregivers of patients with schizophrenia

Sara Sapharina, Sri Ramachandra Institute of Higher Education and Research (DU), India

12:05-12:30 Title: Determinants of female labour force participation in urban India: Does outdoor air pollution matter?

Kaushiki Banerjee, Barasat Government College, India

12:30-12:55 Title: Non weight-bearing exercise on diabetic foot ulcer healing, risk assessment and health related quality of life among patients with diabetic foot ulcer

Manjula Annamalai, Sri Ramachandra Institute of Higher Education and Research (DU), India

Networking Lunch Break 12:55-13:40 @ The Blue Tiffin

13:40-14:05 Title: Effectiveness of autogenic training on biophysiological status, psychological distress and quality of life among mothers of children with intellectual developmental disability in selected special schools at Chennai

Vijayasamundeeswari Palani, Sri Ramachandra Institute of Higher Education and Research (DU), India

14:05-14:25 Title: Plasma proteomics analysis of early biomarkers for predicting female fecundability: a nested case-control study

Lingling Huang, Southeast University, China

14:25-14:45 Title: Co-exposure of elevated cadmium and zinc deficiency drive esophageal squamous cell carcinoma malignant progression by mtDNA-activated stemness

Peiyan Yang, Southeast University, China

14:45-15:05 Title: Fusobacterium periodonticum BCT virulence protein promote esophageal cancer progression through mast cell MC2 polarization

Xinxin Guo, Southeast University, China

15:05-15:25 Title: Associations of child-to-adult body size change with hypertension and severe NAFLD: A prospective analysis in UK Biobank

Fengyuan Tang, Zhejiang University, China

15:25-15:45 Title: Identifying Aberrant 1CM-related Pathways by Multi-Omics and Validating Tumor Inhibitory Effect of One-carbon Donor Betaine in Gastric Cancer

Jie Li, Southeast University, China

15:45-16:05 Title: Study on cardiotoxicity effects and potential mechanisms induced by nanoplastics exposure

Tianyi Zhang, Southeast University, China

Refreshments and Networking Break 16:05-16:25 @ Sphere Foyer

16:25-16:45 Title: N-nitrosamines combined with microcystin mediated downregulation of Hsa_circ_0006867 promotes malignant transformation of esophageal epithelial cells through miR 499a 3p/MEF2C signaling

Mingjun Sun, Southeast University, China

16:45-17:05 Title: SARS-CoV-2 humoral immunity profiles in community populations of eastern China: A longitudinal study

Shihan Zhang, Southeast University, China

17:05-17:25 Title: Study of intestinal barrier damage under environmentally relevant doses of nanoplastic exposure

Yanping Cheng, Southeast University, China

17:25-17:45 Title: A multistage mixed methods research on factors influencing and active learning intervention on health literacy of community-residing elderly adults in Nanjing

Shengxuan Jin, Southeast University, China

17:45-18:05 Title: Association between kidney function and mortality in T2DM patients: A 10-year prospective cohort study in China

Jialiu He, Southeast University, China

18:05-18:25 Title: Ferroptosis participated in inhaled polystyrene nanoplastics-induced liver injury and fibrosis

Yiling Ge, Southeast University, China

Panel Discussions & B2B Meetings

Day 01 End | Closing Ceremony

SCIENTIFIC PROGRAM

DAY 02 - September 24, 2024
Sphere 2 & 3, Village Hotel Changi,
Singapore

Day 02 | September 24, 2024 | Singapore

09:15-09:25: Opening Ceremony

Keynote Forum

09:25-09:55 **Title: Non-intrusive sleep detection smart mattress system for precision dementia care**
Dorothy Bai, Taipei Medical University, Taiwan

Speaker Session:

Session Chair: **Stephen Mago**, Nelson Mandela University, South Africa

09:55-10:15 **Title: The associations between female fecundability and postpartum breastfeeding: A prospective cohort study**
Jiuming Li, Southeast University, China

10:15-10:35 **Title: Plasma exosome proteomics of people with different glucose status reveals potential pathogenesis of Type 2 Diabetes**
Yuxiang Liu, Southeast University, China

Refreshments and Networking Break 10:35-10:55 @ Sphere Foyer

10:55-11:15 **Title: Alcohol drinking, red cell distribution width, and stroke: A Chinese rural population-based prospective cohort study**
Yiqing Yang, Southeast University, China

11:15-11:35 **Title: Angelica sinensis polysaccharide ameliorates non-alcoholic steatohepatitis in liver organoids via activating protein phosphatase 1 regulatory subunit 3G: A study combined machine learning and biological experiments**
Shiyi Tan, Southeast University, China

11:35-11:55 **Title: Establishment and validation of a new staging and prognostic system for combined hepatocellular-cholangiocarcinoma**
Qiannan Zhang, Southeast University, China

11:55-12:15 **Title: Understanding mumps dynamics: Epidemiological traits and breakthrough case studies in Jiangsu Province, China, 2023**
Mingma Li, Southeast University, China

12:15-12:35 **Title: Identifying low-frequency variants and drug resistance patterns of integrase inhibitor using deep sequencing in HIV/AIDS patients: A cumulative and individual patient data (IPD) meta-analysis**
Defu Yuan, Southeast University, China

12:35-12:55 **Title: Message framing's limited efficacy in counteracting parental hesitancy toward human papillomavirus vaccination for female adolescents: insights from a randomized trial**
Naiyang Shi, Southeast University, China

Networking Lunch Break 12:55-13:40 @ The Blue Tiffin

13:40-14:00 **Title: The relationship between a novel renal injury marker Dickkopf-3 and AKI after kidney surgery**
Shuchun Tao, Southeast University, China

14:00-14:20 **Title: The effects of population mobility on Chinese new AIDS diagnoses in infectious and susceptible perspectives: A spatial-epidemiology analysis**
Yazhen Zhang, Southeast University, China

14:20-14:40 **Title: Curcumin/QK hydrogelation modulates macrophage polarization and promotes angiogenesis after myocardial infarction**
Penghao Zhen, Southeast University, China

14:40-15:00 **Title: MDK promotes M2 macrophage polarization to remodel the tumor microenvironment in clear cell renal cell carcinoma**
Chen Saisai, Southeast University, China

15:00-15:20 **Title: A genome-wide CRISPR screen in human prostate cancer cells reveals drivers of macrophage-mediated cell killing and positions TSSK3 as a tumor-intrinsic immunomodulator**
Wang Kai, Medical School of Southeast University, China

SCIENTIFIC PROGRAM

DAY 02 - September 24, 2024
Sphere 2 & 3, Village Hotel Changi,
Singapore

15:20-15:40 **Title: Immune-related genes based on chronic ABMR/TCMR could predict late renal graft loss**

Guiya Jiang, *Southeast University, China*

15:40-16:00 **Title: Risk assessment and classification for knowledge graph of sepsis prevention and treatment**

Yue Yan, *Tsinghua University, China*

Refreshments and Networking Break 16:00-16:20 @ Sphere Foyer

Poster Session 16:20-17:20

- SP0101 **Title: Carbapenem-resistant enterobacterales in long-term care facilities**
Chi-Mei Wu, *Taichung Veterans General Hospital, Taiwan*
- SP0102 **Title: Experience in infection control during a Covid-19 outbreak in a geriatric ward in the post-pandemic**
Yeh Jheng Yi, *Taichung Veterans General Hospital, Taiwan*
- SP0103 **Title: Silicone urinary catheter contamination incident with *Stenotrophomonas rhizophila*: Risk assessment and quality control strategies**
Ho Yi Fang, *Taichung Veterans General Hospital, Taiwan*
- SP0104 **Title: The Effect of Propofol-Opioid combinations for sedation in major burn patients undergoing wound dressing changes**
Chiu-Man Lin, *Taichung Veterans General Hospital, Taiwan*
- SP0105 **Title: Infection prevention and control practiced by nursery nurses who have experienced the coronavirus disease 2019 pandemic: Efforts at nurseries accepting children with medical care needs**
Noriko Nakagaki, *Niigata University of Pharmacy, Japan*
- SP0106 **Title: To enhance the selfcare recovery of individuals with severe mental illness through empowerment strategies**
Yao-Gin Huang, *National Taipei University of Nursing and Health Sciences, Taiwan*
- SP0107 **Title: The impact of the artificial intelligence transformation of the fundus screening mode on the screening rate for diabetic retinopathy in the community"**
Ching-Hui Wang, *Taipei City Hospital, Taiwan*
- SP0108 **Title: Performing clinical development and pilot production of immune cell therapy using peripheral blood mononuclear cells obtained through leukapheresis**
Tzu-hua Wu, *VGHTC/Medical Oncology, Taiwan*
- SP0109 **Title: Tumor intravascular platelet aggregation is associated with poor prognosis and advanced stages in patients with ovarian carcinoma**
Jung Min Ryu, *Daegu Catholic University Hospital, South Korea*
- SP0110 **Title: Inflammatory microenvironment-targeted therapy to enhance aged tendon healing**
Hao Wang, *Southeast University, China*
- SP0111 **Title: Unraveling the impact of exercise modalities on OVX-Induced bone loss in mice: The pivotal role of the Gut-Bone axis**
Yucheng Gao, *Southeast University, China*
- SP0112 **Title: Prevalence of uterine fibroid among women approaching healthcare facilities in UAE**
Adhya Tom, *Gulf Medical University, United Arab Emirates*
- SP0113 **Title: The Role of oxidative stress in CdTe/ZnS QDs-Cet neurotoxicity in *C. elegans***
Yuanyuan Hu, *Southeast University, China*

Panel Discussions

Day 02 End | Awards and Closing Ceremony

SCIENTIFIC PROGRAM

DAY 03 - September 25, 2024

GMT +2 | Virtual | ZOOM

Day 03 | September 25, 2024 | Virtual | GMT+2

09:00-09:10: Opening Ceremony

Keynote Forum

- 09:10-09:40 **Title: Designing and Managing Advanced, Intelligent and Ethical Health and Social Care Ecosystems**
Bernd Blobel, *University of Regensburg, Germany*
- 09:40-10:20 **Title: Namaste Care: Helps People with Advanced Dementia Live Not Just Exist**
Joyce Simard, *University of Western Sydney, Australia*
- 10:20-10:50 **Title: Women at the Forefront of Solving Humanity's Greatest Challenges**
Roberto Gomez, *Tecnologico de Monterrey, Mexico*
- 10:50-11:20 **Title: Personalized and Precision Medicine (PPM) thought The View of Reproductive Healthcare and Natural Family Planning: An Option for clinicians and caregivers realize the potential of PPM-guided care to secure the Individualized Human Biosafety**
Sergey Suchkov, *The Russian University of Medicine, Russia*

Refreshments Break @ 11:20-11:35

Speaker Session:

Session Chair: Marius Contor, FH Campus Wien - University of Applied Sciences, (Viena, Austria) and Medical University of Graz, Austria

- 11:35-11:55 **Title: OHVIRA Syndrome- Simple Management with Diagnostic Dilemmas**
Doaa Ahmed, *Guy's and St Thomas' NHS foundation trust, United Kingdom*
- 11:55-12:35 **Title: The teaching of sociology in the nursing curricula: Observations and reflections from Hong Kong, China**
Beatrice Lam, *Hong Kong Metropolitan University, Hong Kong*
Cheuk Ki Fung, *Hong Kong Metropolitan University, Hong Kong*
- 12:35-12:55 **Title: HIV stigma and self-efficacy caring for women living with HIV: A mixed methods study of labor and delivery providers in Tanzania**
Mariam Barabara, *Kilimanjaro Christian Medical University College, Tanzania*

Refreshments Break @ 12:55-13:15

- 13:35-13:55 **Title: Speaking Up for Patient Safety and Staff Wellbeing at a large NHS Foundation Trust: A qualitative study**
Rebecca Delpino, *University College Birmingham, United Kingdom*
- 13:55-14:15 **Title: The reality of living with Endometriosis**
Dionne McFarlane, *Lived experience and endometriosis advocate, United Kingdom*
- 14:15-14:35 **Title: Successful Medical Management of Caesarean scar ectopic pregnancy**
Aqsa Mandvia, *Wye Valley Hospital, United Kingdom*
- 14:35-14:55 **Title: Promotion and development of health literate organizations in the healthcare sector in Styria**
Marius Contor, *FH Campus Wien - University of Applied Sciences and Medical University of Graz, Austria*
- 14:55-15:15 **Title: Effects of online support and social media communities on gestational diabetes: A systematic review**
Melissa Katz, *Weill Cornell Medicine, United States*
- 15:15-15:35 **Title: Art in the Age of Technology: The Dynamics of the Aesthetic Economy**
Lyona Grace, *IDNFT, Indonesia*

SCIENTIFIC PROGRAM

DAY 03 - September 25, 2024

GMT +2 | Virtual | ZOOM

15:35-15:55 Title: Unexpected Seizure Following Misoprostol Administration for Postpartum Haemorrhage: A Case Study
Edi Patmini Setya Siswanti, Sardjito Hospital, Indonesia

Refreshments Break @ 15:35-15:50

E-Posters

EP0101- Title: Postpartum seizure - Eclampsia or Neurological Complications of Post Dural Puncture Headache and Epidural Blood Patch: Case report and a review of literature
16:25-16:35 **Song He**, KK Women's and Children's Hospital, Singapore

EP0102- Title: Performance of Severe Pph (>1500ml) Management after Introducing the Pph Risk Assessment Score
16:35-16:45 **Anuja Thomas**, South West Acute Hospital, Western Health and Social Care Trust, United Kingdom

EP0103- Title: Placenta Accreta Spectrum-Audit on the Antenatal care and Intraoperative interventions in the Management of patients with Placenta Accreta Spectrum
16:45-16:55 **Krishnaveni G Raman**, Grange University Hospital, United Kingdom

EP0104- Title: Anemia and Reproductive Health of Girls of Early Reproductive Age
16:55-17:05 **Guli Sultanmuratova**, Tashkent Medical Academy, Uzbekistan

Video Presentation

17:05-17:25 Title: Substantiating Quantitative Data with Qualitative Data Using a Mixed Method Approach: Improving Clinical Judgment & Simulation Standards
Lizabeth Reents, University of Washington, United States

Panel Discussions

Day 03 End | Closing Ceremony

Exhibitor



Meril Life Sciences Private Limited

About:

Founded in 2006, Meril is an India-based, global medical device company that is dedicated to the innovation, design and development of novel, clinically relevant, and state-of-the-art devices. As a leading healthcare solutions company, our fundamental aim is to champion the alleviation of human suffering and improve quality of life. To enable this, we are committed to R&D, innovation in manufacturing medical technology, scientific communication, and contemporary distribution avenues.

Meril manufactures medical solutions in the form of vascular intervention devices, orthopedic implants, robotics, endo-surgery, ENT products, and in-vitro diagnostics. It is our core commitment to ensuring the delivery of advanced healthcare solutions. Our inclination towards research and development is reflected in our diverse offerings. We ensure that we adhere to the best quality standards in manufacturing, scientific communication, and distribution to deliver path-breaking healthcare products to the world. Headquartered in India with a manpower of more than 4000, Meril, by Bilakhia Group, currently conducts business in more than 100 countries. We have 100% subsidiaries in India, USA, Germany, Brazil, Russia, South Africa, Bangladesh and Turkey. We have set up operations in China and Japan too.

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5th Edition

World Nursing and Healthcare Summit

23-25 September 2024 | Village Hotel Changi, Singapore

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**KEYNOTE
SPEAKERS
Day 1**



5th Edition

World Nursing and Healthcare Summit

23-25 September 2024 | Village Hotel Changi, Singapore



Paul Sarnese

Secured and Prepared Consulting, United States

Biography

Paul is the owner of Secured & Prepared Consulting, LLC. He is a Certified Healthcare Protection Administrator and a Certified Associate Project Manager. Paul is the Past President for the International Association for Healthcare Security and Safety. Paul participated as a Technical Advisor to the Joint Commission in developing the Workplace Violence Prevention Stan-

dards. Paul has a Bachelor's Degree in Criminal Justice from Rowan University, a Master's Degree in Safety Engineering from Warren University and a Master's in Administrative Science from Farleigh Dickinson University. He has been published in Campus Safety Magazine, gov CIO Outlook, Total Security Advisor, Annals of Emergency Medicine, Journal of Emergency Nursing, Security Management Magazine, Journal of Radiology Nursing, Hc Pro, Journal of Healthcare Protection Management, and Hospital Safety and Security Management.

Adopt Leading Practices to Mitigate Healthcare Violence

Statistics show that healthcare workers are five times more likely to be a victim of an aggravated assault than workers in other industries. This violence impacts employee engagement as well as their sense of safety and well-being. Learn the facts about violence in healthcare, the elements of a successful violence prevention program and the leading practices to conduct an assessment and to implement proven strategies to mitigate violence.



Shoba George

Olive View UCLA Medical Center ED and UCLA School of Nursing, USA

Biography

Shoba George completed her Master's in Nursing and Adult Gerontology Acute Care Nurse Practitioner Certification in 2014 and her Doctorate in Nursing Practice in 2022. She currently works at the Los Angeles County University of California Medical Center as a

Nurse Practitioner in the Emergency Department and has 9 years of experience (during the time of conference I will complete 9 years). She performs the Point of Care Ultrasound in her daily practice. Dr. Shoba George also teaches part time at the University of California, Los Angeles, School of Nursing in the Acute Care Nurse Practitioner Program.

Focus on POCUS (Point of Care Ultrasound)

Objectives:

At the end of the presentation, participants will be able to:

1. State at least two uses of Cardiac POCUS in the ED
2. Identify pericardial effusion in an ultrasound image.
3. Differentiate between normal fluid status versus fluid overload in patients.
4. Identify normal left ventricular ejection fraction versus significant abnormality.



Stephen Mago

Nelson Mandela University, South Africa

Biography

Stephen Mago is a distinguished academic leader and scholar at Nelson Mandela University, serving as a Full Professor of Development Studies and Department Head. His research focuses on development finance and entrepreneurship, addressing socio-economic challenges and promoting inclusive practices. With a passion for entrepreneurship, he is pursuing a second PhD in the field to further his expertise, particularly in rural development. Professor Mago is well-published and recognized for his contributions to development studies. He also serves as the Faculty Ethics Chair, ensuring research integrity within the academic community. As a visionary leader and ethical steward, Professor Mago inspires colleagues and students, leaving a lasting impact on academia and sustainable development.

Empowering Women: Navigating Challenges and Leading Change Across Diverse Frontiers

Globally, women are becoming architects of change as they drive global development from various domains. The purpose of this presentation is therefore to explore the multifaceted landscape of empowerment of women and their leadership development across various domains. The domains encapsulate health and wellness, technology and innovation, power and decision-making, science and education, business leadership, rights and gender equality, and societal impact. The presentation is cognisant of the broad aspects involving the need for women to influence global change through empowerment. It therefore delves into critical topics, highlighting the importance of holistic approaches to women's empowerment. Inspired by the theme, 'Women: Influencing the Global', the presentation highlights women's significant contributions to change across various domains mentioned before. It also aims to inspire and empower women in their endeavours to influence the global agenda through the process of driving positive change and shaping an inclusive (through inclusive growth and development) and equitable future at the global level. Furthermore, the challenges and opportunities faced by women are discussed. These include their situations in positions of power, from political representation to corporate leadership. Issues such as the gender pay gap, empowerment advocacy and balanced decision-making. Participation of women in education, science and business leadership should emphasise equal rights, inclusivity, and diversity. To strengthen the empowerment agenda, strategies should be proposed and developed to overcome bias and promote network buildings thus fostering skills for promoting the empowerment project.



5th Edition

World Nursing and Healthcare Summit

23-25 September 2024 | Village Hotel Changi, Singapore

**SPEAKERS
Day 1**





Chia-Yu Lee

National Yang Ming Chiao Tung University, Taiwan

Biography

Chia is a registered nurse in charge of palliative care and community care at Far Eastern Memorial Hospital in northern Taiwan for 10 years. In 2019, Taiwan passed the Patient Right to Autonomy Act, which allows people to exercise medical autonomy through Advance Caring Planning (ACP), which helps people and their families understand what they can do to make legal advance medical decisions. Now, I devote myself to this field to encourage people to participate in advanced decisions to help them improve their quality of care at the end of life

The process of sub-healthy patients participating in their advanced decisions about end-of-life

Background: People making their own decisions about end-of-life care is important for a good death, and it is the mission of advanced practice nurses to assist them.

Objectives: To understand the processes of people participating in their advance decisions about end-of-life.

Methods: Recruiting criteria: (1) age 18 and above; (2) attending Advanced Care Planning and having made an Advanced Direction; and (3) speaking Chinese. Data Collect used focus group interviews with a semi-structured interview guide from April 2022 to September 2023 in Taiwan. A total of five focus group interviews were conducted.

Key learnings: There were six themes sorted. 1. Personal beliefs: death was a natural process of life, and it was necessary to maintain dignity when life ended. 2. Life experience: previous experiences influence their behavior positively and negatively. 3. Expectations for one's life: participants want to defend and protect their rights and be the masters of their own lives. 4. The expression of love: participants don't want their family members to feel pain or pressure because of them, and be a burden. 5. The moment: before they attended the advanced decision, most of them had heard speeches on death or life issues, and discussions with family members about their own advanced decisions. 6. Peace: after engaging in advanced decisions, they felt at ease, relieved, and free of worries.

Conclusion: The results understand the processes of people involved in their advanced decisions, and future interventions could consider how to encourage people to take actions on them.



Nalini S

Sri Ramachandra Institute of Higher Education and Research(DU), India

Biography

S.Nalini has been serving as an Assistant Professor at the Sri Ramachandra Faculty of Nursing, SRIHER (DU) for the past 16 years. Her passion for teaching nursing students led her to become a clinical instructor and tutor at St. Joseph's School and College of Nursing in Guntur, Andhra Pradesh, until 2007. She completed her master's in Psychiatric Nursing at SRM University in 2008 and pursuing her Doctorate in Nursing at SRIHER (DU). Dr. Sara was awarded. She has served on various university committees, including the simulation committee, Admission committee and Learning managing system- Moodle Coordinator. At the college level, she is a member College Quality cell, Nursing Education Unit and Student Nurses Association - Advisor. She has many indexed publications and has presented research papers at numerous national and international conferences across India. She has also been a resource person for various seminars, workshops, and continuing nursing education programs. Additionally, she has guided both under graduate and post graduate students in completing their research projects and dissertations.

Effectiveness of Cognitive Behavioral therapy on Depression and Anxiety among Elderly residing at Old Age Homes

Background: In India, elderly population is increasing and depression and anxiety are common mental health problem amongst elderly, which needs to be

taken care of by primary caregivers. Anxiety and depression are commonly comorbid in older adults and are associated with worse physical and mental health outcomes and poorer response to psychological and pharmacological treatments. However, little research has examined the effectiveness of psychological programs to treat comorbid anxiety and depression in older adults. Hence, the researcher felt the need to provide Cognitive Behavioral Therapy to reduce depression and anxiety among elderly since it has previous positive responses in treating depression and anxiety, which overall helps in managing depression and keeping themselves occupied and directly boosts their self-esteem. The study aimed to evaluate the effectiveness of Cognitive Behavioral Therapy on depression and anxiety among elderly residing at old age homes.

Methodology: An experimental research design was conducted among 102 elderly with depression and anxiety at old age homes in Chennai. Non probability purposive sampling technique was adapted to select samples. The study group consisted of 51 samples received Cognitive Behavioral Therapy, while control group consisted of 51 samples received routine care. Data were collected using a tool which consisted of background variables, Geriatric depression scale (GDS) and Hamilton Anxiety scale (HAM-A). Interview method was used to collect the data. The posttest was conducted at 14th day. Analysis was done by using descriptive and inferential statistics.

Results: There was a decrease in the posttest mean score in study group compared to control group, and statistically significant difference ($p < 0.05$) in pretest and during post-test significance found in marital status, no. of children and reason stay at old age home ($p < 0.05$)

Conclusion: The present study proves that the Cognitive Behavioral Therapy is an effective, non invasive and safe practice among elderly to reduce depression and anxiety.



Sara Sapharina

Sri Ramachandra Institute of Higher Education and Research(DU), India

Biography

Sara Sapharina G.J has been serving as an Associate Professor at the Sri Ramachandra Faculty of Nursing, SRIHER (DU) for the past 15 years. Her passion for teaching nursing students led her to become a clinical instructor and tutor at St. Joseph's School and College of Nursing in Guntur, Andhra Pradesh, until 2007. She completed her master's in Psychiatric Nursing at Sri Ramachandra University in 2009 and earned her Doctorate in Nursing at SRIHER (DU) in 2023. Dr. Sara was awarded the NURFA FEST 2001 GOLD MEDAL for achieving the highest mark in Community Health Nursing theory by Tamil Nadu Dr. M.G.R Medical University, Chennai. She has served on various university committees, including the Safety Committee, Anti-Ragging Committee, University Website Development Committee, Green Club, and the Ph.D. Research Proposal Scrutiny SubCommittee. At the college level, she is a member of the Faculty Quality Cell and is responsible for Criteria 5 (NAAC).Dr. Sara has five indexed publications and has presented research papers at numerous national and international conferences across India. She has also been a resource person for various seminars, workshops, and continuing nursing education programs. Additionally, she has guided both undergraduate and postgraduate students in completing their research projects and dissertations.

Currently, she serves as the Nodal Officer for the Prime Minister's Special Scholarship Scheme (PMS-SS) for Jammu and Kashmir students.

Effectiveness of Nurse Led Caregiver Empowerment Program (NCEP) on stress, coping and Quality of life (QOL) among caregivers of patients with schizophrenia

Background: In India, caregivers often serve as the primary support system for individuals with schizophrenia. Given the profound impact of schizophrenia on a person's ability to function independently, caregivers provide essential assistance with daily activities, medication management, and emotional support. Caregivers may also experience stress, inadequate coping and poor quality of life. Hence, providing adequate knowledge to caregivers through brief empowerment program has beneficial effects on both patients and caregivers. The study aimed to evaluate the effectiveness of nurse led caregiver empowerment program on stress, coping and quality of life among caregivers of patient with schizophrenia.

Methodology: A quantitative research study with an evaluative approach was conducted. The research design was a randomized controlled trial carried out in the psychiatric ward and OPD at SRH. A simple random sampling technique was used to select 150 participants, divided into a study group (75) and a control group (75). Pretests and posttests I, II, and III were conducted on the 30th, 60th, and 90th days, respectively. Data from caregivers of patients with schizophrenia were collected using the Perceived Stress Scale (Cohen, 1983), the Coping Checklist (Rao, 1989), and the WHOQOL-BREF (1996). The data were analyzed using both descriptive and inferential statistics.

Results: In the present study majority of the caregivers of patients with schizophrenia, 24(32%) in the study group and 30(40%) in the control group were in the age group of 31-40 years. Similarly, females constituted most in both groups, 61 (81.2%) in the study and 46(61.3%) in the control groups(Fig1). The results highlighted that there was a statistically significant difference found in the mean stress scores at $p < 0.05$

of the study group between posttests (II, III)(Table 1), coping scores at posttest II ($p=0.03$) and posttest III ($p<0.003$) between the study and the control groups. There was a statistically significant difference noted in the mean scores of quality of life in all domains at $p<0.05$ between the pretests and the posttests among caregivers of patient with schizophrenia in the study group. There was a statistically significant difference in the mean scores of Quality of life (Psychological-Domain-2) between the pretest and the posttest I among caregivers of patient with schizophrenia in control group ($p=0.001$), in quality of life (Social relationship-Domain-3) between the pretest and the posttest I ($p=0.001$), the pretest and the posttest II ($p=0.02$) and in quality of life (Environment-Domain-4) between the pretest and the posttest 1 ($p=0.01$), pre-test and post-test 2 ($p=0.001$) in the control group. There was

a significant association between level of stress and education among caregivers in the control group. There was a significant association between coping scores and selected background variables like education, occupation and relationship with patient among caregivers in the study group. There was a significant association between coping scores and selected background variables like age in years, education, occupation medical expenses among caregivers in the study group. There was a significant association between quality of life scores and social support among caregivers in the study group.

Conclusion: The study concludes that the nurse-led caregiver empowerment program significantly reduced stress, fostered appropriate coping strategies, and improved the quality of life for caregivers of patients with schizophrenia.



Kaushiki Banerjee

Barasat Government College, India

Biography

Kaushiki Banerjee, is Assistant-Professor (Economics), Barasat Government College, and Research-Scholar, Department-of-Economics, Jadavpur-University, India. She was a UGC-NET Junior-Research-Fellow. Research interest includes gender, social-sector, econometrics. She has made paper-presentation in National/International-Conferences, and publications in journals/edited-volumes.

Determinants of Female Labour Force Participation in Urban India: Does Outdoor Air Pollution Matter?

The stubbornly poor female labour force participation rate (FLFPR) in India since liberalization has been much concern of the researchers and policymakers. Howev-

er, the adverse role of air-pollution in reducing FLFPR is much less explored. Given the backdrop the present work contributes to the literature by establishing negative sole impact of outdoor air-pollution on FLFPR by exerting direct impact of air-pollution on health which in turn affects FLFPR, i.e., the positive simultaneous dependence between these two is proved. Moreover, interaction-effect of air-pollution with growth, poverty, and urbanisation on health, hence on FLFPR is also evident where the interaction-effect signifies partial-effect of a change in the concerned variable on health and FLFPR actually depends on air-pollution. Thus, measures to raise growth, urbanisation or reduce poverty can improve health and FLFPR, provided air-pollution is mitigated. Further, significant impact of interaction-effect of household-size and growth on FLFPR is well-supported, i.e., the impact of growth on FLFPR depends on household-size and vice-versa. Beyond a critical-level this interaction-term reduces FLFPR (*'inverted-U'* phenomenon is observed). FLFPR falls with both growth and household-size, i.e. given household-size, income-effect dominates and women value leisure more. It adds to the earlier *'inverted-U feminisation hypothesis'* investigating only sole-impact of growth on FLFPR. Also, the interaction-effect of female education and household-size on FLFPR is U-type, i.e., after a critical level the interaction-term only exerts positive impact on FLFPR. The lower sample-mean than critical-value here implies, FLFPR may fall with education given household-size, i.e., female education does not necessarily imply higher FLFPR.



Manjula Annamalai

Sri Ramachandra Institute of Higher Education and Research (DU), India

Biography

A. Manjula, M.Sc. (N), PhD, RN, RM, is an academic and healthcare professional over 18 years of experience in nursing education and practice. The academic journey began with a B.Sc. (Nursing) from Sri Ramachandra University, where she graduated in 2004. She continued her education at the same institution, earning a M.Sc. (Nursing) with a specialization in Cardiothoracic Nursing in 2008. She further advanced her expertise by obtaining a PhD in Nursing from the Sri Ramachandra Institute of Higher Education and Research in 2021. Her career commenced as a Staff Nurse in the Neuro Surgery Intensive Care Unit at Sri Ramachandra Hospital, Porur, Chennai, where she worked from 2004 to 2006. She then transitioned into academia as a Lecturer at Narayana Nursing College in Nellore, India, from 2008 to 2009. Following this, she joined the Sri Ramachandra Faculty of Nursing, where she has served in various capacities from Lecturer (2009-2022) to her current role as Assistant Professor.

A prolific contributor to her field has presented 26 papers and published 18 research articles. She received three best research paper awards for her study. In 2019, she was honored with a Ten Years Gold Coin for her continuous service at Sri Ramachandra Institute of Higher Education and Research. Earlier in her ca-

reer, she won the first place in the Brain Storm Competition during the National Nutrition Week celebration in 2012 and was the Best Outgoing Student with a gold medal in M.Sc. Nursing in 2008.

Dr. Manjula has made significant contributions to the field of nursing through various initiatives. She has played a pivotal role in curriculum development for B.Sc. Nursing, M.Sc. Nursing (Nurse Practitioner in Critical Care), and PhD programs. Notably, she has coordinated inspections and been involved in outcome-based education syllabus framing. She has been instrumental in the initiation and operation of an independent Nurse-led foot care clinic within the Department of Medical Surgical Nursing. Her organizational skills are reflected in her involvement in national and international conferences, webinars, and workshops, continuing nursing education (CNE) programs, faculty development programs, seminars, and the observation of health days. She has mentored and guided both undergraduate and postgraduate students in projects, dissertation, Innovus presentation, and National science week and observation days.

She is an active member of several professional organizations, including the Trained Nurses Association of India, the Society of Cardiac Nurses (India), and the Medical Surgical Nursing Society of India. Her role extends to various committees at college and university level and has contributed as an examiner and paper setter for several prestigious universities across India.

Non weight-bearing exercise on diabetic foot ulcer healing, risk assessment and health related quality of life among patients with diabetic foot ulcer

Background and objectives: Literature search does not find much study on nonweight-bearing exercise in ulcer leg. Active or passive exercise keeps the joint mobile and enhances blood flow. The objectives of the study were to assess the effectiveness of non-weight-bearing exercise on diabetic foot ulcer healing, risk assessment and Health Related Quality of Life (HRQOL).

Materials and methods: A quantitative research with

evaluative approach was used. 242 patients with diabetic foot ulcer 121 in each group were recruited who were fulfilling the inclusion criteria. Simple random technique was used for the distribution of the participants. Information on background variables, ulcer healing, blood flow, risk assessment on unaffected foot and health related quality of life was obtained as a baseline data. The study group participants were taught about nonweight bearing exercise practiced on both the legs for 4 weeks and information pamphlet on foot care practices were distributed along with the routine care. Patients were followed for 2 months and assessment was done at the end of each month. The intra-group and inter-group comparisons were carried out using t-tests and RMANOVA respectively, at

5% significance level.

Results: The results show a highly statistically significant difference in the diabetic foot ulcer healing score, blood flow, risk assessment and health related quality of life in the study in contrast to the control group. Correlation exists between ulcer healing and blood flow. As the blood flow increased the wound size decreased.

Conclusion: The inclusion of nonweight-bearing exercise as part of diabetic foot ulcer management strategies holds promise for improving healing outcomes and reducing the burden of DFU-related complications.



Vijayasamundeeswari Palani

Sri Ramachandra Institute of Higher Education and Research (DU), India

Biography

P. Vijayasamundeeswari, is currently working as an Associate Professor at Sri Ramachandra Faculty of Nursing, Sri Ramachandra Institute of Higher Education and Research Institute (Deemed to be University) with 22 years of experience in the academic field, specializing in Paediatric Nursing. I implemented innovative teaching strategies that cater to varied learning styles, integrating technology and real-world applications to enhance student understanding and retention. I actively mentor students, guiding them through academic challenges and career planning. I have received Best Paper award, the Best Teaching Excellence Award as a team in nursing education and also the Best Research Award for publishing an article with high Impact Factor journal. I strongly advocate for professional development and continuous learning, regularly attending workshops and conferences, and pursuing certifications in Nursing education, service and research. These opportunities have enabled me to stay abreast of the latest educational trends and incorporate best practices into my teaching.

Effectiveness of autogenic training on biophysiological status, psychological distress and quality of

life among mothers of children with intellectual developmental disability in selected special schools at Chennai

Background: Raising a child with a disability is an unexpected experience for parents. Caring for a child with a disability, depending on the type of disability, can result in physical health problems, mental health problems on mothers.

Scope: The scope of the study was to determine the effectiveness of Autogenic training on bio physiological status psychological distress and quality of life among mothers of children with Intellectual developmental disability in selected special schools at Chennai.

Objectives: determine the effectiveness of Autogenic training on bio physiological status psychological distress and quality of life among mothers of children with Intellectual developmental disability and to associate the psychological distress and quality of life with selected background variables.

Methods: The research design adopted for this study was quantitative True experimental research design. The sample size was 250 with 125 in study group and control group settings were two special schools at Chennai The instruments had 4 parts Part 1 Background Variables Part II Bio physiological variables Part 3 Das Scale Part 4 WHO BREF Quality of life scale.

Results/outcome: The results highlighted Autogenic training to be an effective method in reducing systolic and diastolic blood pressure psychological distress score and improving quality of life among mothers of children with Intellectual developmental disability.

Conclusions: The present study concludes that the Autogenic training were effective in Positive changes in bio physiological status (Blood pressure) reducing depression reducing anxiety and stress and improved QoL among mothers with intellectually disabled children.



Lingling Huang

Southeast University, China

Biography

Lingling Huang, PhD candidate, study at Southeast University, Nanjing, Jiangsu Province, China,

currently her main research project involves:

- 1) Research on the Current Status and Intervention-Models of Female Fertility
- 2) Research on Female Reproductive Aging and Prevention Strategies
- 3) Dietary patterns and female reproductive health and
- 4) Environmental pollutants and female reproductive health. Lingling Huang has authored multiple papers in peer reviewed journals.

Plasma proteomics analysis of early biomarkers for predicting female fecundability: a nested case-control study

Background: The decline of fecundability levels in female at childbearing age has become a critical social issue, and there is a lack of reliable biomarkers to estimate fecundability level. The present study aimed to identify and verify new plasma protein markers to predict female fecundability level.

Methods: A nested case-control study was conducted

involving couples who participated in the Chinese National Free Pre-conception Check-up Project. Women who successfully conceive within one year were defined as the high fecundability group, those unable to conceive were defined as the low fecundability group. In the training cohort, plasma samples were separately collected from 8 women in the high fecundability group and the low fecundability group to identify potential protein biomarkers using proteomics technology. The proteins that were most significantly associated with fecundability were further tested in a validation cohort ($n = 40$) by western blotting assay, enzyme-linked immunosorbent assay and biochemical tests. Meanwhile, receiver operating characteristic curve analysis were used to evaluate the predictive value. Cox proportional hazard regression analyses were conducted to calculate hazard ratios and 95% confidence intervals; restricted cubic spline analysis was used to assess linear relationship between the proteins level and hazard ratios for fecundability.

Results: Compared to the low fecundability group, the high fecundability group showed increased expression of proteins in the training cohort and western blotting assay validated the results in the test cohort. The expression level of pyruvate, a key product of glycolysis, was significantly increased in the high fecundability group ($P < 0.01$) compared to the low fecundability group and its area under the curve value was 0.68 ($P < 0.05$). Trend tests showed the positive correlation between the pyruvate level and fecundability possibility (hazard ratios = 1.66, 95% confidence intervals: 1.07-2.59, p for trend = 0.025). There was a linear positive dose-response association between the pyruvate level and fecundability (non-linearity, p -value = 0.2927).

Conclusion: Female plasma proteins had potential values as biomarkers to predict fecundability and plasma pyruvate level has high diagnostic value. However, current evidence was limited, study with a larger sample is needed to validate the findings of this study.



Peiyan Yang

Southeast University, China

Co-exposure of elevated cadmium and zinc deficiency drive esophageal squamous cell carcinoma malignant progression by mtDNA-activated stemness

Background: Esophageal squamous cell carcinoma (ESCC) is an environment-related cancer by its spatial distribution characteristics. Increasing number of studies have demonstrated crucial correlations between ESCC and multiple environmental heavy metal exposure, while the roles of synergistic effect of heavy metals in ESCC remains unclear.

Methods: Based on case-control study of 131 pairs of ESCC patients and healthy control, several serum and urine metals were detected by ICP-MS. LASSO and Bayesian kernel machine regression (BKMR) were used to explore the combined effect of metals in the incidence of ESCC. An in vitro model for co-exposure of elevated cadmium and zinc deficiency (Cd+ /Zn-) was established to clarify molecular mechanisms in esophageal cancer malignant progression.

Results: Multiple metals were changed in serum and urine ESCC patients, among which abnormal internal co-exposure of Cd+ /Zn- were identified by LASSO and BKMR. Cd+ /Zn drove migration, invasion, and vasculogenic mimicry of ESCC cells. We found mtDNA was released into the cytoplasm through the mitochondrial permeability transition pore and further enhanced stemness. The mechanism underlying these changes may involve Cd+ /Zn inhibited MTF1-TFAM axis, which confers disorganized activation of cGAS-STING pathways and Sox2-manipulated cancer stemness.

Conclusions: Our study identified a novel pattern of metals co-exposure in ESCC malignant progression, which may contribute to further demonstrating the potential roles of trace metals-based early identification and therapies



Xinxin Guo

Southeast University, China

Fusobacterium periodonticum BCT virulence protein promote esophageal cancer progression through mast cell MC2 polarization

Esophageal cancer (ESCC) is one of the most common malignant tumors and is associated with *Fusobacterium periodonticum* (*F. periodonticum*, Fp) infection and mast cells (MCs) infiltration. This study aims to explore the role and mechanism of Fp and BCT virulence protein on MCs activation and polarization in the ESCC progression. The functions of Fp and BCT in activating MCs were investigated by the release of α -hexosaminidase and toluidine blue stain. Co-culture cell model of MCs treated by Fp and BCT with ESCC cells (EC109) used to analysis the role of MCs in ESCC development. UPLC-MS/MS used to detect the metabolism feature of mast cell MC2 polarization. The mechanisms of MC2 polarization induced by Fp

and BCT were performed RNA-seq. The related molecular mechanism on MC2 polarization were investigated in vitro. We found that Fp and BCT increased the release of α -hexosaminidase and the stroma around the cells showed metachromia. MCs treated by Fp and BCT enhanced the invasion and migration of EC109 and had been defined as MC2. Non-targeted metabolomics and lipidomics results revealed that Fp and BCT increased the arachidonic acid metabolism (AA) and induced the secretion of PGE2. The RNA-seq results showed that MAPK/ERK pathway was been activated which related to the production of AA. The MAPK/ERK regulated by MRGPRX2/PLC β /PKC pathway were also increased by FP and BCT. CO-IP result indicated that BCT could combined with MRGPRX2 which specifically expressed in MCs. Meanwhile, Fp and BCT induced the endoplasmic reticulum stress which regulated by MRGPRX2/PLC β /PKC pathway and the expression of related genes were upregulated such as GRP78, CHOP, ATF4 and IRE1a compared with Si-MRGPRX2. The increased phosphorylation level of IRE1a promotes the movement of Xbp1 into the nucleus, thus promoting the binding of xbp1s to PTGS2 and increasing the formation of PGE2 but reversed by Si-MRGPRX2. Our findings demonstrated that Fp/BCT promote the activation and polarization of MC2 which promote the invasion and migration of EC109. And the polarization mechanism was related to metabolic reprogramming regulated by MRGPRX2. Hence, we thought that development of new therapies that target MRGPRX2 may provide an effective therapy strategy for Fp-associated ESCC



Fengyuan Tang

Zhejiang University, China

Biography

Fengyuan Tang, PhD candidate, study at Zhejiang University, Hangzhou, Zhejiang Province, China, currently his main research project involves: 1) Child obesity prevention and control 2) health economics and 3) Global health governance for infectious diseases.

Associations of child-to-adult body size change with hypertension and severe NAFLD: A prospective analysis in UK Biobank

Background: Large body size increases the risk of hypertension and severe non-alcoholic fatty liver disease (NAFLD). We aimed to examine the independent and combined influences of body size change from childhood to adulthood on the risk of hypertension and severe NAFLD.

Methods: The Data from the UK Biobank on 53,619 individuals free of hypertension and 67,406 individuals free of liver diseases were divided into nine categories based on their self-reported body size at age 10 and measured BMI in adulthood. A Cox proportional hazards regression model was applied to assess the association between body size change and the incidence of hypertension and severe NAFLD.

Results: A median follow-up of approximately 13 years revealed that 5,000 and 509 individuals had developed hypertension and NAFLD, respectively. Individuals with low body size in childhood and high body size in adulthood exhibited the highest risk of hypertension (HR 1.90; $P < 0.01$) and severe NAFLD (HR 3.40; $P < 0.01$) compared to those with average body size in both childhood and adulthood. Individuals with a high body size in adulthood exhibited a higher risk of hypertension (HRs 1.78-1.90; all $P < 0.01$) and severe NAFLD (HRs 2.58-3.40; all $P < 0.01$). Individuals with a low adulthood body size exhibited a reduced risk of hypertension (HRs 0.62-0.77; all $P < 0.01$) and severe NAFLD (HRs 0.11-0.58; all $P < 0.05$).

Conclusions: Body size change trend is associated with the risk of developing hypertension and severe NAFLD, particularly when an individual's adulthood body size is either low or high.



Jie Li

Southeast University, China

Identifying Aberrant 1CM-related Pathways by Multi-Omics and Validating Tumor Inhibitory Effect of One-carbon Donor Betaine in Gastric Cancer

Aims: Gastric cancer (GC) is one of the top five malignant tumors in China. As a heterogeneous and highly aggressive malignant tumor, the etiology and precise treatment of GC remain to be explored. Since alterations in intracellular and extracellular metabolites have profound effects on gene expression, metabolism and tumor formation in humans. Therefore, in this study we used metabolomics and transcriptomic techniques to explore the metabolites and genes that were differentially expressed in GC versus healthy people, and explored the potential mechanisms by which the differential metabolite plays a role in GC,

providing data to support the diagnosis and etiological exploration of GC.

Subjects and Methods: First, plasma from GC patients (152) and healthy controls (170) were analyzed using metabolomics techniques, and the effects of metabolite on GC cell activity, invasive migration, and glycolysis levels were further explored at the cellular level. Then, 6 Pairs of GC and paracancerous tissues were used for transcriptome sequencing and pathway enrichment analysis. Finally, the specific mechanisms by which metabolite acts on GC cells were explored in conjunction with palmitoylation sequencing.

Results: The results showed that palmitic acid showed a decreasing trend in the plasma of GC patients. Transcriptome results show that glycolytic pathway is differentially expressed in GC and paracancerous tissues. Furthermore, cellular experiments showed that the addition of palmitic acid (100 μM) increased the activity, proliferation and migration capacity, as well as the level of glycolysis in cancer cells. Further mechanistic studies revealed that palmitic acid may promote the development of GC by increasing palmitoylation levels and inducing an increase in glycolysis levels.

Conclusion: These results suggest that palmitic acid has potential as a diagnostic biomarker for GC. Moreover, palmitic acid plays a role in promoting GC progression by facilitating palmitoylation-mediated glycolysis



Tianyi Zhang

Southeast University, China

Study on cardiotoxicity effects and potential mechanisms induced by nanoplastics exposure

Objective: As a new type of pollutant, nanoplastics, which are derived from the degradation of plastic products, can enter the body and cause potential cardiovascular damage effects. This study focused on the cardiotoxicity induced by nanoplastics and its potential mechanisms. Based on traditional and novel toxicological platforms, we used mice and human cardiac organoid models to systematically investigate the damage to cardiac structure and function caused by different concentrations and durations of nanoplastic exposure, and used transcriptome sequencing to reveal the potential mechanisms of damage induced by different durations of nanoplastic exposure.

Methods: This study firstly used the traditional toxicological platform, taking C57BL/6 mice as the research subjects, and simulated nanoplastic exposure scenarios with a respiratory exposure tower. We set up control group and low dose (LD), medium dose (MD), and high dose (HD) nanoplastics exposure groups, then carried out acute (1 week), subacute (4 weeks), and subchronic exposure (12 weeks). The study comprehensively elucidated the cardiotoxic effects induced by nanoplastics through multi dimensions, such as vivo imaging, echocardiography, tissue pathological section staining, transmission electron microscope detection (TEM) and biochemical detection. In addition, this study constructed human cardiac organ-

oids?hCOs?and verified its reliability as a novel toxicological platform. Based on hCOs, the study explored the accumulation of nanoplastics and its damage to cardiac function and structure. Finally, transcriptome sequencing was conducted on the cardiac tissues of mice after acute, subacute and subchronic exposure to reveal the potential mechanisms induced by different durations of nano plastic exposure.

Results: Subacute exposure to nano plastics can induce their accumulation in the hearts of mice, and the fluorescence signal intensity of nano plastics in the heart increases with the extension of exposure time. Acute and subacute exposure did not induce changes in mouse weight, heart weight, or heart/body weight index. However, sub chronic exposure led to a significant reduction in mouse weight and heart weight. Echocardiography results suggested that after acute exposure, the ejection fraction (EF) and fractional shortening (FS) of the mouse heart did not change. However, subacute and sub chronic exposure induced significant reduction in EF and FS values and increased left ventricular diastolic internal diameter (LVDd) and left ventricular systolic internal diameter (LVDs) in a dose-dependent manner. Moreover, HE staining showed that only HD group had disordered myofilament arrangement and myocardial fragmentation after subacute nanoplastic exposure, While all exposure groups after subchronic exposure showed significant cardiac structural damage, and the area of myocardial injury expanded with the increase of exposure dose. TEM detection showed that subacute and subchronic exposure induced subcellular structural damage in the myocardium. In addition, sub chronic exposure significantly increased the level of cardiac fibrosis. Biochemical marker detection showed that acute exposure to nano plastics could induce an increase in myocardial injury markers, inflammation, and oxidative stress levels, and sustained high expression in subacute and sub chronic groups. Furtherly, we constructed hCOs and verified its reliability as a novel toxicological platform in terms of genomics, specific protein expression, and cardiac contractile function using transcriptome sequencing, immunofluorescence and drug response test. Based on hCOs

experiments, nano plastics could be absorbed and accumulated for more than 14 days and induced morphological changes and cell death. Further research showed that nano plastics dose-dependently weakened te beating amplitude and frequency of hCOs. Calcium transient experiments also revealed that nano plastics could significantly damage the cardiac contractile coupling function. In addition, nano plastic exposure significantly decreased ATP levels, activated inflammatory levels and increased the expression of cardiac injury markers. Finally, this study performed transcriptome sequencing on cardiac tissues of mice after acute, subacute and sub chronic exposure to reveal the potential mechanisms respectively. Bioinformatics analysis showed that acute exposure significantly induced inflammatory responses, and as exposure time extended, subacute and sub chronic exposure induced mitochondrial damage and disturbed mitochondrial tricarboxylic acid cycle, causing cardiac energy metabolism disorder.

Conclusion: This study systematically assessed the cardiotoxic effects induced by nano plastic exposure and revealed potential mechanisms based on mice and hCOs. The results indicated that nano plastic exposure induces cardiac structural and functional damage in a time- and dose-dependent manner. Mitochondrial damage and energy metabolism disturbance in myocardial cells may be an important mechanism for cardiac damage induced by nano plastic exposure.



Mingjun Sun

Southeast University, China

Biography

Mingjun Sun, Southeast University, China. His main research interests are chemical carcinogenesis and the role of non-coding RNA in tumor evolution, and he has published more than 10 SCI papers in gut microbes, science of the total environment and other journals as the first author.

N-nitrosamines combined with microcystin mediated downregulation of Hsa_circ_0006867 promotes malignant transformation of esophageal epithelial cells through miR-499a-3p/MEF2C signaling

Our previous research identified elevated levels of

N-Nitrosamines (NAs) disinfection by-products and microcystins (MCs) in drinking water in esophageal cancer high-risk areas was identified, implying their potential role risk factors in esophageal cancer initiation. Subsequent studies using rat exposure and models of esophageal epithelial cell malignant transformation have, for the first time, confirmed the synergistic carcinogenic effect of NAs and MCs. In this study, hsa_circ_0006867 was identified to be significantly decreased in ESCC tissues and NAs combined with MCs-transformed Het-1A cells(T-Het-1A). Hsa_circ_0006867 gain- and loss-of-function studies revealed that hsa_circ_0006867, functioned as a tumor suppressor gene, could block the malignant transformation of esophageal epithelial cells induced by NAs and MCs, and inhibit migration and invasion ability of T-Het-1A cells. Mechanistically, luciferase reporter gene assay and RIP analysis verified hsa_circ_0006867 acts as a molecular sponge of hsa-miR-499a-3p to modulate MEF2C expression. Hsa-miR-499a-3p inhibition or MEF2C overexpression reversed the migration and invasion ability of T-Het-1A cells induced by silencing of hsa_circ_0006867. Moreover, knockdown of hsa_circ_0006867 increased tumor growth and lung/liver metastasis, accompanied by decreased MEF2C expression in vivo. In summary, our findings propose a new evidence for synergistic carcinogenicity of NAs and MCs and a potential therapy target for ESCC.



Shihan Zhang

Southeast University, China

Biography

Shihan Zhang earned her Bachelor’s degree in Medicine in 2020 and is currently pursuing a PhD at Southeast University. Her primary research focus is on epidemiology and health statistics, with a specialization in infectious disease epidemiology, particularly in viral infections and immunity.

SARS-CoV-2 Humoral Immunity Profiles in Community Populations of Eastern China: A Longitudinal Study

Objectives: In the context of the interplay between COVID-19 infection and vaccine-induced immunity, it is crucial to understand the dynamic characteristics and influencing factors of community-based population-specific antibodies.

Methods: From January to June 2023, three rounds of sero-epidemiological surveys were conducted among

community populations in various districts of Jiangsu Province, Eastern China. The same Chemiluminescence Immunoassay (CLIA) was used for consecutive detection of specific-IgG antibody levels. Generalized Linear Mixed Models (GLMM) and Generalized Additive Mixed Models (GAMM) were employed to identify factors influencing antibody levels and to dynamically predict antibody levels during the follow-up period. Additionally, Kaplan-Meier curves were used to plot cumulative seroreversion rates for populations with different characteristics during the follow-up period

Results: We collected demographic information and serum IgG antibody data from 2,737 participants. The median age was 43 years (IQR: 25-63 years), with a male-to-female ratio of 2:3. The log-transformed IgG means and standard deviations across the three follow-up rounds were 3.37 ± 1.82 S/CO, 3.96 ± 1.45 S/CO, and 3.68 ± 1.37 S/CO, respectively, with statistically significant differences. GLMM analysis showed that age was negatively correlated with antibody levels, while vaccination status and previous infection history were positively correlated ($P < 0.001$). GAMM fitting indicated antibody levels peaked 44 days after the start of the follow-up (log-IgG: 4.57) and reached the lowest point at 93 days (log-IgG: 3.51)

Conclusions: Mathematical modeling depicted the six-month dynamic changes and influencing factors of antibodies in community-based populations. This study provides scientific evidence for the timely optimization and updating of COVID-19 vaccination strategies.



Yanping Cheng

Southeast University, China

Study of intestinal barrier damage under environmentally relevant doses of nanoplastic exposure

Background: Plastic pollution has been ranked as the second important scientific issue in environmental and ecological sciences. Among other things, nanoplastics can penetrate biological barriers and enter the human body, posing a health hazard. The main exposure mode is through ingestion of contaminated food and water, with the gastrointestinal tract being the main target organ. A causal relationship between microplastic contamination and inflammatory bowel disease has been reported.

Methods: This study explores the enterotoxicity and barrier damaging of nanoplastics by applying 40 nm polystyrene microspheres (PS-NPs) on intestinal organoids (IOs), mice, and cellular models.

Results: Under an optical microscope, the growth of

IOs was observed and recorded over 7 days. HE and immunofluorescence staining with intestinal-specific markers (Villin, Muc2, Lysozyme, Chromogranin A) showed that the IOs have a cellular composition and physiological structure consistent with in vivo intestines and possess key functions. After exposure to PS-NPs, the IOs showed a significant decrease in vitality, increased ROS, apoptosis, and intestinal barrier permeability. Additionally, the expression of villin, mucin, tight junctions (ZO-1, Occludin, Claudin), and Caspase-9 all changed. Subacute toxicity experiments showed that PS-NPs caused significant damage to the intestinal villi and crypts, infiltration of inflammatory cells, and a decrease in goblet cells. Serum ELISA showed increased levels of LDH, ROS, IL-6, IL-1 β , TNF- α , LPS, diamine oxidase (DAO), and D-lactate. TUNEL staining showed an increased level of apoptosis in the intestines of mice. Immunohistochemistry showed a decrease in the expression of villin, tight junctions (ZO-1, Occludin), and E-cadherin, and an increase in mucin. AB-PAS staining showed that PS-NPs can alter the distribution of mucus in the intestines. At the cellular level, after treatment with PS-NPs, intestinal epithelial cells (IEC-6, MODE-K) showed decreased cell viability, increased oxidative stress, inflammation and apoptosis, and altered expression of Villin, Muc2, ZO-1, Occludin, and E-cadherin. However, treatment with the NAC led to some recovery of intestinal barrier damage.

Conclusions: Nano plastics can significantly damage the intestinal barrier and may induce or exacerbate the occurrence and development of various intestinal diseases



Shengxuan Jin

Southeast University, China

Biography

Shengxuan Jin, PhD candidate, study at Southeast University, Nanjing, Jiangsu Province, China, currently her main research project involves: 1) health promotion for the elderly 2) health service utilization and 3) long-term care insurance.

A Multistage mixed methods research on factors influencing and active learning intervention on health literacy of community-residing elderly adults in Nanjing

Background: The health literacy among older adults deserves further investigation. This study aimed to conduct a multistage research of the current status, influencing factors, promotion intervention, and the intervention effects of health literacy among Chinese older adults through cross-sectional and randomized

controlled trial studies.

Methods: 608 elderly residents were surveyed in the first phase study. The second phase was a 2-arm parallel randomized controlled trial. 120 older adults were randomly assigned to either a three-month intervention or control group (both 60 participants). The active learning program intervention includes health lectures, active discussions, heuristic questioning, family homework, while control group only received health literacy pamphlets. The outcome measure is health literacy indicators evaluated from five dimensions.

Results: The mean health literacy score was 4.313 in the cross-sectional study. The quantile regression showed that gender, education, children number, self-reported health, chronic disease and insurance had significant effects on health literacy. The intervention group showed significant improvement in all dimensions ($P < 0.05$), with significant group*time interaction. The multiple linear regression indicate that marriage factor related to health knowledge, education factor related to health behaviors and total health literacy, chronic diseases and insurance factors related to health skills, gender and insurance factors related to health intentions have significant effects.

Conclusion: The health literacy of older adults is influenced by individuals, families, and society. The active learning program is effective in enhancing comprehensive health literacy. It is an effective measure to respond to China's proactive health strategy by mobilizing the roles of the individual, family, and society.



Jialiu He

Southeast University, China

Biography

Jialiu He, 27 years old, come from Nanjing, China. He is very glad to participate in this meeting. He is an PhD of public health in Southeast University, and my major orientation is chronic non-communicable disease epidemiology. With a strong ability of statistical analysis and fieldwork of epidemiology, He got some success in cancer screening and prevention of T2DM complications.

Association between kidney function and mortality in T2DM patients: A 10-year prospective cohort study in China

Background: Abnormal kidney function is an important characteristic of type 2 diabetes mellitus (T2DM), but the association with mortality in T2DM is rarely

known. This study aims to investigate the relationship between serum kidney function indexes and mortality among T2DM patients.

Methods: In this cohort study, we included 19919 T2DM patients in Jiangsu, China. Serum estimated glomerular filtration rate (eGFR), urea and uric acid were measured at baseline, and Cox regression was used to evaluate hazard ratios of all-cause and cause-specific mortality. Restricted cubic splines were applied to analyze dose-response relationships. We subsequently explored the best cut-off value for each index with mortality.

Results: During a median follow-up period of 9.77 years, 4428 deaths occurred, including 1542 CVD deaths and 1074 due to cancer. eGFR was negatively associated with all-cause mortality, and compared to lowest quintiles, urea and uric acid showed “U-shape” tendency. The association between eGFR and CVD mortality remained significant, but the highest quintile of urea was negatively associated with cancer mortality. Finally, the best cut-off values with all-cause mortality were 88.50 ml/min/1.73m², 6.95 mmol/L and 342.50 μmol/L for eGFR, urea and uric acid, respectively.

Conclusions: This study found that eGFR, urea and uric acid were associated with mortality due to T2DM. Interventional studies are needed to elucidate the effect of changes in kidney function on the health of T2DM patients.



Yiling Ge

Southeast University, China

Ferroptosis participated in inhaled polystyrene nanoplastics-induced liver injury and fibrosis

The emerging contaminant nano plastics (NPs) have received considerable attention. Due to their tiny size and unique colloidal properties, NPs could more easily enter the body and cross biological barriers with inhalation exposure. While NPs-induced hepatotoxicity has been reported, the hepatic impact of inhaled NPs was still unknown. To close this gap, a 40 nm polystyrene NPs (PS-NPs) inhalation exposure mice model was developed to explore the hepatotoxicity

during acute (1 week), subacute (4 weeks), and sub-chronic period (12 weeks), with four exposure doses (0, 16, 40, and 100 $\mu\text{g}/\text{day}$). Results showed that inhaled PS-NPs caused a remarkable increase of ALT, AST, and ALP with a decrease of CHE, indicating liver dysfunction. Various histological abnormalities and significantly higher levels of inflammation in a dose- and time-dependent manner were observed. Moreover, after 4 weeks and 12 weeks of exposure, Masson staining and upregulated expression of TGF- β , α -SMA, and Col1a1 identified that inhaled PS-NPs exposure triggered the progression of liver fibrosis with the exposure time prolonged. From the mechanistic perspective, transcriptome analysis revealed that ferroptosis was involved in PS-NPs-induced liver hepatotoxicity, and key features of ferroptosis were detected, including persistent oxidative stress, iron overload, increased LPO, mitochondria damage, and the expression changes of GPX4, TFRC, and Ferritin. And in vitro and in vivo recovery tests showed that ferroptosis inhibitor Fer-1 treatment alleviated liver injury and fibrosis. The above results confirmed the critical role of ferroptosis in PS-NPs-induced hepatotoxicity. To better conclude our findings and understand the mechanistic causality within it, an adverse outcome pathway (AOP) framework was established.

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World Nursing and Healthcare Summit

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A dark blue circular graphic with a white border, containing the text 'KEYNOTE SPEAKERS Day 2'. A thin dark blue line connects the top of the circle to the dark blue bar above it.

**KEYNOTE
SPEAKERS
Day 2**





Dorothy Bai

Taipei Medical University, Taiwan

Biography

Dorothy Bai completed a PhD in Nursing at The University of Hong Kong in 2016, following an MD in Clinical Medicine from Xiamen University in 2011. Since July 2022, they have served as an Assistant Professor at the School of Gerontology Health Management and Long-Term Care, Taipei Medical University. Her previous roles include Executive Editor of Gerontechnology (2017–present) and Deputy Director at the Gerontechnology Research Center, Yuan Ze University (2020–2022). They were also a Research Assistant Professor at Yuan Ze University (2019–2022) and held editorial and leadership positions in the field of gerontechnology. Their research focuses on dementia care and integrating technology into long-term care.

Non-intrusive sleep detection smart mattress system for precision dementia care

Introduction: Dementia care has become a significant challenge for public health and healthcare systems, greatly impacting the physical and mental health and the quality of life of individuals. Sleep disturbances are among the common symptoms of dementia, further deteriorating patients' health conditions and increasing the caregiving load. Wearable devices, such as wrist or hip actigraphs, are often chosen as alternatives to polysomnography for gathering sleep-related data. However, due to cognitive decline, the presence of such devices might induce confusion, delusions, or hallucinations in people with dementia, leading to anxiety, fear, and even aberrant behaviors. Hence, the development of non-intrusive sleep monitoring devices

to track their sleep states is a crucial solution that needs attention.

Purpose: The primary goal of this project is to investigate the relationship between sleep data and health indicators of people with dementia using a non-invasive sleep detection smart mattress, combined with sensor data processing and algorithms, to construct a dementia precision care model.

Method: This study includes system development and testing to predict health care issues of people with dementia, providing personalized care recommendations and real-time alerts. Upon system completion, further evaluation of user experience will be conducted. The primary site for this study is the specialized dementia care area within a residential institution. The research process is divided into three stages: Prospective cohort study to explore the relationship between smart mattress sleep data and dementia care indicators; Machine learning model construction for smart mattress dementia care precision alerts, predictions, recommendations, and management; System development and validation, including smart mattress dementia precision care system development and field validation. The association between sleep data and health indicators will be analyzed using linear regression for continuous variables and logistic regression for dichotomous variables.

Results: The non-invasive smart mattress used in this study utilizes activity sensing and machine learning to establish a sleep state detection model. Compared to polysomnography, this model demonstrated a sensitivity of 0.942. The study is currently in the first stage of participant recruitment, with a 6-month data-collection phase to follow. Subsequently, the data will be analyzed to establish the relationship between smart mattress sleep data and dementia care indicators, based on which a machine learning model will be developed.

Discussion: This model will construct smart mattress dementia care precision alerts, predictions, recommendations, and management systems. The research findings are expected to contribute to dementia precision care and provide references for future smart technology products designed for precise dementia care.



5th Edition

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SPEAKERS
Day 2





Jiuming Li

Southeast University, China

Biography

Li Jiuming, Master of Medicine, is a dedicated epidemiology and public health researcher, doctoral program at Southeast University. His work centers on reproductive epidemiology and maternal-child health

The associations between female fecundability and postpartum breastfeeding: A prospective cohort study

Objective: This study aimed to investigate the relationship between time to pregnancy (TTP) and postpartum breastfeeding.

Methods: We used a prospective cohort study design to recruit pregnant women who came to the hospital

for antenatal checkups before 20 weeks' gestation between April 2019 and March 2020 at the Maternal and Child Health Hospital of Gulou District, Nanjing, China. A telephone follow-up was conducted 42 days postpartum to collect information about breastfeeding practices.

Results: A total of 535 pregnant women were initially included in the study cohort and 478(89.35%) completed the follow-up, among 79 (16.5%) in the prolonged TTP group, and the rest in the short TTP group (n=399, 83.5%). According to the follow-up, 271 (56.7%) were in the exclusive breastfeeding group and the rest in the non-exclusive breastfeeding group (n=207, 43.3%). A significant decrease in exclusive breastfeeding rate was observed in the prolonged TTP group compared to the short TTP group (OR=0.46, 95% CI: 0.27-0.74). After adjusting for potential confounders such as age, husband's age, BMI, and regularity of menstruation, the negative association between TTP and exclusive breastfeeding remained (OR=0.50, 95% CI: 0.29-0.84). In stratified analyses, the results were generally consistent.

Conclusion: The probability of postpartum breastfeeding is lower in women with lower fecundability.



Yuxiang Liu

Southeast University, China

Biography

Yuxiang Liu, PhD candidate in Department of Epidemiology and Health Statistics, School of Public Health, School of Public Health, Southeast University, China. Current research interests are endocrinology and gerontology, with a particular emphasis on diabetes and prediabetes. Previous research mainly involved: 1. Diabetes and prediabetes screening; 2. Lifestyle intervention on prediabetic population; 3. Risk prediction for diabetes.

Plasma Exosome Proteomics of People with Different Glucose Status Reveals Potential Pathogenesis of Type 2 Diabetes

Aims: The pathogenesis of type 2 diabetes remained to be fully understood. However, exosomes have shown its potential to further advance diabetes research as a rich source of biomarkers. This study aims to explore the proteomic profiles of circulating plasma exosomes in individuals with varying glucose statuses and offer potentially new perspective on the

pathogenesis of type 2 diabetes.

Methods: Participants with different glucose status were recruited according to the criteria of the American diabetes association. After plasma exosomes were collected, Data independent acquisition mass spectrometry quantitative proteomics analysis was performed to examine plasma exosome proteome. Differential proteins identified through pairwise group comparisons underwent further analysis like protein-protein interaction (PPI), gene ontology (GO) and the Kyoto Encyclopedia of Genes and Genomes (KEGG) pathway to reveal their functions and interactions.

Results: A total of 75 participants (25 euglycemia; 25 prediabetes; 25 diabetes) were included in this study. 356 mutual proteins were identified in participants with different glucose levels. Principal coordinates analysis showed that the proteomic patterns of exosomes in the prediabetic and diabetic groups exhibited certain similarities, contrasting with those in individuals with normal glucose levels. From the pairwise differential protein comparison, 32 proteins were selected for PPI and functional analysis, of which 7 were deemed significant within the network. GO annotations highlighted a close link between immunity and type 2 diabetes. Local STRING clustering, Reactome and KEGG pathway analysis all indicated great significance of complement and coagulation cascades.

Conclusions: Distinct plasma exosome protein patterns are present in individuals based on their glucose status. Complement and coagulation cascades might be the most important pathway that plasma exosomes were involved in the pathogenesis of type 2 diabetes.



Yiqing Yang

Southeast University, China

Biography

From 2014 to 2019, she earned a bachelor's degree in clinical medicine from the University of South China. From 2019 to 2022, she completed a Master's degree in internal medicine at China Medical University. Since 2022, she has been pursuing a PhD in Cardiovascular Medicine at Southeast University Medical School.

Alcohol drinking, red cell distribution width, and stroke: a Chinese rural population-based prospective cohort study

Purpose: To explore the combined effect of alcohol drinking and red cell distribution width (RDW) on

stroke risk in rural areas of China.

Methods: In this prospective cohort study, 6526 participants were divided into four groups according to alcohol drinking status and RDW. Kaplan-Meier curves, Cox proportional hazards regression models, ROC curves, and subgroup analyses were used to evaluate the association between alcohol drinking status, RDW and stroke.

Results: During 28,453 person-years of follow-up, 115 participants had a first-ever stroke. Compared with non-drinkers whose RDW \leq 15%, drinkers whose RDW $>$ 15% had a significantly higher risk of stroke (HR: 2.34, 95% CI: 1.21-4.54), this trend persisted in men (HR: 2.37, 95% CI: 1.18-4.76), those who were under 65 (HR: 3.32, 95% CI: 1.46-7.52), those with hypertension (HR: 3.41, 95% CI: 1.65-7.05), and those without diabetes mellitus (HR: 2.51, 95% CI: 1.28-4.93). The area under the ROC curve was increased by 0.012 ($P = 0.044$) in the predictive model including alcohol drinking status and RDW.

Conclusions: Alcohol drinking was an independent risk factor for stroke. Drinkers with RDW $>$ 15% had a significant higher risk of stroke compared with non-drinkers with RDW \leq 15%. These findings suggested that alcohol drinking and RDW may be valuable predictor of stroke.



Shiyi Tan

Southeast University, China

Angelica sinensis polysaccharide ameliorates non-alcoholic steatohepatitis in liver organoids via activating protein phosphatase 1 regulatory subunit 3G: A study combined machine learning and biological experiments

Non-alcoholic/Metabolic dysfunction-associated steatohepatitis (NASH/MASH) is the leading cause of liver disease worldwide. Despite its importance, NASH is underrecognized in clinical practice. However, the limitations of animal models in the study of hepatopathy raise the need for alternative testing strategies including in vitro and in silico models. In this study, we used three machine learning algorithms (LASSO regres-

sion, support vector machine, and random forest) to identify protein phosphatase 1 regulatory subunit 3G (PPP1R3G) as a hub gene from the gene expression profiles between NASH and healthy liver tissue biopsy in the GEO datasets (AUCtrain/test set=0.934/0.883). Meanwhile, we utilized induced pluripotent stem cells (iPSCs) to differentiate liver organoids (LOs) that were a kind of 3D hollow multicell spheres containing liver parenchymal and non-parenchymal cells, as well as having bile acid transport structure and stable hepatic functions such as synthesis of albumin, urea, and metabolic enzymes. On this basis, we determined that the expression level of PPP1R3G decreased significantly in the iPSC-LO-NASH model, matching our GEO dataset's results. On this basis, we found that Angelica sinensis polysaccharide (ASP), a polymer compound extracted from the Chinese medicine Angelica Sinensis, was a natural PPP1R3G activator. Also, ASP alleviated lipid accumulation, reduced total cholesterol/triglyceride (TC/TG) synthesis and Alanine transaminase/Aspartate aminotransferase/Alkaline phosphatase secretion (ALT/AST/ALP), and ameliorated abnormalities of high/low-density lipoprotein (HDL/LDL) in iPSC-LO-NASH model. Overall, we identified PPP1R3G as a promising biomarker and the corresponding activator ASP as a protective agent, providing the scientific basis for the development of such natural products for NASH intervention



Qiannan Zhang

Southeast University, China

Biography

Qiannan Zhang is an MD candidate specializing in Hepatobiliary and Pancreatic Surgery at Southeast University, where she has also completed her Master's and Bachelor's degrees in Clinical Medicine. With extensive clinical experience gained as a surgical resident at Zhongda Hospital Affiliated to Southeast University and an internship at The Second Hospital Affiliated to Medical College of Zhejiang University, she is actively involved in advancing surgical practices under the mentorship of Professor Jiahua Zhou. Her work focuses on improving patient outcomes through innovative surgical techniques, reflecting her deep commitment to the field of hepatobiliary and pancreatic surgery.

Establishment and validation of a new staging and prognostic system for combined hepatocellular-cholangiocarcinoma

Background and Aims: Combined hepatocellular-cholangiocarcinoma is a rare and unique primary liver tumor without specific TNM staging system. This study aims to establish and validate a new staging and prognostic system for combined hepatocellular-cholangiocarcinoma, so as to help clinical decision-making and prognostic stratification, and promote scientific research.

Methods: Data are collected from 457 patients with cHCC-CCA at the Eastern Hepatobiliary Surgery Hospital and Zhongda Hospital from January 2000 to

December 2018. Univariate Cox regression was used to predict the influencing factors of overall survival time. Multivariate Cox proportional hazard regression was used to screen tumor pathological characteristics (size, number of nodules, microvascular invasion, macrovascular invasion, regional lymph node metastasis, invasion of adjacent organ or structure, distant metastasis), and integrate clinical judgment to construct a new TNM staging system. The accuracy of the model and Goodness of Fit were evaluated by C-index, calibration curve and AIC, and then compared with other TNM systems. Then, the multivariate Cox model was used to screen all the relevant factors step by step, and Nomogram model was constructed to establish the comprehensive prognosis score.

Results: 457 patients were enrolled in the training group. The median survival time was 24.3 months for males and 43.9 months for females. The overall 1-, 3-, and 5-year overall survival rates were 71%, 39%, and 22%, respectively. The comparison of survival curve between the two groups ($P = 0.048 < 0.05$) showed that there was significant difference in survival between men and women without considering other factors. The new staging system has better predictive and discriminative ability than the current AJCC intrahepatic cholangiocarcinoma staging model (version 8th) and AJCC hepatocellular carcinoma staging model (version 8th) (C index: 0.661, 0.604, 0.636, respectively). The calibration curve showed that the predicted survival rate observed in the training group was mainly consistent with the actual survival rate. All patients were divided into four risk groups by Nomogram model. The median survival time in the training group was 110.6 months (score < 64), 33.4 months ($64 \leq \text{score} < 135$), 13.1 months ($135 \leq \text{score} < 224$), and 4.4 months (score ≥ 224).

Conclusion: The new TNM staging of combined hepatocellular-cholangiocarcinoma includes four stages (I, IIA, IIB, IIIA, IIIB, IIIC, IV). The prognostic scoring system includes tumor pathological features, IgCA19-9, and prealbumin. The new staging system has higher accuracy than the current staging system. The new staging system should be validated in a large non-Asian population, patients with different causes, and more advanced cancer patients



Mingma Li

Southeast University, China

Biography

Mingma Li (1996-) born in Lincang City, Yunnan Province, is a doctoral student at Southeast University, engaged in the temporal epidemiology of respiratory infectious diseases, and has a deep research foundation in mumps spatiotemporal and viral molecular evolution analysis, and has published relevant articles.

Understanding Mumps Dynamics: Epidemiological Traits and Breakthrough Case Studies in Jiangsu Province, China, 2023

Objectives: The COVID-19 pandemic and its associated public health and social measures (PHSMs) have significantly altered the transmission dynamics of notifiable infectious diseases in China, including mumps. This study aimed to analyze the epidemiological char-

acteristics of mumps in Jiangsu Province in 2023, with a particular focus on breakthrough cases among vaccinated individuals in high-incidence groups.

Methods: A retrospective analysis of reported cases from the disease surveillance system was conducted, and vaccination information was obtained from the Jiangsu Province Comprehensive Vaccination Service Management Information System. Descriptive statistics and the Joinpoint regression model were used for analysis.

Results: A total of 4142 mumps cases were reported in Jiangsu Province in 2023, with a significant increase in case numbers in the second quarter. Children aged 5-10 years were the main high-incidence group. Among all 3692 cases under 15 years old, 96.02% (3545/3692) were breakthrough infections, and 19.66% (697/3545) of these cases had received at least two doses of mumps-containing vaccines (MuCV).

Conclusion: Based on our previous research analysis, this study findings suggest that mumps continues to circulate in Jiangsu Province and is susceptible to changes by PHSMs. The occurrence of breakthrough cases indicates a potential need for improved vaccination strategies and a strengthened booster program of MuCV

Defu Yuan

Southeast University, China

Biography

Defu Yuan (1996-). born in Lijiang City, Yunnan Province, is a doctoral student at Southeast University, engaged in the molecular epidemiology of AIDS, and has a deep research foundation in HIV low-level viremia, drug resistance (including low-frequency resistance), molecular transmission network, and evolutionary analysis and has published relevant articles.

Identifying low-frequency variants and drug resistance patterns of integrase inhibitor using deep sequencing in HIV/AIDS patients: A cumulative and individual patient data (IPD) meta-analysis

Objectives: Summarizing the occurrence of low-frequency variants in the integrase (IN) gene and the resulting resistance patterns for INSTIs.

Methods: The databases Web of Science, PubMed, Cochrane Library, Embase, and Scopus served as the meta-analysis's data sources up to 1 November 2023. Two authors independently conducted the literature screen, data extraction, and quality assessment based on the registered protocol (PROSPERO ID: CRD42023495535).

Results: A total of 27 studies (29 data points) were included. The PDRMs and PDR in pre-treatment patients were 6.77% and 3.97%, respectively, and the ADRMs and ADR in ART-experienced patients were 9.75% and 6.43%, respectively. The specific low-frequency IN variants profiles of 171 PLWH were extracted; the results showed that the prevalence of low-frequency INSTIs resistance in pre-treatment and ART-experienced patients were 65.94% (91/138) and 81.82% (27/33), respectively. The resistance patterns in both groups are similar, with the first-generation INSTIs higher than second-generation (pre-treatment: 65.94% vs. 28.26%; ART-experienced: 81.82% vs. 39.39%), and Elvitegravir has the highest resistance rates, followed by Raltegravir, Cabotegravir, Bictegravir, and Dolutegravir in each group.

Conclusion: The deep sequencing results reveal that resistance patterns in both groups of patients with low-frequency IN variants are similar, with the prevalence of first-generation INSTI resistance being higher than that of second-generation INSTIs and ADR higher than PDR, emphasizing that continued use and optimization of drug resistance monitoring methods are still essential to ensure the long-term effectiveness of ART under the background of widespread use and promotion of INSTIs.



Naiyang Shi

Southeast University, China

Biography

Naiyang Shi, a PhD candidate in Department of Epidemiology and Health Statistics, School of Public Health, Southeast University, China. Her research focuses on health behavior change and infectious disease modelling, with a particular emphasis on vaccination promotion.

Message framing's limited efficacy in counteracting parental hesitancy toward human papillomavirus vaccination for female adolescents: insights from a randomized trial

Background: Parental acceptance of HPV vaccination remains low. This study investigates the influence of different message framing on Chinese parental intentions to vaccinate their daughters against HPV.

Methods: A 2 (appeal framing: gain vs. loss) × 2 (cultural value: individualism vs. collectivism) × 2 (evidence type: narrative vs. non-narrative) factorial design was used in an online experiment. Parents of unvaccinated junior high school girls were recruited and included in the experiment. The primary outcome assessed was the reduction in HPV vaccine hesitancy (VH). The analysis of variance tests (ANOVAs) and hierarchical regression analyses were conducted to test the hypotheses.

Results: Of 4012 participants, the majority were women with low VH. Only loss-framing exerted a direct effect on advocacy ($p = .036$). Initial VH negatively moderated this effect ($p = .027$). Except for narrative evidence ($p = .068$), message framings showed significant small effects in low-hesitant participants ($p = .032$). An incentive policy negatively moderated the initial VH's effect on advocacy ($p = .042$). Persuasion was evident only among low-hesitant participants not receiving incentives ($p = .002$). In contrast, for highly hesitant individuals without incentive policies, loss-framing ($p = .024$) and collectivism perspective ($p = .033$) produced counterintuitive effects.

Conclusions: Message framing is effective among low-hesitant parents of female adolescents in improving HPV vaccination decisions without economic incentives. Non-narrative evidence and loss-framing messages should be prioritized over narrative evidence and gain-framing messages. Nonetheless, caution is warranted when engaging with highly hesitant parents.

**Shuchun Tao**

Southeast University, China

The relationship between a novel renal injury marker Dickkopf-3 and AKI after kidney surgery

Objective: The aim of this study was to analyze the effects of ureteral flexible lithotripsy (RIRS), percutaneous nephrolithotripsy (PCNL) and partial nephrectomy (PN) on renal function, to investigate the clinical value of applying a novel renal injury-related molecule, urinary Dickkopf-3 (DKK3), to assess and predict acute kidney injury (AKI) early after surgery. The above study will provide some scientific data and ideas for the early diagnosis and prevention of kidney injury after urological kidney surgery in the future.

Methods: 1. According to the inclusion and exclusion criteria, patients with upper urinary tract stones who underwent RIRS and PCNL at our center since October 2021 to October 2022, as well as renal tumor patients who underwent PN were included as the study subjects. The clinical data of the patients were collected. ELISA was performed to detect the levels of blood creatinine (Scr), urea nitrogen (BUN), urinary DKK3 and urinary Kim-1 in patients at each time point and statistical analysis was performed. 2. The incidence of postoperative AKI was assessed for each procedure according to the KDIGO criteria, and patients were divided into AKI and non-AKI groups. The differences in the basal and postoperative elevated values of urinary DKK3 and urinary Kim-1 between the two groups were compared preoperatively, 8 hours postoperative-

ly and 24 hours postoperatively. The predictive effect of urinary DKK3 and urinary Kim 1 on postoperative AKI was analyzed using ROC curves. 3. A model of renal injury was established by clamping the kidney tips of both kidneys in mice: non-invasive arterial clamps were used to simultaneously clamp the kidney tips of both kidneys for 20 or 30 or 45 minutes to construct a model with different degrees of ischemia-reperfusion injury. The mice were randomly divided into sham, 20 min, 30 min and 45 min groups, and the renal tissues were morphologically assessed (PAS staining) and scored for renal tubular injury. The changes in DKK3 levels were verified by immunohistochemistry (IHC) and protein blotting (WB) in each group. 4. A hypoxia-reoxygenation injury model of HK-2 cells was established and divided into normal and injury groups, and the changes of DKK3 levels were verified by WB.

Results: 1. Urinary Kim-1 and urinary DKK3 were significantly higher in patients with RIRS, PCNL and PN at 8h postoperatively and 24h postoperatively compared with preoperatively, and there was no significant change in Scr and BUN. 2. The incidence of AKI within 7 days after RIRS, PCNL and PN was 2.5%, 3.28% and 22.88%. 3. In patients undergoing PN, urinary Kim-1 levels were significantly higher at 8h postoperatively and urinary DKK3 levels were significantly higher at 8h and 24h postoperatively in the AKI group compared with the non-AKI group. Compared with the non-AKI group, urinary DKK3 elevations were significantly higher in the AKI group at both 8h and 24h postoperatively. 4. Urinary Kim-1 at 8h postoperatively, urinary DKK3 at 8h postoperatively, and urinary DKK3 at 24h postoperatively predicted postoperative AKI in PN with AUC values of 0.628, 0.7273, and 0.7928, respectively. Elevated values of urinary Kim-1 at 8h postoperatively, urinary DKK3 at 8h postoperatively and urinary DKK3 at 24h postoperatively predicted postoperative AKI in PN with AUC values of 0.5812, 0.7013 and 0.7359, respectively. The combined urinary Kim-1 and urinary DKK3 predicted postoperative AKI with AUC values of 0.7603 and 0.8002 at 8 h and 24 h postoperatively; the combined urinary Kim-1 elevation and urinary DKK3 elevation predicted postoperative AKI with AUC values

of 0.7078 and 0.7766 at 8 h and 24 h postoperatively. 5. A mouse kidney injury model was successfully constructed, and IHC and WB showed that DKK3 expression was significantly higher in the kidney injury model compared with the Sham group, and it increased with the degree of kidney injury. 6. A model of HK-2 cell injury was successfully constructed, and WB showed that DKK3 expression was significantly higher in the injury group compared with the normal group.

Conclusion: Surgery for kidney stones and renal tumors can have an impact on patients' renal function, especially after partial nephrectomy, and the incidence

of postoperative AKI can be more than 20%. Urinary DKK3 and urinary Kim-1 levels were significantly elevated after renal surgery, and the level changes could be detected earlier compared with blood creatinine and urea nitrogen. Urinary DKK3 and urinary Kim-1 were predictive of AKI after partial nephrectomy, with urinary DKK3 showing higher superiority and clinical application value as a novel marker of kidney injury. DKK3 expression was significantly elevated in kidney injury and HK-2 cell injury models, suggesting that it may play a potential function in the development of AKI.



Yazhen Zhang

Southeast university, China

Biography

Zhang Yazhen; Ph.D. candidate, School of Public Health, Southeast University; research interests: health statistics, health economics evaluation of prevention and control strategies.

The effects of population mobility on Chinese new AIDS diagnoses in infectious and susceptible perspectives: A spatial-epidemiology analysis

Background: The prevention and control of Acquired Immune Deficiency Syndrome which results in significant health loss and disease burden are critical global concerns.

Objective: From the perspective of population mobility, the investigation of the spatial spillover effect of AIDS morbidity can provide valuable insights for dis-

ease control.

Methods: Data on AIDS and related socioeconomic determinants of 31 provincial regions in China were collected from 2013 to 2022. In this study, Baidu migration index was utilized to calculate the spatial inter-provincial population migration weight matrices. Subsequently, spatial lag models were developed to quantify spatial spillovers and the impacts of socioeconomic variables from infectious and susceptible perspectives. Finally, robustness analyses were performed.

Results: The results demonstrated the existence of significant positive spatial autocorrelation among provinces, with Hot-spots in the southwest and Cold-spots in the northeast China. From both of infectious and susceptible perspectives, the spatial coefficients ranged from 0.70 to 0.75, indicating the positive spatial spillovers of population mobility. Furthermore, higher population density, more accessible health-care, and lower education levels were associated with higher incidence of AIDS. The analysis of robustness confirmed the validity and suggested that the spatial effect may be biased depending on the choices of spatial matrix and study area.

Conclusion: The AIDS epidemic situation in a given region will have a significant impact on areas with frequent population movements to and from it, hence, migrant population from high incidence areas should be the focus of surveillance.



Penghao Zhen

Southeast University, China

Biography

Penghao Zhen, PhD candidate, study at Southeast University, Nanjing, Jiangsu Province, China. Currently his main research interest involves: 1) molecular mechanism of ventricular remodeling in myocardial infarction. 2) Functional nanomaterials for the treatment of muscle infarction.

Curcumin/QK hydrogelation modulates macrophage polarization and promotes angiogenesis after myocardial infarction

Background: Myocardial infarction (MI), due to its high mortality and disability rates, poses a serious disease burden and has attracted widespread attention from healthcare workers worldwide. The early resolution of inflammation and tissue repair in myocardial infarction

can affect the long-term prognosis of myocardial infarction patients. However, currently, there are limited clinical treatment strategies such as angiogenesis therapy and anti-inflammatory therapy for myocardial infarction.

Methods: Curcumin and VEGF mimetic peptide KLT-WQELYQLKYKGI (QK) are effective drugs for reducing inflammation and angiogenesis, but they have not been well applied in clinical practice due to their small polarity or relatively short half-life. Here, we creatively co assemble two drugs with the peptide sequence NapFFY for the treatment of myocardial infarction by in situ injection at myocardial infarction area in rats.

Results: In vitro experiments showed that the mechanical strength of the hydrogel was significantly improved after assembly with two drugs, and the drug could be released continuously for more than two weeks. In vivo data showed that self-assembled hydrogels promoted M2 polarization and increased neovascular density in myocardial infarction models. In addition, Masson staining and echocardiographic results suggest that this Curcumin/QK hydrogel can reduce the fibrotic area of myocardial infarction site and improve the parameters of cardiac function.

Conclusions: In summary, these results indicate that, Curcumin/QK polypeptide hydrogel has dual functions in immune regulation and promoting angiogenesis at the infarct site, and ultimately contributes to the recovery of myocardial infarction.



Chen Saisai

Southeast University, China

Biography

Saisai Chen is a 33-year-old PhD candidate in Surgery at Southeast University, China, is a prominent researcher in cancer biology. With a Bachelor's from Bengbu Medical College and a Master's from Southeast University, his impactful studies on tumor microenvironment and macrophage polarization have been published in top journals like Journal for Immunotherapy of Cancer. Chen has presented at major conferences and leads a National Natural Science Foundation project, advancing the field with his cutting-edge research.

MDK promotes M2 macrophage polarization to remodel the tumor microenvironment in clear cell renal cell carcinoma

Background: Immunotherapy has limited efficacy in the treatment of clear cell renal cell carcinoma

(ccRCC), posing a challenge to the treatment of advanced ccRCC. This is intimately connected to the immune regulation network of the tumor microenvironment. Understanding the tumor microenvironment heterogeneity (TME) is crucial to devising novel therapeutic strategies for advanced ccRCC.

Methods: A multi-omics study was performed on publicly available data of ccRCC, including scRNA-seq, bulk RNA-seq, and somatic mutation data. Multiple bioinformatics strategies and in vitro experiments were conducted to explore the heterogeneity of the tumor microenvironment.

Results: Three distinct immune subtypes of ccRCC were identified based on the TME-related genes retrieved from combined analysis of scRNA-seq and bulk RNA-seq. A prognostic model was constructed based on the unique cell communication in immunosuppressive subtype and validated in TCGA and CheckMate cohorts. MDK was revealed to be a critical regulatory gene in the immunosuppressive subtype, increased MDK predicting poor prognosis and response to immunotherapy in ccRCC patients, prompting M2 macrophage polarization via MDK-LRP1 interaction. The suppression of MDK inhibited M2 macrophage polarization.

Conclusions: This study revealed the tumor microenvironment heterogeneity of ccRCC and developed a promising prognostic model capable of reliably predicting the prognosis of ccRCC patients. Notably, the crucial role of MDK in the immunosuppressive tumor microenvironment was elucidated, providing a new direction for optimized immunotherapy of ccRCC



Wang Kai

Southeast University, China

Biography

Kai Wang is a 30-year-old PhD candidate in Surgery at Southeast University, where he has built a notable academic background, including a Bachelor's degree in Clinical Medicine and a Research-oriented Master's degree in Surgery. His research has made significant contributions to the field, exemplified by his publication in the *Journal of Hematology & Oncology* on integrins in solid tumors. Mr. Wang has also presented his work at major conferences, including the Chinese Urological Association Annual Meeting and the Chinese Conference on Tumor Markers, addressing topics such as lncRNA NR2F1-AS in prostate cancer and ALKBH5's role in mRNA modification. Additionally, he holds a patent for an intelligent enhancement method for ultra-high-definition endoscopic images, reflecting his commitment to advancing medical technology.

A genome-wide CRISPR screen in human prostate cancer cells reveals drivers of macrophage-mediated cell killing and positions TSSK3 as a tumor-intrinsic immunomodulator

Objective: Crosstalk between prostate cancer (PCa) cells and the tumor microenvironment plays a key role in disease progression and metastasis, which can provide new opportunities for patient treatment. Macrophages are the most abundant immune cells in the prostate tumor microenvironment (TME), and a large number of macrophages can activate the immune activity of the tumor region and kill tumor cells. To identify genes critical for macrophage-mediated killing in tumor cells, we performed a genome-wide co-culture CRISPR screen and identified multiple components of the TSSK3, PRKCD, and NF- κ B pathways as hit genes, and their expression of TSSK3 in tumor cells is critical for activation and killing of tumor cells by macrophages.

Methods: These data localized TSSK3 signaling as immunomodulators and were confirmed by androgen deprivation assays, making hormone-deprived tumor cells resistant to macrophage-mediated killing. Proteomic analysis showed that oxidative phosphorylation in PRKCD-KO and IKBKG-KO cells TSSK3 was down-regulated consistent with the control group, indicating impaired mitochondrial function, as confirmed by electron microscopy analysis. In addition, phosphoproteomic analysis showed that all hits impair ferroptosis signaling, which has been transcriptionally validated using neoadjuvant clinical trial samples from the AR inhibitor enzalutamide. Overall, our data suggest that TSSK3 works with PRKCD and NF- κ B pathways to evade macrophage-mediated killing.

Results: Since hormonal intervention is the mainstay of therapy for the treatment of prostate cancer patients, our findings may have immediate significance and provide a plausible explanation for the persistence of tumor cells under androgen deprivation therapy observed in clinical practice.

Guiya Jiang

Southeast University, China

Immune-related genes based on chronic ABMR/TCMR could predict late renal graft loss

Objective: Late renal graft loss is the main barrier of transplantation efficiency. Chronic rejection, with which immune response has close relationship, is the main cause of late graft loss. The study was aimed to identify immune-related genes that correlated with chronic graft rejection and to develop a prognostic model.

Results: The gene expression profiles and clinical data of kidney transplant patients were extracted from the GEO databases. Immune related genes (DE-IRGs) were acquired based on intersection between differentially expressed genes (DEGs) and ImmPort database. Six and twelve DE-IRGs were found in chronic ABMR and TCMR cohort respectively. Their

expression level were validated in the cohorts. DE-IRGs in chronic ABMR cohort were mainly involved in chemokine and cytokine-mediated signaling pathway, while DE-IRGs in chronic TCMR cohort were mainly associated with T cell differentiation and activation. Subsequently, gene signature (rejection score) was constructed to distinguish specific chronic rejection type and non-rejection group and showed reliable ability. Then another type of model (risk score) was established according to GSE21374 dataset using lasso cox regression. The model using combination of DE-IRGs from chronic ABMR has better predictive value than models using chronic ABMR or TCMR DE-IRGs alone. AUC values of 1- and 3-year graft survival were 0.868.

Conclusion: Immune-related genes in kidney graft chronic rejection were identified to establish models for distinguishing chronic rejection and predicting late graft loss.



Yue Yan

Tsinghua University, China

Biography

Yue Yan, majoring in Biomedical Engineering at Tsinghua University. Yan is interested in the field of hospital management, medical information system, critical care and LLM Large Language Model implementing in medical.

Risk Assessment and Classification for Knowledge Graph of Sepsis Prevention and Treatment

Background: Sepsis, a critical response to infection, presents significant challenges in early detection due to its diverse manifestations and swift progression. In recent years, the rapid evolution of text mining and knowledge graph technologies has revolutionized the field of medical risk assessment. The creation of a

knowledge graph that encapsulates East Asian race clinical features and literature can potentially transform sepsis management through a data-driven approach.

Objective: To develop a knowledge graph for sepsis prevention and treatment, focusing on risk factors, to improve early recognition rates and decrease mortality rates among patients in community hospitals.

Methods: Utilizing text mining technology, we integrated 2,756 clinical datasets and literature resources. By defining and selecting high-frequency sepsis-related keywords, we summarized six thematic terms which serve as top-level entity nodes in the conceptual layer of the knowledge graph for sepsis. We built a visual relational network through relationship extraction and knowledge inference.

Results: We established a structured knowledge base suitable for early intervention in sepsis which is suitable for East Asian race. The knowledge graph-based model effectively distinguishes between high-risk and low-risk sepsis patients, demonstrating high accuracy and reliability in training and validation processes.

Conclusion: The knowledge graph provides robust support for clinical decision-making. Given its multi-faceted performance, the model holds promise as a digital solution for enhancing primary critical care and sepsis screening.

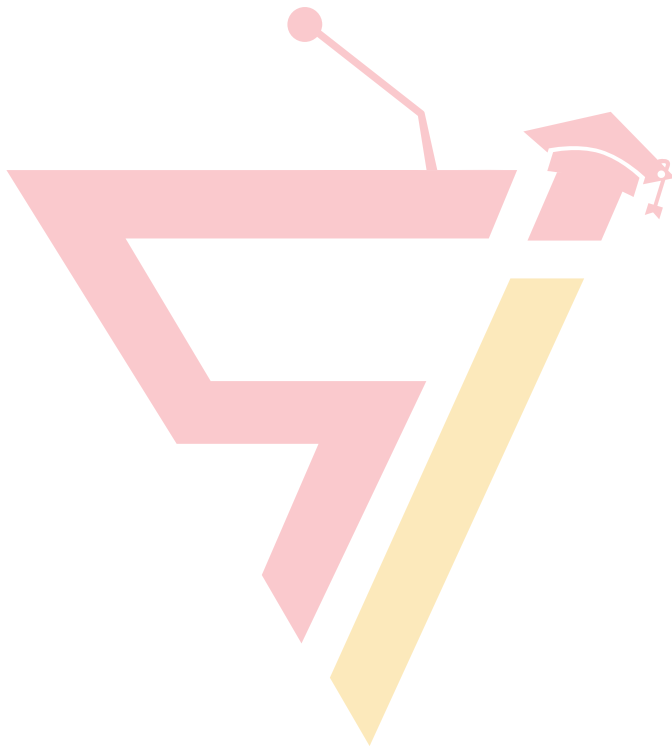
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**POSTERS
Day 2**



Chi-Mei Wu

Taichung Veterans General Hospital, Taiwan

Carbapenem-resistant enterobacterales in long-term care facilities

The emergence of carbapenem-resistance Enterobacteriaceae (CRE) has become a major public health concern. Moreover, its colonization among residents in LTCFs is associated with subsequent infections and mortality. To further explore the various aspects concerning CRE in LTCFs, we conducted a literature review for carbapenem-resistant Enterobacteriaceae colonization and/or infections in long-term care facilities. The prevalence and incidence of CRE acquisition among residents in LTCFs; especially in California, central Italy, Spain, Japan and Taiwan. The predominance of CRE in LTCFs, especially in high acuity LTCFs with mechanical ventilation, was important and may demonstrate as an outbreak center. The prevalence rate of CRE in LTCFs was much higher than that in the acute care settings and the community, which indicated LTCFs being a vital reservoir for CRE. The detailed species and genomic analyses among CRE in LTCFs reported *Klebsiella pneumoniae* being the primarily

species in the LTCFs in the United State, Spain and Taiwan. KPC 2 strain ST 258 was the most common KPC-producing *Klebsiella pneumoniae* in the LTCFs in the United States. IMP-11 and IMP-6 were the primarily types in LTCFs in Japan. OXA-48 was the prominent carbapenemase among CRE in Spain. Multiple risk factors associated with increased risk for CRE acquisition in LTCFs were found, such as co morbidities, immunosuppressive status, dependent functional status, usage of gastrointestinal devices or indwelling catheters, mechanical ventilation, prior antibiotic exposures and previous culture reports. High CRE acquisition rate and prolonged CRE carriage duration after colonization were found among residents in LTCFs. Moreover, the patients from LTCFs who were colonized or infected with CRE had poor clinical outcomes, with mortality up to 75% in infected patients. Although current guidelines did not support active surveillance of CRE in LTCFs, the infection prevention and control measures to reduce CRE in LTCFs is important, and could possibly be controlled via contact precautions, cohort staffing, daily CHG bathing, healthcare-worker education and hand-hygiene adherence



Yeh Jheng Yi

Taichung Veterans General Hospital, Taiwan

Biography

Yeh Jheng Yi, currently works at the Infection Control Center of Taichung Veterans General Hospital in Taiwan. She obtained her Master's degree from Chung Shan Medical University in Taiwan. Specializing in the field of infection control. Since 2011, she has been involved in nursing in medical center of Taiwan, focusing on pediatric nursing and gynecological oncology nursing. Starting in 2021, she began working in infection control and is a certified infection control nurse.

Experience in Infection Control During a Covid-19 Outbreak in a Geriatric Ward in the Post-Pandemic

The elderly are defined as individuals aged 65 and

above. The main transmission route of SARS-CoV-2 is through respiratory droplets and aerosols. The use of ceiling fans in enclosed spaces can increase the chances of spreading the virus. Therefore, it is recommended to arrange patients diagnosed with the virus in the same ward and to strengthen the management of both patients and caregivers. In a geriatric ward, between November 25 and November 30, 2023, a total of 8 individuals were diagnosed with Covid-19. Following the outbreak management process, the infection control nurse registered and analyzed the cases, noting successive diagnoses in the same ward, indicating a time-place correlation, and meeting the definition of an outbreak event. Measures implemented after the outbreak investigation included environmental modifications and enhanced infection control awareness. After adopting measures to prevent cross-infection, no new Covid-19 cases were reported in the ward from December 1 to December 7. In the post-pandemic, it is still crucial to prioritize infection control measures and elevate staff awareness. Patients and caregivers should be regularly reminded to properly wear masks and avoid casually conversing with adjacent beds, to reduce the risk of cross-infection. Posting instructions for donning and doffing isolation gowns can help ensure correct practices by staff. In the event of a respiratory disease outbreak, factors such as the usage, positioning of ceiling fans, and the use of cleaning equipment should be considered in environmental investigations.

Ho Yi Fang

Taichung Veterans General Hospital, Taiwan

Biography

Ho Yi Fang, currently works at the Infection Control Center of Taichung Veterans General Hospital in Taiwan. She obtained her Bachelor of Nursing from National Taipei University of Nursing and Health Sciences. Her specialty in pediatric, critical care, and infection control nursing. Since 2005, she has served in the pediatric internal medicine and pediatric intensive care units in medical center of Taiwan, dedicated to pediatric nursing. In 2013, she received an award for her presentation at the Evidence-Based Care Quality Improvement Competition and Symposium. In 2023, she began working in infection control and completed her infection control training.

Silicone Urinary Catheter Contamination Incident with *Stenotrophomonas rhizophila*: Risk Assessment and Quality Control Strategies

The Taiwan Food and Drug Administration conducted sampling and testing at a hospital in Eastern Taiwan. The test results revealed microbial growth in silicone urinary catheters from a certain manufacturer. The hospital's supply center immediately ceased distribu-

tion and initiated a recall of catheters from this batch. The Infection Control Center's examination found that the 14Fr urinary catheters were non-compliant, with the bacteria identified as *Stenotrophomonas rhizophila*. Upon reviewing the hospital's records from September 2022 to May 2023, there were no cases of *Stenotrophomonas rhizophila* infection related to medical care. Following this incident, the hospital was instructed to monthly sample sterile urinary catheters for bacterial culture over a three-month period. Sterile catheters were also included in the regular sampling inspection protocol. It was recommended that the regular inspection mechanism for sterile medical materials should rotate through all types of sterile medical materials in the hospital each quarter. Since the implementation of these measures, there have been no further incidents of incomplete sterilization of sterile medical items. The article notes that the catheters from this manufacturer were sterilized using Ethylene Oxide (EO), and the potential cause of incomplete sterilization was identified as overcrowding of sterilized items, leading to an overload of the sterilization capacity. To prevent such incidents, it is crucial to perform sampling inspections of sterile medical items before they enter the hospital and establish a robust inspection mechanism for sterile medical materials.



Chiu-Man Lin

Taichung Veterans General Hospital, Taiwan

Biography

A head nurse in the nursing department at Taichung Veterans General Hospital (TCVGH). An advanced practice registered nurse with over 30 years of experience in the emergency room, medical and surgical wards, and the burn intensive care unit. Additionally, published a research paper in the International Journal of Scientific and Research Publications.

The Effect of Propofol-Opioid Combinations for Sedation in Major Burn Patients Undergoing Wound Dressing Changes

It is widely believed that burn is one of the most painful injuries. Burn pain is multifaceted and complicated including intrinsic pain caused by the burn itself, wound pain after debridement or daily wound care, and the pain related to physical and occupational therapy. Some complications following inadequate management of pain from burn injuries, such as acute stress disorders (ASD), have been discussed in many studies. Therefore, adequate management of burn pain should be one of the critical parts in proper burn treatment. The aim of this study was to evaluate the effect of propofol opioid combinations for deep sedation and analgesia during major burn wound dressing changes for major wounds after burn injuries. Twenty patients with second to third degree burns ranging from 20 to 80% TBSA were enrolled in this study and divided into two groups. However, systolic blood pressure values in sedation group showed a significant decrease after procedure ($p < .05$). The pain score was lower in the sedation group than in the control KP ($p < .05$). Besides, the time consuming of daily dressing changes for wounds was also decreased in the sedation group. The propofol-opioid combination sedation can be considered as an effective alternative for major burn wound dressing changes by burn injuries which does not result in respiratory depression or other systemic complications in our patients



Noriko Nakagaki

Niigata University of Pharmacy, Japan

Infection prevention and control practiced by nursery nurses who have experienced the coronavirus disease 2019 pandemic: Efforts at nurseries accepting children with medical care needs

This study aimed to clarify infection prevention and control practiced by nurses, working in nurseries accepting children with medical care needs, who had experienced the coronavirus disease 2019 pandemic and gain an insight into the roles of nursery nurses.

Semistructured interviews with nurses from eight licensed nurseries in Tokyo were conducted. A wide variety of practices were implemented for infection prevention and control, namely “health management of children with medical care needs and other nursery children,” “development of habits to prevent contracting infection that are required for group life,” “restricting the range of daily living activities of nursery children,” “review of hygienic environment and management,” “infection control efforts together with other nursery staff,” “collection of infection information and dissemination of the information to people around,” “building trust with guardians for effective collaboration,” “establishment of a system to support nurses,” and “good practices accumulated through everyday life not influenced by the epidemic status.” The results showed that nurses working at nurseries accepting children with medical care needs played the roles of comprehensively supporting group life at nurseries as professionals with medical knowledge and skills and assisting with the continuous nursery attendance of the children.



Yao-Gin Huang

National Taipei University of Nursing and Health Sciences, Taiwan

Biography

Yao Gin Huang is a PhD candidate, School of Nursing, National Taipei University of Nursing and Health Sciences, Taipei city, Taiwan

NP, School of Nursing, National Taipei University of Nursing and Health Sciences, Taipei city, Taiwan

To Enhance the Selfcare Recovery of Individuals with Severe Mental Illness through Empowerment Strategies

Background: In the field of nursing in the country, there is still a lack of relevant research literature on empowerment strategies for the recovery of individuals with severe mental illness in self-care. Currently, a behavioral theory model is still being employed to promote the independence and self-care in the daily lives of individuals with severe mental illness, and there is a lack of consistency with the mental rehabilitation models that aim to promote individual recovery.

Method: The first stage involved the formulation of clinical problem guidelines using the PICO framework and conducting database literature searches. This in-

cluded: P: schizophrenia/self-care; I: empowerment; O: personal recovery/personal empowerment. The databases used were PubMed, EBSCOhost, the Chinese Academic Database, and the National Digital Library of Theses and Dissertations. A total of 13 English articles and 6 Chinese articles were included. In the second stage, we referred to the paradigm framework developed by Song (2009) and established a clinical care strategy for promoting self-care and recovery in patients with severe mental illness.

Result: Through the integrated analysis of empirical data, factors influencing the recovery of individuals with severe mental illness can be categorized into external environmental factors and internal factors. Internal factors include the degree of alleviation of psychotic symptoms and the potential for self-care in daily life, while external environmental factors, such as family members, peers, and healthcare personnel, need to be considered as essential components in the recovery process. The program for promoting self-care in individuals with severe mental illness includes the following components: (1) Connecting: Establishing interpersonal relationships, (2) Inspiring Hope: Recognizing strengths and internal/external resources, (3) Identifying: Setting self-care improvement goals, (4) Meaningful Living: Developing a self-care improvement plan, and (5) Empowerment: Sustaining and evaluating self-care improvements.

Conclusion: Currently, the use of behavioral theory to positively reinforce patient self-care behaviors remains common in clinical practice. However, for patients who may have the potential for better self-care but are not demonstrating ideal self-care behaviors at the present stage, it appears that their motivation is not effectively stimulated. What is regrettable is that if clinical care providers fail to recognize this issue, then the self-care training during the rehabilitation period may become merely formal and fail to highlight its significance.



Ching-Hui Wang

Taipei City Hospital, Taiwan

Biography

Ching-Hui Wang is an Ophthalmic Nurse Practitioner at the Department of Ophthalmology, Zhongxing Branch, Taipei City Hospital, Taiwan. She also serves as the Head of the Nurse Practitioner Group in the Surgery Department. Wang is a licensed optometrist and an accredited lecturer certified by the Ministry of Education, Taiwan. In academia, she is an Adjunct Instructor in the Department of Optometry at Kang Ning University and a Clinical Instructor at Chung Shan Medical University. She is also a PhD candidate at the Graduate Institute of Business Administration, Fu Jen Catholic University. Wang has gained international experience as a Research Fellow at the Shiley Eye Center, University of California, San Diego.

The impact of the artificial intelligence transformation of the fundus screening mode on the screening rate for diabetic retinopathy in the community

Objective: This study explores the changes in the fundus screening mode at community clinics and examines the impact trends on the screening rate for

diabetic retinopathy with the assistance of artificial intelligence in interpreting fundus photographs.

Method: This study takes 17 community clinics in Taipei City as examples. From August 1 to December 31, 2022, spanning a total of five months, the fundus screening mode was modified. Instead of the original approach where patients were referred from community clinics to ophthalmology for fundus examination, the approach was transformed into an active mode. Instruments with artificial intelligence-assisted fundus screening capabilities were delivered to community clinics, and the number of screenings was recorded.

Results: In 2022, for the first time, we collaborated with 17 community healthcare clinics in Taipei City. Among the 1,439 screened individuals, 580 (40.3%) had diabetes, of which 54 (0.93%) had diabetic retinopathy. Additionally, 2 individuals who reported no history of diabetes were found to have diabetic retinopathy. The overall eye screening rate for diabetic patients at community clinics was 27.55% before the COVID-19 pandemic in 2019. During the pandemic, the rates were 27.80% in 2020 and 29.45% in 2021. In 2022, with the change in screening model, the diabetic retinopathy screening rate increased to 39.35%, which is an 11.8 percentage point improvement compared to 2019. This rate is approaching the district (41.39%) and Taiwan (45.53%) benchmarks, showing a significant effect and a growth of 42.83%.

Conclusion: Changing the screening mode and incorporating artificial intelligence assistance eliminates the time consuming and inconvenient process for individuals to visit ophthalmology for examination, thus increasing the diabetic retinopathy screening rate in the community.



Tzu-Hua Wu

Taichung Veterans General Hospital, Taiwan

Biography

Tzu-Hua Wu is a Study Coordinator, Department of Medical oncology, Taichung Veterans. General Hospital Office Address No. 1650, Sec. 4, Taiwan Blvd., Xitun Dist., Taichung City, Taiwan (R.O.C.) Education 2004/09 ~2008/06 B.S., Department of Nursing, National Defense Medical College, Taiwan 2009/09 ~2011/06 M.S., Institute of Pathology, National Defense Medical College, Taiwan

Performing clinical development and pilot production of immune cell therapy using peripheral blood mononuclear cells obtained through leukapheresis

This study is expected to recruit 10 donors through promotional posters who wish to participate in this project at the Cell Therapy and Regenerative Medicine Center of Taichung Veterans General Hospital. After donor signs the informed consent form (ICF) and the eligibility is evaluated by the physician, approximately 75-300 mL of white blood cells will be collected by a physician or medical laboratory scientist during their routine Leukapheresis procedure. The collected leukopak, rich in peripheral blood mononuclear cells, will be transported to the TaiwanBio's Cell Processing Center (CPC), and the qualified process personnel will proceed with the isolation, genetic modification, and expansion of various immune cells according to the established standard operating procedures. This study aims to develop and manufacture cell and gene therapy products. Additionally, the application of established cell banks includes but not limited to clinical trials, new drug application (NDA), Regulations Governing the Application or Use of Specific Medical Techniques or Examinations or Medical Devices, etc., that is, the cell banks will be established for research, clinical and commercial use



Jung Min Ryu

Daegu catholic university hospital, South Korea

Biography

Jung Min Ryu completed her Master's degree at Kyungpook National University, School of Medicine in 2014 and worked as a Trainee (Intern) at Kyungpook National University Hospital from 2014-2015. She completed her Ph.D. at Daegu catholic university, School of Medicine in 2021 and worked as a Trainee (Resident) at Daegu catholic university hospital from 2016 to 2020 and completed her Fellowship in 2022. She is presently working as an Assistant Professor at Daegu catholic university hospital and a Gynecological cancer specialist at the Korean Society of Gynecological Oncology.

Tumor intravascular platelet aggregation is associated with poor prognosis and advanced stages in patients with ovarian carcinoma

Methods: A total of 144 patients with ovarian carcinoma were enrolled in the current study. A retrospective review of medical records was conducted for each patient. Immunohistochemical staining for CD42b was performed using a tissue microarray made with paraffin-embedded tissue block to identify intravascular platelet aggregation in ovarian carcinoma. The staining was graded on a grade of 1 to 3 based on the presence of platelet aggregation or microthrombus.

Results: Among the enrolled patients, 25 (17.4%) patients showed grade 1 staining (no platelet aggregation), 85 (59.0%) patients showed grade 2 (platelet aggregation), and 34 (23.6%) patients showed grade 3 (microthrombus). Platelet aggregation or microthrombus was more commonly observed in tissues of patients with advanced-stage ovarian cancer ($p = 0.002$, Spearman's correlation analysis). Survival analysis showed that patients with intravascular platelet aggregation or microthrombus had a poorer prognosis than those without platelet aggregation (5-year OS: grade 1, 72.0%; grade 2, 55.3%; grade 3, 41.2%; $p = 0.037$).



Hao Wang

Southeast University, China

Inflammatory Microenvironment-targeted Therapy to Enhance Aged Tendon Healing

Aging significantly impairs tendon stem/progenitor cell (TSPC) function and disrupts tendon homeostasis, leading to compromised tissue repair. Effective therapeutic strategies targeting these age-related defects remain scarce. Here we present a strategy to promote aged tendon healing by targeting the inflammatory microenvironment with a novel peptide-based material designed to deliver quercetin (Que) for mitigating TSPC senescence and regulating immune homeostasis. Our findings demonstrate that DPH@Que effec-

tively reduces senescence-associated phenotypes in senescent TSPCs, restoring their migratory capacity and tenogenic differentiation potential while improving tenogenic differentiation. Mechanistically, DPH@Que downregulates the phosphorylation of PI3K/AKT and NF- κ B signaling pathways, attenuates the inflammatory response, and reestablishes mitochondrial homeostasis in senescent TSPCs, thereby reducing reactive oxygen species (ROS) production and senescence-associated secretory phenotype (SASP) factors. In vivo, DPH@Que significantly enhances Achilles tendon repair in aged rat models by promoting the M2 polarization of macrophages and reducing M1 polarization, thus modulating the local inflammatory microenvironment. Histological and immunohistochemical analyses revealed that DPH@Que-treated tendons exhibit improved collagen fiber organization, reduced ectopic ossification, and enhanced expression of tenogenic markers. Gait analysis further confirms that DPH@Que facilitates functional recovery of the Achilles tendon, reflected in improved locomotor performance and reduced pain. These results suggest that DPH@Que holds significant potential as a therapeutic strategy for the treatment of age-related tendon injuries by targeting cellular senescence and modulating the inflammatory microenvironment.



Yucheng Gao

Southeast University, China

Biography

Yucheng Gao is a distinguished researcher affiliated with Southeast University and Zhongda Hospital, a prominent institution under Southeast University. Specializing in bone, joint, and tendon diseases, Gao's research focuses on advancing understanding and treatment in these critical areas of orthopedics. His work is pivotal in exploring innovative solutions and improving patient outcomes in musculoskeletal disorders.

Unraveling the Impact of Exercise Modalities on OVX-Induced Bone Loss in Mice: The Pivotal Role of the Gut-Bone Axis

Background: Osteoporosis (OP) is a systemic metabolic bone disease characterized by decreased bone mass and microstructural deterioration, leading to increased bone fragility and related fractures. Postmenopausal osteoporosis (PMOP) is particularly prevalent and associated with estrogen deficiency-induced gut microbiota (GM) imbalance, impaired intestinal mucosal barrier function, and enhanced inflammatory responses. While numerous studies indicate that exercise is crucial for managing PMOP, there is a lack of research comparing the effectiveness of different exercise modalities and elucidating their mechanisms.

Methods: Ten-week-old female C57/BL6 mice underwent ovariectomy (OVX) and were divided into four groups: Sham, OVX, OVX- high intensity interval training (HIIT), and OVX- moderate intensity continuous exercise (MICE). The OVX-HIIT and OVX-MICE groups

were subjected to two different treadmill exercise modalities of matched distances for 12 weeks. Subsequently, bone mass and bone microstructure of the mice were assessed using micro-computed tomography (Micro-CT). Hematoxylin and Eosin (H&E) staining and immunohistochemistry (IHC) were performed to evaluate morphology, the expression of osteogenic markers (Runt-related transcription factor 2 (RUNX2), Osteocalcin (OCN)), osteoclastic markers (Receptor activator of nuclear factor kappa-B ligand (RANKL), Tartrate-resistant acid phosphatase (TRAP)), and pro-inflammatory cytokines (Interleukin (IL)-6, IL-1 β , Tumor necrosis factor-alpha (TNF- α)) in femoral tissues. H&E and IHC were used to assess morphology, the expression of tight junction proteins (zonula occludens protein 1 (ZO-1), Occludin, Claudin-1) and pro-inflammatory cytokines (IL-6, IL-1 β , TNF- α) in colonic tissues. Serum levels of pro-inflammatory cytokines were measured by enzyme-linked immunosorbent assay (ELISA). Fecal samples were collected from each group for 16S rRNA high-throughput sequencing to analyze changes in gut microbiota composition, abundance, and diversity.

Results: MICE, rather than HIIT, significantly alleviated OVX-induced bone loss. Specifically, MICE significantly improved bone mass and microstructure in OVX mice, as evidenced by increased cortical bone thickness, trabecular bone density, trabecular number, and enhanced micro-CT parameters (BMD, BS/TV, BV/TV, Tb.N, and Tb.Th), alongside decreased Tb.Sp and BS/BV values. Mechanistically, both HIIT and MICE showed trends towards improving osteogenic markers (RUNX2, OCN), but differences were not statistically significant. MICE, rather than HIIT, significantly improved the expression of pro-inflammatory cytokines (IL-6, IL-1 β , TNF- α) and osteoclastic activity. MICE, rather than HIIT, repaired OVX-induced intestinal epithelial barrier disruption, evidenced by reduced intestinal permeability, increased expression of tight junction proteins ZO-1, Occludin, and Claudin-1, and decreased inflammatory factor levels in both the intestinal wall and serum. Additionally, MICE, rather than HIIT, optimized the composition and abundance of OVX mouse GM, mitigating GM imbalance induced by OVX.

Conclusion: MICE is significantly more effective than

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HIIT in improving PMOP. MICE likely works through the GM-bone axis by correcting GM imbalance, repairing the intestinal epithelial barrier, optimizing mucosal permeability, and inhibiting the release of pro-inflam-

matory cytokines to prevent and alleviate OVX-induced osteoclast activation and bone loss. This provides a basis and guidance for developing exercise protocols for PMOP patients.



Adhya Tom

Gulf Medical University, United Arab Emirates

Biography

Adhya Tom, a dedicated 4th year medical student at Gulf Medical University in Ajman, pursuing a career as a frontline healthcare professional. With a passion for medicine and a strong commitment to patient care, she aims to make a positive impact in the medical field. She focused on acquiring the knowledge and skills necessary to excel in healthcare, with particular interest in Obstetrics and Gynecology. She aspires to contribute to advancements in medical science and provide compassionate, quality care to the community. Her interest in community medicine has also driven me to pitch in adequate knowledge and awareness regarding topics such as HPV, uterine fibroids, cervical cancer, etc, by conducting researches with a dedicated community medicine department.

Prevalence Of Uterine Fibroid Among Women Approaching Healthcare Facilities In UAE

The study aims to investigate the prevalence of uterine fibroids among women seeking healthcare facilities in the UAE. Uterine fibroids, common benign tumors, affect a substantial number of women globally. The prevalence varies across demographic factors, with studies indicating rates ranging from 4.5% to 68.6%. The research draws from diverse geographic locations, including the USA, India, China, Saudi Arabia, Egypt, and others, providing a comprehensive overview of the prevalence and associated factors. Key findings reveal varying rates among different populations, such as 20% in Chinese women over 35 and 19.75% in Saudi Arabia. Factors like age, family history, alcohol consumption, BMI, and vitamin D deficiency contribute to fibroid prevalence. The study also underscores the impact of uterine fibroids on mental health, emphasizing the need for comprehensive care. To enhance the accuracy of diagnoses, the study discusses the use of ultrasound and imaging techniques. Additionally, it addresses the emotional toll of uterine fibroids on women, emphasizing the significance of understanding and addressing mental health aspects. Overall, the study amalgamates global data to shed light on the prevalence, risk factors, and psychological implications of uterine fibroids, contributing valuable insights for healthcare professionals in the UAE and potentially guiding tailored interventions for affected women.

Yuanyuan Hu

Southeast University, China

Biography

Yuanyuan Hu is a doctoral candidate at the School of Public Health, Southeast University. Her major is Health Toxicology, and her advisor is Professor Tang Meng. Her primary research focuses on the in vivo and in vitro imaging applications of quantum dots and the study of their toxic mechanisms.

The Role of Oxidative Stress in CdTe/ZnS QDs-Cet Neurotoxicity in *C. elegans*

Objective: Quantum dots (QDs) have demonstrated potential in intraoperative fluorescence imaging. This study synthesized a QDs-coupled cetuximab probe (CdTe/ZnS QDs-Cet) for imaging in a glioblastoma mice model. This study preliminarily explores the effects of probes on the locomotion behavior of *C. elegans*. It elucidates the underlying mechanism of oxidative stress, aiming to provide insights for the safe in clinical practice. **Methods:** CdTe/ZnS QDs-Cet was characterized by agarose gel electrophoresis, transmission electron microscopy (TEM), Malvern particle size analyzer, and fluorescence spectrophotometer.

The effect on dopaminergic, glutamatergic, and cholinergic neurons was evaluated using fluorescence microscopy. Reactive oxygen species (ROS) levels in *C. elegans* were measured by the DCFH-DA probe. The effects on locomotion behavior were assessed before and after treatment with NAC. Finally, the expression levels of antioxidant oxidase genes were detected by qRT-PCR.

Results: The characterized results suggest that the CdTe/ZnS QDs-Cet probe meets the experimental requirements. CdTe/ZnS QDs-Cet probe can damage the integrity of dopaminergic neurons, and the axon can produce vesicular hyperplasia, fracture, and obvious void. the probe also induced PVD atrophy and ALM deletion in glutaminergic neurons. However, there is no significant change in cholinergic neurons. The probe significantly increased ROS levels. The locomotion behavior was significantly reduced in *C. elegans*, and these alterations can be relieved by NAC. The qRT-PCR showed that the gene expression levels of *sod*, *ctl-2* and *gst-4* were increased.

Conclusions: CdTe/ZnS QDs-Cet probe could cause locomotion behavior alteration in *C. elegans*, and oxidative stress may be the key factor.

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**KEYNOTE
SPEAKERS
Day 3**





Bernd Blobel

University of Regensburg, Germany

Biography

Bernd Blobel received a multi-disciplinary education, covering mathematics, physics, systems engineering, electronics, medicine, informatics and medical informatics, including habilitations in medicine and informatics. He was Head of the Institute for Biometrics and Medical Informatics at the University of Magdeburg, and thereafter Head of the Health Telematics Project Group at the Fraunhofer IIS in Erlangen. Thereafter, he acted until his retirement as Head of the German National eHealth Competence Center at the University of Regensburg. He was leadingly involved in many countries health digitalization as well as electronic health record strategy. He was and is still engaged in international standardization at ISO, CEN, HL7, OMG, IEEE etc. Furthermore, he still engaged in international higher education. He is Fellow of several international academies.

Designing and Managing Advanced, Intelligent and Ethical Health and Social Care Ecosystems

For meeting the financial, quality and safety challenges as well as expectations of the patients, health and social care systems around the globe currently undergo a transformation towards personalized, preventive, predictive, participative precision medicine (5PM), supported by technology. It considers individual health status, conditions, genetic and genomic dispositions in personal social, occupational, environmental and behavioural context, understanding the pathology of diseases and turning health and social care from reactive to proactive. The aforementioned transformation is strongly supported by technologies such as micro- and nanotechnologies, advanced computing, artificial intelligence, autonomous systems and robotics, knowledge representation and management, etc. Beside their opportunities, those advanced technologies also bear risks to be managed, requiring the detailed consideration from a humanistic, moral and ethical perspective. For enabling communication and cooperation between all actors from different disciplines involved, using different methodologies, perspectives, intentions, languages, we shall understand and formally and consistently represent the multidisciplinary, highly complex and dynamic 5PM ecosystem. The outcome is a system-theoretical, architecture-centric, ontology-based, policy-driven approach for designing and managing intelligent and ethical 5PM ecosystems. The necessary model and framework has been developed by the author and meanwhile standardized as ISO 23903 Interoperability and Integration Reference Architecture. The formal representation of any ecosystem and its development process including examples of practical deployment of the approach are presented in detail. This includes correct systems and standards integration and interoperability solutions.



Joyce Simard

University of Western Sydney, Australia

Biography

Joyce Simard MSW is an Adjunct Associate Professor School of Nursing, University of Western Sydney Australia. She is a private geriatric consultant residing in Florida (USA). She has been involved in long-term care for over 40 years.

Professor Simard has written numerous articles and chapters in healthcare books "The Magic Tape Recorder", and "The End-of-Life Namaste Care Program for People with Dementia" now in its third edition. She has been involved with grants studying the outcomes of Namaste Care internationally. with the School of Nursing, University of Western Sydney, Australia, St. Christopher's hospice (UK), the University of Worcester (UK) and Lancaster University (UK). Ms. Simard is a popular speaker for organizations all over the world.

Namaste Care: Helps People with Advanced Dementia Live Not Just Exist

Namaste Care is a small group program for residents in a nursing home or assisted living who can no longer participate in traditional activities. Often residents were kept clean, fed, changed and placed in front of a television. Residents were existing not living. The Namaste Care program provides quality of life for residents especially those with advanced dementia.

Namaste care can be offered as a small group program or can be brought to wherever the person is living. Two principles of The room or space where Namaste Care is offered as a small group is as free from distractions as possible. Residents are taken there after breakfast for the morning session. They are greeted individually and assessed for pain. A soft blanket is tucked around them and they are offered a beverage. Morning activities include gentle washing of the face and moisturizing of the face, hands, arms and legs. Their hair may be combed or scalps massaged. All of these activities are offered with a slow loving touch approach with the carer softly talking to them. They leave the room for lunch and return for the afternoon activities that may include bringing seasonal items to them, feet soaking, nail care and fun activities such as blowing bubbles. Beverages are offered on a continuous basis for both the morning and afternoon sessions. Namaste Care can be brought to the persons bedside and offered by trained staff or volunteers. Supplies are not expensive and no additional staff has to be hired.

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Roberto Gomez

Tecnologico de Monterrey, Mexico

Biography

Roberto Gomez with over 35 years of diverse experience in the public, private, and social sectors, Roberto Gomez has dedicated his career to enhancing efficiency and fostering growth in organizations of all sizes. Currently, as a full-time professor at Tecnológico de Monterrey, he teaches economics, finance, and international business. His research focuses on educational innovation and gender equity, inclusion, and women's empowerment, striving to create a more inclusive academic environment.

Throughout his career, has led financial restructurings and reorganizations with strategic foresight and resilience. His collaborative approach and ability to work effectively with cross-functional teams have earned him a reputation as a thoughtful and dynamic leader.

Driven by a passion for advancing the fields of finance and economics, Roberto Gomez combines practical experience with academic rigor to provide students with insights that bridge theory and real-world application. His work aims to enrich the learning experience and inspire the next generation of leaders.

Women at the Forefront of Solving Humanity's Greatest Challenges

As the world faces unprecedented challenges such as climate change, global health crises, economic in-

equality, and social injustice, women are uniquely positioned to lead transformative solutions. This speech delves into the critical role women play in addressing these pressing issues, emphasizing their unique perspectives, skills, and approaches essential for creating a sustainable, equitable, and peaceful future.

Women's leadership in environmental sustainability is driving global efforts to combat climate change. Their approach to interconnected ecosystems and long-term preservation is vital, as evidenced by their role in the success of the Paris Agreement. In global health, women are at the forefront, from frontline healthcare workers to researchers like Dr. Kizzmekia Corbett, whose contributions to the COVID-19 vaccine have been pivotal. These efforts highlight how women's empathy and inclusive care are crucial in improving health outcomes worldwide.

Economically, women are bridging the gap between rich and poor through initiatives that empower marginalized communities. Female entrepreneurs and leaders advocate for fair wages and equitable policies, demonstrating that inclusive growth is not just possible but profitable. In peace and conflict resolution, women's unique approaches—emphasizing dialogue and empathy—have proven effective in achieving lasting peace, as seen in the work of Leymah Gbowee, instrumental in ending the Liberian civil war.

Education and technological innovation are other critical areas where women excel. By championing education for all, women like Ziauddin Yousafzai are breaking barriers and driving progress in gender equality. In technology, women leaders ensure digital advancements are accessible and inclusive, helping bridge the digital divide.

The speech poses reflective questions and provides surprising answers, highlighting the indispensable contributions of women in solving humanity's greatest challenges. It concludes with a powerful call to action, inviting the audience to support and amplify the influence of women, ensuring their vision for a better world becomes our collective reality.



Sergey Suchkov

The Russian University of Medicine, Russia

Biography

Sergey Suchkov was born in the City of Astrakhan, Russia, in a family of dynasty medical doctors. In 1980, graduated from Astrakhan State Medical University with MD. From 1980 through 1983 has been working as Res Associate, and from 1983 through 1985 as Senior Res Associate at the Inst of Medicinal Enzymology, USSR Academy of Medical Sciences. In 1985, maintained his PhD at the Sechenov University. At present he is Professor and Chair (full-time job) of the Dept for Personalized Medicine, Precision Nutriology & Biodesign of the Institute for Biotechnology & Global Health of the Russian Biotechnology University (RosBioTech), Russia.

Personalized and Precision Medicine (PPM) thought The View of Reproductive Healthcare and Natural Family Planning: An Option for clinicians and caregivers realize the potential of PPM-guided care to secure the Individualized Human Biosafety

A growing family needs a doctor who knows their children and cares for them like her own and keeping them healthy! In this sense, a new systems approach to diseased states and wellness result in a new branch in the healthcare services, namely, personalized & precision medicine (PPM).

PPM as a New Model of Healthcare Services is the

Science and ART, Illustrating application of sets of the different Tools of the Model at the Population, Community and Individuals. So, PPM as being the Grand Challenge to forecast, to predict and to prevent is rooted in a big and a new science generated by the achievements of systems biology and translational medicine, whilst integrating platforms of OMICS- and IT-technologies.

NIH (Bethesda, MD, USA) have The Unique Decision had on setting up in USA a Clinical Research Network including Centers of PPM, Centers for Personalized & Precision Peditry (CPPP) and Reproductive Precision Medicine Centers (RPMC, e.g., at Columbia University).

The concept of PPM and RPMC has been applied in reproductive medicine long before its popularization. The causes of infertility are various, and factors influencing the success rates of ART are complicated; hence, every step of reproductive medicine, such as the diagnosis of infertility causes and transfer of healthy embryos, needs to be precise. One of the better-known uses of PPM-related resources in reproductive medicine and family planning and female infertility is the genetic test that most accurately determines how receptive a woman's endometrium (inner uterine lining) is for implanting an embryo. In this sense, The Columbia University Reproductive Precision Medicine Center is perfectly positioned to be a global leader in the development and implementation of those approaches. And PPM and personalized and precision genomics as the major part of the Reproductive medicine & Family planning are a new and exciting field with the potential to significantly improve medical care for pregnant women and newborns. Moreover, natural family planning (NFP) empowers women to control their reproductive health and approach fertility as a normal biological process.

NFP specialists have the unique and exhilarating responsibility to help ensure that young patients derive maximal benefit from genomics which, in turn, will provide the family planning specialists new and of-

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ten unexpected insights into the biological basis of health and disease and will afford new health care options requiring informed and sometimes challenging choices of physicians and patients. So, developing reproductology-related expert-driven competency in genomics is a daunting task, but one that the specialty can and must accomplish in the near future. Achieving such competency will provide effectively integrating genomics into practice, will improve reproductology-related experts' effectiveness in caring for patient current health concerns and will make experts the guides to lifelong health. Combined with genetic information and a large volume of biomedical data, an unknown territory of reproductive medicine will be explored, and the mechanisms underlying the causes of infertility that we do not yet know will be elucidated. The application of PPM has become a guideline for the development of reproductive medicine.

Meanwhile, Personalized and Precision Reproductive Medicine (PPRM) is still in its infancy, without clear guidance on treatment aspects that could be personalized and on trial design to evaluate PPM-based treatment effect and benefit-harm balance. While the rationale for a PPRM-driven approach often relies on retrospective analyses of large observational studies or real-world data, solid evidence of superiority of a PPRM-driven approach will come from randomized trials comparing outcomes and safety between a PPRM-driven and one-size-fits-all strategy. Organized into five parts - childhood and emerging adulthood; childbearing; reproductive control; violence; and beyond reproduction - the volume encompasses a life-course perspective in understanding women's and men's sexual and reproductive health. This is the reason for developing global scientific, clinical, social, and educational projects in the area of PPM and PPRM to elicit the content of the new branch.

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A dark blue circular graphic with a white border, containing the text 'SPEAKERS Day 3' in white. A thin vertical line connects the top of the circle to the event date bar above.

SPEAKERS
Day 3





Doaa Ahmed

Guy's and St Thomas' NHS Foundation Trust, United Kingdom

Biography

Doaa Ahmed is a Senior Specialist Clinical Fellow at Guy's and St. Thomas' Hospital. She is graduated from Alexandria University, Egypt, where she got her Master's degree in Obstetrics and Gynecology. She worked in Saudi Arabia as a specialist in Obstetrics and Gynecology.

Her qualifications include Membership of the Royal College of Obstetricians and Gynecologists (MRCOG), Membership of the Royal College of Physicians of Ireland (MRCPI), and the European Board and College of Obstetrics and Gynecology (EBCOG) certification.

OHVIRA Syndrome—Simple Management with Diagnostic Dilemmas

Introduction: Obstructed hemivagina with uterus didelphys and ipsilateral renal anomaly (OHVIRA) is a rare congenital malformation due to abnormal development of the Müllerian and Wolffian ducts. Incidence

0.1-3.5% of Müllerian anomalies and commonly presents during adolescence.

Case Presentations:

Case 1: Diagnosed antenatally with right hydronephrosis. Postnatal scan showed absent right kidney. At age 4, the patient had continuous clear fluid drainage, investigated by urologists who ruled out an ectopic ureter. MRI suggested right hydrocolpos. At age 11 persistent vaginal discharge noted, MRI confirmed a didelphic uterus with possible right-sided obstruction. At age 14, reported severe dysmenorrhea. MRI showed right haematometrocolpos with an oblique hemivaginal septum.

Case 2: A 14-year-old presented with acute abdominal pain and a palpable mass. MRI revealed an absent right kidney, uterus didelphys, obstructed right vagina, and haematometrocolpos.

Case 3: Diagnosed antenatally with a multicystic dysplastic left kidney. At age 11, a pelvic cystic mass was investigated. MRI revealed an absent left kidney, dilated left ureter, and unicornuate uterus with an obstructed rudimentary horn. Reviewed after menarche, at age 14, she had severe dysmenorrhea. MRI revealed uterus didelphys with a transverse hemivaginal septum and left haematometrocolpos.

Conclusion: Diagnosing OHVIRA syndrome requires a detailed history, thorough examination, and appropriate imaging studies, with MRI as the gold standard. prepubertal diagnosis is challenging. Timely diagnosis and simple vaginal septum excision can relieve symptoms. Due to its rarity, OHVIRA is often misdiagnosed or diagnosed late. Greater awareness and timely intervention can prevent complications.



Beatrice Lam

Hong Kong Metropolitan University, Hong Kong

Biography

Beatrice Oi-Yeung Lam is Assistant Professor of School of Arts and Social Sciences and Research Fellow at the Public and Social Policy Research Centre of Hong Kong Metropolitan University. She is interested in researching the ways in which inequality is produced, especially in relation to education and the family with qualitative methodologies. Apart from more recently studying the employability of higher education graduates, she has also been studying informal caregivers for older adults in Hong Kong. Her teaching covers the areas of sociological perspectives on ageing, family, gender and sexuality, Hong Kong society, and social research methods.

The teaching of sociology in the nursing curricula: Observations and reflections from Hong Kong, China

Objectives: This paper presents the authors' observations and reflections on the relevance of the teaching

of sociology in the training of nurses in Hong Kong SAR, China.

Scope: The presentation first introduces the linkage between sociological perspectives and healthcare provision. The paper then outlines the authors' experience of the teaching of sociology in two nursing curricula, in general health care and mental health care respectively, in a local university annually enrolling at least 400 trainee nurses.

Methods: Afterwards, the paper draws upon the authors' focus group research findings (drawn from a study conducted in 2022 – 2023, N=72) on trainee nurses' understandings of ageing, old age, and ageism and discuss how these findings compare to those of students majoring in disciplines outside nursing.

Results and Conclusions: On the basis of these observations and findings, critical reflections are made on the following points: (i) how training in nursing expands knowledge and understandings of ageing and how ageism can be interrogated and debunked in the nursing curricula; (ii) how relevant it is to sensitize trainee nurses to the social and cultural construction of (the experience of) health and illness by drawing attention to social divisions and inequalities as well as their intersectional nature; (iii) how relevant sociological perspectives are for equipping trainee nurses with what is needed for appreciating holistic care and for effectively practicing it in an ageing society, with attention drawn not only to older adults but also their carers; and (iv) why the competence to make critical reflections of one's professional practice in the local institutional context is important for the personal and professional development of prospective nurses in view of ongoing social changes.



Cheuk Ki Fung

Hong Kong Metropolitan University, Hong Kong

Biography

Cheuk Ki Fung is Lecturer of School of Arts and Social Sciences and Research Fellow at the Public and Social Policy Research Centre of Hong Kong Metropolitan University. He actively engages in interdisciplinary research collaborations, contributing to the development and dissemination of knowledge in the fields of gerontology and public policy as well as medical sociology. His teaching covers the areas of medical sociology, social gerontology, social policy and social research methods.

The teaching of sociology in the nursing curricula: Observations and reflections from Hong Kong, China

Abstract should give clear indication of the objectives, scope, results, methods used, and conclusion of your work. One figure and one table can be included in your results and discussions.

Objectives: This paper presents the authors' observations and reflections on the relevance of the teaching

of sociology in the training of nurses in Hong Kong SAR, China.

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Mariam Barabara

Kilimanjaro Christian Medical University College,
Tanzania

Biography

Mariam Barabara is a PhD candidate at KCMUCo focused on understanding women's childbirth experiences and respectful maternity care to address the impact of HIV stigma in the intrapartum period. She holds a Master of Science in Midwifery and Women's Health and a Bachelor of Science in Nursing. She has over two decades of experience in nursing and midwifery, and before pursuing her PhD, she was an assistant lecturer at the KICHAS faculty of Nursing where she supervised and mentored many undergraduate and diploma students. Mariam has received several awards for her research and has authored multiple papers in peer reviewed journals.

HIV stigma and self-efficacy caring for women living with HIV: A mixed methods study of labor and delivery providers in Tanzania

Background: Mistreatment during childbirth can harm maternal and child outcomes and reduce postpartum care engagement, crucial for women living with HIV (WLHIV). This study aimed to understand HIV stigma

and self-efficacy of labor and delivery (L&D) providers in caring for women living with HIV (WLHIV) in Tanzania.

Methods: This mixed-method study was conducted in six primary healthcare facilities in the Kilimanjaro region of Tanzania between February and November 2022. We conducted 8 focus groups with L&D providers (n=36) and nurse-midwifery students (n=12). We conducted surveys with 60 L&D providers assessing HIV stigma (fear of acquisition, extra precautions, attitudes toward WLHIV) and self-efficacy in caring for WLHIV. Survey data were triangulated with qualitative data to describe providers' HIV stigma and self-efficacy.

Findings: Providers expressed fear of HIV acquisition when caring for WLHIV. Almost all providers noted that they used extra precautions with WLHIV; 97% used double gloves and 39% avoided touching WLHIV with bare hands, even when there were no bodily fluids. Most providers had positive attitudes toward WLHIV. Almost all rejected the idea that HIV was a punishment for bad behavior, but 44% thought their patients might not be careful about infecting others. Qualitative data suggested providers believe patients may withhold full disclosure of their treatment adherence, which puts providers at risk. Provider self-efficacy in normal birth was lower when caring for a woman with HIV compared with care for women who are HIV-negative but did not differ significantly in other situations.

Conclusion: Providers had generally low stigmatizing attitudes toward WLHIV but feared occupational exposure, leading to patient contact avoidance. Training on clinical and interpersonal skills, coupled with evidence-based care for WLHIV during childbirth, could benefit both providers and patients.



Rebecca Delpino

University College Birmingham, United Kingdom

Biography

Rebecca Delpino is a qualified as a Registered Adult Nurse in 1993 at Queen Elizabeth Medical Centre in Birmingham. With over 20 years of clinical experience, she has worked in trauma and orthopedics, as well as medical and surgical ward areas. Additionally, she has spent 18 years in roles such as ward sister, ward manager, and clinical night sister.

Speaking Up for Patient Safety and Staff Wellbeing at a large NHS Foundation Trust: A qualitative study

Background: Freedom To Speak Up Guardians (FTSUGs) and speaking up Champions or Confidential Contact's (CCs) were appointed nationally following the Mid-Staffordshire enquiry[1, 2] to listen and support staff who were unable to address through normal channels of communication.

Aims and Objectives: To understand the perceived impact of the FTSUG and CCs in a large National Health Service (NHS) Trust and to consider how individuals can be best supported by:

Exploration of staff, CCs and the FTSUG perceptions

and desired outcomes of the

Exploration of staff, CCs and the FTSUG perceptions and desired outcomes of the FTSUG and CCs in a large NHS Trust.

Improving staff knowledge regarding Speaking Up.

Gaining an understanding how a reflective learning organisation influences patient safety.

Using personal stories of employees, as exemplars, to enable other staff members to raise concerns.

Method: A focus group with eight participants comprising of FTSUG and CCs working within one NHS Trust was used to gather data. Data was collated and organised using Excel and analysed using thematic analysis.

Findings: A lack of strong leadership impacting upon NHS staff can create barriers to speaking up. Discussions revealed 'change and improvement' as a positive indicator for change in practice, culture, responsiveness, and attitudes, which was mutually respected. A move from a culture of blame to provision of supportive communication, was needed for all staff. Organisational culture, values and respect are linked throughout the data with leadership responsiveness for responsibility, outcomes, and obligations. The researcher acknowledges the limitation of this small study based in one Trust which cannot be generalized.

Conclusion: Hospitals (NHS Trusts) should promote: An innovative approach to the introduction, development, and implementation of FTSUG and CC roles and responsibilities with committed leadership responsiveness. A better understanding of the effects of the role. Be supportive of culture change in the healthcare setting, drawing on documented evidence if needed.



Dionne McFarlane

Lived experience and endometriosis advocate, United Kingdom

Biography

Dionne McFarlane is 26 years old and from Edinburgh which is in Scotland. She was diagnosed with endometriosis in 2016 after 6 years of trying to get answers as to what was causing her symptoms. She has since then gone on to become an advocate for the condition and used her own lived experience to help others but also try to make improvements when it comes to people's understanding of the condition. She is very passionate about women's health and gynecology. She is currently a full-time student studying nursing at university and has just finished her first year. She hopes that sharing her lived experience will highlight the reality of the condition and also encourage conversations to happen about how this is a full-body condition and doesn't just impact the reproductive system. She feels hearing from someone with lived experience will be very powerful.

The reality of living with Endometriosis

Background: This presentation will focus on Endo-

metriosis which is a common gynecological condition. I have lived experience of this condition but also have the knowledge and skills to support individuals through the process of diagnosis and treatment to manage the condition.

Aim: To show the reality of this condition and how it can impact on the whole body and not just the reproductive system.

Method: I will use my own experiences but also reflect by using journals that I had written in through the years of going through medical intervention for endometriosis. I also want to draw on other individual's experiences and have done this through a support group that I help to run which holds monthly meetings and also online support. I have interviewed individuals who have confirmed or are in the process of being diagnosed with the condition and this was either through video call using zoom, face to face meetings and polls which will be on the online support page and people have the choice to take part and consent to their experiences being used in the presentation.

Results: When talking to a lot of individuals they highlighted how the condition can also impact on bladder and bowel function. The individuals highlighted how this was a difficult topic to talk about to those around them and they felt embarrassed about it. When asked how many people suffer from bladder issues 82 people took part in the poll and 79% reported having issues and 20% reported having no issues.

Conclusion: Endometriosis is not just a reproductive condition, and it clearly shows how it can impact on the full body. The focus needs to be on the full body and endometriosis care needs to be person-centred and have a multidisciplinary approach.



Aqsa Mandvia

Wye Valley Hospital, United Kingdom

Biography

Aqsa Mandvia is a vibrant Obstetrics and Gynecologist, working in the United Kingdom. She completed her medical degree and O&G specialization through the Royal College of O & G(UK), and her Obstetric Gynecology training via the College of Physician and Surgeon Pakistan (CPSP). She has been practicing O&G since 2015.

Her practice offers an extensive range of services designed to provide compassionate care throughout the stages of pregnancy and postpartum, ensuring the optimal health of mothers and newborns. Her expertise lies in the management of pregnancy, childbirth, and diverse gynecological conditions, offering personalized treatment plans and ongoing support to his patients. Beyond his clinical practice, She plays an active role in research and education, providing mentorship to aspiring healthcare professionals.

Successful Medical Management of Caesarean scar ectopic pregnancy

Objective: Caesarean scar ectopic pregnancy(CSEP) is defined as pregnancy implantation into the myometrial defect at the site of the previous uterine scar. The prevalence of cesarean scar pregnancy is estimated to be approximately 1 in 2000 pregnancies which may be ongoing potentially viable pregnancies or miscarriages within the scar. Undiagnosed CSEP may progress to uterine rupture, haemorrhage, loss of future fertility, and possibly maternal death. In this review, we present a case of successful medical management of

CSEP in which early diagnosis, correct treatment and a robust follow up plan helped us achieve an optimal treatment outcome.

Case Report: A 37-year-old woman, with two previous caesarean sections, presented to our department at five weeks of gestation, with the left iliac fossa pain. Her scan revealed caesarean scar ectopic pregnancy with very low b-HCG levels. Being vitally stable at presentation and initial drop in blood levels after 48 hrs, she was managed conservatively and discharged. She was readmitted on fourth day of follow up with worsening pain. Medical management was planned in view of rising bHCG levels and repeat scan findings. After first dose of methotrexate (MTX), there was sub-optimal fall in blood levels. A second dose of MTX was given which was effective with blood levels finally showing a downward trend. The patient was monitored until normalization of beta-hCG[MA1] . During the entire treatment cycle, she had multiple admissions, but was managed with strict observations and follow-up of blood levels thus avoiding unnecessary surgical intervention.

Discussion: The previously rare pathology of Caesarean ectopic pregnancy is becoming more and more frequent with the inadvertently rising rate of surgical deliveries. The modern imaging techniques offer early detection with high diagnostic accuracy, making possible timely intervention that can help reduce the risk of maternal haemorrhage. Although literature supports surgical management over medical management, methotrexate is usually successful with early diagnosed cases, thus preserving the uterus and future fertility. However, careful and vigilant assessment of symptoms and a strict follow up plan is mandatory for patient safety.

Conclusion: Caesarean scar ectopic pregnancies offer a management challenge as they are associated with severe maternal morbidity and mortality. In our case, despite repeated admissions, the decision to continue with medical management involved a holistic approach with vigilant monitoring, serial blood markers and appropriate counselling of patient which resulted in a successful outcome and was in the best interest of the patient.



Marius Contor

FH Campus Wien - University of Applied Sciences and Medical University of Graz, Austria

Biography

I made a conscious decision to pursue further studies after completing my high school diploma, driven by the desire to share my knowledge as a lecturer. Initially, my interests led me to the field of biology and biotechnology. I earned a bachelor's degree in biology and a master's diploma in Genetic Engineering and Biotechnology. Subsequently, I spent some time teaching as a biology lecturer in a secondary school. I then shifted my focus to the field of healthcare, gaining several years of valuable practical experience as a healthcare assistant in care homes in Styria, Austria, working directly with patients. This was followed by my training to become a certified health and nursing professional at the University of Applied Sciences in Vienna. I went on to accumulate additional years of professional and managerial experience in advanced health and nursing services within hospital departments. I also served as a residential area manager in a senior center in Lower Austria. In 2020, I embarked on my teaching journey in this field, and in 2022, I joined the University of Applied Sciences in Vienna, Austria, as both a lecturer and researcher.

Promotion and development of health literate organizations in the healthcare sector in Styria

Background, State of Research: In 2019, the target control report of the "Health literacy in Austria: results of the Austrian health literacy survey HLS19-AT" found that the health literacy of people living in Austria was

insufficient in 18.2% of the cases and in 38.2% of the problems is. After 56.4% of people living in Austria are unable to insure their health literacy. Overall, people living in Austria have poor health literacy and people with limited health literacy use the health system less efficiently (cf. BMSGPK, 2021, p1). It cannot be overlooked that the Austrian healthcare system has highly fragmented organizational structures. Optimal navigation skills in the healthcare system help to avoid undersupply, oversupply or incorrect supply (cf. BMSGPK, 2021, p.5). Here, too, "Health Literacy in Austria: Results of the Austrian Health Literacy Survey HLS19-AT" does not provide satisfactory results. On average, 33% of people living in Austria reported difficulties in navigating the healthcare system (cf. BMSGPK, 2021, p.85.). Instructions and information from health professionals are not understood by 10% of people living in Austria and are therefore not followed or implemented (cf. BMSGPK, 2021, p.72.). In summary, it can be said that people who have poor health literacy are also less able to describe the main characteristics of an illness. As a result, these people receive inaccurate or incorrect diagnoses. They use the healthcare system inefficiently by not being able to follow non drug and drug therapy (cf. Dietscher, Lorenc, Pelikan, 2015, p.7.). Increasing life expectancy and falling birth rates by 2080 will lead to a doubling of the old-age dependency ratio from 28.1% today to 51.6%. At the same time, this leads to an overload of the social insurance institutions. There is a need to implement measures that promote the health literacy and prevention of people living in Austria and thus ensure the effectiveness and efficiency of medical and nursing treatment (cf. Berger, 2019, p.1.). Research Questions: 1. How can hospitals and care facilities in Styria become health-literate organizations? 2. How can health organizations support individuals living in Styria in sustainably strengthening and developing health literacy? Objectives: The aim of this work is to discover gaps in the health literacy or health literacy development of people living in Styria and to identify strategies to close them and thus strengthen health literacy. By teaching a healthy lifestyle into old age, people living in Styria can stay healthy longer and thereby increase their healthy years. Other goals are to achieve better co-production of health, clinical out-

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comes, fewer revolving door patients, financial savings and better cost-benefit balance of healthcare services in Styria. Methods: In the doctoral thesis, the study cohort in Austria is represented by the federal state of Styria and the results are used inductively for Austria if possible. In order to be able to use these approaches, the self-assessment tool for organizational health competence of hospitals, with 9 standards and 22 sub standards of the Vienna concept of health-com-

petent hospital treatment organization, is used. Based on the cognitive map of the Vienna concept, the map for Styria is presented. In order to be able to examine the relationship between communities, health literacy and the population, interviews are conducted with those responsible for the communities and evaluated according to Mayring. The interview guidelines are based on the Social Security "Self-Assessment Sheet – Municipalities for Health Competence".



Melissa Katz

Weill Cornell Medicine, United States

Biography

Melissa D. Katz is an Assistant Professor of Clinical Medicine in the Division of Endocrinology, Diabetes and Metabolism, Department of Medicine, at Weill Cornell Medicine in New York City. She has been a preceptor in the high-risk Obstetrics clinic in the Department of Obstetrics and Gynecology at Weill Cornell Medicine. Her specific interests include sexual differentiation, gestational diabetes and thyroid dysfunction during pregnancy.

Effects of online support and social media communities on gestational diabetes: A systematic review

Gestational diabetes mellitus (GDM) is a common complication in pregnancy that can lead to negative maternal and fetal outcomes. Online support interventions have been suggested as a potential tool to

improve the management of GDM.

This systematic review aimed to summarize the effectiveness of social media and online support interventions for the management of GDM.

We conducted a thorough systematic search across Web of Science, Scopus, and PubMed, following PRISMA guidelines, and supplemented it with a manual search. Our results included both qualitative and quantitative research. We rigorously assessed quantitative studies for bias using ROBINS-I and RoB 2 tools, ensuring the reliability of our findings.

We incorporated a total of 22 studies, which were comprised of ten qualitative and twelve quantitative studies. Online support interventions were found to have a positive impact on self-care and improving healthcare outcomes for women with GDM. Individualized diet and exercise interventions resulted in lower odds of weight gain and GDM diagnosis, while online prenatal education increased breastfeeding rates. In addition, telemedicine options reduced the need for in-person clinical visits and improved patient satisfaction.

Online support interventions show potential to improve outcomes in patients with GDM in this small literature review. Future research is also necessary to determine the effectiveness of different types of online interventions and identify strategies to improve engagement and the quality of the information provided through online resources.



Lyona Grace

IDNFT, Indonesia

Biography

Lyona Grace is a dedicated independent writer with a focus on the intersection of art, technology, and economics. With a background in music, she has explored the impact of emerging technologies on creative industries. Her work emphasizes the transformative power of aesthetic economies and aims to contribute to a deeper understanding of how art and commerce coalesce in the modern world through IDNFT, the biggest NFT and WEB3 community in Indonesia.

Art in the Age of Technology: The Dynamics of the Aesthetic Economy

The intersection of artistry and business has given rise to a burgeoning creative economy, where young individuals now pursue education in creative fields such as art, music, theater, and cinematography without hesitation. The business sector, however, refines this creativity to generate revenue, transforming it into an aesthetic economy. This economic model is evident in the fashion industry, spanning from fast fashion to haute couture, and is now extending into music and video streaming platforms, digital books, and art collections. The aesthetic economy operates on demand-and-supply principles, where the scarcity of artistic commodities enhances their value. Emerging technologies like Digital Service Providers (DSPs) and Non-Fungible Tokens (NFTs) play a pivotal role in this dynamic, enabling the equitable distribution and commercialization of art. This study explores how the aesthetic economy validates the demand for art, driven by technological advancements, and how it fosters opportunities for widespread participation in this evolving economic framework. Additionally, it examines how this emerging economy can empower women, offering them new avenues for creative expression and financial independence.



Edi Patmini Setya Siswanti

Sardjito Hospital, Yogyakarta, Indonesia

Biography

Edi Patmini Setya Siswanti, Sp. OG graduated from the Faculty of Medicine at the University of Indonesia in 2000 and completed her specialization in Obstetrics and Gynecology at Gadjah Mada University in 2011. She has held various significant roles, including being a staff member at Dr. Sardjito Hospital and the Head of One Stop Crisis Center for Women and Children at the same hospital since 2015. She is also a practicing obstetrician at Sakina Idaman Hospital. She has contributed to numerous publications and research, focusing on topics such as HIV prevention, high-risk pregnancies, and women's health. Her dedication to medical education and patient care has made her a respected figure in her field.

Unexpected Seizure Following Misoprostol Administration for Postpartum Haemorrhage: A Case Study

Background: Postpartum hemorrhage (PPH) is a leading cause of maternal mortality worldwide, particularly in low-resource settings. Misoprostol, a synthetic prostaglandin E1 analogue, is widely utilized for PPH management due to its effectiveness, ease of administration, and stability at room temperature. While common side effects of misoprostol include shivering, fever, and gastrointestinal disturbances,

neurological complications such as seizures are exceedingly rare and not well-documented in the literature.

Objective: This case report aims to highlight an unexpected and rare adverse effect of misoprostol—seizure—following its administration for the management of PPH.

Case Presentation: We present the case of a 32-year-old multiparous woman who experienced a seizure following the administration of misoprostol for PPH management. The patient, with no known allergies and no prior history of epilepsy or neurological disorders, developed severe shivering and a generalized tonic-clonic seizure approximately 10 minutes after receiving 400 mcg of misoprostol sublingually. Immediate medical intervention, including intravenous diazepam and antipyretics, was administered. Despite these measures, the patient remained unconscious and was subsequently transferred to the intensive care unit (ICU) for further monitoring and management. Comprehensive neurological examination and imaging studies revealed no abnormalities. Laboratory investigations, including serum electrolytes, renal function tests, and liver function tests, were within normal limits. The patient's condition improved significantly with supportive care over the next 24 hours, and she was discharged on the third postpartum day with outpatient follow-up.

Conclusion: This case underscores the potential for severe neurological side effects, including seizures, following the sublingual administration of misoprostol for PPH management. Sublingual administration of misoprostol results in a faster response but tends to have more severe side effects, which appear to be dose-related. While misoprostol remains a valuable tool in obstetric care, healthcare providers should be aware of its rare but serious adverse effects and ensure close monitoring of patients. Further research is needed to elucidate the mechanisms behind misoprostol-induced seizures and to develop guidelines for safer use.



Lizabeth Reents

University of Washington, United States

Biography

Lisa Reents she is nursing background includes over 25 years of direct patient critical care, community nursing, nursing education, and serving as an interim associate dean. She enjoy engaging with learners and being involved in positively impacting the future of the nursing, health care environments and educational systems that support it. Her passion involves innovating, creating and designing curriculum that promote the highest level of clinical reasoning in the learner. Additionally, She is seek to use the latest in teaching strategies that help the learner provide evidence and research based safe and quality patient care. She is a simulation specialist, transition to practice champion and patient safety promoter. She enjoy quilting, the outdoors and fitness. Her educational experience at Marymount University sum-mated my career by providing me the ability to develop into a well-rounded and holistic practitioner and researcher.

Substantiating Quantitative Data with Qualitative Data Using a Mixed Method Approach: Improving Clinical Judgment & Simulation Standards

Background- Current literature demonstrates a gap in research involving mixed method study of clinical judgment development in prelicensure nursing students.

Objectives- Clinical judgment of two groups of nursing students were compared using the Lasater Clinical Judgment Rubric (LCJR).

Design- A mixed method convergent parallel qua-

si-experimental and case study approach was used to determine if simulation increased clinical judgment skills between beginner and advanced pre-licensure nursing students

Setting- The research site included nursing labs housing 20 hospital beds and a five-room medical simulation lab.

Participants- Student participants were recruited from the Pacific Northwest. A convenience sample included 126 part-time and full-time beginner fundamental and advanced senior nursing students.

Methods- T-test differences were compared between quantitative dependent dichotomous independent variables. Differences in mean scores, standard deviations, and number of data values of each group were analyzed. Qualitative analysis of field notes and post simulation reflection logs occurred alongside quantitative findings.

Results- Quantitative differences in LCJR scoring (Lasater's Clinical Judgment Rubric) were statistically significant ($p < .001$) using the unpaired t-test as Cohort B (advanced senior) scored higher than Cohort A (beginner fundamental). Qualitative analysis of the 11 LCJR subset data substantiated quantitative scoring through triangulation. Post-simulation reflection logs revealed comparatively similar qualitative responses for both cohort groups as the need for improvement while expressing emotion during simulation was captured.

Conclusions- Recommendations for educators and administrators include the promotion, design, and execution of simulation across the nursing curriculum by well-trained nursing educators. Formative and summative clinical judgment evaluation will solidify this pedagogical feature in simulation and elsewhere. Simulation is considered a valid pedagogy requiring proper execution for the assimilation of knowledge, skills, and attitudes. Employment of regular clinical judgment assessment and evaluation should occur across the simulation curriculum. Simulation provides a dedicated time and space for nursing students to practice and reflect upon how they will be better prepared in clinical judgment upon graduation prior to entry to practice.

5th Edition

World Nursing and Healthcare Summit

23-25 September 2024 | Village Hotel Changi, Singapore

A dark blue circular graphic with a white border, containing the text 'E-Posters Day 3'. A thin dark blue line connects the top of the circle to the text bar above. To the left of the circle is a large, stylized graphic element consisting of a red 'S' shape and a yellow 'V' shape, with a graduation cap icon integrated into the design.

**E-Posters
Day 3**



Song He

KK Women's and Children's Hospital, Singapore

Biography

He Song graduated from Duke-NUS Medical School Singapore with an M.D. She was admitted as a Member of the Royal College of Obstetricians and Gynaecologists (MRCOG) UK and attained her Master of Medicine (MMED) in Obstetrics and Gynecology in 2021. She was subsequently accredited as a Specialist in Obstetrics and Gynecology in Singapore. She practices in KK Women's and Children's Hospital, Singapore. One of her research interests is maternal medicine.

Postpartum seizure - Eclampsia or Neurological Complications of Post Dural Puncture Headache and Epidural Blood Patch: Case report and a review of literature

Introduction: Up to 39% of women experience headaches in the postpartum period. The differential diagnoses for headaches in the postpartum period are broad and present a diagnostic challenge. Seizures in the postpartum period are not well studied and its etiology often remains unclear.

Case report: A 33-year-old primigravida presented six days post-delivery with a headache and was diagnosed with post-dural puncture headache. Blood tests were unremarkable and brain imaging demonstrated evidence of intracranial hypotension with no other abnormalities. She received an epidural blood patch the next day and developed a seizure shortly after the procedure. A transient rise in blood pressure and transient urinary proteinuria was also observed during this period.

Conclusion: Postpartum headaches are common and the features of post-dural puncture headaches are well studied. Seizure following epidural blood patch for post-dural puncture headache is rare, although it has been described in some reports. Intracranial structural pathologies were identified in most of these cases. However, in the early postpartum period, it is also important to evaluate for postpartum eclampsia. In the absence of organic pathology, seizure as a direct result of epidural blood patch should be considered.



Anuja Thomas

South West Acute Hospital, Western Health and Social Care Trust, UK

Biography

Anuja Thomas is an expertise of over 10 years, in Obstetrics and Gynaecology, Anuja Thomas is currently working as a Specialty Doctor at South West Acute Hospital, Northern Ireland, United Kingdom. A well-qualified Obstetrician Gynecologist with a good background of knowledge and clinical skills, she is dedicated to providing high-quality health care to women. Dr. Anuja Thomas is highly committed to remaining abreast in her field.

Performance Of Severe Pph (>1500ml) Management After Introducing The Pph Risk Assessment Score

Introduction: PPH risk assessment scoring system is devised to identify the risk factors and to provide appropriate care plan to reduce and prevent major PPH. A retrospective audit was conducted in South West Acute Hospital, during a period of 10 months, from January 2023 to October 2023 to determine

the utilisation of PPH risk assessment scoring system in the management of major obstetric haemorrhage. Women who had major obstetric haemorrhage (PPH>1500ml) were identified. Maternal handheld records, electronic case records and Datix reports were reviewed. The standards selected were: 1. Prevention and Management of PPH, GTG No. 52, December 2016., 2. Reducing and Preventing major PPH risk assessment Score chart – South West Acute Hospital. The factors analyzed were age, parity, BMI, PPH risk assessment, means of labor, type of delivery, birth weight, blood transfusion requirement, completion of the major obstetric haemorrhage proforma, Datix reporting, and documentation of the debriefing.

Results: The total number of deliveries during the study period was 92, out of which 20 women had PPH >1500 ml (2.17%). Areas of Good Practice: There was no delay in management in 90% of the cases. Areas for improvement: 1. PPH risk assessment score chart used in only 60% of the cases. 2. PPH protocol was activated in only 55% of cases. 3. It was identified that different versions of PPH proforma were being used. 4. PPH proforma utilization was 50%. 5. It was identified that 65% of the major obstetric haemorrhage occurred during Caesarean section. 6. Datix reporting was done in only 75% of the cases. 7. Debriefing to the patient was documented in only 30% of the cases. Measures for improvement were recommended and reaudit was planned after 6 months.

Conclusions: Identifying the risk factors for PPH to modify the care plan, prompt recognition of the severity and multidisciplinary team protocol are vital in the successful management.



Krishnaveni G Raman

Grange University Hospital, United Kingdom

Biography

Krishnaveni G Raman completed her MBBS in India and postgraduate degree MRCOG from the prestigious Royal College of Obstetricians and Gynecologists, UK. She has also completed courses in Ultrasound, Sexual and Reproductive health. She is a well-experienced Obstetrician and Gynecologist currently working in the UK, previously worked in India and GCC, giving expert and compassionate care to women. She is also an International speaker at Obstetrics and Gynecology conferences. She has presented many interesting case series and published multiple papers.

Placenta Accreta Spectrum-Audit on the Antenatal care and Intraoperative interventions in the Management of patients with Placenta Accreta Spectrum.

Placenta Accreta-spectrum of disorder from abnormally adherent to deeply invasive placental tissue. Pathogenesis- absence of endometrial re-epithelialisation after an injury, replacement of normal sub-de-

cidual myometrium by scar tissue leading to abnormal placentation.

Results: Antenatal care suspected PAS- 01/10/2020 to 31/12/2023. Women aged > 35, had previous LSCS, placenta previa diagnosed at 20-week scan. MRI in 6 / 7 patients, the 7th moved to UK >34 weeks & had a midwifery growth scan & in ANC considered low risk. 4/6 MRI reported from England & 2 inhouse. 5/6 reports- high likelihood of PAS. 7th pt diagnosed intraoperatively. 3-Cat3 CS in preterm gestation due to recurrent APH & 4 -Cat 4 CS. high suspicion of PAS -elective CS planned at 35+ weeks. Undiagnosed PAS -CS 39 weeks. Preop MDT planning in 6/7 cases. Pre-op anemia -3,2 received Iron & 1 preop blood transfusion.

Peri-operative procedures: Ureteric stenting & Internal Iliac Artery balloon placements: 4/7 ureteric stents pre-op & 1 intraoperatively. 5 - IIA balloon catheters placed, inflated in 4. Anaesthesia CSE to GA in complicated cases. 1 Spinal to GA & 1 requested GA.

Intraoperative: Cell salvage in all. Incisions-4 infra umbilical midline, 2 transverse suprapubic & in 1 not documented in op notes (? transverse). PAS confirmed in 3 / 5 MRI suspected cases & 1 found intraoperatively. Totally 4 PAS.

Confirmed PAS -higher blood loss, especially per Creta than increta. 3 bladder injuries & 1 right-sided external iliac artery occlusion -embolectomy by vascular surgeons. 4 hysterectomy. Time in theatre -09:15 - 01: 53. Time knife to the skin -dressing the wound -06: 08 - 00:25

Postoperative recovery: 4 ITU care, 1 returned to theatre -postop bleeding. All offered debrief, 6 attended. 2 PTSD. No readmissions.



Guli Sultanmuratova

Tashkent Medical Academy, Uzbekistan

Biography

Guli Sultanmuratova is 33 years old from Uzbekistan and her specialty is obstetrics and gynecology. In 2019, she finished her master's degree in obstetrics and gynecology at Tashkent Medical Academy. In 2023 she defended her PhD dissertation on «Optimization of methods of contraception in women of reproductive age with metabolic syndrome». Currently, she is a doctorate student (DSc) and her work is related to anemia.

Anemia And Reproductive Health of Girls of Early Reproductive Age

Background: Girls who get married are at the origins of the realization of their reproductive functions. And in case of pregnancy with anemia, this condition will worsen, and a child with anemic syndrome will be born.

Objective: To analyze the reproductive health of girls

in the Khorezm region before marriage and to identify the relationship with anemia.

Methods: The prospective study included 97 girls of early reproductive age who submitted an application to the Urgench city registry office. All the girls underwent CBC and an ultrasound examination of the genital organs and thyroid gland.

Results: The age of girls ranged from 19 to 25 years (mean value $21,4 \pm 1,4$ years). According to the CBC results, all 97 girls were diagnosed with anemia of varying severity: 18 girls (18,6%) had mild anemia, 72 (74,2%) – moderate anemia, and 7 (7,2%) – severe anemia. The hemoglobin level ranged from 65 to 108 g/l (mean value – $81,05 \pm 8,9$ g/l), the color index – from 0,66 to 1 (mean value – $0,78 \pm 0,05$). Ultrasound examination revealed follicular cyst in 7 (7,2%) patients, genital infantilism grade 2 in 14 (14,4%), genital infantilism grade 1 in 2 (2,06%), multifollicular ovaries in 7 (7,2%), dermoid cyst in 7 (7,2%) patients, thyroid hypoplasia in 7 (7,2%), thyroiditis in 4 (4,1%), nodular goiter in 4 (4,1%), thyroid adenoma in 1 (1,03%), thyroid cyst in 1 (1,03%) and thyroid hemangioma in 1 (1,03%) patient.

Conclusions: Analysis of clinical data in girls with anemia showed that the main complaints presented during the survey were: irritability, fatigue, weakness, and dizziness. During the formation of the reproductive system, its function is not yet the cause of disorders and therefore the impact of any unfavorable factors, especially chronic iron deficiency conditions and anemia can lead to disruptions in the formation of the reproductive system function, primarily the menstrual function.



Doaa Ahmed

Guy's and St Thomas' NHS Foundation Trust, United Kingdom

Biography

Doaa Ahmed is a Senior Specialist Clinical Fellow at Guy's and St. Thomas' Hospital. She graduated from Alexandria University, Egypt, where she got her Master's degree in Obstetrics and Gynecology. She worked in Saudi Arabia as a specialist in Obstetrics and Gynecology.

Her qualifications include Membership of the Royal College of Obstetricians and Gynecologists (MRCOG), Membership of the Royal College of Physicians of Ireland (MRCPI), and the European Board and College of Obstetrics and Gynecology (EBCOG) certification.

Getting It Right First Time (GIRFT) Hysterectomy-Audit

Objectives: To reduce unwarranted variation in the criteria for non-cancer-related hysterectomy procedures. To improve the care delivered by reducing the length of stay (LOS) for patients undergoing non-cancer-related hysterectomies and to achieve best practices for minimal access surgeries for hysterectomy.

Methods: In line with the NHS Improvement project

"Getting It Right First Time" (GIRFT), we analyzed data collected from (GSTT). This data was submitted alongside other hospitals in the Southeast London Network as part of the GIRFT initiative. A retrospective analysis of 100 consecutive hysterectomies for benign cases was conducted from November 2022 to November 2023 (second cycle). The analysis focused on the route of operation, indication, size of the uterus, complications, LOS, and general patient characteristics.

Results: 98 were included in the study. The distribution of hysterectomy routes was as follows: abdominal (58%), laparoscopic (34%), vaginal (6%), and laparoscopic-assisted vaginal hysterectomy (LAVH) (2%). There was an 8% increase in laparoscopic procedures compared to the first cycle, with no change in the abdominal route and a 9% decrease in the vaginal route. The primary indications were abnormal bleeding (54%), pressure symptoms/large uterus (21%), and pain (15%), with a mild increase in prolapse cases by 3% from the first cycle. For uteri <16 weeks in size (52/98), 67% were performed laparoscopically versus 42% abdominally, with 4% converted from laparoscopy. For uteri >16 weeks in size (23/98), 39% were performed abdominally. Overall, 42% of patients had an LOS of less than 3 days with the open route.

Discussion and Conclusion: There was an 8% increase in minimal access surgeries compared to the first cycle. Opportunities for improvement in LOS have been identified. Some points from the first cycle, such as validation meetings, patient education, and patient public involvement have been achieved. Further improvements include the standardization of operation notes and postoperative order sets, updating and distributing patient information leaflets (PIL) for patient education and expectations, and promoting prehabilitation and pelvic floor physiotherapy with long-term aims of achieving same-day discharge.

Upcoming Events:

World Congress on Advances in Mental Health and Psychiatry

March 17-18, 2025 | Amsterdam, Netherlands

mentalhealth@scholarconferences.org

<https://mentalhealth.scholarsconferences.com/>

World Nursing Education and Practice Congress (WNEP 2025)

07-08 July 2025 | Prague, Czech Republic

nursing@scholarconferences.org

<https://nursingworldcongress.com/>

Singapore Public Health Conference (SPHC 2025)

September 15-17, 2025 | Singapore

publichealth@frontiersmeetings.org

<https://scholarsconferences.com/public-health/>

World Nursing and Healthcare Summit (WNHS 2025)

October 27-29, 2025 | Bali, Indonesia

healthcare@scholarevents.org

<https://scholarsconferences.com/nursing-healthcare/>

