



THE ATHENS INSTITUTE FOR EDUCATION AND RESEARCH

# Abstract Book

**11<sup>th</sup> Annual International Conference on  
Nursing  
5-8 May 2025, Athens, Greece**

**Edited by  
Carol Anne Chamley & Olga Gkounta**

2025



Abstracts  
11<sup>th</sup> Annual International  
Conference on Nursing  
5-8 May 2025, Athens, Greece

Edited by  
Carol Anne Chamley & Olga Gkounta

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## Preface

This book includes the abstracts of all the papers presented at the 11<sup>th</sup> *Annual International Conference on Nursing* (5-8 May 2025), organized by the Athens Institute for Education and Research.

A full conference program can be found before the relevant abstracts. In accordance with Athens Institute's Publication Policy, the papers presented during this conference will be considered for inclusion in one of Athens Institute's many publications only after a blind peer review process.

The purpose of this abstract book is to provide members of Athens Institute and other academics around the world with a resource through which they can discover colleagues and additional research relevant to their own work. This purpose is in congruence with the overall mission of the association. Athens Institute was established in 1995 as an independent academic organization with the mission to become a forum where academics and researchers from all over the world can meet to exchange ideas on their research and consider the future developments of their fields of study.

To facilitate the communication, a new references section includes all the abstract books published as part of this conference (Table 1). I invite the readers to access these abstract books –these are available for free– and compare how the themes of the conference have evolved over the years. According to Athens Institute's mission, the presenters in these conferences are coming from many different countries, presenting various topics.

**Table 1.** *Publication of Books of Abstracts of Proceedings, 2015-2024*

Year	Papers	Countries	References
2025	28	15	Chamley and Gkounta (2025)
2024	32	15	<a href="#">Chamley and Gkounta (2024)</a>
2023	31	16	<a href="#">Hughes and Gkounta (2023)</a>
2022	21	11	<a href="#">Boutsioli and Gkounta (2022)</a>
2021	19	8	<a href="#">Papanikos (2021)</a>
2020	22	12	<a href="#">Papanikos (2020)</a>
2019	34	14	<a href="#">Papanikos (2019)</a>
2018	52	15	<a href="#">Papanikos (2018)</a>
2017	63	19	<a href="#">Papanikos (2017)</a>
2016	55	18	<a href="#">Papanikos (2016)</a>
2015	116	23	<a href="#">Papanikos (2015)</a>

It is our hope that through Athens Institute's conferences and publications, Athens will become a place where academics and researchers

from all over the world can regularly meet to discuss the developments of their disciplines and present their work. Since 1995, Athens Institute has organized more than 400 international conferences and has published over 200 books. Academically, the institute is organized into 6 divisions and 37 units. Each unit organizes at least one annual conference and undertakes various small and large research projects.

For each of these events, the involvement of multiple parties is crucial. I would like to thank all the participants, the members of the organizing and academic committees, and most importantly the administration staff of Athens Institute for putting this conference and its subsequent publications together. Specific individuals are listed on the following page.

**Gregory T. Papanikos**  
**President**



## **Editors' Note**

These abstracts provide a vital means to the dissemination of scholarly inquiry in the field of Nursing. The breadth and depth of research approaches and topics represented in this book underscores the diversity of the conference.

Athens Institute's mission is to bring together academics from all corners of the world in order to engage with each other, brainstorm, exchange ideas, be inspired by one another, and once they are back in their institutions and countries to implement what they have acquired. The 11<sup>th</sup> Annual International Conference on Nursing accomplished this goal by bringing together academics and scholars from 18 different countries (Australia, Benin, Bulgaria, China, Denmark, Finland, Italy, Jordan, New Zealand, Norway, Poland, Serbia, South Africa, Saudi Arabia, Switzerland, Turkey, Ukraine, USA), which brought in the conference the perspectives of many different country approaches and realities in the field.

Publishing this book can help that spirit of engaged scholarship continue into the future. With our joint efforts, the next editions of this conference will be even better. We hope that this abstract book as a whole will be both of interest and of value to the reading audience.

**Carol Anne Chamley & Olga Gkounta**  
**Editors**

## **11<sup>th</sup> Annual International Conference on Nursing Sciences, 5-8 May 2025, Athens, Greece**

### **Organizing & Scientific Committee**

All Athens Institute's conferences are organized by the Academic Council. This conference has been organized with the assistance of the following academic members of Athens Institute, who contributed by reviewing the submitted abstracts and papers.

1. Dr. Gregory T. Papanikos, President, Athens Institute.
2. Dr. Zoe Boutsoli, Vice President of Publications, Athens Institute.
3. Dr. George Zahariadis, Director, [Health & Medical Sciences Division](#), Athens Institute & Associate Professor, Faculty of Medicine, Memorial University of Newfoundland, Canada.
4. Dr. Paul Contoyannis, Head, Health Economics & Management Unit, Athens Institute & Associate Professor, McMaster University, Canada.
5. Dr. Carol Anne Chamley, Head, [Nursing Unit](#) & Associate Professor, School of Health and Social Care, London South Bank University UK.
6. Dr. Andriana Margariti, Head, [Medicine Unit](#), Athens Institute & Professor, Queen's University Belfast, UK.

# FINAL CONFERENCE PROGRAM

**10th Annual International Conference on Nursing, 5-8 May 2025,  
Athens, Greece**

## PROGRAM

Monday 5 May 2025

08.30-09.15

Registration

09:15-10:00

Opening and Welcoming Remarks:

- o Gregory T. Papanikos, President, Athens Institute.

Session 1a

Moderator: Steven Oberhelman, Professor, Texas A&M University, USA.

1. Palle Larsen, Researcher & Associate Professor, University College Lillebaelt UCL, Denmark.  
*Title: Integrating Sustainability into Baccalaureate Nursing Education.*
2. Yulong Gu, Associate Professor, Stockton University, USA.  
*Title: How Well can University Students use Internet Information about Depression and Anxiety?*
3. Mari Salminen-Tuomaala, Docent, Associate Professor, Principal Lecturer, Seinäjoki University of Applied Sciences, Finland.  
*Title: Supporting the Health and Work Ability of Unemployed People with Long-Term Illness.*
4. Daniela Taneva, Associate Professor, Head of the Nursing Care Department, Medical University - Plovdiv, Bulgaria.  
Vasilka Gyurova-Kancheva, Assistant Professor, Medical University - Plovdiv, Bulgaria.  
Yovka Zlatanova, Lecturer, Medical University - Plovdiv, Bulgaria.  
Diana Paskaleva, Senior Assistant Professor, Medical University - Plovdiv, Bulgaria.  
Angelina Kirkova-Bogdanova, Lecturer, Medical University - Plovdiv, Bulgaria.  
*Title: Nurses' and Nursing Students' Perceptions of Electronic Nursing Records: A Pilot Study.*

Session 2a

Moderator: Roshanak Rahimian, Professor, University of the Pacific, Stockton, USA.

1. Tomasz Kryczka, Head, Department of Development of Nursing and Social & Medical Sciences, Medical University of Warsaw, Poland.  
*Title: The European Union Project JADE HEALTH in the Fight against Dementia - The Perspective of the Polish Participant.*
2. Tim Lynskey, Orthopaedic Surgeon, Taranaki District Health Board, New Zealand.  
*Title: Comparative Analysis of Suture Choice in Open Bilateral Carpal Tunnel Surgery: A Randomized Controlled Trial.*
3. Nikolina Koleva, PhD Student, National Multi-profile Transport Hospital Tsar Boris III, Bulgaria.  
Valentina Mincheva-Kabakchieva, Associate Professor, National Multi-profile Transport Hospital Tsar Boris III, Bulgaria.  
Ivan Gruev, Professor, National Multi-profile Transport Hospital Tsar Boris III, Bulgaria.  
*Title: The Importance of Early Detection of Transthyretin Amyloidosis - 3 Case Reports.*

14:30-15:30 Lunch

15:30-17:00 Session 4 - Microsymposium on Ethics and Human Rights

Moderator: Paul Anisef, Professor Emeritus, York University, Canada.

<ol style="list-style-type: none"><li>1. Marzia Coltri, Extraordinary Professor, UNISA, South Africa &amp; GUS Fellow, Lecturer, Arden University, UK. <i>Title: Menopause and Perimenopause: Ethics, Rights, Well-being.</i></li><li>2. Ujjwal Kango, Assistant Professor, Indian Institute of Management Sirmaur, India. <i>Title: The Ethics of Gig Work: An Ethnographic Study of Food Delivery Platforms in India.</i></li></ol>
17:00-19:00 Session 5 – A Symposium on What’s Next for US Universities? Moderator: Gregory T. Papanikos, President, The Athens Institute.
<u>Invited Speakers:</u> <ol style="list-style-type: none"><li>1. Mitra Esfandiarei, Professor, Biomedical Sciences Program, College of Graduate Studies, Midwestern University. <i>Title: The Future of Medical Research in the U.S. and Canada?</i></li><li>2. Jun Qu, Professor and Director, Center of Excellence in Bioinformatics and Life Sciences, State University of New York at Buffalo, USA. <i>Title: Striking a Balance of Funding Seeking and Conducting Research.</i></li><li>3. Steven M. Oberhelman, Professor (Holder of the George Sumey, Jr., Endowed Professorship), Texas A &amp; M University, USA. <i>Title: Is There a Future for Classics in an Age of Woke Culture?</i></li><li>4. Robert Earle, David W. Wilson Ethics Fellow &amp; Assistant Professor of Instruction, University of Northern Iowa, USA. <i>Title: Academic Freedom and the Right to Learn: Reflections from a US Educator.</i></li><li>5. Joyce Victor, Associate Professor, Wilkes University, USA. <i>Title: Experiential and Distance Learning.</i></li></ol>
<u>Short Interventions</u> <ol style="list-style-type: none"><li>1. John Spiridakis, Chair of the Department of Education Specialties and Professor, St. John University, USA.</li><li>2. Sonia Salari, Professor, University of Utah, USA.</li><li>3. Jan Reid, President, Coast Economic Consulting, USA.</li></ol>
Discussion

20:30-22:30

[Athenian Early Evening Symposium](#) (Sequence of Events: Ongoing Academic Discussions, Dinner, Wine and Water, Music, Dance)

## Tuesday 6 May 2025

Session 7a Moderator: Palle Larsen, Researcher & Associate Professor, University College Lillebaelt UCL, Denmark.
<ol style="list-style-type: none"><li>1. Yasmine Kanaan, Associate Professor, Howard University, USA. Robert DeWitty, Associate Professor, Howard University, USA. <i>Title: Molecular Profile of a Basal-Like Phenotype of Breast Cancer in African American Women.</i></li><li>2. Emily Havrilla, Associate Professor, Wilkes University, USA. <i>Title: Service-Learning as an Educational Strategy to Foster Civic Engagement at the Freshmen Level.</i></li><li>3. Joyce Victor, Associate Professor, Wilkes University, USA. <i>Title: Using DEI Shadowboxing to Improve Cultural Awareness in Nursing Students.</i></li><li>4. Rinat Nissim, Psychologist, Princess Margaret Cancer Centre, Canada. <i>Title: Challenges and Opportunities in Supporting Family Caregivers of Advanced Cancer Patients with Limited Language Proficiency: A Focus Group Study.</i></li></ol>

Session 8a Moderator: Ingrid Brenner, Associate Professor, Trent University, Canada.
<ol style="list-style-type: none"><li>1. Angelos Halaris, Professor &amp; Chair Emeritus, Loyola University Medical Center, USA. <i>Title: Immunopsychiatry, Autoimmunity and Immunogenomics: Gateways to Precision Psychiatry.</i></li><li>2. Yongmin Xiong, Professor, Xi'an Jiaotong University, China. Di Zhang, Assistant Professor, Xi'an Jiaotong University, China. Xiaoli Yang, Researcher, Shaanxi Provincial People's Hospital, China. <i>Title: Study on Biological Mechanism of Selenium and Selenoprotein in Cartilage Injury in Kashin-Beck Disease.</i></li><li>3. Xiong Guo, Professor, Xi'an Jiaotong University, China. Huan Liu, Assistant Professor, Xi'an Jiaotong University, China. Peiling Meng, PhD Student, Xi'an Jiaotong University, China. <i>Title: Progress in Molecular Biology of Kashin-Beck Disease in China.</i></li><li>4. Anita Zeneli, Lead Research and Risk Manager Nurse, Romagnolo Institute for the Study of Tumors "Dino Amadori", Italy. <i>Title: Prevalence and Characteristics of Cancer Related Fatigue: A Retrospective and Prospective Study.</i></li></ol>

14:00-15:00 Lunch

15:00-16:30 Session 9 – Microsymposium on Ethics and Human Rights Moderator: Marzia Coltri, Extraordinary Professor, UNISA, South Africa & GUS Fellow, Lecturer, Arden University, UK.
<ol style="list-style-type: none"><li>1. Dipane Hlalele, Professor &amp; Chair, Humanities and Social Sciences Research Ethics Committee, University of KwaZulu-Natal, South Africa. <i>Title: Geographies of Ethics: A Critical Analysis of Rural Tourism, Community Development, Religion and Education.</i></li><li>2. Robert Earle, Assistant Professor, University of Northern Iowa, USA. <i>Title: Against Ignorance: The Normative Ethics Consensus Requiring Our Seeking to Know the Interests of Others.</i></li><li>3. Matthias Huehn, Mary S. Carey Chair in Ethics &amp; CST, Saint Vincent College, USA. <i>Title: The Common Good as the Opposite of the Collective Good: Theoretical and Practical Insights from Aristotelian and Thomistic Virtue Ethics.</i></li><li>4. Stavros Prineas, Head of Anaesthetics, Blue Mountains Hospital, Australia. <i>Title: I Guess Therefore I Am.</i></li><li>5. Maria Mut Bosque, Senior Lecturer, International University of Catalonia, Spain. <i>Title: The Erosion of Informed Consent: Transparency Failures and Vaccine Victims during the COVID-19 Pandemic.</i></li></ol>

16:45-20:00 Session 10 Old and New-An Educational Urban Walk
The urban walk ticket is not included as part of your registration fee. It includes transportation costs and the cost to enter the Parthenon and the other monuments on the Acropolis Hill. The urban walk tour includes the broader area of Athens. Among other sites, it includes: Zappion, Syntagma Square, Temple of Olympian Zeus, Ancient Roman Agora and on Acropolis Hill: the Propylaea, the Temple of Athena Nike, the Erechtheion, and the Parthenon. The program of the tour may be adjusted, if there is a need beyond our control. This is a private event organized by ATINER exclusively for the conference participants.

20:30-22:00

[An Ancient Athenian Symposium: Continuous Dialogues, Timeless Flavors](#) (featuring authentic

ancient Athenian dishes, local wine, and sweet delicacies from ancient Athens)

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**Wednesday 7 May 2025**  
**An Educational Visit to Selected Islands**  
**or Mycenae Visit**

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**Thursday 8 May 2025**  
**Visiting the Oracle of Delphi**  
**Friday 9 May 2025**  
**Visiting the Ancient Corinth and Cape Sounion**

**Maria Mut Bosque**

Senior Lecturer, International University of Catalonia, Spain

## **The Erosion of Informed Consent: Transparency Failures and Vaccine Victims during the COVID-19 Pandemic**

The COVID-19 pandemic posed significant challenges to the fundamental right to free and informed consent, as guaranteed under Article 3 of the Charter of Fundamental Rights of the European Union (CFREU). This right entails a consent process that is voluntary, informed, and based on clear, accurate, and transparent communication between medical professionals and patients. However, during the pandemic, several measures and circumstances undermined adherence to these essential principles.

Coercive policies, such as the implementation of COVID certificates at the EU level and mandatory vaccination for specific professional groups in member states, conflicted with the concept of free consent. Consent could not be fully informed due to the simultaneous rollout of vaccinations and ongoing clinical trials. Furthermore, the dissemination of contradictory and opaque information hindered transparency. The healthcare system's collapse exacerbated the problem, preventing meaningful dialogue between patients and medical professionals. This lack of dialogue and the novelty of mRNA technology left medical professionals and the public largely uninformed about the vaccines' long-term side effects and efficacy, raising serious concerns about the obligation to provide truthful information. Among the most concerning consequences was the emergence of numerous vaccine victims who suffered adverse effects due to the lack of transparency about the unknown long-term side effects of the novel mRNA vaccines. These individuals represent a tragic outcome of policies that prioritized rapid implementation over patient safety and informed consent.

A significant failure lies in the lack of EU coordination to ensure compliance with Article 3 CFREU. While the European Commission negotiated advanced purchase agreements for vaccines on behalf of member states, it did not adequately enforce measures to ensure that all EU citizens could provide free and informed consent. The Commission's lack of transparency further compounded these issues. Investigations by the European Ombudsman, the European Court of Auditors, and members of the European Parliament revealed systemic opacity in vaccine procurement and communication processes. For instance, the General Court of the European Union ruled in 2024 that the Commission had violated public access rights by withholding vaccine-related documents. Similarly, ongoing cases, such as one involving text messages between the Commission

President and Pfizer's CEO, highlight the broader failures of transparency and accountability.

The implications of these shortcomings are profound, as they threaten democratic principles and fundamental rights, even in the context of public health emergencies. The pandemic underscored the critical importance of upholding the doctrine of informed consent as a cornerstone of human rights. Moving forward, we strongly recommend that, in the event of future health crises, EU institutions and member states must prioritize transparency, open communication, and public trust. A pre-established, coordinated action strategy must be implemented to protect the right to free and informed consent, ensuring that measures taken during emergencies do not undermine democratic principles or human rights.

In conclusion, the COVID-19 pandemic revealed significant violations of the right to informed consent within the EU, driven by a lack of transparency, coordination, and respect for ethical medical practices. To prevent a repeat of such failures, robust frameworks that prioritize transparency, accountability, and the protection of individual rights are imperative for future health emergencies.



**Ingrid Brenner**

Associate Professor, Trent University, Canada

**Ayla Saiz Campomar**

Student, Trent University, Canada

&

**Leslie Kerr**

Associate Professor, Trent University, Canada

## **Effects of Training for Dragon Boat Racing on Fitness and Quality of Life in Breast Cancer Survivors**

Dragon Boat Paddling has been proven to be an ideal sporting activity to decrease the treatment related side-effects and to improve both physical and emotional health of breast cancer survivors, eventually improving their quality of life. The purpose of this study was to assess the benefits associated with participation in a Dragon Boat Paddling training program by comparing physically active patients to a sedentary comparison group. It was hypothesized that women who participated in the training program experienced a reduction in symptoms associated with breast cancer treatment as well as enhanced quality of life. Participants were recruited from a local chapter of the Breast Cancer Survivor's Group. A Qualtrics survey containing 57 questions was distributed electronically to all interested participants. Questions on basic demographics, health, breast cancer diagnosis and treatment, as well as questions from the International Physical Activity Questionnaire (IPAQ) and the Quality-of-Life Breast Cancer (QOL-BC) Questionnaire were included in the survey. The results showed statistically significant differences between the two groups in the overall quality of life, depression, ability to concentrate, degree of hope felt and social support (which were five of the variables measured by the QOL-BC questionnaire). These results suggest that Dragon Boat Paddling training programs could be an ideal physical activity to improve breast cancer survivors' quality of life and general health.

**Marzia Coltri**

Extraordinary Professor, UNISA, South Africa &  
GUS Fellow, Lecturer, Arden University, UK

## **Menopause and Perimenopause: Ethics, Rights, Well-being**

Human rights and healthcare converge distinctly when examining how life changes like perimenopause and menopause impact emotional health, interpersonal relationships and human connections. This paper examines both medical and cultural factors of these natural transitions, emphasising their effects on physical-mental changes, social belonging and personal identity. Psychophysical symptoms, anxiety, cognitive challenges and mood alterations, as observed in counselling and health settings, can affect relationship quality and lead to stigma, isolation and misunderstanding. Medical and philosophical perspectives underline the importance of early recognition of physical and emotional symptoms. This approach, alongside appropriate healthcare and counselling is essential for supporting women during significant life changes. A key interpretation of these physical and emotional symptoms is also found in the Aristotelian concept of the "matter-form/soul-body" relationship. Creating supportive environments through education, workplace policies, empathetic communication, and governance involvement enhances well-being, human rights and strengthens relationships. Through case study analysis, this paper advocates for holistic support approaches integrating medical care with therapeutic interventions like Person Centred Approach, CBT, mindfulness and pluralistic approaches to improve understanding and connection during these significant life phases.

**Robert Earle**

David W. Wilson Ethics Fellow & Assistant Professor of Instruction,  
University of Northern Iowa, USA

**Against Ignorance: The Normative Ethics Consensus  
Requiring Our Seeking to Know the Interests of Others**

It is common to think one has special obligations to those one knows best. Between sending my own child to college and donating to a stranger's college fund, most would elect the former. This dilemma, however, takes for granted established relationships. Assuming that one does have special obligation to those with whom one is in some special way related, this would yet pose a further question which is the subject of this paper: should one take up the task of coming to know the interests of strangers? That is, in terms of the distinction introduced above, if one knew that familiarity enhances responsibility, should one set about coming to know about what "other" people need and by doing so further burden oneself?

Here it is maintained that deontology, virtue ethics, and utilitarianism all prescribe an obligation to come to better know the interests of distant strangers (with "distance" and "strangers" taken to have broad and vague denotations). All else being equal, not endeavoring to gain such knowledge would constitute a moral failure.

The upshots of this thesis include the following. First, the original assumption (that one has special obligations to those with whom one is close) is met with a subtle challenge. One might, as a result, say: yes, you have special obligations to send your child to college, but you should have done more to better know, and thus oblige yourself toward, the interests of other youths as well.

Second, investigation into the values of distinct others is not supererogatory, not merely a laudable hobby, but rather an essential activity for any moral agent.

Third, if all these theories agree in this regard, it suggests a broader convergence on other issues as well. Indeed, this analysis lends credence to a universalized (or cosmopolitan) account of morality in two ways. It suggests the major theories may share a univocal underlying account or spirit regarding morality, and it suggests all major accounts of morality recommend that people move toward coming together in harmony and mutual understanding.

This work was developed with a mind toward its applicability not only toward engaging in an important philosophical issue but also for

use as an introduction to ethics. It is hoped that the student of introductory ethics may make use of this work in building an understanding of the distinctions within normative theories in a manner that emphasizes complementarity rather than sharp contrast.

Focus is on the canonical figures associated with deontology (Kant), utilitarianism (Bentham and Mill), and virtue ethics (Ancient Greek and Chinese) with only brief notes regarding the ethics of care and social contract theories. Famous applications of normative theory in cases of famine (Singer 1972, Onora O'Neill 1980, Amartya Sen 1998) and Elizabeth Anderson's recent analysis of ideologies associated with the "work ethic" (*Hijacked*, 2023) are discussed as an extended application of the underlying thesis.

**Mitra Esfandiarei**

Professor, Midwestern University, USA

## **Unraveling the Sex-Dependent Relationship between Central, Peripheral and Cerebral Arteries Function in a Mouse Model of Marfan Syndrome: Benefits of Exercise Training on Vascular Function and Blood Flow**

Marfan syndrome (MFS) is a connective tissue disorder caused by mutations in the fibrillin-1 gene, affecting multiple systems including the musculoskeletal, cardiovascular, and pulmonary systems. Vascular complications, particularly aortic root aneurysm, dissection, and rupture, are hallmark features of MFS. In recent decades, advances in diagnostics and treatments have significantly improved life expectancy for individuals with MFS; however, other vascular complications have become more concerning. Aging, a dominant risk factor for atherosclerosis, often affects the carotid arteries, and carotid artery tortuosity is strongly associated with connective tissue disorders such as MFS. Additionally, hospitalized MFS patients show an increased prevalence of intracranial aneurysms and ischemic stroke compared to healthy controls. Despite these insights, cerebrovascular and carotid artery structure and function in MFS remain poorly understood.

The cardiovascular benefits of moderate exercise are well-documented, with evidence also suggesting that aerobic exercise improves cognitive function and reduces neuropsychiatric and neurodegenerative symptoms. The present study investigates the effects of mild aerobic exercise on the progression of aortic aneurysm in male and female MFS mice. Using high-resolution *in vivo* ultrasound imaging, the study assesses the functional properties of multiple key arteries, including the aorta, posterior cerebral, carotid, coronary, pulmonary, and renal arteries, and explore the relationship between aortic root diameters, arterial wall stiffness, and phenotypic changes across these arteries, aiming to identify key predictors that could provide insights into vascular health and the influence of exercise on arterial function and structure.

At 6 weeks of age, male and female control (Fbn1+/+) and MFS (Fbn1C1041G/+) were divided into three experimental groups: Control (Ctrl), MFS, and MFS + exercise. The exercise group underwent the exercise regimen of 8m/min, 30min/day, 5days/week. At 7 months of age, *in vivo* ultrasound imaging was performed to measure aortic root diameter, aortic and carotid artery pulse wave velocity (PWV), carotid wall thickness and distensibility, as well as peak systolic velocity (PSV) in the posterior cerebral arteries, coronary, pulmonary, and renal arteries.

Based on our findings, MFS mice exhibited significant increases in aortic root diameter, aortic and carotid PWV (wall stiffness), carotid wall thickness, coupled with reduced carotid distensibility, in both sexes compared to controls. Reduced PSV was observed in the pulmonary and posterior cerebral arteries of MFS mice, while coronary and renal arteries showed no changes. Mild exercise attenuated aortic and carotid pathology, reversing aortic root diameter growth, PWV, and carotid wall thickness, while improving carotid distensibility and restoring posterior cerebral artery blood flow, particularly in female MFS mice. In males, aortic PWV strongly correlated with posterior cerebral and pulmonary artery flow, while sinus of Valsalva diameter predicted carotid artery PWV and wall thickness in both sexes. Notably, the relationship between carotid distensibility and vascular metrics varied by sex.

These findings underscore the vascular impacts of MFS, the therapeutic potential of mild exercise, and notable sex-specific differences in disease progression and arterial function.

This research was funded by a Faculty Grant from the National Marfan Foundation (to M.E.).

**Yulong Gu**

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## **How Well can University Students use Internet Information about Depression and Anxiety?**

The past two decades have witnessed a rise in anxiety and depression diagnoses among university students in the United States. As mental health information becomes increasingly accessible online, understanding how students navigate these resources is crucial. This study aimed to investigate how U.S. university students use the Internet to search for mental health information and explored the students' capability to identify credible sources of information to answer specific anxiety and depression related questions.

An online survey was designed and distributed to students in three U.S. universities. The online survey included two simulated case scenarios about anxiety and depression and four mental health related questions that were based on the two case scenarios. Participants were instructed to search the Internet and provide the URL of the website that they would like to use to answer each of the four questions. The four questions were about the General Anxiety Disorder-7 (GAD-7) instrument, the most common psychological disorders among U.S. adults, the efficacy of antidepressants in treating alcohol dependence without comorbid depression, and the symptoms of major depressive disorder.

A convenience sample of 442 students participated in the online survey. The adequacy of websites was measured by examining whether the website provided accurate and reliable information to help the participants answer the case scenario questions correctly. Coders were trained to follow the coding scheme, and each question was independently coded by two coders. Inter-rater reliability tests were conducted, with Cohen's Kappa ranging from .74 to .93 respectively for the four mental health related questions.

Research results show that 91.67% of the participants provided adequate websites for the anxiety-related GAD-7 instrument question. 85.22% were able to find reliable websites to answer the question about the most common psychological disorders (anxiety) among U.S. adults. Only 17.43% of participants provided adequate websites from which they could locate information about the antidepressants efficacy in treating alcohol use disorder without a comorbid depressive disorder. A moderate 64.82% of participants successfully found websites that provided accurate information about symptoms of major depressive disorder. The research results indicate that U.S. university students varied widely on their capability to find valid and reliable websites regarding different topics of

anxiety and depression. When the mental health related case questions required information processing and comprehension, university students' ability to find accurate, reliable, and relevant information on the Internet dropped significantly. University students should be trained to access reliable resources through incorporating information literacy in curriculum and training. Future research should focus on improving university students' ability not only to find adequate sources of information regarding mental health issues but also to successfully comprehend and use the information.



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&

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## **Progress in Molecular Biology of Kashin-Beck Disease in China**

*Introduction:* Kashin-Beck disease (KBD) is a kind of endemic and malformed osteoarthropathy with high disability and serious disease burden. The KBD patients in China were mainly in low selenium nutrition condition resulted from low Se environment. In recent years, modern biological techniques have been used to explore the molecular biological characteristics of KBD in order to understand the pathogenesis and prevention and treatment of the disease.

*Methods:* DNA and RNA were extracted from cartilage and peripheral blood collected from patients who gave informed consent and were diagnosed according to the Chinese diagnostic criteria for KBD (WS/T 207-2010), as well as from controls. Whole gene testing, Seqenom MassARRAY system, methylation of high-density chip and induced pluripotent stem cells (iPSCs) were used to analyze genes, proteins, methylation and pathways related to KBD.

*Analysis and Results:* (1) The polymorphism of ITPR2 gene (1,4,5-three phosphoinositide II receptor, inositol 1,4,5-trisphosphate receptor type could affect the individual difference of KBD. (2) ABI3BP (ABI gene family member 3 binding protein) gene copy number variant rs7613610 and rs9850273 was significantly correlated to KBD. (3) rs6910140 polymorphism of COL9A1 gene was associated with KBD. (4) DNA methylation sites in KBD patients were different from those in healthy controls. (5) chronic hypoxia induced mitochondrial damage, apoptosis signaling pathway, death receptor pathway and insulin-like growth factor pathway play an important role in cartilage damage of KBD. (6) Low selenium and/HT-2 toxin was found to regulate extracellular matrix degradation via the Notch1-Hes1 pathway in the iPSCs-derived chondrocytes of KBD, and Se-Met supplementation inhibited aggrecan degradation by down-regulating the expression of ADAMTS5 in the iPSCs-derived chondrocytes of KBD.

*Conclusion:* The differentially expressed genes, proteins, and signaling pathways in cartilage and peripheral blood of patients with KBD that are significantly different from the controls are associated with the

pathogenesis KBD; Se-met supplementation can inhibit aggrecan degradation in the iPSCs-derived chondrocytes of KBD.

The research was supported by the National Natural Science Fund of China (81620108026, 81972980).

**Angelos Halaris**

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**Immunopsychiatry, Autoimmunity and Immunogenomics:  
Gateways to Precision Psychiatry**

Mental illnesses are often chronic, progressive conditions that start early in life and represent a primary cause of years lost to disability. Depression is one of the most common mental disorders, affecting more than 300 million people worldwide, and can be profoundly disabling. It is among the leading causes of morbidity and mortality. Despite significant advancements in neuroscience, the expected beneficial impact on patient care with the gold standard of achieving remission has been limited. Current psychiatric treatments are largely non-specific, and lack precise personalized choice of agent to be prescribed. Drug development is hindered by outdated, overinclusive diagnostic categories. Additionally, mechanisms underlying psychiatric illnesses and their treatments with conventional medications remain poorly understood. Extensive evidence suggests that the immune system plays a role in many psychiatric disorders. Much of the attention to date has focused on inflammation and depressive disorders and related symptoms that cut across diagnostic boundaries. Support for the role of inflammation in depression includes evidence that certain subgroups of depressed patients exhibit increased inflammatory biomarkers, and that peripheral markers of inflammation as well as inflammatory gene polymorphisms can predict the development of depressive episodes and possibly treatment response. The term Neuropsychiatry (NP) was introduced and used over at least the last 30 years, focusing on assessment and differential diagnosis of “organic” psychiatric syndromes (meaning that the observed psychiatric syndromes were causally related and explained by some identified brain pathology). Subsequently, NP themes were expanded to include selected disorders including headache, neuropsychiatric lupus, schizophrenia, bipolar disorder, and even single substances, such as cannabinoids. Basic themes, such as neuroplasticity, neuroprogression and oxidative stress were included in conjunction with neuroimaging, neurogenetics, neuroimmunology. The term Psychoneuroimmunology was coined to connote the area of research dedicated to understanding the fundamental interactions between the immune and nervous systems and ultimately gave rise to the development of the term “Immunopsychiatry.” This is now recognized as a new discipline which conveys more succinctly how these two systems, along with others, such as the endocrine system, are intricately intertwined. This scientific advance holds great promise to further unravel the complex pathophysiology of psychiatric and neuropsychiatric disorders while at the same time enabling development of more effective treatment modalities aimed at achieving the goal of practicing Precision Psychiatry. Immunopsychiatry has therefore the potential to become a clinically relevant subspecialty area in psychiatric practice, but it has yet to be widely recognized and adopted by the mental health community worldwide. Precision

psychiatry is a strategy that holds great promise for novel therapies targeting specific pathophysiologic mechanisms in selected patients, ultimately contributing to more effective, personalized treatments. Immunopsychiatry, which focuses on the immune system's role in psychiatric disorders, exemplifies the challenges and potential solutions for Precision Psychiatry. Limited but compelling evidence supports the exploration, in large scale clinical trials, of the potential benefit of anti-inflammatory treatments likely in combination with conventional antidepressant drug therapies. Concomitant determinations of specific single nucleotide polymorphisms will be a major component in the successful implementation of Precision Psychiatry. I will present clinical trial data to support these statements.

**Emily Havrilla**

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## **Service-Learning as an Educational Strategy to Foster Civic Engagement at the Freshmen Level**

**Background:** Service-learning is an educational strategy that facilitates experiential learning through the integration of course instruction, service, and reflection as presented in the Kolb Experiential Learning Model. Service-learning experiences foster the development of civic engagement. Through a reciprocal relationship between the academic institution and a community partner, students further their awareness of community needs, understand the impact of social determinants of health in vulnerable populations, and develop strategies for the identification and implementation of interventions to ameliorate community issues. Service-learning may be implemented in many forms including stand-alone service projects, a component of a course, and service-learning courses.

**Purpose:** The purpose of this project was to design and implement a service-learning course for students enrolled in a variety of majors in the freshmen year, first semester, within the context of a freshmen year foundations (FYF) course.

**Method:** The service-learning course was developed as a freshmen year (FYF) course. All first semester freshmen are required to enroll in a FYF course. These courses are designed to facilitate the students' transitions to the university setting, and provide experience in group work, collaboration, and presentation. The students were randomly assigned to groups of five to six students and each group selected a community. The service-learning FYF course included community assessment, identification of a community partner, collaboration with a community partner, identification of the community's needs based upon assessment and dialogue with the community partner, development of a project to address the community need, planning for the implementation of the project, implementation of the project and assessment of the impact of the project. Additionally, students participated in a poster presentation of the collaborative project along with all students enrolled in a FYF course.

**Results:** The student groups were successful in assessing the selected communities and they were able to work with the community partners to implement a service project. They successfully developed posters and presented the results of their projects. Student Response Surveys had primarily positive comments about the course and the service-learning experience. Student reflections indicated learning throughout the course and service experience. Students expressed confidence in their ability to participate in civic engagement in their future careers.

**Conclusion:** Service-learning was able to be implemented as an educational strategy in a FYF course with students enrolled in several different majors. Students learned the process of community assessment and used the assessment information to create a project to meet community needs. Service-learning within the FYF course structure served as an effective method to develop the knowledge and skills for future civic engagement.

**Dipane Hlalele**

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**Geographies of Ethics: A Critical Analysis of Rural  
Tourism, Community Development, Religion and  
Education**

Researchers conducting research with vulnerable populations in rural African settings are confronted with distinctive ethical and cultural challenges due to the community context of their research, their methods of investigation, and the implications of their findings. An ethical approach to rural tourism, community development, religion as well education research should invariably acknowledge the effects of geography and location on the design, funding, implementation and reporting of research. The current study explores the geographies of ethics in rural tourism research conduct with and about rural people and communities. The problematic (problem statement) crystallises itself on the premise that dynamism imbues the ethics of research since no two rural spaces are identical and researchers may not necessarily be expected to be monolithic in their approach. Assuming that ethical judgements by their very nature ponder a variety of realities (relative or actual) and are therefore diverse, diversity foregrounds plurality, fluidity, and a multiplicity of geographies. For the purpose of this paper, the concept geography is understood as a space in a psycho-, socio-political and recursively constructed sense. Geographies include exceptionism, situationism, subjectivism and absolutism mapped across relativism and idealism as dimensions. Drawing from the Swedish metaphor of 'potato ethics', Fors (2023) recognizing the rural context as a vulnerable space, maintains that the holistic responsibility of those involved in rural communities should draw on work from the domains of care ethics, relational ethics, pragmatic psychology, feminist ethics of embodiment, social location theory, and reflections on geographical narcissism. So, the question of geographies of ethics in rural religiosity research becomes pertinent. The intention here is to ponder the ethical conduct of researchers with rural religious people and communities. Community Development with rural people thrives on building and enhancing local knowledge stocks of the environment and culture to influence the vitality and quality of life. Banks et. al. (2023) use the concept of 'ethics work' to highlight the cognitive and emotional efforts community development workers expend to identify and handle matters of responsibilities, rights, harms, and benefits. Rural tourism dates to the romanticism movement that began in the late eighteenth century (Ayazlar & Ayazlar, 2015). The first creative

tours in rural areas were rurally based on the holiday concept, but modern rural tourism began after the World War II era (Lane, 2009). Drawing from diverse international literature (+500 peer reviewed articles and book chapters) published in the last ten years on rural tourism, community development, religion and education, and using PRISMA as an analytical tool, this scoping review finds that some publications make no reference, even in the tacit sense, to ethical issues. We conclude with an observation that varying ethical geographies may create conflicting, competing, or crosscutting ethical obligations and ramifications, reflecting both the relative vulnerabilities of rural communities, power implicit in these scholarly relationships, and the diverse ethical frameworks.

**Matthias Huehn**

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## **The Common Good as the Opposite of the Collective Good: Theoretical and Practical Insights from Aristotelian and Thomistic Virtue Ethics**

How exactly individual flourishing and societal flourishing are connected is a central question in the social sciences in general and in business ethics in particular. This article argues that the main theories of flourishing and its relation to the common good have developed along a trajectory going from Aristotle via Aquinas to the current, prevailing understanding of the relation between individual and communal flourishing. The current concept of a collective good has no specific individual author but has its origins in the second political wave of the Enlightenment. These three concepts of the mutual good/advantage (Aristotle), the common good (Aquinas), and the collective good can be seen as existing on a continuum. Aristotle argues for politically embedded individuals who possess the potential and authority to achieve their own flourishing (eudaimonia). Aristotle's understanding of politically embedded eudaimonia is subsequently modified by Thomas Aquinas in light of his concept of persons who seek to flourish by sanctifying their souls and through friendship with God. The evolution of these ideas of the good or end culminates in modern approaches to flourishing that bestow authority upon political representatives to act for the sake of the collective good. Although the three concepts have developed along a historical continuum, the collective good is, in many important respects, the exact opposite of the common good and is threatening to replace not only the person endowed with dignity but also to invert the meaning of good. Re-embracing the pre-Enlightenment common good has major ethical and managerial implications.



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&

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## **Molecular Profile of a Basal-Like Phenotype of Breast Cancer in African American Women**

Breast cancer is a heterogeneous disease, and the diversity of phenotypes defies comprehensive classification by histology alone. Because of widespread expectations that advance in cancer taxonomy will lead to improved clinical management as well as an improved understanding of disease pathogenesis, molecular methods are increasingly being used to further characterize address this complexity and to supplement morphology for breast cancer classification. Using high-resolution oligonucleotide CGH arrays, we evaluated chromosomal copy number changes in a series of 16 breast cancers, selected on the basis of highly similar pathological and molecular features characteristic of the “basal-like” phenotype. Each of these cancers showed numerous gains and losses, reflecting multiple chromosomal rearrangements during the development of these high-grade cancers. Chromosomal losses were particularly prevalent on chromosomal arms 5q, 8p, 9q, 12q, 17p, 19p, and Xq, and gains were commonly seen on chromosomal arms 1q, 8q, and 17q. Particularly remarkable were regions of high-level amplification (> 8-fold copy number change) on 4q12, 8q23.3, 19p12, and 19q13.2. These regions included candidate oncogenes cKIT, JUND, and AKT2., and immunohistochemistry confirmed that these particular genes were highly expressed in the cancers harboring the specific amplifications. However, each of these amplifications was observed only in individual cases, and no particular chromosomal alteration appeared to generally characterize this group of cancers. Thus, genomic changes among breast cancers with basal-like features appear to be very heterogeneous. Distinct high-level amplifications may provide new targets for treating some of these cancers but copy number changes do not reveal a distinctive genomic fingerprint for this proposed class of breast cancers.

**Ujjwal Kango**

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## **The Ethics of Gig Work: An Ethnographic Study of Food Delivery Platforms in India**

The rise of on-demand platforms underscores the need to investigate the ethical challenges posed by algorithmic management in managing gig workers associated with these platforms. Digital platforms utilise algorithms to direct, evaluate and discipline a distributed workforce leading to intensified monitoring and lack of worker voice, raising critical issues around transparency, accountability, and the erosion of worker autonomy. Based on ethnographic fieldwork conducted between 2021-2023 on two food delivery platforms in two Indian cities, this study explores how these challenges manifest in practice. The author worked as a food delivery worker on one of these platforms. This study analyses the processes by which algorithms direct, evaluate and discipline food delivery workers. The findings present that algorithmic control is reinforced through end-users and human managers, reinscribing human agency in algorithmic management on labour platforms. Overall, this paper makes two arguments. First, it emphasizes that rather than automation, heteromation, that pushes several tasks to complementors (restaurants, customers) and human managers, is a better way to characterise algorithmic control. Consequently, we categorize the role of human managers and complementors within digital platforms into: computational labour and direct control. Second, we argue that increased access to worker data empowers human managers to exert more direct control, facilitating enhanced oversight, wage discrimination, and the manipulation of workers, thereby deepening power imbalances on digital labour platforms. This research contributes to ethical discourse making a case for misclassification of workers as independent contractors, and calls for policy interventions to protect workers' rights in digital labour platforms. Specifically, it emphasizes the need to improve algorithmic transparency, as algorithmic decisions on these platforms often remain opaque, leaving workers unsure of whether decisions are made by algorithms or manipulated by human managers under the guise of an algorithmic boss.

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**The Importance of Early Detection of Transthyretin  
Amyloidosis – 3 Case Reports**

Amyloidosis encompasses a heterogeneous group of diseases that are caused by the extracellular accumulation of insoluble proteins in different tissues. Cardiac amyloidosis is basically divided into light chain and transthyretin amyloidosis, according to the type of precursor protein. Transthyretin amyloidosis is further divided into hereditary and wild-type, but in both cases, it has a progressive course and when left without treatment - an expected lethal outcome within 2 to 6 years after diagnosis. Nowadays specific therapies are developed for transthyretin amyloidosis. They can reduce symptoms, cardiovascular hospitalization and mortality so the detection of the diagnosis is of utmost importance. Amyloidosis is not so rare as previously thought but is often underdiagnosed. Due to the involvement of various systems, patients often see different specialists - cardiologists, neurologists, gastroenterologists. There is a need for clinicians to have multidisciplinary approach and high level of suspicion for the disease, in order to make targeted search for the so-called "red flags" and to detect the disease as early as possible. We present 3 case reports of patients from our practice with transthyretin amyloidosis - 2 with hereditary type and 1 with wild type amyloidosis with summary of their characteristics. The common features in these three patients are male gender and pseudoinfarction pattern on ECG. Both patients with hereditary amyloidosis had younger age at presentation and severe neurological and gastrointestinal symptoms, while the patient with wild-type amyloidosis had predominantly cardiac involvement.

**Tomasz Kryczka**

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**The European Union Project JADE HEALTH in the Fight  
against Dementia – The Perspective of the Polish Participant**

Mental disorders pose a significant public health challenge due to their prevalence, impact on quality of life and economic burden, calling for demanding policy action. According to WHO data, mental health issues cost the EU€600 billion annually, equivalent to 4.1% of GDP. Non-communicable diseases (NCDs), such as dementia and other neurological disorders, considered the seventh leading cause of death and the main cause of dependency among the elderly. The European Commission has prioritized mental health alongside physical health, introducing 20 flagship initiatives supported by €1.23 billion in funding from different financial instruments. The Joint Actions (JA) aim to combine the transfer and implementation of the most effective practices with the support provided to Competent Authorities, policymakers, and other relevant organizations.

One of the joint action is JADE-Health Project. JADE Health consortium is involving 47 entities of 17 European countries (Bulgaria, Croatia, Czechia, Denmark, Estonia, Finland, Germany, Hungary, Italy, Latvia, Lithuania, Malta, Norway, Poland, Slovenia Spain and Ukraine) targeting more than 7,500 citizens in various pilots.

The overarching objective of JADE Health aims to improve prevention, early detection and management of dementia and other neurological disorders, thus reducing health inequalities and addressing the needs of vulnerable population.

The project is committed to supporting individuals living with dementia or other neurological disorders by fostering early intervention and improving education. Furthermore, JADE Health seeks to elevate societal awareness of dementia by providing targeted education to relatives, care professionals, and other key stakeholders.

This will be achieved through evidence-based exchange of best practices to ensure sustainability, placing a strong emphasis on prevention and early detection and involves the implementation of a new diagnosis and treatment model leveraging cutting-edge technology to address dementia across its entire spectrum, from preventive measures and early detection strategies to treatment options and the development of effective public policies, in order to improve the quality of life of both the sick persons and their environment.

JADE Health aims to consolidate, unify, and standardize initiatives that aim to alleviate the impact of Dementia on individuals and society by focusing on populations that are at a high risk across Europe. All the planned activities within JADE Health are designed to attain practical and sustainable results in the short, medium and long-term.

All countries involved in the JADE Health Joint Action represent different plans, strategies and activities aiming to help people with dementia. As Medical University of Warsaw is participating in this project, we'll present our Polish perspective at the very beginning of this Project.

**Palle Larsen**

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**Integrating Sustainability into Baccalaureate Nursing  
Education**

Sustainability education in nursing programs is crucial for preparing future nurses to address the environmental determinants of health. This involves understanding the impact of climate change on healthcare and promoting sustainable practices in clinical settings. The reviewed literature identifies various educational strategies, including incorporating sustainability teachings into curricula, using clinically relevant scenarios, and applying multidisciplinary approaches to enhance learning. For example, scenario-based learning and augmented reality have proven effective in raising awareness and understanding of sustainability issues among nursing students, encouraging proactive attitudes towards environmental stewardship.

Furthermore, equipping nurses with knowledge and skills related to environmental sustainability has significant economic, social, health, and environmental benefits. Educating nurses about climate change, resource scarcity, and sustainable healthcare delivery enables them to implement changes in practice, contributing to a reduction in healthcare's environmental footprint.

The systematic review of the literature outlines several key strategies for enhancing sustainability education in nursing. These include integrating sustainability into core curricula, promoting active and participatory learning, and encouraging reflective practices. Additionally, digital educational materials and social media have effectively engaged students and professionals in discussions on sustainability, emphasizing the importance of environmental considerations in healthcare.

Case studies and global initiatives provide examples of successful approaches to managing food waste and promoting sustainability in healthcare settings. The European Union's Farm to Fork Strategy and the United Nations' Sustainable Development Goal 12.3 exemplify coordinated efforts to reduce food waste and enhance sustainable consumption. In the United States, the Food Recovery Challenge and Japan's Food Recycling Law illustrate the potential for policy-driven initiatives to encourage sustainable practices.

Given the importance of addressing food waste and promoting sustainability in healthcare, a new study will explore these issues within the primary healthcare sector, focusing on Danish nursing homes.

In conclusion, integrating sustainability into nursing education is essential for preparing nurses to address the environmental challenges of the 21st century. By adopting innovative educational strategies and fostering global cooperation, nursing programs can equip future healthcare professionals with the knowledge and skills needed to promote sustainability and improve health outcomes. The findings emphasize the importance of sustainable management practices and highlight the potential for significant advancements in reducing healthcare's environmental impact

**Tim Lynskey**

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## **Comparative Analysis of Suture Choice in Open Bilateral Carpal Tunnel Surgery: A Randomized Controlled Trial**

*Objective:* This randomized controlled trial compared outcomes of absorbable and non-absorbable sutures for skin closure in open carpal tunnel decompression.

*Methods:* Patients diagnosed with bilateral carpal tunnel syndrome proceeding to staged open carpal decompression were invited to participate in the trial. Patients elected left or right hand for the first operation and were randomised to receive Prolene or Vicryl Rapide first and the alternative suture to the contralateral side.

Recorded pre-operative data included the Boston Carpal Tunnel Questionnaire (BCTQ) for each hand. At 2 weeks post-operatively the BCTQ, a Visual Analogue Score (VAS) for pain and Asepsis Wound Score were recorded. At 6 weeks, the BCTQ and VAS were repeated and a Patient and Observer Scar Assessment Scale (POSAS) were performed. Patients were asked preference for left or right suture.

Statistical analysis using a linear mixed model assessed improvements in the BCTQ, as well as wound scores between sutures. The individual scales were compared using non-parametric Wilcoxon signed rank test. Specific patient factors including age, comorbidities, and previous steroid injection were assessed for effects on outcome.

*Results:* There was no significant difference between the two suture types in any of the overall recorded assessments, complications or patient preference. BCTQ scores improved significantly post-operatively,  $p=0.001$ . Previous steroid injection, diabetes and age over 65 did not affect outcomes.

*Conclusions:* Patients can be advised there is no difference in the outcome following open carpal tunnel decompression from using either absorbable or no-absorbable suture material for skin closure.



**Rinat Nissim**

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## **Challenges and Opportunities in Supporting Family Caregivers of Advanced Cancer Patients with Limited Language Proficiency: A Focus Group Study**

*Background:* Family caregivers supporting individuals with advanced cancer provide essential support, and often face significant distress themselves. Emerging literature shows that caring for a loved one with Limited Language Proficiency (LLP) can present additional challenges that further caregiving burden despite the availability of interpretation services offered in many healthcare settings. In this study, we seek to understand the experience of such caregivers, examine the unique challenges and barriers they face and identify potential solutions to improve support for both patients with LLP and their caregivers.

*Methods:* We are currently completing focus groups and one-on-one qualitative interviews with family caregivers who are supporting patients with advanced cancer and limited English proficiency. Caregivers are recruited from a large urban hospital in Toronto, Canada. Focus groups are formed based on participant ethnicity such that cultural impacts on their experiences can be highlighted and factored into this exploration. Responses will be analysed using thematic analysis.

*Results:* Recruitment opened in November, 2024; we plan to conduct four focus groups from January-March, 2025, each including approximately 6-8 caregivers, and to complete data analysis by April, 2025.

*Discussion:* Findings will help contribute toward intervention development and improved language-and culture-based policies and programs to better support diverse cancer patient populations and their families.

**Steven Oberhelman**  
Professor, Texas A&M University, USA

## **Medical Schools for Practical (Empirical) Doctors in Eighteenth- and Nineteenth-Century Greece: The Schools of Ioannina and Mystras**

On 24 December 1958, an obituary appeared in the newspaper *Εφημερίδα Ταχυδρόμος της Λακωνίας*. It was noted that a *Giórgos Vachaviolōs*, nicknamed the 'Old General,' had passed away. *Vachaviolōs* was said to be a beloved practical doctor who specialized in bone-setting and herbal concoctions for the local populace. Why do I mention him? Because of his hometown: *Mystras*, a village close to the famous Byzantine castle town of *Mystra*. As I will discuss in my paper, *Mystras* can provide important information on the history of Greek medicine of the last two centuries of the *Tourkokratia* (the rule of Greece by the Ottoman Turks) and the first century after Greek independence, for it was there that a school for practical doctors was established.

In the eighteenth- and nineteenth centuries, Greeks eager to be a doctor left Greece and studied medicine in Western European cities like Padua, Paris, and Vienna. Many returned as diplomate physicians to establish their practice in the cities. The vast majority of people, and nearly everyone on the islands and in the inlands, however, were treated by empirical or practical doctors (*praktikoí yiatroí*), who relied on herbs and plants, animal and mineral substances, folk remedies, and religious and magical treatments to heal their patients. These practical doctors existed until the 1970s when diplomate physicians and the National Health Service (*Εθνικό Σύστημα Υγείας*) took over the healthcare of all Greeks. It is commonly known that most practical doctors received their training from their fathers and grandfathers. The practical doctor was typically a position handed down for generations in the same family. What is very little known, however, is that there were also medical schools for producing practical doctors.

In my paper I will discuss two such schools: one at *Mystras*, which graduated our *praktikós Vachaviōlos* mentioned above; and one at *Ioannina*, founded in 1840 by *Adam Gorgidas*, a famous *praktikós* and botanist from the University of Budapest. These schools produced many of the healers who restored health and wellbeing for most of the people of northwest Greece and the southern Peloponnesus. As such, these schools for *praktikoí yiatroí* deserve recognition in the history of medicine.

**Stavros Prineas**

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**I Guess Therefore I Am**

Generation of situation awareness (SA) is a key function of human consciousness, and a fundamental attribute of clinical human factors/ergonomics (HF/E) from which all others are derived. SA is the ability to form perceptions about elements in time and space (Perception - Level I SA), mental models that make sense of those perceptions (Comprehension - Level II SA), and projections about future states based on those models (Level III SA). Individual SA predicates individual clinical decision making, as well as risk perception and planning/prioritisation skills; shared (or team) SA requires communication, teamworking and leadership skills. Ergonomic sociotechnical designs of external environments (layout, displays, checklists, forcing functions etc.) work through by supporting individual and team SA, making it easier to see and do 'the right thing' and harder to do 'the wrong thing'. Taken together these comprise many of the basic elements of a clinical HF/E training curriculum.

Emerging research in neuroscience and artificial intelligence reveals that the true nature of human consciousness is not what we intuitively think it to be. Our bodies inhabit a dynamic physical universe, but 'reality' as we experience it turns out to be more than a mere live recording from which we extrapolate meaning: it is a filtered and embellished model constructed by our brains - a kind of 'practical hallucination' with much pre-determined meaning already baked into it, our 'best guess' of what should be happening and what is about to happen, designed through millions of years of natural selection to enhance our ability to function (and survive). As George Box famously said: all models are wrong, but some are useful. A better (i.e. more useful) model of consciousness and how it evolves and develops over time would help us better understand the factors that shape SA, which would in turn better inform other aspects of HF/E and human performance in clinical environments. This session presents some of the research relevant to this topic.

**Roshanak Rahimian**

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## **Sex Differences in Diabetic Vascular Dysfunction: A Deep Dive into Diabetes-Induced Vascular Aging in Males vs Females and the Impact of Exercise**

Over the past decade, type 2 diabetes (T2D) has reached epidemic levels worldwide, becoming one of the most challenging health problems in the 21st century. Cardiovascular diseases (CVD) are one of the primary causes of morbidity and mortality in patients with diabetes. Premenopausal women have a lower incidence of CVD when compared with age matched men. However, premenopausal women with diabetes not only lose the sex-based cardiovascular protection but also experience a higher relative risk of CVD compared to diabetic men. Hyperglycemia and diabetes exert differential effects on male vs female vascular function. Yet, the mechanisms underlying the interaction of biological sex and diabetes on vasculature remain to be investigated. This presentation focuses on the effects of both types of diabetes on the rat macrovascular (aorta) and microvascular (mesenteric artery) function with respect to biological sex. Further, the impact of moderate intensity exercise (MIE) on mesenteric arterial function in T2D will be presented. Endothelium-dependent vasorelaxation (EDV) was measured as a reproducible parameter for assessing endothelial function. Interestingly, both types of diabetes impaired EDV to a greater extent in female than in male rat vasculature. In smaller arteries, the predisposition of female to vascular injury in diabetes was due to a shift away from endothelium-derived hyperpolarization (EDH), initially considered as the major vasodilatory factor, toward a greater reliance on nitric oxide (NO). However, in larger artery, a decrease in NO level resulting from decreased endothelial NO synthase (eNOS) expression or elevated superoxide in part contributed to the susceptibility of female vasculature to injury in diabetes. One intriguing observation of this study was that MIE (50 min/day, 5days/ week for 8 weeks, running at 55% of VO<sub>2</sub>max) improved EDV in T2D male vasculature, partially by restoring the EDH-type (NO and prostanoid-independent) relaxation in arteries of this model (Funding: NIH, HL128988 and University of the Pacific).

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**Supporting the Health and Work Ability of Unemployed People with Long-Term Illness**

*Background:* A considerable proportion of the population in many countries live with one or several long-term illnesses. Long-term illness is defined as a chronic condition lasting six months or longer, requiring regular medical care. The prevalence of long-term illness has increased globally, with cardiovascular diseases, lung diseases, cancer and diabetes among the most common diseases. Impaired health can lead to temporary or prolonged loss of employment. However, the services for unemployed clients with long-term illness are commonly fragmented and uncoordinated.

In Finland the most prevalent conditions burdening the health care system include cardiovascular diseases, respiratory diseases, cancer and diabetes. Mental health problems and intoxicant addictions are considered a major challenge for the Finnish population, causing functional decline and unemployment, and increasing the risk of social exclusion. There was a multiprofessional intervention carried out in Finland in order to support the health and work ability of people with long-term illness.

The purpose of the study was to produce information about how the participants in the project "Duckboards" rated the intervention and their encounters with various experts, and to investigate the meaning of the participation for them. The study aimed at producing information that could be used to further develop interventions to support the health, work ability and functioning of unemployed citizens with long-term illness.

*Data collection and analysis:* A quantitative survey was selected to collect data from the target group (N=148). The questionnaire was delivered online through a survey tool called Webropol. All the participants received a cover letter stating study purpose and aim, voluntary participation and anonymity. IBM SPSS Statistics 29 was used to analyse the data.

*Results:* The response rate was 32%. The respondents were asked to rate various aspects of interaction and support experienced during their encounters with the experts. The respondents were very (60%) or rather (24.5%) satisfied with how they had been received and listened to. According to the respondents, the overall client process had progressed very well (61.1%) or rather well (24.5%). There were no statistically significant differences between the genders. When asked if they had been involved in issues that concerned them, nearly half (46.7%) of the respondents found that they had been very well. Both women and men

agreed that they had had very good opportunities to provide feedback. They were also relatively satisfied with the feedback provided to them by the project experts. The respondents were asked to evaluate how well they had been supported in the Future Workshop. 56% of participants found that they had been very well supported. The respondents were also requested to rate the meaning of the project for their physical, mental and social health, work ability and employability. Based on the client ratings, it would seem that the intervention had a greater positive effect on the participants' experienced physical and social health and daily coping, compared to job-seeking skills or career planning, where the variance was higher. The participants seemed very satisfied with their encounters and interaction with the project experts.

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## **A Conceptual Framework for Blended Learning in Nursing Education at Historically Disadvantaged Institutions in South Africa**

*Introduction:* The Fifth Industrial Revolution (5IR) warrants the inclusion of technology into nursing education to address the changing needs in healthcare and academic environments. The COVID-19 pandemic acted as a catalyst for the incorporation of online learning with face-to-face learning in nursing education at higher education institutions in South Africa.

*Problem statement:* The pressure to continue with learning and teaching during challenging times saw the rapid integration of technology into nursing education. However, the blended learning approach was relatively new in nursing education at historically disadvantaged institutions in South Africa.

*Aim of the study:* The aim of the study was to develop a conceptual framework for the generation of a practice theory for blended learning in nursing education at historically disadvantaged institutions in South Africa.

*Methodology:* A convergent mixed methods research design was used to obtain empirical data for the development of the conceptual framework. Data was collected from student nurses and nurse educators at three rural historically disadvantaged universities in South Africa to determine their readiness for blended learning. Quantitative data was collected via online questionnaires from the students and educators. Qualitative data was collected via focus groups with the student nurses and one-on-one interviews with the nurse educators. The findings from the statistical and thematic data analysis were merged via narrative format. The meta-inferences from the integrated data analysis were used in the development of the conceptual framework for blended learning.

*Findings:* The integrated data analysis indicated the requirements, strengths and challenges to the implementation of blended learning. Both the student nurses and nurse educators displayed positive attitudes to blended learning and emphasized its benefits and importance in a technological world. However, communication, collaboration and commitment were key to the success of the innovative approach. Furthermore, there was no denying that electricity and connectivity issues

in the rural environments posed the biggest challenge to the online component of blended learning.

*Conclusion:* The developed conceptual framework provides the foundation for the generation of the practice theory. It presents a comprehensive overview of the essential components to ensure successful implementation of blended learning in nursing education in South Africa. Furthermore, the conceptual framework specifies the roles and responsibilities of the student nurse and nurse educator including the resources and support required for blended learning specific to historically disadvantaged contexts.



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## **How Renaissance Paintings Can be used to Teach Students to Interpret Patient Symptoms: The Example of Breast Cancer**

Progress in breast cancer diagnosis is continuous and undeniable. Nevertheless, from time to time, new indicators of breast cancer are discovered in the depiction of breasts of models in Italian Renaissance paintings, confirming the alleged diagnosis of breast cancer and supposedly attesting to the historical epidemiology of the disease. However, as medical diagnosis is commonly considered to be both science and art, one in which a disease is identified through the art of recognizing and interpreting its signs and symptoms, we propose a comparison between the two. By comparing medical diagnosis (and, by association, interpretation in the natural sciences) with the interpretation of works of art, we aim highlight the interpretive functions of diagnostic testing.

As diagnosticians, we face similar situations to art experts; as we both interpret signs, and the objects of our analysis, diagnostic images, and art works (especially oil paintings) share a power to convey verisimilitude. We are also aware that our interpretations are neither absolute nor final. They are dependent on criteria that are never exhaustive, meaning that there are many different methods that can be used to interpret visual representations. Furthermore, we are required to justify interpretation itself as the chosen method for understanding, interpreting and deciphering signs.

By demonstrating our process of analyzing paintings, we aim to make our students understand how diagnosing is merely observing a given sign objectively. Diagnosing is the interpretation of all information coming from the patient – including that processed in the form of a medical image.

Analyzing disputes between researchers as a clash of methodologies in the way's interpretation transforms signs into meanings, is a critical and educational methodological reflection. In this regard, it is worth remembering that the paramount objective of diagnosis is not the disease, but the patient.

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## **Nurses' and Nursing Students' Perceptions of Electronic Nursing Records: A Pilot Study**

*Background:* Nursing documentation is central to patient care and plays a key role in healthcare systems. The importance of nursing records affects many aspects of care, its continuity and quality. In addition, they serve as a starting point for statistical and scientific analyses of information, as well as for evidentiary material in possible legal and ethical disputes. Like any other type of documentation, nursing depicts the role and place of its author. In this case, it emphasizes the autonomy of the nursing profession and its importance in health care. With the increasing integration of information and communication technology, the future of medical records, including nursing records, lies in digitization and eHealth. After the introduction of electronic health records, the next step for many countries like Bulgaria is the implementation of electronic nursing registers. This pilot study aimed to reveal the attitudes and perceptions of the target groups (nurses and nursing students) towards electronic nursing records and nursing documentation in general. *Materials and methods:* The study is two-phase, with a detailed literature review on the subject being made at the first stage. The second phase consisted of a survey of the opinions of 59 nurses and 108 students. *Results:* Almost half of the surveyed students evaluate working with electronic medical documentation as good, and the same assessment was given by a smaller part of the workers (39%). In most cases, a lack of nursing activities in the electronic records was noted (40.7% working and 22.2% students). 47.2% of students and 42.4% of nurses rated the importance of the electronic nursing record as very important. *Conclusion:* Documenting nursing care in an electronic version is closely related to improving quality, patient safety and transparency in service. The findings of the pilot study revealed varied attitudes among nurses and nursing students, suggesting the necessity for comprehensive and large-scale research in this area, especially with the aim of implementing electronic nursing records in Bulgaria.

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## **Experiential and Distance Learning**

With melding of cultures and beliefs, nurses often encounter patients with unique value systems. While nurses self-report cultural awareness and interpersonal skills addressing diversity, equity and inclusion (DEI) (O'Brien, O'Donnell, Murphy, O'Brien & Markey, 2021), little is known about patients' perceptions of nurses' cultural awareness (Alharbi, Alhamlan & Aboshaiqah, 2021).

The purpose of this research was to: 1) Explore the lived experience of marginalized individuals in DEI encounters with nurses; 2) Use the reported lived experiences to create DEI Shadowboxing; and 3) Conduct a pilot study, exploring the impact of DEI Shadowboxing on cultural awareness survey (CAS) scores in pre-licensure baccalaureate nursing students.

Based on the Cultural Humility Framework (Mosher et al, 2017), the phenomenological study used a hermeneutic approach with Van Manen's analysis of surveys from 67 marginalized individuals accessed through snowball sampling. DEI Shadowboxing was created and implemented using INACSL's Healthcare Simulation Standards of Best Practice.<sup>TM</sup> A pre-test/post-test pilot study assessed for differences in individual and mean CAS scores in 29 junior-year pre-licensure nursing students.

Findings suggest behaviors interpreted as impatience, inequity and ignorance lead to distrust of nurses by marginalized individuals. Behaviors such as eye-rolling and failing to provide interpreters demonstrate a lack of DEI-related interpersonal skills and cultural awareness (Pinto, Macleod & Nhamo-Murire, 2023). These findings were used to create DEI Shadowboxing. Pre/Post-test comparison showed a significant increase in CAS scores after DEI Shadowboxing ( $t = 6.19, p < 0.001$ ). Findings suggest the use DEI Shadowboxing may improve cultural awareness and DEI-related interpersonal skills.

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&

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## **Study on Biological Mechanism of Selenium and Selenoprotein in Cartilage Injury in Kashin-Beck Disease**

*Introduction:* Kashin-Beck disease (KBD) is an endemic, disabling and deforming osteoarthropathy, and mainly affects children or teenagers in growth and development period. The mainly pathological changes in KBD are degeneration and necrosis in joint cartilage and epiphyseal plate cartilage. The etiology of KBD remains unclear, and epidemiological investigation of environmental risks has shown that KBD mainly occurs in selenium (Se) deficiency areas of China. selenium deficiency may contribute to the etiopathogenesis of KBD and Se supplementation could significantly decrease the incidence of KBD. Selenoprotein is the main functional form of Se in human body, but the exact biological mechanism of selenoprotein in KBD remains unknown. Screening of KBD environmental susceptibility genes, investigating selenoprotein transcription profile in KBD patients and related functional experiments were conducted to illuminate molecular mechanism of selenium and selenoprotein in KBD, in order to further search new molecular targets for the prevention and treatment of KBD.

*Methods:* Selenoprotein gene transcription level and GPX enzymatic activity of blood samples in KBD patients and normals were detected by using qRT-PCR and ELISA. The single nucleotide polymorphism and DNA methylation level of selenoproteins were detected by PCR-RFLP and qMSP. The expressions of PI3K/Akt in KBD patients and chondrocytes were detected by western blotting. The mechanism of Se and selenoprotein in KBD cartilage injury were further investigated by establishing chondrocyte models treated with tBHP, low Se and T-2 toxin. The cell growth and apoptosis were detected by MTT, Hoechst 33342 staining and Annexin V-FITC/PI.

*Results:* The mRNA levels of 25 selenoprotein genes in whole blood of KBD patients were detected, and the results showed that expressions of seventeen selenoprotein genes (GPX1, GPX2, GPX3, GPX6, DIO1, DIO3, TXNRD1, TXNRD2, TXNRD3, SPS2, SELO, SELH, SELI, SELK, SELN, SELR and SELV) were down-regulated. The bioinformatics

analysis showed that SEPS1, TXNRD1, TXNRD2, TXNRD3, GPX3 and DIO2 in KBD patients were most significantly affected by Se in the environment and were mainly focused on anti-oxidation, maintenance of redox reaction, and regulation of cell apoptosis and necrosis. GPX activity was decreased in the whole blood of KBD and the subgroup of patients with the variant GPX1 Pro198Leu. The G $\beta$  $\gamma$ , pAkt and pGSK3 $\beta$  protein expressions in variant genotype (AA) of SEPS1 105G>A group were increased significantly than that of wild type (GG) and heterozygote (GA). The DNA methylation levels of selenoproteins in KBD patients were higher than that in control group. In addition, the down-regulation of GPX3, TXNRD1, DIO1 mRNA levels were all observed in tBHP, low Se and T-2 toxin injured chondrocytes, whereas Se supplementation could up-regulate the expressions of selenoproteins.

*Conclusions:* Abnormal transcription of selenoprotein genes in KBD patients is mainly characterized by low expressions of selenoproteins. The genetic and epigenetic effects of selenoprotein play an important role in the cartilage injury of KBD. Se can up-regulate selenoprotein expression by affecting its methylation.

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**Prevalence and Characteristics of Cancer Related Fatigue:  
A Retrospective and Prospective Study**

**Background:** The target population was defined with a previous analysis of retrospective data. The study aimed to detect the prevalence, explore and describe the characteristics of patients with fatigue in a selected cancer population.

**Methods:** This was an observational monocentric retrospective and prospective study. Retrospective data were extracted from patient electronic medical records (EMRs) referring to the day of patient enrollment (T0) and 1, 3 and 6 months before T0. Patients were also prospectively evaluated for fatigue and for frailty at (T0), and at 1, 3 and 6 months after T0. Patient-reported Edmond Symptom Assessment Scale (ESAS) and PRO-CTCAE® Symptom Term 53: Fatigue Vs 1.0 were used for the prospective assessment of fatigue, while the Geriatric 8 (G8) screening tool was used for the frailty assessment. The study obtained the approval from the local Ethical Board and started in March 2024. Participants were 102 consecutive adult patients with lung or upper gastrointestinal tract cancer, who were under care at IRST for at least one month (regardless of type and anticancer treatment setting) that underwent medical procedures during the study period. Participants provided the written informed consent for using their data for the study purposes.

**Results:** Fatigue prevalence at T0 was 49,5% (95% CI 39.7-59.2). In patients with fatigue the median time from diagnosis to T0 was 13.4 months (IQ range 5.7-37.0) and the Mean 42.3 (DS ±77.8) whereas in patients without fatigue 17.9 months (IQ range 3.7-33.6) and the Mean 40.6 (DS ±67.8). Among patients with fatigue, 24.5% reported that fatigue did not improve with rest. Eight per cent of them reported that the symptom did not interfere with the daily living activities (ADLs), while 92% reported that fatigue interfered with the ADLs (a little bit for 32%, somewhat for 36%, quite a bit for 16 % and very much for 8% of patients with fatigue). A total of 65 patients (64.73%) had at least one comorbidity, 40 (39.22%) had at least two or more comorbidities, while 37 patients (36.27%) had none. While the distribution of comorbidities was similar among patients with fatigue compared with those without fatigue, higher prevalence of fatigue was observed among frail patients compared with not frail ones (64% vs 36%),

**Discussion:** The study data confirmed the prevalence of fatigue found with our previous retrospective analysis conducted in a general cancer

population (n. 11925) in which the fatigue prevalence resulted respectively 52% in patients with lung cancer and 47% in patients with upper gastroenteric cancers. The study results highlight the impact that the uncontrolled symptom have in the patients daily life since 92% of those with fatigue reported that the symptom interfered with their ADLs. The preliminary data showed no differences in fatigue prevalence, and the distribution of comorbidities between groups of patients with and without fatigue. These results should be read with caution because of the small sample size of the study population. Since the study is still ongoing, a more detailed analysis will be performed at the study completion.

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