



THE ATHENS INSTITUTE FOR EDUCATION AND RESEARCH

# Abstract Book:

5th Annual International Conference on  
Health & Medical Sciences  
1-4 May 2017, Athens, Greece

Edited by  
Gregory T. Papanikos

2017



Abstracts  
5<sup>th</sup> Annual International  
Conference on  
Health & Medical Sciences  
1-4 May 2017, Athens, Greece

Edited by Gregory T. Papanikos

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## Preface

This book includes the abstracts of all the papers presented at the 5<sup>th</sup> *Annual International Conference on Health & Medical Sciences*, 1-4 May 2017, organized by the Athens Institute for Education and Research (ATINER). In total 104 papers were submitted by over 150 presenters, coming from 29 different countries (Australia, Belgium, Brazil, Canada, Chile, China, Cyprus, Egypt, Finland, Germany, India, Israel, Italy, Japan, Jordan, Kazakhstan, Macau, the Netherlands, Pakistan, Palestine, Poland, Russia, Saudi Arabia, South Korea, Taiwan, Thailand, Turkey, UK, and USA). The conference was organized into 27 sessions that included a variety of topic areas such as health care, pharmacy systems, disease models, medical tourism, pharmacognosy, and more. A full conference program can be found beginning on the next page. In accordance with ATINER's Publication Policy, the papers presented during this conference will be considered for inclusion in one of ATINER's many publications.

The purpose of this abstract book is to provide members of ATINER and other academics around the world with a resource through which to discover colleagues and additional research relevant to their own work. This purpose is in congruence with the overall mission of the institute. ATINER 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 could meet to exchange ideas on their research and consider the future developments of their fields of study.

It is our hope that through ATINER's conferences and publications, Athens will become a place where academics and researchers from all over the world regularly meet to discuss the developments of their discipline and present their work. Since 1995, ATINER has organized more than 400 international conferences and has published nearly 200 books. Academically, the institute is organized into seven research divisions and forty research units. Each research 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 ATINER for putting this conference and its subsequent publications together.

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





**FINAL CONFERENCE PROGRAM**  
**5<sup>th</sup> Annual International Conference on Health & Medical Sciences,**  
**1-4 May 2017 Athens, Greece**

**PROGRAM**

**Conference Venue: Titania Hotel, 52 Panepistimiou Avenue, Athens, Greece**

**C O N F E R E N C E P R O G R A M**

**Monday 1 May 2017**

**08:00-09:00 Registration and Refreshments**

**09:00-09:30 (Room D-Mezzanine Floor) Welcome and Opening Address by Gregory T. Papanikos, President, ATINER.**

<b>09:30-11:00 Session I (Room C-10<sup>th</sup> Floor): Recent Trends in Health, Pharmacy &amp; Drug Delivery Systems I</b>	<b>09:30-11:00 Session II (Room D-Mezzanine Floor): Health Care</b>	<b>09:30-11:00 Session III (Room E-Mezzanine Floor): Nursing Education I</b>	<b>09:30-11:00 Session IV (Room F- Mezzanine Floor): Pregnancy Issues</b>
<b>Chair:</b> Ketan Ruparelia, Head, Pharmaceutical Research Unit, ATINER & Research Fellow and Part-time Lecturer, De Montfort University, U.K.	<b>Chair:</b> Olga Gkouta, Researcher, ATINER.	<b>Chair:</b> Despoina-Eirini Katzoli, Researcher, ATINER	<b>Chair:</b> Clare James, Senior Lecturer, Coventry University, UK.
<p>1. *Azhar Hussain, Dean, Department of Pharmacy, Hamdard University, Pakistan. Perceptions of Regulators towards the Current Pharmacovigilance System in Pakistan.</p> <p>2. *Leslie Wilson, Professor, University of California San Francisco, USA &amp; Tracy Lin, University of California San Francisco, USA. Evaluation of Value-based Pricing Models for Cancer Drugs in a Clinical Setting.</p> <p>3. *Laila J. Badran, Independent Expert, Jordan. The Anti-Corruption Drug Case: Lessons from the Past.</p>	<p>1. *Steven Oberhelman, Professor and Associate Dean, Texas A&amp;M University, USA. Sir Thomas Browne and Edward Browne: Two Physicians of Seventeenth-Century Norwich, England.</p> <p>2. Martin Kreiswirth, Professor, McGill University, Canada. Narrative Medicine? Viewing the Patient-Physician Dialogue as Narrative.</p> <p>3. Carla Claeys, Professor, Universidad Andrés Bello, Chile. Lived Experience of Mothers Caring Children with Home Assisted Ventilation Support: A View from Human Becoming Theory.</p> <p>4. Yelena Bird, Assistant Professor, University of Saskatchewan, Canada. Adolescents' Smoking Experiences, Family Structure, Parental Smoking and Socio-Economic Status in Ciudad Juárez, Mexico.</p> <p>5. Rick Fothergill,</p>	<p>1. <u>Fatma Demirkiran</u>, Professor, Adnan Menderes University, Turkey &amp; Melek Sarica, Specialist Nurse, Adnan Menderes University, Turkey. The Possibility of Suicide, Problem Solving Ability and Associated Factors among High School Students.</p> <p>2. <u>Gulengun Turk</u>, Associate Professor, Adnan Menderes University, Turkey, Serife Karagozoglu, Professor, Cumhuriyet University, Turkey, Filiz Adana, Assistant Professor, Adnan Menderes University, Turkey &amp; Hilal Hatice Gulludere, Research Assistant, Adnan Menderes University, Turkey. Autonomy Levels and Professional Attitudes of Nurse Educators.</p> <p>3. Mei-Chun Lin, Assistant Professor, Cardinal Tien Junior College of Healthcare and Management, Taiwan. Debriefing Scale Development for Nursing Stimulation Education.</p> <p>4. Vickie Hughes, Assistant Professor, Johns Hopkins</p>	<p>1. Juan Ding, Vice Director of the Quality Control Department, The First Affiliated Hospital of Zhengzhou University, China. Effect of using Mobile Phone Services and Internet to Promote Breastfeeding during Infant Period: An Intervention Study.</p> <p>2. <u>Hulya Arslantas</u>, Associate Professor, Adnan Menderes University, Turkey, Ayden Coban, Associate Professor, Adnan Menderes University, Turkey, I. Ferhan Dereboy, Professor, Adnan Menderes University, Turkey, Muazzez Şahbaz, Teaching Assistant, Adnan Menderes University, Turkey, Ezgi Sari, Research Assistant, Adnan Menderes University, Turkey &amp; Dondu Kumaz, Midwife, Ministry of Health, Turkey. Severity of Pregnancy Period Discomforts Does It Predict Postpartum Depression and Maternal Attachment.</p> <p>3. Kimberley Jackson,</p>

5<sup>th</sup> Annual International Conference on Health & Medical Sciences,  
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	Principal Lecturer, University of Central Lancashire, UK. NHS Counsellors' Therapeutic Encounters where Outcome Measures are Part of the Therapy – A Literature Review.	University, USA. What are the Barriers for Developing Nurse Leaders? A Review. 5. *Yvonne ten Hoeve, Researcher / PhD Candidate, University of Groningen / University Medical Center Groningen, The Netherlands, Stynke Castelein, Senior Researcher / Professor, University of Groningen, The Netherlands, Gerard J. Jansen, Senior Lecturer and Researcher, Hanze University of Applied Sciences, The Netherlands, Wiebren S. Jansen, Assistant Professor, Utrecht University, The Netherlands & Petrie Roodbol, Professor, University of Groningen, The Netherlands. Student Nurses' Changing Perceptions of Nursing: A Two Year Longitudinal Study.	Assistant Professor, Western University, Canada. Why does it Hurt so Much? Understanding Women's Experience of Breastfeeding-related Pain.
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11:00-12:30 Session V (Room C-10 <sup>th</sup> Floor): Recent Trends in Health, Pharmacy & Drug Delivery Systems II	11:00-12:30 Session VI (Room D-Mezzanine Floor): Nursing, Influential Factors on Health Care Provisions and Education I	11:00-12:30 Session VII (Room E-Mezzanine Floor): Adult & Elderly Health Care	11:00-12:30 Session VIII (Room F- Mezzanine Floor): Technology Issues in Health Care
<b>Chair:</b> Azhar Hussain, Dean, Department of Pharmacy, Hamdard University, Pakistan.	<b>Chair:</b> Steven Oberhelman, Professor and Associate Dean, Texas A&M University, USA.	<b>Chair:</b> Yvonne ten Hoeve, Researcher / PhD Candidate, University of Groningen / University Medical Center Groningen, The Netherlands.	<b>Chair:</b> Hulya Arslantas, Associate Professor, Adnan Menderes University, Turkey.
1. <u>Amr Badawey</u> , Professor, Future University in Egypt, Egypt, Ali Yehia, Lecturer, Cairo University, Egypt, Nagiba Hassan, Associate Professor, Cairo University, Egypt & Soad Emad, Teaching Assistant, Future University in Egypt, Egypt. Novel Ion Selective Membrane for Tiotropium bromide and Application to Spiriva Inhalation Powder in Handihaler. 2. Oleg Pisarenko, Head, Laboratory for Myocardial Metabolism, Russian Cardiology Research-and-Production Complex, Russia. A Structural Analogue of Peptide Apelin-12 in	1. Maria Gabriela Morgado, Professor, Universidad Andrés Bello, Chile. Becoming a Pediatric Nurse: A View from Parse's Theory. 2. * <u>Gamal Abdel Naser Yamamah</u> , Professor, National Research Centre (NRC), Egypt, Mohab M. Salah, Researcher, National Research Centre (NRC), Egypt, Hany Shehata, Researcher, National Research Centre (NRC), Egypt, Ahmed M. Omar, Researcher, National Research Centre (NRC), Egypt & Hasaneen M. Hasanein, Researcher Assistant, National Research Centre (NRC), Egypt. Validity of Health Education Program in Prevention	1. <u>Adelia Dalva Da Silva Oliveira</u> , Teacher, University Center Uninovafapi, Brazil, Inez Sampaio Nery, Teacher, Federal University of Piaui, Brazil, Cristina Maria Miranda De Sousa, Rector, University Center Uninovafapi, Brazil, Carolinne Kilcia Carvalho Sena Damasceno, Teacher, University Center Uninovafapi, Brazil, Maria Eliete Batista Moura, Teacher, Federal University of Piaui, Brazil & Eduardo Cairo Oliveira Cordeiro, Medical Student, University Center Uninovafapi, Brazil. Women who have Sex with Women: Attitudes and Practices on	1. *Mary Cramer, Professor, University of Nebraska Medical Center, USA. Using Mobile Technology and Community Health Workers to Reduce Preterm Birth. 2. Maj-Helen Nyback, Principal Lecturer, Novia University of Applied Sciences, Finland. Developing Virtual Learning Environments at DP in Nursing, NOVIA UAS. 3. <u>Nicola Parker-Summers</u> , Senior Lecturer, Coventry University, UK & <u>Julia Marjorie Booth</u> , Senior Lecturer, Coventry University, UK. Introducing e-Portfolios to Post-Registration Nursing and Allied Health Professionals.

Cardioprotection against Ischemia/ Reperfusion Injury.	and Increasing Awareness of some Prevalent Health Problems among Children at Remote Areas.	Prevention of HIV/AIDS.	4. <u>Damla Kizilca Cakaloz</u> , Research Assistant, Adnan Menderes University, Turkey & Ayden Coban, Associate Professor, Adnan Menderes University, Turkey. The Effect of Hyperemesis Gravidarum on Pregnancy Adaptation.
	3. Aidah Alkaissi, Director of Nursing and Midwifery Department, Faculty of Medicine and Health Sciences, An-Najah National University, Palestine. Anti-Emetic Efficacy of Prophylactic Dexamethasone and Metoclopramide, and their Combination in the Prevention of Postoperative Nausea and Vomiting after Laparoscopic Surgery in Patients at high Risk of post-Operative Nausea and Vomiting: A Randomized, Double Blind, and Placebo-Controlled Trial.	2. <u>Carolinne Kilcia Damasceno</u> , Teacher, University Center Uninovafapi, Brazil, Samara Karine Sena Fernandes Vieira, Teacher, Faculty Estacio CEUT, Brazil, Maria Eliete Batista Moura, Professor, Federal University of Piaui, Brazil, Adelia Dalva Da Silva Oliveira, Teacher, University Center Uninovafapi, Brazil, Cristina Maria Miranda de Sousa, Rector, University Center Uninovafapi, Brazil, Eucário Leite Monteiro Alves, Professor, University Center Uninovafapi, Brazil, Marcia Astres Fernandes, Professor, University Center Uninovafapi, Brazil & Maria do Carmo de Carvalho e Martins, Professor, University Center Uninovafapi, Brazil. Sociodemographic Characteristics and Morbidities among Institutionalized Elderly without Cognitive Decline.	
	4. *Ahmed Abdelmgeed, Associate Professor, University of Jeddah, Saudi Arabia, Mohammad Alim Ajabnoor, Professor, King Abdul Aziz University, Saudi Arabia, Mohmd Nabil Al-Ama, Associate Professor, King Abdul Aziz University, Saudi Arabia, Kalid Zaki Al Shali, Associate Professor, King Abdul Aziz University, Saudi Arabia & Ghada Ma Ajabnoor, King Abdul Aziz University, Saudi Arabia. (Covariant CDKN2A/2B rs10811661(C/T) Gene Polymorphism is Associated with Increased Risk of Type 2 Diabetes in the Saudi Arabian Population.	3. <u>Sevil Masat</u> , Research Assistant, Ondokuz Mayıs University, Turkey, Zeliha Koc, Associate Professor, Ondokuz Mayıs University, Turkey & Zeynep Saglam, Lecturer, Ondokuz Mayıs University, Turkey. Determining Factors Affecting the Quality of Life in Elderly Nursing Home Residents.	
	5. <u>Moldir Turemuratova</u> , PhD Student, Astana Medical University, Kazakhstan, Gulnar Tuleshova, Astana Medical University, Kazakhstan & Galiya Orazova, University Medical Center Corporate Fund, Kazakhstan. Prenatal Screening in Kazakhstan: The Existing Problems.	4. <u>Cristina Maria Miranda De Sousa</u> , Rector, University Center Uninovafapi, Brazil, Anaita De Sousa Rocha Neta, Teacher, Faculty Maurice of Nassau, Brazil, Maria Eliete Batista Moura, Teacher, Federal University of Piaui, Brazil, Luana Kelle Batista Moura, Teacher, University Center Uninovafapi, Brazil & Eucário Leite Monteiro Alves, Professor, University Center Uninovafapi, Brazil.	

		Violence and Abuse against the Elderly.	
<b>12:30-14:00 Session IX (Room C-10<sup>th</sup> Floor): Emerging Trends in Medicinal Plant Analysis, Pharmaceutical Chemistry and Pharmacognosy I</b>	<b>12:30-14:00 Session X (Room D-Mezzanine Floor): Disease Models</b>	<b>12:30-14:00 Session XI (Room E-Mezzanine Floor): A Panel on Nursing Education</b>	<b>12:30-14:00 Session XII (Room F- Mezzanine Floor): Independent Prescribing</b>
<b>Chair:</b> Laila J. Badran, Independent Expert, Jordan.	<b>Chair:</b> Ahmed Abdelmgeed, Associate Professor, University of Jeddah, Saudi Arabia.	<b>Chair:</b> Vickie Hughes, Assistant Professor, Johns Hopkins University, USA.	<b>Chair:</b> Mary Cramer, Professor, University of Nebraska Medical Center, USA.
<p>1. <u>Maryam Bakr</u>, Teaching Assistant, Future University in Egypt, Egypt, Maha Hegazy, Associate Professor, Cairo University, Egypt, Amr Badawey, Professor, Future University in Egypt, Egypt &amp; Samah Abbas, Professor, Cairo University, Egypt. Spectral Resolution Methods Manipulating Spectrophotometric Data for Quantification of Ternary Mixture of Thiocetic acid, Benfotiamine and Cyanocobalamin in Capsules.</p> <p>2. Mayadah Shehadeh, Associate Professor, The University of Jordan, Jordan. Inhibitory Effect of <i>Aristolochia Maurorum</i> on Antibiotic-resistant MRSA.</p>	<p>1. *<u>John Moraros</u>, Associate Professor, University of Saskatchewan, Canada. Third-World Realities in a First-World Setting: A Study of the HIV/AIDS-Related Conditions and Risk Behaviors of Sex Trade Workers in Saskatoon, Saskatchewan, Canada.</p>	<p>1. <u>Katiuska Reynaldos-Grandon</u>, Associate Professor, Universidad Andrés Bello, Chile, Lissette Aviles-Reinoso, PhD Student, University of Edinburgh, UK &amp; Carolina Henriquez-Galindo, Practitioner Nurse, Universidad Andrés Bello, Chile. Generating Social Responsibility in Nursing through a Service-Learning Experience in Chile. (NUREDU)</p> <p>2. Abeer Orabi, Assistant Professor, King Saud Bin Abdul-Aziz University, Saudi Arabia. Assessing Knowledge Regarding Vulvovaginal Candidiasis among Female University Students. (Monday, noon session)</p> <p>3. Mona Afifi, Assistant Professor, King Saud Bin Abdul Aziz University for Health Science, Saudi Arabia. Physical Assessment Skills among Nurses: "A Gap between What is Taught and What is Practiced".</p> <p>4. <u>Pat Colliety</u>, Senior Teaching Fellow, University of Surrey, UK &amp; Amy Dopson, Senior Teaching Fellow, University of Surrey, UK. Exploring Ethical Issues Through Performance Simulation – A Collaboration between Performance and Practice. (NUREDU)</p> <p>5. Nurcan Ertug, Assistant Professor, Ufuk University, Turkey. The Effect of Research Activity on Nursing Students' Research</p>	<p>1. *<u>Clare James</u>, Senior Lecturer, Coventry University, UK, Alison Bardsley, Senior Lecturer, Coventry University, UK &amp; Neil Kelly, Senior Lecturer, Coventry University, UK. Nurse Independent Prescribing in the United Kingdom.</p> <p>2. *<u>Alison Bardsley</u>, Senior Lecturer, Coventry University, UK, Clare James, Senior Lecturer, Coventry University, UK &amp; Neil Kelly, Senior Lecturer, Coventry University, UK. The Use of Simulation to Develop Critical Thinking and Decision Making Skills in Student Independent Prescribers.</p> <p>3. *<u>Neil Kelly</u>, Senior Lecturer, Coventry University, UK, Alison Bardsley, Senior Lecturer, Coventry University, UK &amp; Clare James, Senior Lecturer, Coventry University, UK. Using Twitter to Facilitate the Dissemination of Information and to Provide a Platform for Continued Professional Development for Independent Prescribers.</p>

		Anxiety and Attitudes to and Awareness of Research and Development.	
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#### 14:00-15:00 Lunch

15:00-17:00 Session XIII (Room D-Mezzanine Floor): Novel Technologies	15:00-17:00 Session XIV (Room E-Mezzanine Floor): Health Care Issues I
<b>Chair:</b> Robert Sindelar, Professor and Former Dean, Faculty of Pharmaceutical Sciences, The University of British Columbia, Canada.	<b>Chair:</b> Alison Bardsley, Senior Lecturer, Coventry University, UK.
<ol style="list-style-type: none"> <li>1. <u>Christine Kleffner</u>, TH Köln, Germany, <u>Nicolas Kruse</u>, TH Köln, Germany, <u>Thomas Saeger</u>, TH Köln, Germany, <u>Gerd Braun</u>, TH Köln, Germany &amp; <u>Ompe Aime Mudimu</u>, TH Köln, Germany. Surface Evaluation and Optimisation of PP Oxygenator Membranes by Introducing Zeta Potential Analysis.</li> <li>2. <u>Nicolas Kruse</u>, TH Köln, Germany, <u>Christine Kleffner</u>, TH Köln, Germany, <u>Thomas Saeger</u>, TH Köln, Germany, <u>Gerd Braun</u>, TH Köln, Germany &amp; <u>Ompe Aime Mudimu</u>, TH Köln, Germany. Smart Mobile Organ Perfusion Transportation System.</li> <li>3. <u>Thomas Saeger</u>, TH Köln, Germany, <u>Christine Kleffner</u>, TH Köln, Germany, <u>Nicolas Kruse</u>, TH Köln, Germany, <u>Gerd Braun</u>, TH Köln, Germany &amp; <u>Ompe Aime Mudimu</u>, TH Köln, Germany. Development of a New High Performance Hollow Fiber for Oxygenators.</li> </ol>	<ol style="list-style-type: none"> <li>1. <u>John Gammon</u>, Professor, College of Human and Health Sciences, Swansea University, UK. The Curse of Wet Hands! The Significance of Hand Drying and Efficacy of Different Methods.</li> <li>2. <u>Serife Karagozoglu</u>, Professor, Cumhuriyet University, Turkey &amp; <u>Emine Korkmaz</u>, Specialist Nurse, Health Science University, Turkey. The Efficiency of Sand Bag, Close Pad and Cold Application in Combination with Sand Bag to Prevent Peripheral Vascular Complications Post-Coronary Angiography and Post-Percutaneous Coronary Intervention.</li> <li>3. <u>Gulay Yildirim</u>, Associate Professor, Cumhuriyet University, Turkey, <u>Sukran Ertekin Pinar</u>, Assistant Professor, Cumhuriyet University, Turkey &amp; <u>Neslihan Sayin</u>, Midwife, Kizilay Hospital, Turkey. The Relationship between the Support Needs and Pain-Fatigue Levels of Women Undergoing Postpartum.</li> <li>4. <u>Maria Eliete Batista Moura</u>, Teacher, Federal University of Piaui, Brazil. Satisfaction of Family Health Strategy Users in a Capital of the Brazilian Northeast.</li> <li>5. <u>Alexandra Koumoutsopoulos</u>, Pain Management Coordinator, University of Michigan Hospital and Health Centers, USA &amp; <u>Mary Lynn Parker</u>, Clinical Nurse Specialist, University of Michigan Health System, USA. Improving Orthopedic Patient Outcomes through Implementation of a Multimodal Pain Protocol.</li> <li>6. <u>Tugba Kavalali Erdogan</u>, Research Assistant, Ondokuz Mayis University, Turkey, <u>Zeliha Koc</u>, Associate Professor, Ondokuz Mayis University, Turkey &amp; <u>Tugba Cinarli</u>, Research Assistant, Ondokuz Mayis University, Turkey. Determination of Prevalence and Etiology of Medical Errors in Healthcare Practices.</li> </ol>

17:00-19:00 Session XV (Room D-Mezzanine Floor): Special Issues in Health Science	17:00-19:00 Session XVI (Room E-Mezzanine Floor): Special Topics in Nursing
<b>Chair:</b> Christine Kleffner, TH Köln, Germany, <u>Nicolas Kruse</u> , TH Köln, Germany.	<b>Chair:</b> Neil Kelly, Senior Lecturer, Coventry University, UK.
<ol style="list-style-type: none"> <li>1. <u>Yeol Kim</u>, Head, Division of Cancer Management Policy, Korean National Cancer Center, South Korea. Preliminary Results of Developing a Shared Care Model between Oncologists and Primary Physicians for Enhancing Health Care for Cancer Survivors in Korea (SCOPE-K) Project.</li> <li>2. <u>*Vera Lucia Raposo</u>, Assistant Professor, University of Macau, Macau. Oocyte Cryopreservation for Fertility Preservation – The Legal Approach.</li> <li>3. <u>Ketan Ruparelia</u>, Research Fellow and Part-time Lecturer, De Montfort University, UK, <u>Keti Zeka Zeka</u>, Research Fellow, De Montfort University, UK, <u>Zainab Ali</u>, Pharmacy Student, De Montfort University, UK, <u>Hajara Alfa</u>, Post Graduate Student, De Montfort University, UK, <u>Purvi Mali</u>, Post Graduate Student, De Montfort University, UK, <u>Randolph Arroo</u>, Reader in Phytochemistry, De Montfort University, UK, <u>Nazmin Juma</u>, Researcher, De Montfort University, UK &amp; <u>Unmesh Desai</u>, Researcher, De Montfort University, UK.</li> </ol>	<ol style="list-style-type: none"> <li>1. <u>Gary Mountain</u>, Associate Professor, University of Leeds, UK &amp; <u>Jane Cahill</u>, Lecturer, University of Leeds, UK. Sensitivity and Attachment Interventions in Early Childhood: A Systematic Review and Meta-Analysis.</li> <li>2. <u>Ayse Ozkaraman</u>, Assistant Professor, Eskisehir Osmangazi University, Turkey. Sleep Quality in Breast Cancer Receiving Radiotherapy.</li> <li>3. <u>Asnat Dor</u>, Senior Lecturer, Max Stern Academic College of Emek Yezreel, Israel &amp; <u>Michal Mashiah Eizenberg</u>, Senior Lecturer, Max Stern Academic College of Emek Yezreel, Israel. Motivation and Empathy among Nurses in Hospitals and Community Clinics: The Mediating Role of Burnout. (Monday)</li> <li>4. <u>Giulia Marchetti</u>, Nurse Researcher, Sapienza University of Rome, Italy, <u>Julita Sansoni</u>, Associate Professor, Head of Nursing Research Unit, Department of Public Health, Sapienza University of Rome, Italy, <u>Milena Sorrentino</u>, Nurse Researcher, Sapienza University of Rome, Italy.</li> </ol>

5<sup>th</sup> Annual International Conference on Health & Medical Sciences,  
1-4 May 2017, Athens, Greece: Abstract Book

Qualitative and Qualitative Phytochemical Screening of Medicinal Herbal Ocimum Tulsi Leaves.	<p>Anna Rita Marucci, Nurse Researcher, Sapienza University of Rome, Italy, Walter De Caro, Nurse Researcher, Sapienza University of Rome, Italy &amp; Maurizio Marceca, Associate Professor, Sapienza University of Rome, Italy. Functional Health Literacy of Asylum Seekers and Refugees. A Pilot Study in Italy.</p> <p>5. *<u>Fernando Riegel</u>, PhD Student, Federal University of Rio Grande Do Sul, Brazil &amp; Maria Da Graça De Oliveira Crossetti, PhD Student, Federal University of Rio Grande Do Sul, Brazil. Critical Thinking in Nursing: Reference Theoretical and Instruments for Your Assessment.</p> <p>6. Dolly Shun, Charge Nurse, UF Heath Shands, USA. Shift Huddle: Culture of Safety and Window of Opportunity.</p>
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**19:00-20:30 Session XVII (Room D-Mezzanine Floor): A Small Symposium on Diabetes I**

**Chair:** Andriana Margariti, Head, Medicine Research Unit, ATINER & Lecturer, Centre for Experimental Medicine, Queen's University Belfast, U.K.

1. \*Robert Sindelar, Professor and Former Dean, Faculty of Pharmaceutical Sciences, The University of British Columbia, Canada. Creating a Health and Wellness Paradigm in the "OMICS" Era.
2. Ayten Taspinar, Associate Professor, Adnan Menderes University, Turkey & Selva Ozgul, Midwife, Adnan Menderes University, Turkey. The Effect of Maternal Obesity on Maternal and Neonatal Health. (Monday)
3. Judith Aponte, Associate Professor, Hunter College, The City University of New York, USA, Karen Tejada, Hunter College, The City University of New York, USA & Mariel Acosta-Melo, Hunter College, The City University of New York, USA. Systematic Literature Review: Diabetes Internet-based Spanish Language Health Information.
4. \*Andis Klegeris, Associate Professor, University of British Columbia, Canada. Increased risk of Alzheimer's disease in Type 2 Diabetes: Neuroimmune Effects of Dysregulated Peripheral Factors as a Possible Link.
5. Ramona DeJesus, Assistant Professor, Division of Primary Care Internal Medicine, Mayo Clinic, USA, Robert Jacobson, Department of Pediatrics and Adolescent Medicine, Mayo Clinic, USA, Kristin Vickers Douglas, PhD, Department of Psychiatry and Psychology, Mayo Clinic, USA, Debra Jacobson, MS, Division of Biomedical Statistics and Informatics, Mayo Clinic, USA, Patrick Wilson, Department of Health Sciences Research, Mayo Clinic, USA & Jennifer St. Sauver, PhD, Department of Health Sciences Research, Mayo Clinic, USA. Impact of an Intensive 12-Week Wellness Coaching Program on Self-Care Behaviours among Adult Primary Care Patients with Pre-Diabetes.

**21:00-23:00 Greek Night and Dinner (Details during registration)**

**Tuesday 2 May 2017**

**07:45-11:00 Session XVIII: An Educational Urban Walk in Modern and Ancient Athens**

**Chair:** Gregory Katsas, Head, Sociology Research Unit, ATINER & Associate Professor, The American College of Greece-Deree College, Greece

Group Discussion on Ancient and Modern Athens. Visit to the Most Important Historical and Cultural Monuments of the City (be prepared to walk and talk as in the ancient peripatetic school of Aristotle) (Note: The simple registration fee of the conference does not cover the cost of this session. More details during registration).

<p><b>11:30-13:00 Session XIX (Room C-Mezzanine Floor): Recent Trends in Health, Pharmacy &amp; Drug Delivery Systems III</b></p> <p><b>Chair:</b> PD Gupta, Adjunct Professor, Manipal University, India.</p>	<p><b>11:30-13:00 Session XX (Room D-Mezzanine Floor): Nursing, Influential Factors on Health Care Provisions and Education II</b></p> <p><b>Chair:</b> John Moraros, Associate Professor, University of Saskatchewan, Canada.</p>	<p><b>11:30-13:00 Session XXI (Room E-Mezzanine Floor): Issues Affecting Nurses in Working Environment: Behavior-Emotions</b></p> <p><b>Chair:</b> Nurten Tasdemir, Assistant Professor, Bulent Ecevit University, Turkey.</p>
<p>1. *<u>Ahmad Khalil</u>, Professor, Yarmouk University, Jordan, Hanan M. Bashaiah, Yarmouk University, Jordan &amp; Ahmad A. El-Oqlah, Yarmouk University, Jordan. Evaluation of Cytotoxicity, Mutagenicity and Antimutagenicity of Methanolic Extract of Aerial Parts of <i>Plumbago Europaea</i> on</p>	<p>1. Anke Simon, Associate Dean, Faculty of Economics, Head of Centre of Health Sciences and Management, Cooperative State University Baden-Wuerttemberg, Germany. A Cross-Sectional Study on user Satisfaction with Hospital Information Systems and Services.</p> <p>2. <u>Kim Macfarlane</u>, Faculty, School of</p>	<p>1. Maxim Topaz, Associate Professor, University of Haifa, Israel &amp; Brigham Women's Health Hospital, USA. From Established to Emerging Research Trends in Health Information Technology for Nurses.</p> <p>2. <u>Zeynep Saglam</u>, Lecturer, Ondokuz Mayis University, Turkey, Zeliha</p>



<p>Balb/c Mice Bone Marrow Cells.</p> <p>2. *Madeeha Malik, Director, Department of Pharmacy, Hamdard University, Pakistan. Assessment of Women Postpartum Quality of Life after Different Modes of Delivery in Pakistan.</p> <p>3. Magdalena Paczkowska, PhD Student, Poznan University of Medical Sciences, Poland, Daria Szymanowska-Powalowska, Assistant Professor, Poznan University of Life Sciences, Poland &amp; Judyta Cielecka-Piontek, Assistant Professor, Poznan University of Medical Sciences, Poland. Biopolymers in Overcoming Carbapenem Analogs Limitations in the Treatment.</p> <p>4. Rula Darwish, Professor, The University of Jordan, Jordan. Science-Based Evaluation of Propolis and its Constituents on Pseudomonas Aeruginosa.</p> <p>5. Ghadeer Suaifan, Professor, The University of Jordan, Jordan. Rapid and Simple Colorimetric Biosensor for the Detection of Proteases.</p> <p>6. Yasser Bustanji, Professor, Hamdi Mango Center for Scientific Research, Jordan. Nanoparticles of Chitosan Derivatives Improve Oral Doxorubicin Bioavailability.</p>	<p>Nursing, Langara College, Canada, Sharon Ronaldson, Assistant Chair, School of Nursing, Langara College, Canada, Denise Thomas, Faculty, School of Nursing, Langara College, Canada, Sarah Ehinger, BSc Nursing Student, Langara College, Canada, Christine Lichuk, BSc Nursing Student, Langara College, Canada, Alix Andreychuk, BSc Nursing Student, Langara College, Canada &amp; Melissa Miller, BSc Nursing Student, Langara College, Canada. Peer Mentorship for the Internationally Educated Nurse: An Appreciative Inquiry.</p> <p>3. Donna Clare, Academic Coordinator, Athabasca University, Canada. Bringing Health Care Home: A Pilot Project to Improve Access to Primary Health Care using Mobile Nurse Practitioner Services.</p> <p>4. Tsampikos Georgallis, Clinical Psychology Trainee, Youth and Family Support Centre "Eracletus" / Postgraduate Student, European University Cyprus, Cyprus &amp; Al Merstani Marina, Counselling Psychology Trainee, Support Centre for the Elderly "Ithake" / Postgraduate Student, European University Cyprus, Cyprus. An Internet-delivered Attentional Bias Modification (ABM) Protocol in Dealing with Cannabis Misuse in Cyprus: Current Limitations and Future Possibilities.</p> <p>5. Sharon Bingham, PhD Candidate, University of Tasmania, Australia. Reshaping Practice: A Constructivist Grounded Theory Study of Rule Breaking in Perioperative Nursing Practice.</p>	<p>Koc, Associate Professor, Ondokuz Mayıs University, Turkey &amp; Selin Keskin Kiziltepe, PhD Student, Ondokuz Mayıs University, Turkey. Factors Affecting Clinical Decision Making Skills of Nurses.</p> <p>3. Sacide Yildizeli Topcu, Lecturer, Trakya University, Turkey. My Emotions &amp; My Patients' Care Effect of Nurses' Emotions on Nurses' Caregiving Roles in Surgical Wards.</p> <p>4. *Peter Vermeir, Head Nurse, Ghent University Hospital, Belgium. Nurses' Well-Being as a Quality Indicator for Improved Care.</p> <p>5. Victor Contreras Ibacache, Project Manager, Pontificia Universidad Catolica de Chile, Chile. Nursing Work Environment in a Hospital in Santiago, Chile.</p>
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### 13:00-14:00 Lunch

14:00-16:00 Session XXII (Room D-Mezzanine Floor): A Panel on Nanomedicine & Nanobiotechnology	14:00-16:00 Session XXIII (Room E-Mezzanine Floor): Nursing Education II
<p><b>Chair:</b> Oleg Pisarenko, Head, Laboratory for Myocardial Metabolism, Russian Cardiology Research-and-Production Complex, Russia.</p> <p>1. Bing Yan, Professor, Shandong University, China. Examples of Nanoparticles' Toxicity to Susceptible Populations. (HSCBIO)</p> <p>2. PD Gupta, Adjunct Professor, Manipal University, India. Nanodiagnosics: A Future Trend in Clinical Chemistry. (HSCBIO)</p> <p>3. *Kewal Verma, Certified Advanced Facilitator, University of Phoenix, President, BCA International, USA &amp; Audré Dixon, Doctorate of Health Administration, University of Phoenix, USA. Decision Making Model for the Emerging Nanotechnologies. (HSCBIO)</p>	<p><b>Chair:</b> Peter Vermeir, Head Nurse, Ghent University Hospital, Belgium.</p> <p>1. Sevim Celik, Professor, Bulent Ecevit University, Turkey, Tulin Kurt, Nurse, Zonguldak State Hospital, Turkey, Nurten Tasdemir, Assistant Professor, Bulent Ecevit University, Turkey &amp; Elif Dirimese, Assistant Professor, Bulent Ecevit University, Turkey. Determination of Intensive Care Nurses Knowledge about Spirituality and Spiritual Care. (Tuesday)</p> <p>2. *Nurten Tasdemir, Assistant Professor, Bulent Ecevit University, Turkey, Nigar AK Turkis, MSc Student, Bulent Ecevit University, Turkey, Elif Dirimese, Assistant Professor, Bulent Ecevit University, Turkey &amp; Sevim Celik, Professor, Bulent Ecevit University, Turkey. The Effects of Preoperative Education on Postoperative Compliance: Dental Surgery Patients.</p> <p>3. Filiz Adana, Assistant Professor, Adnan Menderes</p>

	<p>University, Turkey, Duygu Yesilfidan, Research Assistant, Adnan Menderes University, Turkey, Belgin Yildirim, Assistant Professor, Adnan Menderes University, Turkey &amp; Güleğün Türk, Associate Professor, Adnan Menderes University, Turkey. The Effect of Health Behaviour Education on Life Style Behaviours: University Example.</p> <p>4. <u>Fatih Gogus</u>, Research Assistant, Bulent Ecevit University, Turkey, Sevim Celik, Professor, Bulent Ecevit University, Turkey, Nurten Tasdemir, Assistant Professor, Bulent Ecevit University, Turkey &amp; Elif Dirimese, Assistant Professor, Bulent Ecevit University, Turkey. Nursing Students' Knowledge and Practices on the use of Peripheral Venous Catheter.</p> <p>5. <u>Hilal Hatice Gulludere</u>, Research Assistant, Adnan Menderes University, Turkey, Filiz Adana, Assistant Professor, Adnan Menderes University, Turkey, Gulengun Turk, Associate Professor, Adnan Menderes University, Turkey &amp; Duygu Yesilfidan, Research Assistant, Adnan Menderes University, Turkey. Healthy Lifestyle Behaviour of First Year Students in Nursing School.</p> <p>6. <u>Ilkin Yilmaz</u>, Research Assistant, Dokuz Eylul University, Turkey, Dilek Ozden, Associate Professor, Dokuz Eylul University, Turkey &amp; Gulsah Gurol Arslan, Assistant Professor, Dokuz Eylul University, Turkey. Investigation of Intensive Care Nurses' Knowledge and Attitudes Regarding Closed Suctioning System. (NUREDU) (Tuesday)</p>
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<p><b>16:00-17:00 Session XXIV (Room D-Mezzanine Floor): A Panel on "Medical Tourism: Benefits and Risks"</b></p> <p><b>Chair:</b> Panagiotis Karanis, Academic Member, ATINER &amp; Professor, Faculty of Medicine, Qinghai University, China and Cologne University, Germany.</p> <p>1. *<u>Houaida Helal</u> Assistant Professor, King Saud bin Abdulaziz University for Health Sciences, Saudi Arabia. Nursing Role in Inbound and Outbound Medical Tourism in Saudi Arabia. (HSCTOU)</p> <p>2. *<u>Gabriele Karanis</u>, Assistant Professor, Qinghai University Affiliated Hospital, China &amp; Panagiotis Karanis, Professor, Qinghai University Affiliated Hospital, China. Medical Tourism in Germany – A Paradigm for a Success Story and How it Works. (HSCTOU)</p> <p>3. <u>Anand Odedra</u>, Specialist Registrar, Sheffield Teaching Hospitals, UK, Steve Green, Professor, Sheffield Teaching Hospitals, UK &amp; Rohit Bazaz, Sheffield Teaching Hospitals, UK. United Kingdom and Republic of Ireland Renal Physicians' Experiences of Patients Undergoing Renal Transplants Abroad: A Questionnaire-Based Cross-Sectional Survey. (HSCTOU)</p>	<p><b>16:00-17:00 Session XXV (Room E-Mezzanine Floor): A Panel on Children and Young People's Nursing</b></p> <p><b>Chair:</b> Carol Anne Chamley, Academic Member, ATINER &amp; Associate Professor, School of Health and Social Care, London South Bank University, UK.</p> <p>1. *<u>Carol Chamley</u>, Associate Professor, London Southbank University, UK, <u>Jason Pritchard</u>, Senior Lecturer, Coventry University, UK &amp; <u>Louise Price</u>, Senior Lecturer, Coventry University, UK. The Great Debate: The Future of Children and Young People's Nursing in the United Kingdom. (NURCYP)</p> <p>2. *<u>Wafaa Elarousy</u>, Assistant Professor, King Saud Bin Abdulaziz University for Health Sciences, Saudi Arabia. Explore Nurses', Doctors' and Parents' Perceptions on Family Needs in Pediatric Critical Care Units at King Khaled Hospital in Jeddah. (NURCYP)</p>
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<p><b>17:00-18:30 Session XXVI (Room E-Mezzanine Floor): Health Care Issues II</b></p> <p><b>Chair:</b> Wafaa Elarousy, Assistant Professor, King Saud Bin Abdulaziz University for Health Sciences, Saudi Arabia.</p> <p>1. *<u>Bruno Cotter</u>, Associate Professor, University of California San Diego, USA. HIV and Cardiovascular Disease: The Newest Chronic Disease.</p> <p>2. <u>Maria Reinaruth (Reina) Carlos (Imaizumi)</u>, Professor, Ryukoku University, Japan. The Stepwise International Migration of Philippine-educated Nurses and Its Policy Implications on Japan's Recruitment and Retention of Foreign Workers in the Elderly Care Sector.</p> <p>3. <u>Asuman Sener</u>, Lecturer, Ondokuz Mayıs University, Turkey, Zeliha Koc, Associate Professor, Ondokuz Mayıs University, Turkey &amp; Zeynep Saglam, Lecturer, Ondokuz Mayıs University, Turkey. Determining the Use of Herbal Medicine among the Hospitalized Patients of the Physical Therapy and Rehabilitation Unit.</p> <p>4. <u>Ayfer Acikgoz</u>, Lecturer - Assistant Professor, Eskisehir Osmangazi University, Turkey, Dilek Sayik, Nurse, Eskisehir State Hospital, Turkey, Semra Songut, Lecturer, Gaziosmanpasa University, Turkey, Yeliz Kaya, Assistant professor,</p>
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5<sup>th</sup> Annual International Conference on Health & Medical Sciences  
1-4 May 2017, Athens, Greece: Abstract Book

- Eskisehir Osmangazi University, Turkey & Imdat Koksak, Lecturer, Gaziosmanpasa University, Turkey. The Burdens of Sitter Mothers at Paediatrics Clinics and the Effect of Hospital Stay on Depression, Anxiety and Stress Levels.
5. Malgorzata Stefaniak, Lecturer / Midwife, Medical University of Warsaw, Poland. Caring for a Pregnant Patient with a Diagnosed Cancer - Case Report.

**18:30-20:00 Session XXVII (Room D-Mezzanine Floor): A Small Symposium on Diabetes II**

**Chair:** Andis Klegeris, Associate Professor, University of British Columbia, Canada.

1. Mahua Ghosh, Assistant Professor, University of Calcutta, India & Kankana Das, Senior Research Fellow, University of Calcutta, India. Management of Diabetic Nephropathy using Structured DAG Oils in Murine System: A Comparative Assessment of Redox-Regulated Signaling System.
2. Khemaradee Masingboon, Lecturer, Burapha University, Thailand, Saifone Mounkum, Lecturer, Burapha University, Thailand & Suwannee Mahakayanun, Assistant Professor, Burapha University, Thailand. Risk Perception among Persons with Pre-Diabetes, Thailand.
3. Irina Gette, Senior Researcher, Ural Federal University named after the first President of Russia B. N. Yeltsin, Russia, Victor Emelyanov, Assistant Professor, Ural Federal University named after the first President of Russia B. N. Yeltsin, Russia, Irina Danilova, Head of the Department of Medical Biochemistry and Biophysics, Ural Federal University named after the first President of Russia B. N. Yeltsin, Russia & Tatyana Bulavintceva, Junior Researcher, Institute of Immunology and Physiology, Russia. Impact of 1,3,4-Thiadiazine Derivative on Pancreas Islets in Diabetic Rats.
4. Sophia Kelaini, Research Fellow, Queen's University Belfast, UK. The RNA Binding Protein Quaking is a Key Regulator of Endothelial Cell Differentiation, Neovascularization and Angiogenesis through Direct Binding of the 3'UTR of STAT3.

**21:00- 22:30 Dinner (Details during registration)**

**Wednesday 3 May 2017**  
**Cruise: (Details during registration)**

**or**

**Mycenae and Epidauros Visit: (Details during registration)**

**Thursday 4 May 2017**  
**Delphi Visit: (Details during registration)**

**Ahmed Abdelmgeed**

Associate Professor, University of Jeddah, Saudi Arabia

### **Covariant CDKN2A/2B rs10811661(C/T) Gene Polymorphism is Associated with Increased Risk of Type 2 Diabetes in the Saudi Arabian Population**

As stated by current genome-wide cooperation investigations (GWAS), several single nucleotide polymorphisms (SNPs) would have been accounted to have association with type 2 diabetes mellitus (T2DM). This study focused on exploring the probable connection between CDKN2A/2B (rs10811661) gene polymorphism and the risk of T2DM in the Saudi Arabian Population. A case - control study was conducted with 140 T2DM patients and 83 healthy control subjects. Genotyping of CDKN2A/2B (rs10811661) polymorphism was performed by the TaqMan Allelic Discrimination method. Results have shown that SNP rs10811661 of CDKN2A/2B (CI=1.204-2.860, OR = 1.85, 95% p = 0.004) as risk factor for T2DM. The levels of fasting plasma glucose and 2h postprandial plasma glucose was significantly higher in subjects who are tolerant to normal glucose, carrying risk allele of rs10811661(C/T) than in non-carriers. Our results have confirmed the association between CDKN2A/2B rs10811661(C/T) and susceptibility to T2DM in Saudi population. Furthermore, it exhibits a dangerous outcome of the T allele in the patients of T2DM. These findings may be used in improving the risk prognosis, combined with the clinical characteristics for T2DM.

**Ayfer Acikgoz**

Lecturer – Assistant Professor, Eskisehir Osmangazi University, Turkey

**Dilek Sayik**

Nurse, Eskisehir State Hospital, Turkey

**Semra Songut**

Lecturer, Gaziosmanpasa University, Turkey

**Yeliz Kaya**

Assistant Professor, Eskisehir Osmangazi University, Turkey

&

**Imdat Koksall**

Lecturer, Gaziosmanpasa University, Turkey

### **The Burdens of Sitter Mothers at Paediatrics Clinics and the Effect of Hospital Stay on Depression, Anxiety and Stress Levels**

**Purpose:** The purpose of this study was to determine the burdens of sitter mothers at paediatrics clinics, and the effect of hospital stay on depression, anxiety and stress levels.

**Method:** The study was conducted with 285 mothers, who stayed at the paediatrics clinics of Eskisehir State Hospital and Medical Faculty Hospital of Eskisehir Osmangazi University between October – December 2014, and who agreed to take part in the study. The requisite permission was granted from the ethics committee and the institution before conducting the study. Descriptive Information Form and a Depression – Anxiety – Stress scale were used as data collection tools. The data was assessed using the IBM SPSS 17.0 statistics package programme. Mean and percentile distributions, the chi square test, independent sample T test and correlation test were used in the assessment of the data.

**Outcomes:** There was a statistically significant relationship between the Depression – Anxiety – Stress levels of mothers who stayed as sitters and the presence of a chronic illness in the child (Depression  $p=0.000$ , Anxiety  $p=0.006$ , Stress  $p=0.096$ ), the period of the illness of the child (Depression  $p=0.000$ , Anxiety  $p=0.000$ , Stress  $p=0.000$ ) and the number of days the mothers stayed in hospital as sitters (Depression  $p=0.000$ , Anxiety  $p=0.000$ , Stress  $p=0.001$ ).

**Conclusion:** It was determined that the mothers who stayed as sitters at paediatrics clinics were at risk from the mental perspective.

**Filiz Adana**

Assistant Professor, Adnan Menderes University, Turkey

**Duygu Yesilfidan**

Research Assistant, Adnan Menderes University, Turkey

**Belgin Yildirim**

Assistant Professor, Adnan Menderes University, Turkey

&

**Gülengün Türk**

Associate Professor, Adnan Menderes University, Turkey

## **The Effect of Health Behaviour Education on Life Style Behaviours: University Example**

This research aimed to determine the effect of education about developing positive health behaviours on lifestyle behavior.

We conducted research with a pre-test/post-test control group and quasi-experimental design at Adnan Menderes University in the 2015-2016 academic year. No sampling calculation was made in this study and students who volunteered were included in the sampling (n=63). 32 students were randomized to the experimental group and 31 students were randomized to the control group. All activities were conducted outside class hours, in the class, and under observation. The students completed a questionnaire form and the Healthy Lifestyle Behaviours Scale before the education and the Healthy Lifestyle Behaviours Scale one more time after the education. The education lasted for six weeks and included the following subjects: healthy eating, hygiene, self-care, exercise and its benefits, stress management, interpersonal relations, and care for chronic diseases.

Data were collected using a "Personal Information Form" and "Healthy Lifestyle Behaviour-II Scale (HLBS)." The alpha reliability coefficient of our study was 0.902.

The data were evaluated with the SPSS statistics package program (Version 15, Chicago, IL, USA). In addition to descriptive statistical methods (percentage calculations, arithmetic means, standard deviations), one sample t-tests were also used to evaluate the study data. The results were reported with 95% confidence interval and the significance level was set at  $p < 0.05$ .

The mean age of the students was  $19.92 \pm 2.02$  and 65.1% of the students were female, while 34.9% were male in the study. 45.2% of the students were living in the dormitory and 68.3% had a balanced budget. No statistically significant difference was found in the sociodemographics of the experimental group and the control group

( $p>0.05$ ).

No difference was found in the Healthy Lifestyle Behaviours Scale and sub-scale scores of the students between the experimental group and the control group ( $p>0.05$ ) before the education. After the education, the scores for health responsibility, interpersonal relations and stress management of the students in the experimental group were higher than those of the control group ( $p<0.05$ ).

We found that the students in the experimental group had higher health responsibility and stress management sub-dimension scores compared to their scores before the education, and the students in the control group had higher health responsibility and physical activity sub-dimension scores compared to their scores before the education ( $p<0.05$ ).

We concluded that the education provided to the students had a positive effect on the healthy lifestyle behaviors of the students.

**Mona Afifi**

Assistant Professor, King Saud Bin Abdul Aziz University for Health  
Science, Saudi Arabia

### **Physical Assessment Skills among Nurses: “A Gap between What is Taught and what is Practiced”**

**BACKGROUND:** Physical assessment of the patient's health status is one of the essential components of core competencies in professional nursing education and is fundamental in nursing practice. It has been reported that health assessment courses are not taught in an approach that support their application in nursing practice.

**OBJECTIVES:** The objective of the current study is to estimate the frequency of physical assessment skills actually practiced in clinical setting. Additionally, to determine reasons for not practicing some of the physical assessment skills taught.

**METHODS:** The study was done during the academic year of 2014-2015 among undergraduate Saudi nursing students and interns who have already started to practice the taught adult health assessment skills. All nursing students (levels 6 and 8) who were enrolled in the baccalaureate nursing program in KSAU-HS and nursing interns (phases 1 and 2) who had their internship during Fall and Spring 2015 were also included. Level 7 nursing students were excluded as their main focus is maternity and pediatric nursing. A structured study questionnaire was developed by the researcher to collect data on the frequency (defined as daily, weekly, occasionally and never) of practicing 159 basic health assessment skills grouped by body systems. Validity and reliability of the questionnaire were ensured before administration. The skills included were the ones that have been already taught to both groups. Consents were obtained from the participants before starting the questionnaire.

**RESULTS:** A total of 136 participants completed the study questionnaire (82 students and 54 interns). They were all Saudi females and their age ranged between 20-28 years (mean 22.45 SD± 1.57). Among the 159 skills examined, on average (68 skills) 42.8% were practiced (16.3% on a daily basis, 5.1% on a weekly basis, 21.4% occasionally) and (91 skills) 57.2% were never practiced. The most frequent skills practiced on a daily basis were skill of the following systems; integumentary (35.6%), respiratory (31.2%), and peripheral vascular (24.5%). The most frequent skills never practiced were skill of the following systems; abdomen (72.9%), neuromuscular system (70.5%), ear, nose, throat and mouth (61.6%), eyes (58.7%), breast

(56.9%), heart and neck vessels (56.1%), head and neck (52.4%), peripheral vascular (47.0%), respiratory (39.7%), and integumentary (25.3%).

The most frequent reported reasons for not practicing some of the taught skills included; lack of time (46.3%), done according to patient's condition (36.8%), done for admitted patients only (27.9%), cultural constraints (24.3%), forgot how to do (21.3%), detailed than needed (19.9%), need more expertise (19.1%), doesn't affect nursing intervention (16.2%), lack of equipment (15.4%), and lack of knowledge (14.7%).

**CONCLUSION:** More than half of the skills taught in baccalaureate nursing program were not actually practiced in clinical setting. Since students were studying and were evaluated against several procedures in the nursing laboratory that have never been practiced, it is recommended to put more emphasis with the students to overcome the barriers to practice in the clinical setting what they have been already taught in a basic and essential health assessment course. In addition to re-evaluation of the content of physical assessment courses is highly recommended.

**Aidah Alkaissi**

Director of Nursing and Midwifery Department, Faculty of Medicine  
and Health Sciences, An-Najah National University, Palestine

**Anti-Emetic Efficacy of Prophylactic Dexamethasone and  
Metoclopramide, and their Combination in the Prevention  
of Postoperative Nausea and Vomiting after Laparoscopic  
Surgery in Patients at high Risk of post-Operative Nausea  
and Vomiting: A Randomized, Double Blind, and Placebo-  
Controlled Trial**

Previous studies reported that patients undergoing laparoscopic surgery had a 40-77% rate of PONV. No single antiemetic drug has proved to be a universal solution to postoperative nausea and vomiting. There is evidence that, in patients with a high risk of developing PONV, combination antiemetic therapy is considered. The aim of this study is to evaluate the effect of prophylactic dexamethasone and metoclopramide as monotherapy and in combination for female patients with moderate to high risk for PONV undergoing laparoscopic surgery under general anesthesia.



**Judith Aponte**

Associate Professor, Hunter College, The City University of New York,  
USA

**Karen Tejada**

Hunter College, The City University of New York, USA  
&

**Mariel Acosta-Melo**

Hunter College, The City University of New York, USA

## **Systematic Literature Review: Diabetes Internet-based Spanish Language Health Information**

**Background:** Diabetes is a growing epidemic that is affecting Hispanics in high rates. Globally and among all ethnic groups, Type 1 diabetes mellitus (T1DM) accounts for 5-10% of all diabetes cases, and Type 2 diabetes mellitus (T2DM) accounts for 90-95% of cases. Since most cases of diabetes are of T2DM, diabetes statistics are primarily of people with T2DM. In 2014, 29.1 million people in the United States (U.S.) had diabetes.

**Introduction:** During 2013, Latinos comprised 17% (54 million) of the total U.S. population and, approximately 12.8% of those U.S. Hispanics had diabetes. A critical and common public health concern for Hispanics is the prevalence of diabetes, which, in 2010, was the seventh leading cause of death in the U.S. overall, and the fifth leading cause of death for Hispanics in the U.S.

The Internet has become a place that many health consumers go to access and gather health-related information. Although Hispanics use the Internet for health-related informational and educational purposes, there is a lack of information available in the Spanish-language.

**Methods:** A review was conducted to examine the literature on internet-based, Spanish-language, diabetes focused information. One search was conducted, using three different databases (i.e. CINAHL, MEDLINE, and PubMed). The search used the keywords *diabetes*, *Internet*, and *Spanish*, and was based on published articles from January 1, 2005 to June 30, 2016.

**Results:** Of the 46 articles reviewed, one was a duplicate, and 41 were eliminated. These findings show a lack of data and research on Spanish-language, internet-based diabetes informational and educational sites.

**Conclusion:** Qualitative and quantitative studies are needed to develop and examine Spanish-language diabetes Internet sites and the health-related impact they have on Hispanics who prefer Spanish-language sites.

**Hulya Arslantas**

Associate Professor, Adnan Menderes University, Turkey

**Ayden Coban**

Associate Professor, Adnan Menderes University, Turkey

**I. Ferhan Dereboy**

Professor, Adnan Menderes University, Turkey

**Muazzez Sahbaz**

Teaching Assistant, Adnan Menderes University, Turkey

**Ezgi Sari**

Research Assistant, Adnan Menderes University, Turkey

&

**Dondu Kurnaz**

Midwife, Ministry of Health, Turkey

**Severity of Pregnancy Period Discomforts:  
Does it Predict Postpartum Depression and Maternal  
Attachment?**

**Objective:** This study was conducted to determine if severity of pregnancy period discomforts predict postpartum depression and maternal attachment or not.

**Method:** The study was planned as a follow-up research. The study was conducted with 493 pregnant women; 171 first trimester, 159 second trimester, 163 third trimester respectively; who applied to "Adnan Menderes University Research and Application Hospital Gynaecology and Maternity Polyclinic" and "Ministry of Health Public Hospitals Union Aydin Maternity and Pediatrics Hospital Polyclinics" and met the study criteria. While determining number of women for follow up in second interview, it was decided to include 50 women for each trimester when power was taken as Power= .80; Alpha= .05; d= .50 in Cohen's d table, which Cohen suggests to calculate minimum number of person in each group for situations to make comparisons between two groups. But, possible losses were considered and it was decided to include %30 more person for each group and total number of women was calculated as 195. While choosing those women draw method was applied and they were reached via phone 4-6 weeks after the delivery. In data collection, for the first interview "Interview Form" and "Scale for Pregnancy-Related Discomforts" were applied to all the pregnant women, for the women in second interview "Edinburg Postpartum Depression Scale" and "Maternal Attachment Scale" were used. While searching for relation between scales, correlation analyse was used.

**Results:** When relation between prenatal and postpartum period total scale scores of women participated in the research were examined; no relation was found between total SPRD scores of first, second, third trimesters and postpartum depression scores ( $r=0,163$ ;  $r=0,054$ ;  $r=0,058$ ;  $p>0.05$ , respectively). There was a low and positive relation between first trimester SPRD total scores and maternal attachment score ( $r=0,163$ ;  $p<0.05$ ); and no relation was found between second and third trimester SPRD total scores and maternal attachment ( $r=0,054$ ;  $r=-0,013$ ;  $p>0.05$ , respectively).

**Conclusion:** Discomfort severity related to pregnancy did not predict postpartum depression, first trimester discomforts related to pregnancy predicted maternal attachment in a very low level but second and third trimester discomforts did not predict maternal attachment.

**Amr Badawey**

Professor, Future University in Egypt, Egypt

**Ali Yehia**

Lecturer, Cairo University, Egypt

**Nagiba Hassan**

Associate Professor, Cairo University, Egypt

**&**

**Soad Emad**

Teaching Assistant, Future University in Egypt, Egypt

### **Novel Ion Selective Membrane for Tiotropium bromide and Application to Spiriva Inhalation Powder in Handihaler**

Electrochemical response characteristics are significantly influenced by membrane components. Type of ion exchanger and ionophore in a plasticized PVC matrix should be evaluated for nernstian responses, detection limits and selectivity. Herein, we developed a novel membrane sensor for Tiotropium bromide (TIO), which is a recently approved anticholinergic bronchodilator by FDA. Three tetraphenyl borate derivatives were evaluated and it was found that tetrakis-[3,5-bis(trifluoro-methyl)phenyl] borate (TFPB) provided optimum nernstian response of monovalent cation with lower detection limit compared to other ion exchangers. Type of plasticizer used in this study was 2-nitrophenyl octyl ether (NPOE), which did not show a significant effect compared to other two types. Selectivity of membrane sensor to TIO in presence of several interfering organic and inorganic cations was enhanced in ionophore based sensor compared to ionophore free one. Generally, Calix[8]arin (CX8) enhanced the selectivity by about one order of magnitude compared to a functionalized  $\beta$ -cyclodextrin. The optimized sensor utilizing TFPB and CX8 in NPOE plasticized PVC sensor provided satisfactory response characterises for TIO in a linear range  $1 \times 10^{-2}$  -  $1 \times 10^{-6}$  M with a detection limit of  $1.6 \times 10^{-7}$  M. The proposed sensor could successfully determine TIO in Spiriva inhalation powder. Results from the proposed potentiometric sensor and a reported RP-HPLC method were statistically compared and no significant difference was obtained.

**Laila J. Badran**  
Independent Expert, Jordan

## **The Anti-Corruption Drug Case: Lessons from the Past**

Raised The Anti-Corruption Drug Case that was considered unique in the History of Ministry of Health (MOH).

In 1984 & 1985 while I was the Director of Drug Quality Control Laboratory (DQCL) at the MOH: Two drugs, (Italian) IV infusion and (British) Injectable Ampoules (after testing), they Failed the Pharmacopoeal specifications and had Major Defects.

The two reports were issued under my supervision ordering for immediate withdrawal of the relevant two batches from the market and proper legal action should be taken.

But being Responsible for these reports, I have faced severe opposition from the Ministry of Health and from the Drug Stores Representatives: I had been replaced by a pharmacist who is not holding DQC specialty; I was isolated in a different irrelevant department in the MOH.

Consequently I took nine days leave, and traveled (on the expense and support of my Late Parents) with the drug samples to Geneva to the official WHO DQC Laboratory, who confirmed our original Reports.

Then I traveled Directly to London to the Drug Manufacturer and gave them the drug samples asking for their report: I have received their apology letter admitting that it was a batch with major defect.

Returning back to Jordan with the striking evidence confirming our original reports I immediately raised the Anti-Corruption Drug Case in the Higher Supreme Court. My famous Lawyer said: your case is a National Case, I will not charge you a penny". After winning the case the legal action was made on the Harmful Medications resulting in protecting our patients from taking defective harmful medications 1986-1987.

Consequently major Administrative Managerial changes resulted in Establishment of new Regulatory System, appointing New Minister of Health, Deputy, Drug Director and appointing me as an Advisor to the Minister of Health for Drug Affairs 1989.

**Maryam Bakr**

Teaching Assistant, Future University in Egypt, Egypt

**Maha Hegazy**

Associate Professor, Cairo University, Egypt

**Amr Badawey**

Professor, Future University in Egypt, Egypt

&

**Samah Abbas**

Professor, Cairo University, Egypt

**Spectral Resolution Methods Manipulating  
Spectrophotometric Data for Quantification of Ternary  
Mixture of Thiocctic acid, Benfotiamine and  
Cyanocobalamin in Capsules**

Different spectrophotometric methods were developed and validated for solving the spectral overlap and determination of thiocctic acid (TH), benfotiamine (BEN) and cyanocobalamin (CNCo) in their pure form, laboratory prepared mixtures and in capsules. Cyanocobalamin was determined by first derivative method and the peak amplitude was measured at 564 nm without interference of TH and BEN. First derivative method was also applied for determination of TH, where the peak amplitude was recorded at 384.6 nm. Ratio difference spectrophotometric method was also applied for determination of TH and BEN, where CNCo has no interference. Moreover, TH and BEN were determined by derivative ratio method, where the peak amplitude was recorded at 320 and 286.8 nm, respectively. Ratio subtraction method was successfully applied for determination of BEN at its  $\lambda_{\text{max}}$  without interference of the other co-formulated drugs. Complete validation according to the ICH guidelines was performed. The linearity ranges were 200.00-1800.00, 2.00 -30.00 and 5.00 -200.00  $\mu\text{g/mL}$  for TH, BEN and CNCo, respectively. The methods were found to be of high accuracy, precision and specificity. No significant difference was obtained upon comparing the obtained results with those obtained by applying a reported method.

**Alison Bardsley**

Senior Lecturer, Coventry University, UK

**Clare James**

Senior Lecturer, Coventry University, UK

&

**Neil Kelly**

Senior Lecturer, Coventry University, UK

## **The Use of Simulation to Develop Critical Thinking and Decision Making Skills in Student Independent Prescribers**

The need for nurses to develop critical thinking and decision-making skills has been heightened in response to rapidly changing health care environments. Nurse independent prescribing has emerged over the last decade in response to a number of challenges within healthcare, in particular the rise in patients with complex health needs and long term conditions. Independent prescribers must develop enhanced critical thinking and decision-making skills in order to safely and effectively assess, diagnose and treat patients, whilst coping with the expansion of their role. If nurses are to deal effectively with this complex change in role, increased demands and greater accountability, they must become skilled in higher-level thinking and reasoning abilities.

Rubenfelf and Scheffer (2001) identified ten habits of the mind and seven skills or critical thinking in nursing. Habits of the mind are affective characteristics toward critical thinking, which include confidence, inquisitiveness, open-mindedness, perseverance and reflection. Skills for critical thinking include analysing, discriminating, information seeking and logical reasoning. All of these are required to become safe and effective independent prescribers.

With the use of these academics as course designers in the School of Health and Life Sciences at Coventry University have developed low and high intensity simulation to facilitate students in progressing along the novice to expert continuum (Benner, 1984) gain competence, confidence and develop their critical thinking skills.

This paper will present how low intensity simulation employing patient case studies is utilised with students working in groups to provide the requirements for assessment, tests and examinations to help them arrive at a differential diagnosis. As the course progresses high intensity simulation is employed using role-play to mirror the realities of practice. The paper will also demonstrate how these skills

are then tested within the clinical practice environment and within the university through observed structured clinical exams (OSCE's).



**Sharon Bingham**

PhD Candidate, University of Tasmania, Australia

## **Reshaping Practice: A Constructivist Grounded Theory Study of Rule Breaking in Perioperative Nursing Practice**

**Background:** Despite the focus on patient safety, patients undergoing surgery continue to suffer adverse events. Perioperative nurses perform a range of clinical activities, guided by rules and standards developed to support safe ways of working, provide a safe environment for patients and minimize the risk of harm. Deviation from these standards and rules may have unintended adverse consequences for patient safety.

**Purpose:** This research develops a substantive theory to explain the ways that perioperative nurses work to get the job done and the factors that influence their decision to deviate from standards and rules.

**Methods:** A constructivist grounded theory study was conducted in 2016 including 56 hours of observation of practice and 10 hours of in-depth semi-structured interviews.

**Findings:** The substantive theory that perioperative nurses reshape their practice characterizes the processes through which perioperative nurses' respond to pressures to get the job done. Findings demonstrate that in certain circumstances, perioperative nurses intentionally deviated from standards and rules. The phenomena of 'feeling pressure' and 'being pressured' were found to influence this behaviour. Nurses' responses to pressure highlighted the use of positive deviance as an approach to managing competing demands and priorities.

**Discussion:** The theory adds to our understanding of the role that organisational, team, individual characteristics and the ambiguity/clarity of rules, tasks and responsibilities play in creating pressure, leaving the environment more vulnerable to working in ways other than following the rules.

**Implications:** The implications of positive deviance are that despite potential benefits to the patient, the team and organisation, decisions to **deviate from** standards and rules may result in unsafe practice and the potential for patient harm. New strategies are needed to scrutinise and test new practices to ensure they are safe.

**Yelena Bird**

Assistant Professor, University of Saskatchewan, Canada

### **Adolescents' Smoking Experiences, Family Structure, Parental Smoking and Socio-Economic Status in Ciudad Juárez, Mexico**

**BACKGROUND:** Cigarette smoking is the leading cause of preventable death worldwide. Tobacco use and secondhand-tobacco smoke (SHS) exposure are classified as a pediatric disease. In Mexico, the prevalence of smoking has decreased among adults but paradoxically increased among adolescents, particularly among young females. This study was designed to determine the association between adolescents' smoking experiences (smoking behaviors and second hand smoke [SHS] exposure), family structure, parental smoking and socio-economic status (SES) in Ciudad Juárez, Mexico.

**METHODS:** This is a cross-sectional, population-based study. Data was collected from sixth-grade students (N = 506) attending school in Ciudad Juárez, Mexico. Descriptive analyses were conducted. The relationship between key outcome variables (adolescents smoking and SHS exposure) and independent variables (family structure, parental smoking, and SES level) were examined. Adjusted odds ratios were calculated. Multiple logistic regression analysis was performed while controlling for possible confounders (i.e. gender and age).

**RESULTS:** The overall prevalence of ever/lifetime smoking and SHS exposure at home was 29.6 and 41.1 %, respectively. Results of the logistic regression analysis show that being a member of a non-intact family [(OR = 2.20; 95 % CI = 1.21-3.90) and (OR = 2.45; 95 % CI = 1.19-4.10) respectively], having parents who smoke [(OR = 4.41; 95 % CI = 2.15-5.46) and (OR = 4.95; 95 % CI = 2.25-7.12) respectively], and living in low SES setting [(OR = 1.73; 95 % CI = 1.43-3.30) and (OR = 1.99; 95 % CI = 1.16-4.00) respectively] are significantly associated with ever smoking and SHS exposure at home among sixth grade students.

**CONCLUSIONS:** The findings of our study show that tobacco use and SHS exposure are strongly associated with adolescents living in low SES, non-intact households that have parents that smoke. To be effective, tobacco strategies specifically tailored for this particularly vulnerable group of adolescents would require a comprehensive, multi-faceted approach centered on prevention, cessation and protection.

**Yasser Bustanji**

Professor, Hamdi Mango Center for Scientific Research, Jordan

### **Nanoparticles of Chitosan Derivatives Improve Oral Doxorubicin Bioavailability**

Novel chitosan-modified polymeric nanoparticles were developed for oral administration for Doxorubicin. These nanoparticles were developed utilizing the double emulsion solvent evaporation technique for sustained delivery. Chitosan diacetate (CDA) and chitosan triacetate (CTA) polymers were prepared and loaded with various anticancer drugs and then were characterized for particle size using dynamic light scattering as well as transmission electron microscopy and net surface charge using dynamic light scattering. Particles size was below 100 nm in diameter and zeta potential ranged - (25-30). In vitro release of encapsulated drugs was sustained over a period of 14 days. Nanoparticles enhanced cellular accumulation of encapsulated drugs, compared to the free drugs, in vitro in MCF-7 and Caco-II tumor cell lines. Further, chitosan triacetate nanoparticles enhanced oral bioavailability of doxorubicin.

The authors gratefully acknowledge Scientific Research Support Fund (SRSF), The University of Jordan, ACDIMA Biocenter their generous funding of this project

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## **The Effect of Hyperemesis Gravidarum on Pregnancy Adaptation**

As well as hyperemesis gravidarum affects the pregnant woman's physical and psycho-social health, it also causes pregnancy adaptation problems. The purpose of this study is to analyse the effect of hyperemesis gravidarum on pregnancy adaptation.

The research was carried out by employing analytic case-control at Maternity Polyclinics and Gynaecology Service in Aydın Maternity and Children's Hospital between April-August, 2016. The study got 42 hyperemesis gravidarum diagnosis and was carried out with 148 pregnant women in total and these pregnant participants were chosen by random sampling method. For evaluating the data, descriptive statistics, X<sup>2</sup> test, t-test, Mann Whitney U test were benefitted.

Socio-demographic and obstetric features of the pregnant participants in the research as the case and control group were compared statistically, and it was found that the groups were similar. It was determined that the subjects in the case group perceived the changes occurring based on pregnancy worse when compared to the subjects in the control group (X<sup>2</sup>=18,477, p=0,001). When the total points the pregnant women in case and control group got from Prenatal Self Evaluation Questionnaire (PSEQ) and sub-scales were compared, it was determined that there is a statistically significant difference among the thoughts of the pregnant about herself and her baby (p=0,000), acceptance of pregnancy (p=0,000), acceptance of motherhood role (p=0,001), being ready for labour (p=0,001), fear of labour (p=0,008), condition of the relationship between the pregnant and her mother (p=0,001), condition of the relationship between the pregnant and her partner (p=0,012), and Prenatal Self Evaluation total scale points (p=0,000).

As a result, it was determined that hyperemesis negatively affects the pregnant woman's thoughts about herself and her pregnancy, acceptance of pregnancy, motherhood role, being ready for labour, fear of labour, relationship with her mother, relationship with her partner, and pregnancy adaptation. On the other hand, it can be said that pregnant women having hyperemesis gravidarum perceive the changes occurring based on pregnancy worse (negative) when compared to other pregnant women.

**Maria Reinaruth (Reina) Carlos (Imaizumi)**  
Professor, Ryukoku University, Japan

## **The Stepwise International Migration of Philippine-educated Nurses and Its Policy Implications on Japan's Recruitment and Retention of Foreign Workers in the Elderly Care Sector**

In aged societies, the issues of employing and retaining foreign-educated health workers to take care of mainly the elderly population has increasingly gained attention and relevance. This presentation hopes to contribute to the literature by taking the case of Philippine-educated (Philippine-born) nurses whose stepwise international migration pattern has impacted on the elderly care sector's labor market in Japan.

The objectives of this presentation are twofold: First, we discuss how and why Philippine-educated nurses engage in stepwise migration, based on fieldwork results in Austria, Australia, Dubai, UK and Singapore. Here, we attempt to theorize on the factors affecting their stepwise migration behavior and explain how nurses distinguish between transit and final destinations over time. Second, we look at the implications of such migration pattern/behavior on the employment of Philippine-educated nurses in Japan, which has created a scheme to accept them as nurses and certified careworkers under a bilateral economic partnership agreement in 2009. Recently also, the Japanese government has ratified a bill allowing foreign careworkers to be employed in the elderly care sector as technical trainees.

It was found out that stepwise migration is a rational decision when destination countries' unpredictable and whimsical recruitment and migration policies towards healthcare workers. Philippine-educated nurses are inclined to take up stepwise migration in order to accumulate various resources in the transit destinations that are deemed useful and as preparation to reach the final destination. Also, in the case of Japan, many Philippine-educated nurses come to work in the elderly care sector as certified careworkers. Given Japan's current immigration and healthcare workforce policies, Japan for them is considered largely as a transit, rather than final destination. The low retention rate of such workers will undoubtedly have important implications on the alleviation of labor shortage in this aged society.

*Note: Certified careworker is a term used for those who passed the national licensure examination, which consists of three parts – personal care, housekeeping and nursing care.*

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## **Determination of Intensive Care Nurses Knowledge about Spirituality and Spiritual Care**

**Aim:** This study was conducted with the aim of determination of intensive care nurses knowledge about spirituality and spiritual care

**Method:** The study was designed as a descriptive study. The study was performed with 129 intensive care nurses between July and August 2016. The data were collected by using personal information form and Turkish version of the Spirituality and Spiritual Care Rating Scale. The data were evaluated by using descriptive statistical methods, independent variables student's t-test, one-way ANOVA, Mann Whitney U and Kruskal-Wallis tests and Pearson Correlation Analysis.

**Results:** It was determined that intensive care nurses' mean age were  $30,31 \pm 6,34$ , 77,5% were female, 50,4% married, 59,7% had a graduate degree, and 55,8% were not have child. It was found that the majority of intensive care nurses indicated that they had trained about spiritual care (68,2%). Also half of intensive care nurses (51,2%) indicated that they had received training during their nursing education. It was determined that average score obtained from spirituality and spiritual care subscale were  $3,52 \pm 0,50$ , obtained from religious subscale were  $3,48 \pm 0,78$ , obtained from individual care were  $3,57 \pm 0,64$ , and obtained from spirituality and spiritual care rating scale were  $3,64 \pm 0,58$  by intensive care nurses. The average total subscales scores and spirituality and spiritual care rating scale points intensive care nurses who are married and have child were significantly high ( $p < 0,05$ ). The average of religious, individual care subscales and spirituality and spiritual care rating scale scores of intensive care nurses who were indicated that they had trained about spiritual care were found significantly high ( $p < 0,05$ ). There was no statistically significant and relationship between the nursing profession characteristics of intensive care nurses and their scores on spiritual and spiritual care rating scales ( $p > 0,05$ ).

**Conclusion:** The study showed that intensive care nurses' knowledge of spiritual and spiritual care was moderate. It was determined that the knowledge levels of intensive care nurses were affected by the demographic characteristics and were not affected by the nursing profession characteristics.

**Carol Chamley**

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**Jason Pritchard**

Senior Lecturer, Coventry University, UK

&

**Louise Price**

Senior Lecturer, Coventry University, UK

## **The Great Debate: The Future of Children and Young People's Nursing in the United Kingdom**

Health Education England's long awaited response to the 'Shape of Caring Report' (Willis 2015) has opened up and fuelled national debate relating to the future direction of under-graduate children's nurse education in the United Kingdom. The report has focused upon developing a robust and flexible workforce with a 'whole person approach to care' however concerns have been expressed which question and challenge how children's nursing would be delivered through this ambition? Focusing upon a more generic programme has raised concerns that specialist fields of practice such as children's nursing would be '*watered down*' leaving the specialism vulnerable and exposed to an adult-centric curriculum with 'add-on specialisms'. The report suggests 2 years whole person core training, + 1 year specialism + 1 year preceptorship. However it would be impossible to equip students with the range of skills and knowledge to care for children 0-19 years.

The Children and Young People's Nurse Academics UK (CYPAUK) group has been established representing a unified voice for the specialism and associated policy-making. Children present very differently to adults experiencing different and unique challenges which increases their vulnerability, coupled with dynamic developmental anatomy and physiology, which may influence disease presentation during childhood. Health Outcomes for Children reflect that the United Kingdom has witnessed an estimate of 1,951 *excess deaths* when compared to other countries such as Sweden. Whilst the causes are complex and multifactorial recent epidemiological and statistical data have identified major causative factors but the repeated message relates to the fact that specialist education of healthcare professionals are important contributing factors (Wolfe et al 2013, Viner et al 2014).

This paper will exemplify and explore in more detail the implications for the strategic direction of children's nursing in the UK,



noting that change has to be in the best interest of children, young people and families and not under a political or cost saving banner of educational and financial efficiency.

**Carla Claeys**

Professor, Universidad Andrés Bello, Chile

### **Lived Experience of Mothers Caring Children with Home Assisted Ventilation Support: A View from Human Becoming Theory**

Recent advances in healthcare and the creation of home care programs with multidisciplinary surveillance teams, have allowed that children with permanent mechanical ventilation could return to their homes. Chronic diseases are emerging issues, and although these children represent a small group within the total population, they and their families are part of the vulnerable ones of the country. The aim of this study is to understand the experiences of mothers caring technology- dependent children at home. For this purpose, a descriptive and qualitative method was used based on theoretical *Humanbecoming* perspective. Mothers from different parts of the country were interviewed, and their speeches were analyzed from the aforementioned perspective, following the processing methodology and analysis described in the theory. Three major topics were obtained which show the life experience of an unexpected reality as a no return process, an expression of paradoxes in their feelings, and transcending beyond the end, with uncertainties and hopes. These topics provide an understanding of these mothers' experiences, which must be considered thoughtfully by the nurses in order to grant the possibility to "be-with" the mother, her child and family, in a real presence and to help them to transit towards the change or transformation in the health situation in which they are living.

This study provides ontological and epistemological knowledge for the discipline, and contribute to public policies regarding this vulnerable population.

**Donna Clare**

Academic Coordinator, Athabasca University, Canada

### **Bringing Health Care Home: A Pilot Project to Improve Access to Primary Health Care using Mobile Nurse Practitioner Services**

In the last decade in Canada, goods and services delivered to one's doorstep has become commonplace. In most major Canadian cities, anyone can easily arrange for food and drug delivery, and access to massage and physical therapy, dental care and even dog grooming in one's home. At the same time, primary health care provision in the community remains almost exclusively delivered in the clinic or facility setting, and within those services, health promotion and self-care education is notably sparse.

One innovative organization in Calgary, Canada, has piloted a program to provide health care in clients' homes. Services include comprehensive physicals and screening, prescribing, phlebotomy and specimen collection, wound care, referrals, counselling, and health promotion and self-care education for clients of all ages. Nurse Practitioners were chosen to provide these services based on their ability to provide the full spectrum of these health services. In addition to home visits, the Nurse Practitioners provide phone, video and email consultations depending on the situation, and access is 24/7.

Pilot analytics include:

- Costs of the service
- Cost savings to the public health care system
- Client satisfaction
- Nurse Practitioner satisfaction
- Integration of health promotion and self-care
- Comfort and use of multimedia (video, phone, email) by both clients and NPs
- Challenges
- Success stories

**Pat Colliety**

Senior Teaching Fellow, University of Surrey, UK

&

**Amy Dopson**

Senior Teaching Fellow, University of Surrey, UK

## **Exploring Ethical Issues Through Performance Simulation - A Collaboration between Performance and Practice**

This presentation discusses an initiative developed between three child health teaching fellows and a theatre studies lecturer, which has brought together students in child field nursing and theatre studies for collaborative workshops. The unique nature of these workshops involves a hybrid of simulation, performance and reflection, which we term 'supported performance simulation'. The aims differed for both student groups, second year student nurses were given the opportunity to explore challenging ethical situations based upon 'real life' practice scenarios, testing strategies to manage these in a safe, simulated environment; theatre studies students were enabled to investigate their understanding of performance in simulation. Theatre experience, of working with performance to enable learning in others, was used both as an exercise in itself and to better prepare theatre studies students for employment after university. We adopted a mode of working that we termed supported performance simulation, grounded in Problem Based Learning, in which we supported students to discover their own learning, through reflection, then apply and extend this knowledge in practical discovery. Critically, we adopted this model of supported performance simulation for both sets of students. In this presentation, we will report on this project as it addresses the development of knowledge for student nurses; we will address our research with theatre students in separate work.

The workshops were based within the University simulation suite, which enabled a range of realistic ward and community environments to be created. The theatre studies students were given a set of short, written guides to the location, people, and issues for a particular sequence of events. The theatre students developed and performed initial scenes to all the nurses in the group, who were asked to respond to the situation as it unfolded.

Later, scenarios were delivered to a small group of 4-6 student nurses, with 1-2 theatre studies students acting the role of either a patient, family member or healthcare professional. One student nurse took the lead in each scenario, observed by their peers. They were

encouraged to manage the situation independently and experiment with their approach, with opportunities throughout to pause the scenario in order to seek advice and support from their peers, and then try an alternative approach. Following the conclusion to each situation the teacher facilitating that scenario led a broader discussion, exploring ethical issues raised and the decision making process.

The workshops were filmed, with students' permission, in order to be reviewed during a structured classroom-based review nine months later, when the nursing students were in their third year. This allowed students to reflect upon what they had learnt during the workshop and how this had influenced their ability to manage any ethical challenges subsequently experienced in practice. In this review, the nursing students fed back enthusiastically, reporting the value of the workshops in increasing their clinical confidence. As a result the teaching staff recognised the need to evaluate in greater depth the impact of this workshop, and the model of 'supported performance simulation', as a teaching and learning method for both groups of students. An illuminative evaluation of the project was undertaken and will be discussed within this presentation.

**Victor Contreras Ibacache**

Project Manager, Pontificia Universidad Catolica de Chile, Chile

**Nursing Work Environment in a Hospital in Santiago,  
Chile**

The aim of this study was to identify the perception about the nursing work environment (NWE) in a hospital in Santiago, Chile.

Background: Chile exhibits excellent health indicators in Latin America. The stability in the health indicator has increased the tendency to provide safety and quality of care to pursue excellence in hospitals.

Introduction: The impact in the quality of care provided is strongly related with NEW perception, whereby this is a priority goal of providing excellence in nursing care.

Methods: A cross-sectional descriptive study was proposed with a non-probabilistic convenience sample of 157 bachelor nurses and nurse technicians who work in a University Hospital located in Santiago. Data collection was conducted by electronic self-administered questionnaire (demographic) and collect information by Practice Environment Scale of the Nursing Work Index in Spanish.

Results: The overall mean score in the PES-NWI was 2.9 (SD  $\pm$  0.67) indicating that in general the participants' perception of the NWE was positive. Were no significant differences in the overall scores of the PES-NWI between nurses with a bachelor's degree and nurse technicians.

Discussion: The perception of NWE was favourable, with the highest scores in the areas of interdisciplinary positive relationships and joint relations practice, and the quality of care provided, these results are congruent with others studies at same field. The perception of NWE decreasing significantly with the years of experience mainly in areas such as participation in professional institutions and leadership and professional management.

Nursing's implications: To improve this area in the future is necessary to increase participation in the institution since this is the first challenge to achieve higher retention rates.

**Bruno Cotter**

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## **HIV and Cardiovascular Disease: The Newest Chronic Disease**

Cardiovascular disease, and particularly coronary heart disease (CHD), is an emerging area of concern in the HIV population. Soon after the introduction of potent antiretroviral therapy (ART), concerns were raised about a possible increased risk of coronary heart disease. HIV infection has become a chronic disease in countries in which effective combination ART (cART) has been available since the mid-1990s. Contemporary studies have shown that in HIV-infected patients, rates of acute myocardial infarction are up to twice as high as in the non-infected patients in Western countries. Recent reports have also found that chronic inflammation, immune activation, and antiretroviral drugs play a more dominant role in HIV-related CHD compared with CHD in the general population. Whether cART, and in particular protease inhibitors (PI), increases the risk for CHD has been extensively debated over the past decade. However, cART and the PI risk-benefit ratio remains positive, as the increase in life expectancy conferred by cART far outweighs the associated risks for myocardial infarction.

Importantly, cardiovascular risk should also be evaluated in HIV-infected children because vertically infected individuals have been exposed long-term to both HIV and cART. Therefore, the risk for premature atherosclerosis in adulthood among HIV-infected children requires further investigation to develop adequate strategies of prevention.

The HIV epidemic infection has had a devastating effect on health care provision, resources and life expectancy in Africa and other underdeveloped countries. The introduction of ART has also dramatically improved life expectancy of many of these patients. However, many underdeveloped countries are a long way from providing a comprehensive prevention program, as well as effective antiretroviral therapy for all infected with HIV. Very little research emphasis has been placed on the influence of HIV on heart disease. However, the expected improved survival related to progressively more patients being treated with cART will be an ideal platform for researchers in underdeveloped countries to study the various aspects of cardiovascular disease in HIV-infected patients, both in those who are cART naïve and in those who are treated with cART.

Available data suggest the presence of an accelerated process of

coronary atherosclerosis in the HIV-infected population due to multiple factors, including a higher prevalence of conventional risk factors, emerging new risk factors (chronic inflammation, immune activation) and the role of cART. Evaluating new strategies to prevent CHD in HIV-infected patients is a major concern. It will be crucial for cardiovascular clinicians to become fully engaged in the care of HIV-infected patients. In addition, the expertise, knowledge and engagement of cardiovascular investigators, as well as their collaboration with HIV investigators and researchers will be critical to further advancing the field of HIV-related cardiovascular disease.



**Mary Cramer**

Professor, University of Nebraska Medical Center, USA

## **Using Mobile Technology and Community Health Workers to Reduce Preterm Birth**

Global preterm birth rates are on the rise. It is the single most important cause of neonatal death and second leading cause of death in children under five<sup>1</sup>. Across 184 countries, preterm birth rates (per 100 live births) range from 5 - 18%. Yet, 75% of these deaths could be prevented with feasible, cost-effective care.

**Purpose:** We used a community-based participatory research approach that partnered academic researchers with a rural community advisory board. We tested an evidence-based intervention involving concierge mobile technology with community health worker reinforcement. Study aims: 1) measure intervention feasibility; 2) evaluate differences in preterm births, low birth weight, adherence to medical care, patient activation; and 3) measure health costs.

**Design:** The 16-month study used a two-group experimental design. Patients were assigned to the Control (i.e. usual medical care only) or Intervention (i.e. usual medical care plus mobile technology with community health worker reinforcement).

**Results:** Of 110 patients recruited, n = 77 completed the study. Participants were highly satisfied with the intervention (CSQ-8 scores were M = 3.59, SD 0.3). They were actively engaged with mobile technology (hyperlink hits were M = 48.72%) and CHW chats. Full term deliveries were slightly higher in Intervention versus (p = .508). Normal birth weights were also slightly higher for Interventions (p = .955). The Intervention group had an average of 93.85% (SD = 8.3) kept medical appointments and showed statistically significant improvements in patient activation on the PAM instrument pre/post (M = 0.19) p < .05. Hospital charge data showed a \$1,039 cost savings per participant for interventions versus controls. Financial return on investment for the intervention ranged from 235.8% (i.e. mobile technology, training, and CHW patient management) to 1,859% (mobile technology only).

**Conclusions:** Mobile technology is an emerging venue for promoting health education. Our results document it is also cost effective with the potential to improve patient activation, which has been linked to healthcare costs. Patients were highly satisfied with the intervention. That there were no significant differences in birth

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<sup>1</sup> March of Dimes: Born Too Soon. <http://www.marchofdimes.org/mission/global-preterm.aspx>

outcomes is likely related to the small sample size of our population.

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### **Sociodemographic Characteristics and Morbidities among Institutionalized Elderly without Cognitive Decline**

**Objective:** To describe the sociodemographic and clinical characteristics of elderly people without cognitive decline in long-stay institutions. **Methods:** Mini-examination was applied Mental State and a form to investigate sociodemographic and clinical aspects in elderly people without cognitive decline. Data were analyzed using SPSS 18.0 and Chi-square test. **Results:** There was a predominance of elderly people without cognitive decline in men (55.7%), single (63.29%), aged  $\geq 75$  years (54.43%) with systemic hypertension (64.56%) and use of drugs that act on the cardiovascular system (64.56%). **Conclusion:** It is necessary that the institutionalized elderly without cognitive impairment are continuously evaluated for early diagnosis of pathological cognitive aging to prevent dementia states.

**Rula Darwish**

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### **Science-Based Evaluation of Propolis and its Constituents on *Pseudomonas Aeruginosa***

*Pseudomonas aeruginosa* (*P. aeruginosa*) is the most common infective pathogen of burns and is a frequent cause of nosocomial infections. Multidrug-resistant *P. aeruginosa* infections are increasing worldwide. Thus, the prevalence of bacterial resistance to conventional antibiotics has prompted an intensive search for new therapeutic agents. Propolis and its compounds have been the focus of many works due to their multifactorial activities, but only some of them have been substantiated by experimental evidence. It is traditionally acknowledged to exert antimicrobial activity. Its composition is highly variable, depending on the plant species and on the season of collection. Moreover literature survey showed instances of improved efficacies of bee products when they are combined with antibiotics.

The present study was carried out to evaluate the antibacterial activity of Jordanian propolis, collected from two locations with two different dominant floras pine and oak trees, and three isolated flavonoids (pinobanksin-3-O-acetate, pinocembrin and chrysin). In addition, the effect of combining propolis ethanolic extracts and selected antibiotics (Amoxicillin, Ampicillin, gentamicin and Cefalexin) against *P. aeruginosa* was also investigated. Zones of inhibition and minimum inhibitory concentrations (MICs) were determined on clinically isolated multiresistant and standard ATCC 27853 *P.aeruginosa* strains.

Crude propolis from pine showed higher antibacterial activity than oak against the tested bacteria. Only pinobanksin-3-O-acetate and pinocembrin exhibited some anti-pseudomonad effect. Chrysin was inactive as antipseudomonal

In conclusion, our results demonstrated enhanced activity between propolis and gentamicin against *P. aeruginosa*. This is the first study to report enhanced effects of the combination of Jordanian propolis with gentamicin against *P. aeruginosa*. Further studies are needed to determine the underlying mechanism of action. It is the first report that shows in vitro antibacterial activity of isolated flavonoids from Jordanian propolis against standard and resistant strains of *P. aeruginosa*. Overall, results of this study highlight the important role of propolis from botanical source on the antibacterial activity of antibiotics and suggest possibility of concomitant use of the tested antibiotics with

propolis in combating *P. Aeruginosa*. In addition, propolis-antibiotics administration may not impair their antimicrobial activity.

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**Impact of an Intensive 12-Week Wellness Coaching  
Program on Self-Care Behaviours among Adult Primary  
Care Patients with Pre-Diabetes**

Background: Thirty seven percent of US adults 20 years and above have pre-diabetes; about 70% are expected to develop diabetes within 10 years. Progression can be prevented or delayed through positive lifestyle interventions. The challenge is to enable individuals to initiate and maintain healthy lifestyle changes. Wellness coaching offers a one-on-one focused self-management support program to health education that enhances patient motivation and guides them towards behavioral change. While its benefit in diabetes management is widely reported, its role in patients with pre-diabetes has not been widely explored. Method: This prospective study assessed whether an individualized 12 week wellness coaching intervention for primary care patients with pre-diabetes will improve self-care behaviors as measured by self-reported changes in physical activity level and food choices. Five hundred sixty adult patients 18 years and older with pre-diabetes, who met study inclusion criteria were invited to participate in 12 weeks wellness coaching sessions delivered by certified coaches. Responses from questionnaires at baseline, 6 weeks and 12 weeks were analyzed. Results: Of 168 consented patients, 99 completed at least one coaching session. Majority of participants were elderly, female, overweight or obese; 50% were retired. At baseline, 50% did not engage in any stretching exercise or had <60 minutes aerobic exercise per week (walking, swimming, biking). While confidence level in ability to make

healthy eating choices was moderately high (7 on scale of 1-9), reported success in doing so was only rated 5.5. At 6 and 12 weeks, average stretching time per week significantly increased from 26.5 minutes to 48.6 and 63.9 minutes respectively; average aerobic exercise time also significantly increased both at 6 and 12 weeks from 117 minutes to 166 and 199 minutes respectively. Success in making healthy eating choices increased from baseline to 6.7 and 7 at 6 and 12 weeks, a significant statistical improvement. The significant effects on both exercise and eating behavior persisted even after adjusting for age, sex and baseline glucose/A1c values. Conclusions: A 12-week wellness coaching among adult primary care patients with pre-diabetes resulted in significant improvement in both self-reported physical activity level and food choices. Wellness coaching was independently associated with increase in activity and healthy eating behaviors.

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&

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## **The Possibility of Suicide, Problem Solving Ability and Associated Factors among High School Students**

Puberty is a period the most frequently experienced of suicidal behaviours. When young people perceive inadequate themselves in terms of problem solving - ability, they feel frustrated and anger, and their first thought is to commit suicide. Hence, this situation is increasing the possibility of their suicide. The aim of this study is to determine the possibility of suicide, problem solving-ability and associated factors among high school. Students. It is planned as a descriptive study

The study was conducted in health vocational high schools, located in the center of Aydin, Türkiye. The population of this study consists of 463 students educated in AydinGüzelhisar Vocational And Technical Anatolian High School. The sample of study is 210 students. The sample is estimated in 95% confidence intervals as using sampling methods known population. The sample is determined as 270 students with 1,25 pattern effect. Multi-sampling method was used in sample selection. After, the sample was determined, it was admitted that classes were as stage, and chapters were as cluster. Then, the number of students presenting each stage was stated, and 4 clusters from each stage were included in the sample with random drawing method. The data were obtained as using a personal information form, Problem Solving Inventory, suicide probability scale. Before, the study was no started, ethical approval, permissions of individuals and organizations had received. The data were analyzed in SPSS-15software package. One-way Anova, t-test, and correlation analysis were used in statistical analysis

The mean age of the students participating in the study was 15,78±0,98 (min:14, max:18). It was found that the mean scores of Suicide Probability Scale was 76,22±11,76, the mean scores of Problem Solving Inventory was 110,79±17,22. It was determined that the possiblity of suicide was higher than the other in obese, living in city center, having a family memeber who is having chronic and mental disease, not having been speaking with parents, speaking with peers when have problem, not been trusted by parents, having addictive



habit, violence in the family. Also, the possibility of suicide and Problem Solving Inventory Scores of the students who one of their acquaintance committed suicide was higher than the students who stated that one of their acquaintance not committed suicide. Consequently, middle and negativ correlation was found between their mean scores of Problem Solving Inventory and Suicide Probability Scale. It should be determined that the students having higher possibility of suicide be directed to the relevant departments to find support and that education about problem solving-ability be organized for them.

**Juan Ding**

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Hospital of Zhengzhou University, China

### **Effect of using Mobile Phone Services and Internet to Promote Breastfeeding during Infant Period: An Intervention Study**

**Objective** To evaluated the effect of using Mobile Phone Service and Internet to promote the exclusive breastfeeding rate. **Methods** Pregnant women were divided into intervention group and control group in four communities in Erqi districts of Zhengzhou city from May to August in 2013. Intervention group was implemented by community intervention model based on mobile phones and the internet. The control group accepted routine maternal health care services. Compare the breastfeeding attitude and breastfeeding behavior before and after the intervention. The data analysis methods involved descriptive statistic analysis, two independent sample t-test, logistic regression model. **Results** The scores of breastfeeding attitude in intervention group were significantly higher than that of control group ( $P<0.05$ ). Breastfeeding rate in the intervention group was higher than the control group at 7 days, one month , four months , six months after birth, with statistical significance ( $P<0.05$ ). Weaned rate in the intervention group was lower than the control group at six month , nine months, twelve months postpartum, with statistical significance ( $P<0.05$ ). **Conclusion** Health education based on Mobile Phone Services and Internet may improve breastfeeding rate and decrease infant weaned rate effectively.

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&

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## **Motivation and Empathy among Nurses in Hospitals and Community Clinics: The Mediating Role of Burnout**

### **Study goal**

The current study focuses on hospital and community nurses and examines their work motivation and empathy in these two different health settings. Motivation and empathy are critical components in the caring professions, and its absence could have a negative effect on the workers and the quality of care they provide. The purpose of the study was to investigate the relationship between motivation and empathy by examining the mediating role of burnout in hospitals and community clinics. Understanding of this relationship could enhance policy makers' support of professional medical personnel functioning in hospitals and community clinics.

**Methodology:** For this quantitative study 457 nurses working in Israeli public hospitals and community clinics, filled in questionnaires. Data analysis was conducted using descriptive statistics, Pearson correlation, regression analysis, and bootstrap method.

**Findings:** Findings show a significant positive correlation between the variables (motivation, empathy, and burnout). In addition, burnout mediated the relation between motivation and empathy in the community clinics but not in the hospitals.

**Implications for practice:** While improving nurses' work quality in community clinics, issues related to nurses' burnout should be included and implemented as related to motivation and empathy. It is possible that there are other mediators between motivation and empathy among hospital nurses, and that calls for further research.

**Wafaa Elarousy**

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**Explore Nurses', Doctors' and Parents' Perceptions on  
Family Needs in Pediatric Critical Care Units at King  
Khaled Hospital in Jeddah**

Family-centered care (FCC) approach acknowledges that the family has the greatest influence over an infant's/child's health and wellbeing. Assessing the FMs' needs is an important component to apply and improve family-centered care, and it is essential for pediatric nurses in the intensive care units to identify and understand these needs (Mundy C. 2010). Meeting the needs of family having neonate or child in intensive care is part of implementing the philosophy of family-centered care.

**Aim of the Study:** to explore nurses', doctors' and parents' perceptions on family needs in pediatric critical care units at King Khaled Hospital in Jeddah.

**Methodology:** Exploratory and descriptive design was used. Doctors, nurses and parents from Pediatric Critical Care Units at King Khalid Hospital, Jeddah participated in the study using non-probability convenient sampling technique. Critical Care Family Needs Inventory (CCFNI) a tool developed by Jane Leske (Leske, 1986) was used for assessing nurses', doctors', and parents' perceptions on family needs. The original English version was translated into Arabic by qualified English to Arabic translator. Validity was tested by Arabic faculty staff members and subjected to a pilot test to test for its validity within this context Reliability of the CCFNI was 0.97 by Gundo et al (2014). Ethical considerations were ensured by getting IRB approval and all participants signed the informed consent.

**Nurcan Ertug**

Assistant Professor, Ufuk University, Turkey

### **The Effect of Research Activity on Nursing Students' Research Anxiety and Attitudes to and Awareness of Research and Development**

The aim of the study was to determine the effect of performing research of nursing students on their research concerns and attitudes to and awareness of research and development. The study was conducted with 38 students in a nursing department of a university in Ankara, Turkey. A single group pre-test and post-test design was used in the study. To collect the data socio-demographic questionnaire, "research anxiety scale" and "attitudes to and awareness of research and development scale" were used. Kolmogorov-smirnov test and paired sample t-test and McNemar test were used in the evaluation of the data. The study was approved by the research ethics committee of a university in Ankara. Firstly, the students carried out pre-tests before the research started. Then, these students performed research in groups of 3-person during the fall and spring semesters under the supervision of an advisor. The students carried out all the steps of the research process. After the research was completed, the students carried out the post-tests.

The mean age of the students was 22.82 and 60.5% of the students had Grade Point Average at mid-level. Eighty-four percent of the students were female. Based on Kolmogorov-Smirnov test, data were distributed normally ( $p>0.05$ ). While the students' research anxiety pre-test mean score was 43.03, post-test score was 38.61 and this difference was statistically significant ( $t=4.080$ ,  $p=0.000$ ). Similarly, while the students' attitudes to and awareness of research and development pre-test mean score was 120.74, post-test score was 125.55 and this difference was statistically significant ( $t=-2.609$ ,  $p=0.013$ ).

The research findings determined that the research anxiety was decreased and attitudes to and awareness of research and development were increased in the students. We have suggested that the students might be encouraged to perform research and participate in research activities by nursing education institutions and faculty members.

**Rick Fothergill**

Principal Lecturer, University of Central Lancashire, UK

**NHS Counsellors' Therapeutic Encounters where Outcome Measures are Part of the Therapy – A Literature Review**

**Aim:** NHS Counselling in England is provided under the Improving Access to Psychological programme. Recovery is assessed via nationally recognised patient outcome measures (PHQ9, GAD7 and WASA). However, these have been criticised for not being sufficiently appropriate or sensitive for the measurement of counselling and failing to account for the experience of the counsellor's perception of outcome and reducing the client to a set of aggregated scores. This presentation will report on the findings from a literature review as part of a Doctorate to explore counsellors' experiences of this phenomenon.

**Design/Methodology:** An integrative literature review was undertaken to summarise past empirical and theoretical literature to understand how outcome measures are used within therapeutic encounters by counsellors.

**Results/Findings:** Initially, 400 studies were identified which was reduced to 15 studies, which included a range of qualitative and quantitative studies, systematic reviews and theory based evidence. The literature was predominantly UK based but does include studies from USA and Australia. The themes that emerged were: workforce attitude and engagement; training needs; suitability of outcome measures; client feedback; and worth of outcome measures.

**Research Limitations:** Rigour was ensured by using an Evidence Leveling Hierarchy (Armola, Bourgault, Halm, Board, Bucher, Harrington, et al., 2009), which has been previously used effectively as a grading tool in integrative literature reviews. During the evaluation of studies, data relevance was ensured using predetermined questions to consider information that was relevant to the current study and then rated as either high, medium, or low.

**Conclusions/Implications (including practice implications):** Overall findings were mixed regarding the use of outcome measures in counselling with regard to their overall worth. Importantly, it was noted that few studies have actually involved direct exploration of counsellors' views of using outcome measures despite their widespread use.

**John Gammon**

Deputy Head, College of Human and Health Sciences, Swansea  
University, UK

**The Curse of Wet Hands! The Significance of Hand Drying  
and Efficacy of Different Methods**

Wet hands are an infection risk, increasing the potential for cross infection, as well as the harm to the skin condition of healthcare practitioners. This presentation examines the infection risk associated with wet hands, efficacy research of different drying methods, and the impact on safe clinical care.

Current research and practice recommendations concentrate on hand washing, compliance rates and the efficacy of different interventions to improve handwashing. There is, however, a noticeable neglect of hand drying practice and the current paucity of research fails to recognise its importance in the prevention and control of infection. There is increasing recognition that hand drying is of equal importance to handwashing, that there is a lack of compliance amongst practitioners, and that the efficacy of different methods varies with the clinical implications of different methods of significance.

The presentation examines a number of published international studies, which evaluate firstly the extent of hand drying amongst professionals and secondly the efficacy of different methods in clinical areas. The presentation notes that despite this evidence, research needs to focus and evaluate the extent of drying by practitioners and the efficacy of drying methods within the clinical environment. The curse of wet hand and skin irritation further exacerbate the potential of non-compliance and the likelihood of translocation of microorganisms.

Greater attention and emphasis needs to hand drying and its equal importance when we consider hand hygiene in the clinical context. We must accept that patient safety is put at risk when we fail to dry our hands.

**Tsampikos Georgallis**

Postgraduate Student / Clinical Psychology Trainee, European  
University Cyprus, Cyprus  
&

**Marina Al Merstani**

Counselling Psychology Trainee, European University Cyprus, Cyprus

### **An Internet-delivered Attentional Bias Modification (ABM) Protocol in Dealing with cannabis misuse in Cyprus: Current Limitations and Future Possibilities**

It is argued that Attentional Biases (ABes) play a significant role in the aetiology and maintenance of psychopathological disorders, including anxiety and depression. An AB refers to one's continuous predisposition towards a pre-defined group of stimuli. Empirical evidence suggests that ABes exist in various psychological and medical disorders, including Obsessive-Compulsive Disorder, Major Mood Disorder, Post-Traumatic Stress Disorder, Insomnia, Chronic Daily Headache, Chronic Musculoskeletal pain, and eating disorders. ABes have been also found in individuals dealing with pathological gambling, nicotine and opioid dependence, alcohol misuse, and drug dependence. Recent empirical studies attempting to re-direct those biases in people with substance-related dependencies have found encouraging results in the reduction of their dependency and frequency of craving. Improvements in their substance-taking behavior and emotional functioning were also recorded. The re-direction of such biases was conducted through the Attentional Bias Modification Training (i.e. ABMT) paradigm.

ABMT is processed through the modified training version of the visual-probe task. The training version of the visual-probe task refers to a simple computerized exercise that trains individuals to move their attention away from disorder- or condition-specific stimuli towards neutral information through pictorial (i.e., images) and linguistic cues (i.e., words) displayed at a pre-determined period of time (e.g., 1500ms). Through repetition of accurate responses across a number of trials, participants are trained to disengage from condition-specific information towards neutral cues. The promising results of ABMT in dealing with various psychopathological and medical disorders has led research to assess its clinical relevance amongst patients dealing with a series of addictive substances. Little is known in relation to cannabis (mis-)use, however. Further, such research studies were typically conducted in laboratories across the Anglosphere with little empirical



validation from samples beyond the English-speaking world. This study will demonstrate a complete internet-delivered protocol of ABMT that aims to train cannabis users in Modern Greek to move their attention away from salient substance-related information towards neutral cues through the linguistic and pictorial training versions of the visual probe task. Although cannabis misuse is not associated with somatic addiction, individuals smoking cannabis demonstrate difficulty to quit and severe psychological withdrawal symptoms. The internet-delivered protocol will present all necessary information as a means to assess later the clinical relevance of ABMT in cannabis cessation amongst Greek-speaking adults. Current limitations and future possibilities will be also discussed.

**Irina Gette**

Senior Researcher, Ural Federal University named after the first  
President of Russia B. N. Yeltsin, Russia

**Victor Emelyanov**

Assistant Professor, Ural Federal University named after the first  
President of Russia B. N. Yeltsin, Russia

**Irina Danilova**

Head of the Department of Medical Biochemistry and Biophysics, Ural  
Federal University named after the first President of Russia B. N.  
Yeltsin, Russia

&

**Tatyana Bulavintceva**

Junior Researcher, Institute of Immunology and Physiology, Russia

**Impact of 1,3,4-Thiadiazine Derivative on Pancreas Islets in  
Diabetic Rats**

Diabetes is a worldwide metabolic disorder that requires multiple therapeutic approaches and stimulates research focused on more efficient antidiabetic drugs. The potential of a possible antidiabetic drug can be considered to be antiglycative, antioxidant and  $\beta$ -cell protecting. Previously, we have identified in silico that a representative of 1,3,4-thiadiazines the compound L-17 combines antioxidant and antiglycative properties, which were confirmed in vitro and in vivo. However, it is unclear whether L-17 can also contribute to the protection of  $\beta$ -cells in the pancreatic islets of alloxanised diabetic rats.

Four groups of 5 Wistar rats weighing 220-250 g were formed: control, L-17, alloxan diabetes, alloxan diabetes plus L-17. Type 1 diabetes mellitus was modeled by alloxan administration (100 mg/kg per day intraperitoneally, 3 days, total dose 300 mg/kg). An aqueous solution of L-17 was administered intramuscularly (40 mg/kg per day, 3 injections simultaneously with alloxan, and 12 injections in total for 4 weeks). The tests of plasma glucose, glycated hemoglobin in erythrocytes, tissue and plasma fructosamine, the histological and morphometric investigation of the pancreas were made.

L-17 had no effect on the number, neither size of the pancreatic islets nor the content of  $\beta$ -cells in healthy animals. We revealed that injections of L-17 to diabetic rats decreased glucose, glycated hemoglobin and fructosamine levels as compared to the same indicators of untreated diabetic rats. The total number of cells increased in the islets after L-17 injections to diabetic rats, but the number of islets and the proportion of  $\beta$ -cells remained as in the diabetic rats.

Therefore, L-17 ameliorates hyperglycemia without affecting the  $\beta$ -cell survival in alloxanised diabetic rats. Further studies of islet cell composition, insulin and insulin-like growth factor expression are necessary to explain the anti-diabetic effect of the 1,3,4-thiadiazine derivative.

**Mahua Ghosh**

Assistant Professor, University of Calcutta, India

&

**Kankana Das**

Senior Research Fellow, University of Calcutta, India

### **Management of Diabetic Nephropathy using Structured DAG Oils in Murine System: A Comparative Assessment of Redox-Regulated Signaling System**

Diabetes mellitus is a group of metabolic diseases characterized by chronic hyperglycemia with instabilities in carbohydrate, fat and protein metabolism resulting from defects in insulin secretion, insulin action or both. With the increasing prevalence of diabetes consistently there is an urge for proper effective prevention. The present study was carried out to investigate whether the capric acid (Cp) and caprylic acid (Cy)-diacylglycerol (DAG) oil (Cp-DAG or Cy-DAG), two novel structurally formulated lipids, plays any beneficial role in renal pathophysiology in diabetic rats. Streptozotocin (STZ) induced diabetic rats were taken to conduct the study. STZ exposure increased renal damage associated serum markers (urea and creatinine) as well as NO production in the kidney tissue. Moreover, the same exposure enhanced the reactive oxygen species (ROS) generation and lipid peroxidation following the reduction of reduced glutathione (GSH) levels and antioxidant enzyme activities. Hyperglycemia-associated renal pathophysiology also activated the redox-regulated stress response pathways (involving phosphorylation and dephosphorylation of p38, ERK1/2 MAPKs and NF- $\kappa$ B) and increased the pro-inflammatory cytokines burden, which in turn led to renal inflammation. However, supplementation with Cy-DAG oil better counteracted on STZ-treated oxidative stress-mediated renal damage in comparison to the Cp-DAG oil and could act as significantly better therapeutic dietary supplement in preventing renal dysfunction in diabetic nephropathy.

**Fatih Gogus**

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**Sevim Celik**

Professor, Bulent Ecevit University, Turkey

**Nurten Tasdemir**

Assistant Professor, Bulent Ecevit University, Turkey

&

**Elif Dirimese**

Assistant Professor, Bulent Ecevit University, Turkey

### **Nursing Students' Knowledge and Practices on the use of Peripheral Venous Catheter**

**Aim:** The aim this study is to determine the knowledge and practices of nursing students who completed surgical nursing course, on peripheral venous catheters use.

**Method:** This descriptive study was conducted with 269 nursing students who attended the surgical nursing course during the fall semester of 2016-2017 in Nursing Department of Health Science Faculty. The research data collected by Personal Information Form and a Venous Catheter Knowledge and Practice Questionnaire developed by researchers according to guidelines of Turkish Society of Hospital Infections and Control. The data evaluated by descriptive statistics and beside this independent variables t test, One Way ANOVA, Kruskal Wallis tests were used.

**Results:** It is found that the mean age of students were  $19,73 \pm 0,49$ , all were second year students, 4,8% (n=13) had graduated from associate nursing degree, 0,4% (n = 1) worked as a nurse at a hospital. Students mostly completed surgical nursing clinical courses at intensive care units (76.2%) and emergency departments (71%). It was determined that during clinical practice 94.8% of the students had practiced peripheral venous catheters to patients, 51.7% of them practiced 1-5 times 30.5% 11 or more times. It is found that 90.7% of the students stated that they had been educated about catheter infections and prevention during nursing courses. It was found that the level of knowledge about the use of peripheral venous catheter was moderate with an average of score of  $14.50 \pm 2.92$  (min: 0, max: 23). Nearly all students gave correct answer to the placement of the venous catheters to upper extremity veins in adults (99.6%), hand hygiene with water and soap (92,6%) before insertion of catheter, catheter replacement (94,4%) in case of visible contamination and deterioration of catheter integrity, everyday control of catheter entry site (98.1%). No significant

difference was found between the demographic characteristics of the students, frequency of catheter education, frequency of peripheral venous catheter practice, number of catheter infection education, clinical practice site and knowledge of usage of peripheral venous catheter average points ( $p > 0,05$ ). It is determined that students mostly provides hand hygiene with alcohol (82,2%), water and soap (72,2%) and gloves (86,2%) before applying peripheral venous catheter cleaning the catheter area with 70% alcohol (79.4%), uses antibiotic cream (71.4%), replaces catheters in every 24-48 hours (82.9%), replaces non blood transfusion catheters in every 24 hours (98.5%).

Conclusion: The study showed that the knowledge and practice about using peripheral venous catheter by nursing students who had complete the surgical nursing course, is not at the expected level.

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**Filiz Adana**

Assistant Professor, Adnan Menderes University, Turkey

**Gulengun Turk**

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&

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Research Assistant, Adnan Menderes University, Turkey

## **Healthy Lifestyle Behaviour of First Year Students in Nursing School**

Temporary relocation due to university education has an impact on the health lifestyle of individuals who are not yet grown out of adolescence, and negative behaviour set more with the problems experienced especially within the first year of relocation.

The objective of this study is to determine healthy lifestyle behaviour of first year students in nursing school.

The study is a cross sectional study conducted with first year students in the Department of Nursing in Adnan Menderes University in the spring term of 2014-2015 academic year. The population of the study consists of 260 students and the sample of the study consists of 193 students selected using sampling from finite population method. Verbal consents of participating students and authorization from the university have been obtained. Personal Information Forms and Healthy Lifestyle Behaviour-II Scale (HLBS) were used as evaluation instruments.

The study data was analysed with the SPSS statistics program (Version 18, Chicago IL, USA); arithmetic mean, median, standard deviation, frequency and percentage values, student t-test and Kruskal Wallis test were used.

The mean age of the students participated in the study was  $19.25 \pm 1.29$  and they were all in their first year (freshman). 74.5% (n=143) of the students are female and 25.5% (n=49) of the students are male.

84.5% of the students (n=163) reported that they have nuclear family and 71.4% (n=137) reported that their family has balance in their income and expenditure.

Most commonly consumed foods for the students on a daily basis were identified: 15% (n=27) milk and dairy products; 27.5 % (n=50)

fruits and vegetables, 17.8% (n=32) legume; 21.7 % (n=39) grains, 18.2% (n=33) meat and meat products.

The mean HLBS score of the students is  $128.61 \pm 18.90$ ; the mean score for Health Responsibility Subscale is  $19.47 \pm 4.49$ ; the mean Physical Activity Subscale score is  $16.74 \pm 5.44$ ; the mean Nutrition Subscale score is  $19.02 \pm 3.76$ ; the mean Emotional Development Subscale score is  $26.78 \pm 4.71$ ; the mean Interpersonal Relationship Subscale score is  $26.29 \pm 4.43$  and the mean Stress Management Subscale score is  $19.60 \pm 3.91$ .

The Physical Activity Subscale Scores of male students were significantly higher than those of female students ( $t = 2.406$ ;  $p = 0.017$ ) and the Stress Management Subscale Scores of the students whose families' income level is higher than their expenditure were significantly higher than those whose families' income level is lower than their expenditure or equal ( $KW = 6.464$ ;  $p = 0.039$ ).

It can be concluded that the healthy lifestyle scores of students are at medium level; that male students have a higher level of physical activity and students who report income higher than expenditure have a better stress management.



**PD Gupta**

Adjunct Professor, Manipal University, India

### **Nanodiagnostics: A Future Trend in Clinical Chemistry**

Health care can be managed more effectively, if the diagnostic methods are rapid, sensitive, specific, stable, inexpensive, user's friendly, accurate and painless. DNA and RNA based diagnosis may not reveal the right information for certain diseases. Identification and quantification of proteins and their folding mechanism are very important in diagnosis of diseases. Generally, small quantities of proteins, which escape from detection are responsible for the diseases. Nanotechnology has revolutionized medical laboratory diagnosis. Now researchers are investigating how to get devices a million times smaller than the length of an ant to communicate with one another to form nanonetworks. And they are using a different take on "cellular" communication - namely how bacteria communicate with one another - to find a solution.

By nanotechniques protein can be quantified which can aid in the diagnosis of many diseases. We have developed a new simple one step protein estimation method by using eosin dye to measure proteins at nano level concentration without involvement of any sophisticated instruments. This technique is used for estimation of protein in urine (micro albumin). Total number (510) of samples were analyzed; out of this 383 turn out to be normal with Dip Stick Method whereas, 435 turn out to be normal with Eosin Y Method, thus 52 patients were saved for undergoing un-necessary dialysis.

We are trying to use this method for many more applications.

**Houaida Helal**

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**Nursing Role in Inbound and Outbound Medical Tourism  
in Saudi Arabia**

Medical tourism involves patients actively seeking low-cost medical care not available in their native country. It does not include accidents or illnesses that require medical treatment while abroad, but to travel to a foreign country to seek specific care.

Saudi Arabia has developed a five-year plan to encourage medical tourists to seek treatment in its government and private hospitals, but there has been little input from the private sector to engage in a public-private partnership.

According to the Medical Tourism Index (TMI) the Kingdom ranks 37<sup>th</sup> among the most desired countries to receive medical care. Canada ranks first in global ranking followed in order by the United Kingdom, Israel, Singapore and India.

Although Saudi medical visas remain the primary obstacle to receiving a steady flow of foreign patients, services are available to any individual already in the country on a Haj, Umrah or work visa.

Saudi Arabia has a national healthcare system in which the government provides healthcare services through a number of government agencies. But making the Medical Tourism business a priority in the future might not be as easy, because reputation in the industry is something that takes years to develop. Still, the government's spending in medical technology and state of the art facilities can someday represent real competition to other countries in the area.

The nurses as an essential member in medical team can play a significant role in helping the patients and clients in their decision for medical tourism. The different roles of the nurse will be discussed in relation to medical tourism either inbound or outbound type.

**Yvonne ten Hoeve**

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**Stynke Castelein**

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**Wiebren S. Jansen**

Assistant Professor, Utrecht University, The Netherlands  
&

**Petrie Roodbol**

Professor, University of Groningen, The Netherlands

**Student Nurses' Changing Perceptions of Nursing:  
A Two Year Longitudinal Study**

**Background:** Previous studies have shown that nursing students' perceptions of nursing change over time. Little research has been undertaken in the Netherlands of students entering nursing programmes and of how they progress.

**Objectives:** The aims of this study were to explore whether nursing students' orientation and attitudes towards nursing changed over time, when these changes occurred, and what factors influenced the changes. We also aimed to identify the factors that prompted them to consider leaving their programmes, and what factors affected their motivation to stay.

**Design:** A longitudinal quantitative survey design was used.

**Participants:** Questionnaires were administered to all students enrolled in a Bachelor's of nursing programme at four nursing universities of applied sciences in the Netherlands. The data for this study were collected at four time intervals between September 2011 and June 2013.

**Methods:** Respondents completed a survey consisting of the Nursing Orientation Tool (NOT), the Nursing Attitude Questionnaire (NAQ) and background characteristics. The continuous variables were non-normally distributed and non-parametric repeated measures tests were therefore used to test students' changing orientation and attitudes towards nursing. A Friedman test was used to test changes in scores on the NOT and the NAQ over time, followed up by post-hoc Wilcoxon Signed Rank Tests to test when significant differences in orientation

and attitudes occurred.

**Results:** At T0 (September 2011), a total of 1244 completed questionnaires were returned. Of these initial 1244 students, 123 completed the survey each time, and this group was used for the further analyses. The results showed an improvement in the students' orientation and attitudes towards knowledge, skills and the professional roles of nurses, while empathic behavior decreased over time. Although the changes showed non-linear patterns over time, the results showed clear effects between the different time points. The reasons for attrition proved to be related both to problems with the educational programme and to personal problems. An important motivator for students to stay in the course was their passionate desire to become nurses, suggesting that the positive aspects of a nursing career dominated the problems they encountered.

**Conclusions:** Tutors and preceptors should pay more attention to the individual perceptions and problems of first and second-year students, both in the classroom and during clinical placements. Knowledge of the students' perceptions from the very beginning could be vital to study success.

**Vickie Hughes**

Assistant Professor, Johns Hopkins University, USA

## **What are the Barriers for Developing Nurse Leaders? A Review**

**OBJECTIVE:** The aim of this systematic review was to examine the evidence regarding barriers to nurse leadership development.

**BACKGROUND:** Nurses comprise the largest segment of the healthcare workforce. Nursing has consistently been ranked as the most respected position by United States Gallup Polls with the exception of 2011 when fire fighters were ranked number 1. However, only 6 percent of healthcare organizational board members were nurses (AHA 2011). Why are nurses not moving into these highest levels of healthcare organizational leadership? Historically it has been difficult to find staff nurses willing to pursue leadership positions. What are the barriers for staff nurses to move into leadership positions?

**METHODS:** An electronic literature search for “night shift nurse errors” was conducted using Pubmed, CINAHL, Health Source: Nursing/Academic Edition, and Cochrane Collection Plus databases. Inclusion criteria used was English language, full text available, and published in a peer-reviewed journal between July 1, 2006 and July 1, 2016. Originally 482 studies were identified and the abstracts reviewed for relevance. Duplication citations were removed. The remaining studies were analyzed and categorized based on Johns Hopkins Strength of Evidence Hierarchy.

**RESULTS:** Twelve studies were selected for analysis based on the inclusion criteria. Some of the barriers to developing nurse leadership identified were time constraints, lack of involvement in policy development, lack of formal preparation for leadership role, lack of opportunity for advancement, need for additional training or education, lack of influence in interdisciplinary care planning, lack of clarity about leadership duties and responsibilities, and lack of leadership succession planning. Nurses identified that since they are not perceived as major revenue generators as compared to physicians, leadership roles for nurses are restricted. An additional perceived barrier was that the public perception of nursing roles did not include senior level leadership, therefore the compensation for nursing was lower than other healthcare professions within the organization leadership structure. Resources for leadership preparation was not seen as much of a priority for nurses as in some of the other healthcare disciplines. Finally, the lack of a nursing framework for the professional

development of the leadership role, opportunities to lead, and a mechanism to sustain leadership development were identified as barriers to nurses moving into leadership roles.

**Azhar Hussain**

Dean, Department of Pharmacy, Hamdard University, Pakistan

## **Perceptions of Regulators towards the Current Pharmacovigilance System in Pakistan**

**Introduction:** Pharmacovigilance programs need strong links with regulators to ensure that authorities are well briefed on safety issues in everyday practice that may be relevant to future regulatory action.

**Aim:** The aim of the present study is to assess the perception of regulators towards the current pharmacovigilance system in Pakistan.

**Method:** A qualitative study design was used and data was collected using the structured interview guide based on IPAT. All the professionals (n=35) working in regulatory bodies having relevance to pharmacovigilance system were included and selected through snowball sampling technique. Data analysis was carried out by using SPSS version 17. Assessment of the medicine safety system was carried out by using the method provided in the IPAT manual.

**Results:** The results showed that majority of the respondents perceived that the structural, process and outcome indicators are not being met by the Pharmacovigilance set up of Pakistan. The physical assessment of system highlighted the scores of 37 % and 8.3 for structural and process indicators respectively whereas the outcome indicators score was 18%. Among the perceived barriers, 57% (n=20) perceived that lack of awareness/education/training is the major barrier to the establishment of pharmacovigilance system. Sixty percent respondents (n=21) highlighted initiation of training and awareness programs as the best possible solution for the establishment of effective pharmacovigilance system.

**Conclusion:** The present study concluded that the pharmacovigilance system of Pakistan is lacking on front of the structural, process and outcome indicators, which are the hallmark of an effective pharmacovigilance system.

**Kimberley Jackson**

Assistant Professor, Western University, Canada

## **Why does it hurt so Much? Understanding Women's Experience of Breastfeeding-related Pain**

Breastfeeding is the optimal source of infant nutrition with protective health effects for both women and children. Despite the World Health Organization recommendation of exclusive breastfeeding for the first 6 months, many women discontinue breastfeeding well before. Nipple pain associated with breastfeeding is a primary contributor to breastfeeding cessation; however, there is minimal literature exploring postpartum women's experiences with breastfeeding pain. As such, our purpose is to explore the experience and meaning of women's breastfeeding-related pain in a gendered, social and cultural context.

**Design:** A descriptive qualitative design was utilized. Using maximum variation sampling, 15 women were recruited from Well Baby/Breastfeeding clinics at the Middlesex-London Health Unit in London, Ontario, Canada.

**Sample:** Breastfeeding postpartum women reporting breastfeeding-related pain and were able to read, understand and speak English.

**Methods:** Individual interviews (60-90 minutes) were conducted using a semi-structured interview guide. Interviews were audio-taped and transcribed verbatim along with field notes.

**Data Analysis (under progress):** A feminist, intersectional framework will situate the results. Qualitative descriptive methods will guide data analysis. Multi-level coding, constant comparison techniques, and content analysis will identify key data themes using NVivo 10.

**Significance:** This novel research has the potential to improve knowledge of women's lived experience of breastfeeding-related pain, increase public awareness, promote social support and inform clinical practice - targeting education and development of preventive and treatment interventions for childbearing women.

**Research Team:** The multidisciplinary team has an extensive and collective depth of clinical and research expertise in women's health, pain science, knowledge translation strategies and qualitative research methods.



**Clare James**

Senior Lecturer, Coventry University, UK

**Alison Bardsley**

Senior Lecturer, Coventry University, UK

&

**Neil Kelly**

Senior Lecturer, Coventry University, UK

## **Nurse Independent Prescribing in the United Kingdom**

Nurse Independent Prescribing is well established with the United Kingdom (UK) with over 54,000 nurse and midwife prescribers across the UK (Royal College of Nursing (RCN), 2010). Its origins began in 1986 with a recommendation that community nurses could prescribe from a limited list of drugs and applications (Cumberlege Report, 1986). The emerging role provided continuity of care for a growing rise in the number of patients with complex health needs particularly in the community. The role also addressed the significant reduction in available doctors. The role is now well established within community and acute healthcare settings, with nurses prescribing over 12.8 million items in one year (NHS Prescribing Service, 2010).

Nurse prescribers are specially trained nurses allowed to prescribe any licensed and unlicensed drugs within their clinical competence. In 2006, nurse prescribers were given full access to the British National Formulary (BNF) and this now puts nurses on a par with doctors in relation to their prescribing capabilities. Since 2012 nurse prescribers have also been able to prescribe controlled drugs within their area of competence.

Patients have reported a high level of satisfaction and confidence in nurse prescribing, with no difference in prescribing methods between nurse and doctor prescribing (Jones et al, 2010).

This paper argues that nurse independent prescribers can provide a valuable contribution to patient care, providing better care for patients, faster access to medicines and a better use of nurses' and doctors time.

**Serife Karagozoglu**

Professor, Cumhuriyet University, Turkey

&

**Emine Korkmaz**

Specialist Nurse, Health Science University, Turkey

## **The Efficiency of Sand Bag, Close Pad and Cold Application in Combination with Sand Bag to Prevent Peripheral Vascular Complications Post-Coronary Angiography and Post-Percutaneous Coronary Intervention**

In the literature, no study has been found comparing the effectiveness of sandbag (SB), cold application in combination with sandbag method(CASB), and Close Pad application(CP) to prevent vascular complications after Coronary Angiography(CAG) or Percutaneous Coronary Intervention(PCI). So, we aimed to determine the effectiveness of these three methods in preventing peripheral vascular complications after coronary intervention.

120 patients were included in this experimental study and three groups each consisting 40 patients were formed by randomization. The SB, CP, and CASB methods were performed for the first, second, and the third groups, respectively. The data were collected by using Personal Information Forms, Individual Observation Forms, and Numerical Pain Scale. The presence of local complications were investigated at 15<sup>th</sup> minute, 4<sup>th</sup> hour, 1<sup>st</sup> day and 2<sup>nd</sup> day after the sheath withdrawal. The area of the hematoma was measured with themezzanine, and calculated as square centimeters. It was judged as 'major' if hemorrhage required transfusion, and 'minor' if hemorrhage didn't require transfusion. The ecchymosis were wrapped with a polyethylene millimetric plastic film and bordered by an acetate pen, and then calculated as millimetres squared. The pain felt by the patient was quantified on the scale.

In the CAG group; it was determined that these three methods have similar efficacy on preventing hematomas, SB method alone and CASB are superior to CP method to prevent bleeding, all three methods are not effective to prevent ecchymosis, and SB method alone was effective in preventing pain. In the PCI group; it was found that the SB is superior to other methods in preventing hematoma, SB and CP are superior to CASB method in preventing bleeding, ecchymosis; SB and CASB methods are superior in pain relief.

We have shown that the methods used in our study cohort are effective in preventing potential complications, however they are not

exactly superior to each other. So, it is proposed that cost-effective approaches and institutional policy should be taken into consideration in the selection of the closure method.

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&

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## **Medical Tourism in Germany - A Paradigm for a Success Story and how it Works**

The German medical system has a good reputation abroad. As a result, hospitals have the opportunity to develop a lucrative market: the treatment of wealthy foreign patients.

The patients come especially from Western and Eastern Europe, the Gulf States and from Russia. The business with medical tourism in Germany is constantly increasing, 4 to 12 percent per year during the last 10 years, as it has been recorded by a researcher group of the department of "Medizintourismus" in the University Bonn-Rhein-Sieg (Juszczak, 2016: 251.000 internationale Medizintouristen kamen 2014 nach Deutschland. Pressemitteilung vom 27.01.2016, Hochschule Bonn-Rhein-Sieg, FB Wirtschaftswissenschaften, Sankt Augustin).

More than 200.000 people come from abroad every year to be treated in German clinics and medical practices. Almost half of them are treated in the hospitals.

With medical tourism the German medical system earns about 1.2 million euros per year (Juszczak, 2013), and more can be added by hotel overnight stays, shopping of foreign patients and their accompanists, transports and so on. The direct economic effect of the medical tourists is estimated at 150 million euros per year.

The reasons for medical tourists to choose Germany as destination are diverse.

For patients from Arab and Eastern European countries:

The technical know-how in the home countries is behind or underdeveloped, or the hospitals' facilities and technologies are not sufficient to perform highly complex surgery, and German medicine has an excellent expertise and reputation in certain disciplines.

Western European patients like the British, the French, the Belgians and especially the Dutch have been traveling to Germany for many years because in their home countries waiting-lists are long for "planned medical interventions". The business model "hips for the Dutch" has become a significant source of income for some hospitals in the German border regions of North Rhine-Westphalia.

To acquire patients from abroad and to fulfill their individual

demands, it is necessary to be well prepared:

The "Network for Better Medical Care", for example, was established in Berlin in 2005, the International Medical Service (IMS) in Freiburg more than 10 years ago, to acquire patients from abroad. Some hospitals have adapted their comfort on specialized wards in such way that they can meet the special needs and desires of the wealthy health tourists: bilingual sisters, interpreters, luxurious room service, respect for and space to celebrate religion and culture, special parking spaces, international office, individual catering, network of transport and lodging (hotels) and service providers for e.g. entertainment for the foreign patients and accompanists, international marketing strategies in the global competition about the distribution of health tourists (e.g. Medical Tourism Guides) and so on. Approximately every 10th hospital in Germany is dedicated to the business with health tourism.

Germany is Europe's number one of the destinations for medical tourists.

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## **Determination of Prevalence and Etiology of Medical Errors in Healthcare Practices**

**Aim:** During the delivery of healthcare services, medical errors might occur leading to death, injury, disablement, or the delay of treatment. This descriptive study aims to determine prevalence and etiology of medical errors in healthcare practices.

**Material and Method:** This research is a retrospective study implemented between 01 January and 30 April 2015. Findings were elicited from the newspapers of 2014 that were archived in a hospital's central library. Of the archived 17 newspapers, the printed copies for 12-months were reached. Data were analyzed via a questionnaire form consisting 19 questions based on the literature and assessed by the use of descriptive statistics. Totally 105 news were found in relation to medical practice errors.

**Findings:** Regarding the news on medical errors it was determined that 95.2% was on current-news sections of newspapers; 49.5% were delivered by a news agency; and %12.4 did not mention the concerned institution. Of the medical errors 18.1% were related to diagnosis while 9.5% to false medicine delivery; 59.0% occurred at public healthcare institutions while 28.6% at private healthcare institutions; 67.6% occurred at surgery rooms, emergency rooms, and gynecology clinics respectively (33.3%, 16.2%, 14.3%); 22.9% occurred due to negligence while 21.0% due to the lack of attention; and 28.6% violated International Patient Safety Targets securing correct party, correct procedure, and correct patient surgery. Among the health personnel making the medical error, 67.6% were doctors and 4.8% were nurses while 9.5% of news did not mention the responsible health professional. Lastly, 48.6% of medical errors resulted in death and 63.8% of the medical error consequences were submitted to the court.

**Conclusion:** The foremost application in order to prevent medical errors is to determine medical error types and factors causing medical errors in addition to the determination of areas where health care professionals tend to make medical errors.

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### **The RNA Binding Protein Quaking is a Key Regulator of Endothelial Cell Differentiation, Neovascularization and Angiogenesis through Direct Binding of the 3'UTR of STAT3**

The capability to derive endothelial cell (ECs) from induced Pluripotent Stem (iPS) cells holds huge therapeutic potential for diabetes. **Objective-** This study elucidates the precise role of the RNA-binding protein Quaking isoform 5 (QKI-5) during EC differentiation from both mouse and human iPS cells and dissects how RNA-binding proteins can improve differentiation efficiency towards cell therapy for important vascular diseases such as diabetes. iPS cells represent an attractive cellular approach for regenerative medicine today since they can be used to generate patient-specific therapeutic cells towards autologous cell therapy. In this study, using the model of iPS cells differentiation towards ECs, the QKI-5 was found to be an important regulator of STAT3 stabilisation and VEGFR2 activation during the EC differentiation process. QKI-5 was induced during EC differentiation, resulting in stabilisation of STAT3 expression and modulation of VEGFR2 transcriptional activation as well as VEGF secretion through direct binding to the 3' UTR of STAT3. Importantly, iPS-ECs overexpressing QKI-5 significantly improved angiogenesis and neovascularization and blood flow recovery in experimental hind limb ischemia. Notably, human iPS cells overexpressing QKI-5, induced angiogenesis on Matrigel plug assays in vivo only seven days after subcutaneous injection in SCID mice. These results highlight a clear functional benefit of QKI-5 in neovascularization, blood flow recovery and angiogenesis. They, thus, provide support to the growing consensus that elucidation of the molecular mechanisms underlying EC differentiation will ultimately advance stem cell regenerative therapy and eventually make the treatment of vascular diseases such as diabetes a reality.

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### **Using Twitter to Facilitate the Dissemination of Information and to Provide a Platform for Continued Professional Development for Independent Prescribers**

Coventry University highlighted digital literacy as a pillar of learning. Therefore it is a requirement and expectation of Coventry University academics to engage in delivery of learning through digital media (Coventry University 2016). There has been a shift away from traditional teaching methods, such as power point, which has been seen as archaic, to the use of digital media being hailed as a panacea for enabling the dissemination of information directly to students, and from students, at any time, rather than just within the lecture theatre (Sukbramianiam 2013). This approach enables a flipped approach to learning where students assimilate information from a digital stream prior to lectures, discussing their thoughts and findings within the lecture with their peers.

The independent prescribing academic team at Coventry University developed a learning strategy that encompassed digital literacy facilitating this through the use of a Twitter account. The accounts primary focus was to disseminate articles, news and information about independent prescribing and related health care issues to students, whilst on the course and to facilitate ongoing continuing practice development (CPD) on completion. The aim was to also enable students to post on the Twitter feed sharing similar information with the wider student group and their peers in practice. Twitter was seen as a vital component of the teaching strategy within the independent prescribing course as it facilitated a direct form of contact with the students throughout the course rather than limited to face-to-face lectures or tutorials. The twitter feed is also being utilised to develop ongoing support networks for students once qualified and promote CPD events

This paper will present the implementation of the Twitter account and discuss whether it enhances student experience. The independent prescribing academic team are currently evaluating this initiative.



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### **Evaluation of Cytotoxicity, Mutagenicity and Antimutagenicity of Methanolic Extract of Aerial Parts of *Plumbago Europaea* on Balb/c Mice Bone Marrow Cells**

*Plumbago europaea* L. is a perennial herb belonging to the family Plumbaginaceae that lives in the Mediterranean area including Jordan. It is reported to have a tremendous therapeutic potential. Herbal medicine may cause damage to genetic material, which may lead to an increased risk of cancer and other diseases. Hence, it becomes important to assess cytogenotoxicity of herbal medicines. The present study was conducted, for the first time, to evaluate the in vivo genotoxic effects of methanolic extracts of aerial parts of *P. europaea* on male mice bone marrow cells using chromosomal aberration test and micronucleus assay. The intraperitoneal LD<sub>50</sub> of the dimethyl sulfoxide (DMSO) solution of the extract was determined to be 58.33mg/kg body weight. Mitomycin C (MMC, 2mg/kg b. w.) and DMSO (0.5%) served as positive and negative controls, respectively. Cytotoxicity and mutagenicity were measured at 14.6, 29.2, 58.33 and 87.5mg/kg b. w, given for 7 constitutive days, and expressed as mitotic index (MI) and percent aberrant cells (%Abc). Antimutagenicity was followed by administration of 2mg MMC/kg in the beginning of the first or the last 24h of applying 14.6mg/kg of the extract daily for 7days. The selected doses of the extract elevated MI and increased percentage of aberrant bone marrow cells compared to the negative control. However, at a dose of 14.6mg/kg the extract was enough to reduce significantly the toxic effects induced by MMC. Thus, it can be concluded that the *P. europaea* extract by itself is mutagenic, but can be antimutagenic agent probably at small doses since it modulated the mutagenicity of MMC in mice in vivo and may contribute to the wide therapeutic properties claimed by folk medicine and it's safe at low doses.

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### **Preliminary Results of Developing a Shared Care Model between Oncologists and Primary Physicians for Enhancing Health Care for Cancer Survivors in Korea (SCOPE-K) Project**

**Introduction:** The number of cancer survivors rapidly increased. However, cancer survivors did not take appropriate comprehensive health care, which would include not only cancer treatment but also management of physical and psychological symptoms, health promotion and secondary cancer prevention.

**Methods:** A shared care model was tested by oncologists and primary care physicians in a National Cancer Center and volunteering primary physicians in a community of Goyang city from Oct. to Nov. 2013. Stomach, colon and breast cancer patients who finished active treatments participated in the project. Firstly, Pre-screening was performed in oncologists' clinic. If cancer survivors have any problem besides oncologic care, oncologists recommend a visit to a primary physician in same hospital or in the community. The problem of cancer survivors, quality of life and satisfaction level of care were examined using a structured questionnaire.

**Results:** Total 234 cancer survivors (male 45.3%, stomach cancer survivors 53.2%, colon cancer survivors 25.1%, breast cancer survivors 21.7%) completed the prescreening. Among them, 95 cancer survivors (40.6%) have one or more needs for cancer survivorship care; 42.1% check in suffering from physical symptoms, 27.0% check in suffering from psychological symptoms, 40.6% want to receive counseling on life style modification after cancer treatment. Only 53 cancer survivors (55.8%) visited the cancer survivorship clinic in the same hospital. Only two cancer survivors visited the primary physician's clinics in the community. Most of the respondents cited low reliability of primary physician in the community as the main reason. The participation rate is higher in female, stomach cancer survivors, and having many problems. Most of participants are satisfied in the shared care..

**Conclusion:** Many of cancer survivors suffer from physical and psychological symptoms and they are in need of comprehensive care. Shared care between oncologists and primary physicians in a hospital is feasible based on the preliminary experience.

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## **Surface Evaluation and Optimisation of PP Oxygenator Membranes by Introducing Zeta Potential Analysis**

Typically, there are two types of membranes used in oxygenators to treat acute respiratory distress syndrome (ARDS). Polymethylpentene (PMP) membranes are completely impermeable for plasma, which is why they can be applied for long-term treatment. However, because of their dense character they suffer from low oxygen flux. High membrane areas and therefore high costs as well as large blood volumes are required. In contrast, Polypropylene (PP) membranes combine a high flux, a small surface area, low costs and small blood volumes. However, depending on operation conditions, the maximum treatment time of the patient is limited to a couple of hours caused by plasma leakage.

The surface properties of the PP membrane change over time resulting in a state, where the liquid is no longer repelled by surface tension from entering the pores. This effect is known as membrane wetting. In this case, the efficiency of the whole module is significantly reduced by blocked hollow fibers until it shows no function at all.

This study investigates the surface properties of existing PP membranes used for oxygenators to identify optimization possibilities in terms of surface modifications. The zeta potential analysis allows a systematical investigation of the limiting parameters aiming the development of membrane surface improvements. Based on the results surface treatment techniques are tested to increase the contact angle that characterizes hydrophobicity and therefore the tendency to plasma leakage. The aim of this work is to enhance the performance of PP membranes to ensure a reliable long-term treatment with oxygenators.

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### **Increased risk of Alzheimer's disease in Type 2 Diabetes: Neuroimmune Effects of Dysregulated Peripheral Factors as a Possible Link**

Alzheimer's disease (AD) is the most prevalent form of dementia worldwide. The hallmark features of AD include abnormal deposition of aggregated proteins, excessive neuronal death in specific brain regions and chronic neuroinflammation. Non-neuronal brain cells, such as microglia and astrocytes, support neuronal health under physiological conditions but become adversely activated in AD brains. Persistent dysregulation and harmful activation of microglia and astrocytes can result in chronic neuroinflammation, which can be damaging to surrounding cells including neurons responsible for cognitive functions and can give rise to the clinical signs of AD. Currently, there are no effective treatment options for AD; therefore, elucidating AD risk factors to delay or prevent this debilitating disease is an emerging area of research. Recent epidemiological evidence points to type 2 diabetes mellitus (T2DM) as a significant and increasingly widespread AD risk factor. Lifestyle changes may prevent T2DM and, by extension, lead to a reduction in the prevalence of AD. A number of studies have already elucidated the effects of T2DM on the health of neurons. Since T2DM is characterized by a peripheral pro-inflammatory state, we hypothesized that neuroinflammatory mechanisms could be at least partially responsible for the observed link between T2DM and AD. More specifically, we studied the effects of high glucose levels and of metabolic hormones that have reduced functionality in T2DM on the neuroinflammatory response of microglia and astrocytes. We focused on insulin as well as the incretin hormones glucagon like peptide (GLP)-1 and glucose dependent insulintropic polypeptide (GIP) as candidate signaling molecules that may regulate neuroinflammatory processes. We confirm that high glucose levels increase susceptibility of neuronal cells to injury caused by AD-related agents, such as hydrogen peroxide and fibrillar amyloid beta-42 protein (A $\beta$ 42). In addition, we demonstrate that high glucose levels upregulate secretion of the pro-inflammatory interleukin (IL)-6 and IL-8 by human U-118 MG astrocytoma cells and primary human astrocytes. Furthermore, we demonstrate that both microglia and astrocytes express insulin and incretin receptors. Finally, we demonstrate that the three metabolic hormones studied selectively regulate specific non-neuronal cell

functions. We propose that insulin could have anti-inflammatory properties in the brain and may protect against microglia-mediated neurotoxicity, while GLP-1 and GIP exhibit anti-apoptotic, antioxidant and trophic effects on microglia. Thus, we have discovered that insulin, GLP-1, GIP and high glucose regulate specific aspects of neuroinflammation, which can be the mechanistic link between T2DM and the increased risk of AD. Neuroimmune mechanisms can therefore be targeted for development of future AD treatment options.

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**Improving Orthopedic Patient Outcomes through  
Implementation of a Multimodal Pain Protocol**

Undermanaged post-operative pain is challenging for orthopedic patients, families and health care staff. Currently, there is no consensus on ideal pain management strategy following total hip arthroplasty (THA). A multi-disciplinary group was formed and discussed the need to:

- Improve patient care and pain management
- Provide highest quality cost-effective patient care
- Enable patients to move earlier with less pain

The goal of this collaborative project was implementation of a multi-disciplinary pain management protocol for primary total hip arthroplasty patients to decrease length of stay, decrease opioid use and improve patient satisfaction.

An evidence-based multi-modal pain protocol was designed to provide pain medications for total joint patients in three phases:

1. Pre-operative – aggressive pre-emptive medications
2. Operative – medications given throughout surgery
3. Post-operative – from unit admission to discharge

This retrospective cohort study reviewed records of 81 consecutive patients undergoing primary THA utilizing traditional anesthesia and opioid-dependent pain management compared to 78 primary THA patients receiving the new protocol. Length of stay (LOS), pain scores, opioid use and other clinical data were analyzed for each group. Results showed a shorter length of stay, less opioids used, improved reported pain scores and a significant decrease in patients admitted to extended care facilities at discharge.

This protocol was well received by patients, families, providers and nurses. Patients' comments were overwhelmingly positive: "I can't believe how little pain I had." "I'm going home sooner than I thought."

Teamwork and communication were essential to this projects' success.

Timely problem solving and follow-up were vital to developing a safe and successful protocol. This multi-modal pain practice has demonstrated multiple positive outcomes in patients undergoing total hip arthroplasty and has now expanded to patients following total knee arthroplasty. The positive outcomes are significant and this protocol should be considered for wider implementation in these patient populations.

**Martin Kreiswirth**  
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## **Narrative Medicine? Viewing the Patient-Physician Dialogue as Narrative**

The narrativist turn<sup>1</sup> in medicine has taken various forms<sup>2</sup> and shapes since the early 1970's, when a number of medical schools introduced instruction in the humanities. Certain authors have argued that the analysis and appreciation of fictional representations of illness can enhance a medical practitioner's treatment of patients by improving the trainee's capacity for empathy and this has been incorporated into physician's training: often called "narrative medicine." In the 1980s and 90s there was, however, a shift from the analysis of medical fiction to that of stories of actual illnesses. In any case, the common feature of these studies is their narrative form.

However, much of the work done has ignored exactly that core element; it has not examined narrative's particular formal, structural, or even generic features and has focused instead on its effects – either for the training of physicians or for the curing of patients. What needs to be undertaken now is a truly narrativist examination of the basis of doctor-patient interaction, the clinical interview, and how this can be made part of physician training. While significant attention has been directed to the interaction between patient and doctor generally, scant notice has been paid to the narrative form of their dialogue, its components, its cognitive and rhetorical claims, and, perhaps most significantly, the uniquely dual-mode of its construction. I want to examine the specifically narrative elements of the clinical interchange; my presentation will provide an example of the patient-physician interchange and interact with the audience in examining the specifically narrative elements of the dialogue.



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## **Smart Mobile Organ Perfusion Transportation System**

During the last decades the demand on donated organs increased continually while the availability of high quality organs does not satisfy this demand. To fill this gap we are developing a new advanced transport system that realizes the transportation and therefore the transplantation of not top-rated organs.

Our research at the TH Köln investigates the mobile organ perfusion for transportation of human organs for transplantation. The aim of this research is the development of a compact light weight transport device which is capable to measure and control all important transportation conditions to which the organ is exposed as well as its vital parameters (e.g. temperature, oxygen consumption, partial pressure of oxygen, pH value, flow rate). This allows specifying for example temperature gradients that include the warm up phase after transportation without moving the organ several times to different containers and ensures a precise control of the heating rates to prevent damage to the organ.

With the availability of these sensors the oxygenation can be controlled adaptively to the current requirements. The collected vital data during the transport can be a substantial help to evaluate the organ quality at the time of arrival. This high level of automation reduces the demand for special trained human resources significant.

The described functionality of the portable transportation device must be supplied independent from external energy sources to maintain a high mobility. To achieve this requirement is one of the major challenges in this work.

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**Debriefing Scale Development for Nursing Simulation  
Education**

**Background:** Simulation education provides a safe and meaningful learning environment for students, which gives them opportunities to direct hand-on care, enhances their clinical knowledge and skills to practice and to improve their confidence by the roleplay approach. Debriefing is very important stage for the simulation education which is a core part through this learning process, so that students not only reflect on their performance, but also expect them to build the value and positive attitude of nursing professional. However, application of simulation teaching in nursing education is inadequate in the literature.

**Aim:** The aim of this study was to develop a valid and reliable measurement instrument to evaluate the learning outcomes of debriefing process in simulation education.

**Methods:** It took a year under the cross-sectional study design. The sample of this methodological study consisted of totally 493 nursing students who were senior and participated in the simulation scenarios. The Scale was developed from debriefing literature and expert opinion. Through stratified random sampling, 247 students were examined using item analysis, exploratory factor analysis, and reliability analysis. A target sample of 246 students was then randomly divided into two groups to perform confirmatory factor analysis and cross-validation.

**Results:** According to the Confirmatory Factor Analysis, the scale had 18 items and three subdimensions, namely, attitudes/emotional, knowledge, and learning outcome of simulation. Cronbach's alpha reliability coefficient of Debriefing Scale turned out to be 0.966 and Cronbach's alpha for its subdimensions were 0.916, 0.950, and 0.950, respectively. The Cross Validation was no significant correlation ( $p > .05$ ), which shows the appropriateness of the scale.

**Conclusion:** The Debriefing Scale for Nursing Simulation Education has the potential to assist in providing further insight into the assessment of the effectiveness of this form of learning. It is hoped that this scale will serve as a useful measure of debriefing in simulation education.

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### **Peer Mentorship for the Internationally Educated Nurse: An Appreciative Inquiry**

Within nursing, mentorship between the graduate and student nurse relationship has been a longstanding strategy to support students' clinical placement knowledge and praxis. More recently, peer mentorship between the student-to-student relationship has gained interest within academic settings. However, this area has little research focusing on mentorship processes and outcomes particularly those related to Internationally Educated Nurses (IENs) and their transitioning into being a learner within an academic setting while acclimatizing to Canadian life. This exploratory study, using an appreciative inquiry approach, focuses on the peer-mentorship aspect of the student nurse advocacy program (SNAP) with IENs registered as learners at Langara College in the School of Nursing. Specifically, this research project identifies the strengths and needs of IENs registered in a post-degree certificate program as well as those of their peer mentors. A convenience of sample of eight(8) participants voluntarily enrolled in the project, wherein each IEN was paired with a peer mentor from SNAP. A thematic analysis of data obtained from focus group discussions and a survey questionnaire suggest all participants bring a number of strengths to the mentorship process. Findings suggest key attributes simultaneously support the transition of IENs and build upon the capacities of the peer mentors. In addition, participants identified strategies to enhance the resources and services provided by SNAP, which inform future IEN education.

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## **Assessment of Women Postpartum Quality of Life after Different Modes of Delivery in Pakistan**

**Introduction:** Postpartum problems like poor physical and mental health leads to poor postpartum quality of life and depression in women, which has a devastating effect on the health related quality of life of mother, newborn and her family. **Aim:** The aim of the present study is to evaluate women postpartum quality of life after different modes of delivery in twin cities of Pakistan. **Method:** A descriptive cross-sectional study has been designed to evaluate women postpartum quality of life and depression after different modes of delivery in Pakistan. Pre-validated tool, Short Form Health Survey (SF-36) was used for data collection from a sample of 382 women in the postpartum period (6-8 weeks, 10-12 weeks, 14-16 weeks, 9 months, 15 months) conveniently selected from Immunization centers in healthcare facilities in twin cities of Pakistan. After data collection, data was coded and analyzed statistically. **Results:** The results highlighted that most of the respondents 195 (51%) were of the view that their health was fair. Nearly 186 (48.7%) respondents feel full of life and 126 (33%) had a lot of energy most of the time. Most of the respondents 173 (45.3%) feel worn out a little of time while 162 (42.4%) respondents feel tired all of the time. **Conclusion:** The results highlighted that women undergoing normal vaginal delivery (NVD) had overall better postpartum quality of life as compared to women having cesarean sections (CS) in all domains of health related quality of life.

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## **Functional Health Literacy of Asylum Seekers and Refugees: A Pilot Study in Italy**

Context: literature shows how some groups of population, among which are the people seeking International Protection and the Refugees, find difficult to access services in National Health Systems. Usually, Asylum Seekers have limited Health Literacy (HL) that makes understanding the appropriate health information difficult.

The objective is to consider the relationship between how people requesting International Protection and Refugees approach the Italian Health System to request health services and their level of Functional Health Literacy (FHL).

The Method used is a mixed approach. Data were obtained using several tools: a self-administered questionnaire in which the subjects revealed social and demographic data and a face to face interview together with the S-FHL Scale fulfilment in order to identify the functional level of HL. 21 subjects were interviewed in two centers of Protection System for Asylum Seekers and Refugees (SPRAR).

Results show a picture of the actual situation. Data report a problematic or insufficient FHL level. Some factors, such as gender, age and health perceptions, play a role in the FHL levels. Some racial prejudices were reported. Language barrier had the most impact on the communication gap. Nevertheless, none of the subjects were denied health services.

In conclusion, although this study is a pilot, we have experienced difficulty in obtaining Asylum Seekers trust to be open about their experience. Our results are in accordance with literature for inadequate

level of FHL and lack of knowledge of the Italian Health System.

This study highlighted several other issues to be taken into consideration for future research on the team.

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## **Determining Factors Affecting the Quality of Life in Elderly Nursing Home Residents**

**Aim:** This descriptive study aims to determine factors affecting the quality of life in elders residing in nursing homes.

**Material and Method:** This study was realized with 150 elders residing in two nursing homes between 28.05.2015 and 30.09.2015. Data were collected via a literature-based questionnaire form having 39 questions on sociodemographic and clinical features of elders and by using the Standardized Mini Mental State Test (SMMST) and the Nottingham Health Profile (NHP). SMMST consists 11 items and is assessed through total 30 points whereas the score range of 28-30 indicating "normal", 24-27 indicating "low", and 0-23 indicating "impaired" state of cognitive function. NHP consists 38 questions consisting subgroups of physical activity, pain, sleep, social isolation, emotional reaction, and the energy level and assessed based on "yes" or "no" responses. For each subgroup, "0 point" indicates the best health condition while "100 points" indicate the worst health condition. Percentage, Chi-square test, one-way ANOVA, and Student t test were used in data analysis.

**Findings:** Mean age of elders was  $73.1 \pm 8.9$ . It was detected that of elders 49.3% were female, 47.3% described their mental state as "good", 85.3% had a chronic disease, and 68.7% had limited functions relating daily life activities. Whereas 96.7% of elders received a score in the 0-23 range of SMMST, the mean score for 96.7% of elders was  $17.5 \pm 3.9$ . Total mean scores of elders detected from NHP subgroups of pain, physical activity, energy level, sleep, social isolation, and emotional reactions and total mean score of the scale was detected as  $3.1 \pm 2.5$ ,  $2.4 \pm 1.7$ ,  $0.6 \pm 0.9$ ,  $2.2 \pm 0.1$ ,  $1.7 \pm 0.1$ ,  $0.4 \pm 0.1$ , and  $10.1 \pm 5.9$ , respectively.

**Conclusion:** Although mean scores of cognitive functions were low, mean scores of the quality of life of elders were good. Activities to improve mental states of elders and increasing the participation of elders in social activities and events are suggested.

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**Risk Perception among Persons with Pre-Diabetes,  
Thailand**

**Purpose:** Currently, Thailand faces with the increasing number of pre-diabetes which will develop to be diabetes in the next few years. Risk perception is an important factor of self-protective behavior that could reduce the progression of a disease. Little is known how individuals with pre-diabetes perceived their risk of diabetes development. This study aimed to examine risk perception of developing diabetes mellitus and its associating factors among Thai people with pre-diabetes living in semi-urban district of Chonburi, Thailand.

**Methods:** Guided by the Risk Perception Attitude Framework (RPA). A cross-sectional study was conducted in 219 Thai people with pre-diabetes (FPG = 100-125 mg %). Samples were recruited by simple random sampling from five health-promoting hospitals located in semi-urban district Chonburi, Thailand. Self-report questionnaires were used to assess the associations between knowledge of diabetes mellitus, current BMI, current behavioral practices, and risk perception of diabetes. The outcome measures included the Risk Perception Survey for Developing Diabetes (RPS-DD), the Knowledge of Diabetes Mellitus, and the Health Behavioral Practice questionnaire.

**Results:** Findings revealed that more than 50% of respondents aged higher than 45 years. 50% of them were overweight (BMI > 25 kg/m<sup>2</sup>) and more than 40% of respondents had family history of diabetes and hypertension. Most of them reported high scores on optimistic bias for not developing diabetes. In addition, 48.4% of them believed that they had low chance of getting diabetes in the next few years. With bivariate analyses, only knowledge of diabetes and optimistic bias were significant negatively associated with diabetes risk perception ( $p < .01$ ). There were no significant relationship between current BMI, current health practice and diabetes risk perception among this population.

**Conclusions:** Results indicated that Thai individuals with pre-diabetes perceived themselves at low risk for getting diabetes.



Increasing their awareness of developing diabetes by improving knowledge of diabetes and diabetes prevention is recommended, thereby, it can reduce the incidence of future diabetes.

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### **Third-World Realities in a First-World Setting: A Study of the HIV/AIDS-Related Conditions and Risk Behaviors of Sex Trade Workers in Saskatoon, Saskatchewan, Canada**

The transmission and prevalence of Human Immunodeficiency Virus (HIV) among those employed as sex trade workers (STW) is a major public health concern. The present study describes the self-reported responses of 340 STW, at-risk for contracting HIV. The participants were recruited by selective targeting between 2009 and 2010 from within the Saskatoon Health Region (SHR), Saskatchewan, Canada. As of 2012, the SHR has the highest incidence rate of positive test reports for HIV in Canada, at more than three times the national average (17.0 vs. 5.9 per 100,000 people). Additionally, the epidemiology of HIV/AIDS in the SHR is different from that seen elsewhere in Canada (still mostly men having sex with men and Caucasians), with its new HIV cases predominantly associated with injection drug use and Aboriginal cultural status. The purpose of this study was to (a) describe the demographic and socio-economic characteristics of the STW in the SHR, (b) identify their significant life events, self-reported problems, knowledge, attitudes, behaviors, self-efficacy, and barriers regarding HIV, and (c) determine the significant independent risk indicators for STW self-reporting a chance of greater than 50% of becoming infected with HIV/AIDS. The majority of the study participants were females, who were never married, of Aboriginal descent, without a high school diploma, and had an annual income of less than \$10,000. Using multivariate regression analysis, four significant independent risk indicators were associated with STW reporting a greater than 50% chance of acquiring HIV/AIDS, including experiencing sexual assault as a child, injecting drugs in the past four weeks, being homeless, and a previous Chlamydia diagnosis. These findings provide important evidence of the essential sexual and drug-related vulnerabilities associated with the risk of HIV infection among STW and offer insight into the design and implementation of effective and culturally sensitive public health intervention and prevention efforts. To be most effective, it is recommended that such intervention and prevention initiatives: (1) use specifically tailored community-based outreach to high risk STW who are drug users and link them with appropriate drug treatment and HIV/AIDS prevention and treatment services, (2) provide free and confidential, routine HIV

counseling and testing in substance abuse programs, and (3) build capacity among the local, Aboriginal NGOs so as to address with cultural sensitivity both the drug and HIV-related risk factors prevalent among this vulnerable population.

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### **Becoming a Pediatric Nurse: A View from Parse's Theory**

Caring for hospitalized children and their families can be a challenge for nurses. In the routine of the pediatric service, children of any age should face a situation which includes changes in routines, a different environment, procedures, pain, and strangers, which generates anxiety, fear and uncertainty which he will address with acquired skills in his development and with the support provided by parents and family, who will give him security in this life experience. Nurses must contribute to this experience being kind, comprehensive and avoiding suffering and pain to child and parents, understanding caring as a part of lived experience of this families.

The aim of the study is comprehending the experience of becoming a pediatric nurse, using the Theory of Human becoming for its analysis. This approach is based in nursing as a human science, and guides nurses in their practice to focus on quality of life as it is described and lived.

Using a qualitative descriptive method, nurses from a pediatric hospital were interviewed, emerging four themes that describes the experience of being a pediatric nurse: Becoming a Pediatric Nurse, beyond the hospital; Discovering feelings of guilt and frustration when communication / relationship with parents is difficult; Discovering the feelings of rage with a job that demands an effort sometimes not recognized; Being a pediatric nurse requires skills.

Results shows nurse's caring children focalized in skills and administration tasks, avoiding communication with parents. It's imperative to change this, strengthening communication skills and knowledge about child development. It is proposed to change the care management model from a biomedical perspective to one based on a family-centered model, with a disciplinary vision based in nursing as a human science.

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&

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## **Sensitivity and Attachment Interventions in Early Childhood: A Systematic Review and Meta-Analysis**

A systematic review and meta-analysis of randomized controlled trials (RCT) was conducted to determine whether early interventions are effective in improving attachment security and parental sensitivity. Electronic databases were searched 2002-2015 onwards, All RCTs delivered to mothers, fathers or careers, before their child's mean age was 36 months, via 1:1 support, group work or guided self-help were included. The search was restricted to English Language publications. Study Selection, data extraction and quality appraisal were independently undertaken by two authors. With regard to analysis, where appropriate, dichotomous data were pooled using the Mantel-Haenszel odds ratio method and for continuous data descriptive statistics were collected in order to calculate standardized mean differences and effect sizes.

Four studies met inclusion criteria and were divided into two groups: North American & Canadian and South African based studies. Combining data from both groups indicates that early interventions improve attachment security and improves rates of disorganized attachment. One study provided extractable data on the outcome of parental sensitivity, which shows that early interventions were effective in improving maternal sensitivity at 6 and 12 months. Study results generally support the findings of a previous review (Bakermans-Kranenburg, Ijzendoorn & Juffer, 2003) that found that early interventions improved attachment security and maternal sensitivity (In Press).

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## **Satisfaction of Family Health Strategy Users in a Capital of the Brazilian Northeast**

**INTRODUCTION:** Health services gained space in constant quality assessments due to improvements in health care. Internationally, the service quality ratings are given primarily through analysis of the satisfaction of users of health services. In Brazil this discussion gains emphasis on primary care services because they constitute the main gateway to the National Health System through the Family Health Strategy. From the user satisfaction analysis can identify any gaps in assistance and indicate strategies to improve health care. **OBJECTIVES:** To analyze the satisfaction of users of the Family Health Strategy in relation to the aspects of reliability and security. **METHODS:** Quantitative research, with 353 registered participants in an Integrated Health Center of the East Regional of a Brazilian Northeastern capital through the SERVQUAL instrument; data collection took place from January to May 2015 and the research was approved by the Research Ethics Committee. **RESULTS:** Regarding the Reliability dimension, the participants agreed that the professional register the service, perform the treatment in the promised date and s/he is interested in solving the problems. Regarding the Security dimension, most of the participants was indifferent to the behavior of professionals in relation to confidence generated by them. The participants demonstrated safety to request the services when met with politeness by professionals. Moreover, in the two analyzed dimensions it was realized that there is a tendency of increase in satisfaction as the income of participants decreases with significant statistical relationships, and satisfaction regarding Reliability and Safety are inversely proportional to income. **CONCLUSION:** The users of the Family Health Strategy expressed satisfaction with the services received. However, more studies with different methodological approaches are needed in order to better elucidate the inter-subjective issues that shape the process of interaction between users, health professionals and services.

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**Developing Virtual Learning Environments at DP in  
Nursing, NOVIA UAS**

The purpose of the project is to develop virtual learning environments that will stimulate students to reflect and to use self-directed learning methods in evidence based nursing care. However, communication and cooperation are emphasized in the learning process. The project has an academic agenda aiming at publishing articles built on the different phases of the project.

Phase one was a pilot study aiming at exploring the possibilities social media open for home- internationalization (Chan, Nyback 2015). The results showed that students, by using social media, learn from each other and develop an understanding for different cultural traditions, meanings and values.

Phase two is ongoing and focus on how blended learning methods can be used when teaching clinical nursing skills. Contact teaching consists mainly of introduction, supervision and evaluation. The students have access to instruction films and laboratory environment for practice. The students decide when they are ready for evaluation of the given practical procedure and, with their own devices, film the procedure. The student's films are uploaded on YouTube and sent to the teacher who evaluates the student's performance of the given procedure. The main result of this phase is that the students have a better ability in practical procedures and the evaluation of a procedure on film has a higher level of credibility due to possibilities to look at a film several times compared to a class-situation, which is in real time and cannot be repeated.

Phase three is ongoing and focus on evaluation methods. Objective Structured Clinical Examination (OSCE) is developed for three different levels in nursing education, beginner, experienced and advanced. These levels correspond to year 1, 2 and 3 in nursing education. The different criteria used focuses on the competences the nursing student need to achieve for practical training periods at different levels of education.

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### **Sir Thomas Browne and Edward Browne: Two Physicians of Seventeenth-Century Norwich, England**

On July 7, 1663, a young Edward Browne, who later will become a famous ethnographer and court physician, presented his two theses for a baccalaureate degree at Cambridge University. The title of the first thesis was entitled *Judicium de somniis est medico utile (The Determination [of Illness] Based on Dreams Is Useful for a Physician)*. In a long series of Latin elegiac couplets infused with language and imagery drawn from classical Roman poets like Vergil, Ovid, and Persius, Browne argues that the contents of a dream directly relate to the conditions of a patient's humors and that a wise physician can diagnose the current state of an ailment on the basis of the dream's imagery. Browne relies on three main classical sources: Aristotle's *Parva Naturalia*, Hippocrates' *Regimen 4 (On Dreams)*, and Galen's *On Diagnosis from Dreams*. In my paper I will discuss Browne's theories and how they depend on these ancient sources, especially Galen's text, which had appeared only two centuries earlier in the West in Latin translation. I will also demonstrate how Browne's views were consistent with the works of contemporary English physicians and laypeople, in particular experts on popular dream interpretation, and, furthermore, reflected the medical views held across Europe. Because of the burdensome requirements for a doctorate at English institutions, many English physicians earned their advanced degrees in medicine by attending the famous medical schools on the continent. The theory that dreams are connected to the body's humors and temperaments and can portray changes in health by images perceived the mind during sleep was taught at the great medical schools in Basel, Heidelberg, Leyden, Montpellier, Padua, and Paris, and reinforced what young students like Browne learned as undergraduates in the British university system.



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&

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## **United Kingdom and Republic of Ireland Renal Physicians' Experiences of Patients Undergoing Renal Transplants Abroad: A Questionnaire-Based Cross-Sectional Survey**

**Background:** Due to ongoing poor availability of organs, increasingly patients from developed countries are reported to be travelling abroad for renal transplants. We aimed to assess the extent and characteristics of this trend across the UK and Republic of Ireland.

**Methods:** A questionnaire-based cross-sectional survey; 397 renal consultants from 33 hospitals with renal units across the UK and the Republic of Ireland were contacted through email and 62 replied (16%).

**Results:** Fifty-seven out of 62 (93%) renal consultants managed transplant patients, and of these 36 out of 57 (63%) had managed at least one patient who had undergone a transplant abroad. The most popular reason reported for doing this was being on the UK or Republic of Ireland transplant list but seeking a shorter wait. Respondents reported commencement by overseas doctors of appropriate routine post-transplant prophylaxis with the following medications in all cases they had encountered as follows: co-trimoxazole 12%, isoniazid 3%, anti-fungals 0%, and Cytomegalovirus prophylaxis or treatment 0%. Forty-four percent of renal consultants reported having some prior warning of a patient undergoing a renal transplant abroad.

**Conclusions:** Renal transplant tourism has become widely established in the UK and the Republic of Ireland, and care for these patients is often suboptimal. Furthermore, the opportunity exists for pre-transplant counseling.

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### **Women who have Sex with Women: Attitudes and Practices on Prevention of HIV/AIDS**

Objective: To identify the association between attitudes and practices on prevention of HIV / AIDS for women who have sex with women with age, education level, monthly income and religion. Methodology: epidemiological, cross-sectional study, developed through a KAP survey (Knowledge, Attitudes and Practices). Data were collected through a questionnaire available in both physical and electronic format. The sample included 91 women aged over 18 years living in Teresina. The SPSS for Windows (Statistical Package for Social Sciences) version 20.0 was used for data processing and identification of associations with statistical significance at  $p < 0.05$ . Results: The associations were evaluated using the chi-square test with significance level of 5%. There was a statistically significant association between attitudes and practices with the level of education and religion ( $p < 0.05$ ). Conclusion: Women who have sex with women surveyed have practices and attitudes that vulnerabilize HIV / AIDS. It is vital to the diagnosis of these aspects for the planning of public policies in order to contribute to the formulation of effective and efficient actions involving forms of prevention and transmission of HIV / AIDS focused on this population.

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### **Assessing Knowledge Regarding Vulvovaginal Candidiasis among Female University Students**

**Background:** Vulvo vaginal candidiasis (VVC) is common clinical problem facing adolescent females throughout the world particularly in hot, subtropical climates. Annually in the United States there are approximately 13 million cases of, resulting in 10 million gynecologic office visits per year. It is estimated that 75% of women will experience at least one episode in their lifetime, and 50% will experience multiple episodes.

**Aim of the study:** To assess the knowledge of female university students about VVC.

**Research Design:** A descriptive design was utilized to achieve the aim of current study.

**Setting:** The proposed study was conducted at Cairo University hostel where female students were residing and selected from non-medical Faculties.

**Sample:** A simple random sample of 100 female university students was recruited for this study.

**Tools of data collection:** Two tools were used to collect the study data; structured interview tool, and VVC structured knowledge assessment interviewing tool.

**Results:** Findings of the current study revealed that, mean age of the studied sample was  $20.18 \pm 1.19$  years and more than two thirds of them fell in the age class 20-24 years. Regarding the menstruation characteristics among the studied sample, age range at menarche was 11-14 years with a mean  $\pm$  SD of  $12.30 \pm 1.88$  years. Concerning the duration of menstruation, it ranged between 2-6 days with a mean of  $4.23 \pm 1.25$ . Mean total score of VVC knowledge of female university student was found to be  $18.87 \pm 7.83$  out of 85, which indicated poor knowledge level.

**Conclusion:** Female university students had poor knowledge regarding Vulvovaginal Candidiasis and awareness classes or programs may be needed.

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## **Sleep Quality in Breast Cancer Receiving Radiotherapy**

**Objective:** The aim of this study was to evaluate the sleep quality of patients with breast cancer and relationship with pain, depression and anxiety.

**Methods:** It was a descriptive study. The participants were 48 breast cancer patients who receiving radiotherapy. The research instruments used included Pittsburgh Sleep Quality Index (PSQI), EORTC Quality of Life Questionnaire-Core 30, Beck Depression Inventory, Beck Anxiety Inventory, Numerical Pain Rating Scale. Data were evaluated by using licensed IBM SPSS 21.0.

**Results:** For the patients participating in the study, the mean age was  $50.41 \pm 11.14$  year, the mean PUKI score was  $4.52 \pm 3.97$ . Results indicated that no statically significant relation exists between sociodemographic characteristics (educational status, marital status, occupation, caregiver, chronic disease, symptom) and sleep quality ( $p > 0.05$ ). There was a positive correlation between sleep quality and symptom score, anxiety, and depression ( $r = 0.448, p = 0.001$ ;  $r = 0.409, p = 0.004$ ;  $r = 0.325, p = 0.024$ , respectively), while there was a negative correlation between sleep quality and functional score, global quality of life ( $r = -0.483, p = 0.001$ ;  $r = -0.452, p < 0.001$ , respectively).

**Conclusion:** Results indicated that patients with breast cancer receiving radiotherapy was good, considering that sleep quality can be predictor of quality of life.

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## **Biopolimers in Overcoming Carbapenem Analogs Limitations in the Treatment**

The unsatisfactory effectiveness of chemotherapy in the treatment of severe bacterial infections is one of the greatest challenges facing clinicians of various specialties today. An assessment of the effectiveness of antibiotic therapies against bacterial infections defines as the post-antibiotic era. That dramatic state of affairs results from increasing microbial resistance, slow progress in the introduction of new and more effective chemotherapeutics for clinical use and decreased human immunity.

The aim of the work is to study systems consist of polymers (derivatives of poloxamer, hydroxypropylmethylcellulose, cyclodextrins) and selected carbapenem analogs (imipenem, doripenem, tebipenem pivoxil) in order to determine the possibility of modifying the solubility and antimicrobial activity against certain bacterial species demonstrated by those chemotherapeutics as well as increasing their permeability through biological membranes simulating gastrointestinal permeation.

The first part of this work focus on the identification of the chemotherapeutic-biopolymer systems by using spectroscopic (FT-IR, Raman) and thermal (DSC) analysis. Changes in concentration of selected carbapenem analogs during the evaluation of their dissolution and permeability studies were determined with UHPLC-DAD methods.

In vitro dissolution studies of carbapenem analogs were performed according to European Pharmacopoeia [1]. As the acceptor solution, artificial gastric juice (pH 1.2) and phosphate buffer (pH 6.8) stimulating gastrointestinal environmental was used. The sharps of dissolution curves were compared.

Permeability of studied systems through artificial membrane were studied by using parallel artificial membranes permeability assay system (PAMPA). Apparent permeability coefficients ( $P_{app}$ ) were calculated.

Modification of the antibacterial activity of the carbapenem analogs

after their introduced into systems of biopolymers was established by measurement of MIC values (minimal concentration of drugs that inhibited strain growth) during microbiological testing based on a well-diffusion method. The bacterial strains analyzed with MIC analysis assay included ATCC reference strains and clinical ones isolated by the Institute of Laboratory Medicine at Poznan, Poland.

Based on the results obtained in the present study, it was found that the presence of poloxamer, hydroxypropylmethylcellulose, cyclodextrins significantly influence on carbapenem analogs solubility. As it was expected the passive diffusion of drugs, with/without the presence of excipients during permeability studies, was different but it was also connected with pH acceptor solution. Moreover, it was found that the formation of a carbapenem analogs systems with excipients has a profoundly positive effect on theirs bactericidal activity.

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## **Introducing e-Portfolios to Post-Registration Nursing and Allied Health Professionals**

In the current technological age, the image of students hauling around unwieldy portfolio documents between University and placements, poses an outdated picture in the world of higher education. The authors aimed to transport their department into the 21<sup>st</sup> Century, providing their post-registration courses with the kudos they deserve.

A solution was to introduce a robust, user-friendly, electronic portfolio system, which is accessible by both students and lecturers, and editable by their supervisors in practice. E-portfolios have been shown to be a suitable method of assessment (Green *et al*, 2014) and offer other major advantages in mobile access and data back-up and retrieval (Garrett *et al*, 2013).

A range of platforms for the e-portfolio were considered by the authors: free e-portfolio systems e.g. Google Sites; a bespoke system to be developed specifically for the University; and existing systems as used by other higher education institutions. A pilot of the system was organized to test the ease of use of the e-portfolio for both students and academic staff.

This presentation will consider the journey so far, illustrating the insight gained and difficulties encountered. It will further assess the potential for pre-registration and post-graduate use of a continuous e-portfolio, to enable career-long assessment and revalidation.

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**A Structural Analogue of Peptide Apelin-12 in  
Cardioprotection against Ischemia/Reperfusion Injury**

**Background.** Chemically modified peptide apelin-12 [MeArg<sup>1</sup>,NLe<sup>10</sup>]-A12 (AI) with enhanced resistance to degradation by proteolytic enzymes is able to protect the heart against myocardial ischemia and reperfusion. This study was designed to explore effects of AI on myocardial energy state, antioxidant enzyme activities and reactive oxygen species (ROS) formation in ex vivo and in vivo models of myocardial ischemia/reperfusion (I/R) injury.

**Methods.** Peptide AI was synthesized by the automatic solid phase method using Fmoc technology, purified by preparative HPLC and identified by <sup>1</sup>H-NMR spectroscopy and mass spectrometry. Isolated perfused working rat hearts subjected to global ischemia and anaesthetized rats exposed to LAD coronary artery occlusion were used. Myocardial infarct size, the contractile function intensity and cardiac output were used as indices of I/R injury.

**Results.** Preischemic infusion of AI improved recovery of cardiac function and myocardial energy state, and enhanced the activity of Cu,Zn superoxide dismutase (Cu,Zn SOD), catalase (CAT), and glutathione peroxidase (GSH-Px) in reperfused hearts. These effects were combined with reduction in ROS and malondialdehyde (MDA) formation during reperfusion. Intravenous injection of peptide AI at the onset of reperfusion significantly limited infarct size and decreased the plasma activity of CK-MB and LDH at the end of reperfusion compared with control. Additionally, complete recovery of Cu,Zn SOD, CAT, and GSH-Px activities, a decrease in MDA and ROS formation, and a better restoration of energy metabolism were observed in the area at risk (AAR) during reperfusion. Administration of specific inhibitors of MEK1/2, PI3K, PKC, NO synthase (NOS) or the mitochondrial ATP-sensitive K<sup>+</sup>channels (mitoK<sub>ATP</sub>) (UO126, LY294002, chelerythrine, L-NAME or 5-hydroxydecanoate, respectively) reduced protective efficacy of AI in both models of I/R injury. This was evidenced by abrogation of infarct size limitation, deterioration of cardiac function recovery, and attenuation of metabolic restoration and sarcolemmal integrity.

**Conclusions.** Cardioprotection with peptide AI is mediated by signaling via PI3K and MEK1/2, the upstream kinases of the RISK



pathway, and prosurvival kinase PKC with activation of downstream targets, NOS and mitoK<sub>ATP</sub>. Mechanisms of AI action include the upregulation of cardiac antioxidant defense systems and attenuation of lipid peroxidation.

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## **Oocyte Cryopreservation for Fertility Preservation - The Legal Approach**

In most western societies men and women are currently choosing to have children later in life, but at risk of facing age-related infertility problems, namely in what regards females, whose fertile period is quite limited in time.

This scenario gave rise to an increasing interest by reproductive techniques and connected procedures, such as oocyte cryopreservation for fertility preservation. This technique is based in the biological process of female ovulation, but promotes it artificially and afterwards preserves the oocytes for future reproductive use.

This scientific achievement is far from consensual and many underline the risks that it may involve for the health of both the mother and the future child, and even argue with more ethical concerns, such as the subversion of reproductive human timings. The recent news that some companies are offering paid oocyte cryopreservation treatments to their female employees increased the discussion regarding this issue.

However, in nowadays society oocyte cryopreservation is a useful mechanism to allow women to cope with the potential conflict between professional and family demands and thus it is a way to fulfil their reproductive rights.

Our paper will clarify the juridical framework of oocyte cryopreservation, analyze its risks and benefits and provide a final legal assessment of this practice.

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## **Generating Social Responsibility in Nursing through a Service-Learning Experience in Chile**

**Introduction:** Service learning has been used as an important strategy, which has been demonstrated as a helpful methodology in education. The nursing training should support the teaching of ethics, the stimulus for social responsibility and values within the curricular activities. This abstract describes a learning service experience in clinical practice developed in a third year nursing course.

**Aim:** To strengthen social responsibility in nursing undergraduate education.

**Method:** Qualitative, study case. The methodology of learning service was incorporated within one of the professional courses in the third year, called "Nursing Care in Women and Children II" in clinical practice in pediatric centers for a period of five weeks. All the pediatric centers have ill children with multiple diseases such as surgery problems, cognitive deficiency and physical disabilities. Students worked in groups within pediatric units, and under the supervision of nursing instructors with the goal to develop a project that responds to the needs of particular problems in patients, relatives and communities inside of pediatric centers. After finishing the five weeks some students and nursing supervisors were interviewed on their experiences and learning with writing reports. Then, these reports were analysed using content analysis.

**Results:** The outcomes were service learning project itself, strengthened both problem solving and reflexive thinking. Students learned to solve problems, using tools such as, brainstorming, communication and searching skills. In addition, making decisions process was developed with reflexive thinking, leadership abilities, and the capabilities of improving management process and care delivery strategies As well as the critical role of nursing in social concerns based on ethical values, outcomes described from students and nursing supervisors.

**Conclusions:** The development of innovative strategies such as

learning service methodology was useful in order to reinforce social abilities in nursing clinical practice. Social responsibility should be an essential component of undergraduate nursing educational process.

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&

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## **Critical Thinking in Nursing: Reference Theoretical and Instruments for Your Assessment**

Introduction: critical thinking is considered a competence to be acquired or improved during the process of training of nursing students. In this context, we highlight in Brazil the National Curricular Guidelines (DCN's) (1), they determine that education should be critical, reflective and creative. Thus, the central aim is to train professional critical and reflective nurses able to intervene in the existing health realities and which will be inserted in the provision of health care. However, guidelines for achieving this purpose are limited and the lack of clarity and consensus on the development of this standard attitude to think critically and reflective are still a knowledge gap to be exploited. In the international literature, are identified numerous critical thinking settings used interchangeably, such as creative thinking, reflective, clinical reasoning and diagnostic reasoning. Some of the published scientific papers focused on presenting critical thinking as an important skill, but do not have a concrete definition and develop it. Regarding the assessment of critical thinking, some studies have tools to evaluate critical thinking of students and different health professionals, however there are instruments designed for some PC skills over others, giving greater emphasis on logical reasoning and linear thinking. In relation to nursing, studies are still very ignorant, opening spaces for carrying out further studies and testing other instruments yet explored this area of knowledge (2).

This study aimed to make an integrative literature review, looking for scientific evidence available on theoretical foundation and evaluation of critical thinking in teaching and assistance in health. To meet the objective of the research, formulated the following question: what theoretical frameworks used to support studies relating to critical thinking in teaching and assistance in health and what assessment tools used nowadays?

Objectives: To identify the theoretical frameworks and tools for assessing critical thinking (PC) that has grounded studies in health. Method: an integrative literature review, with search of scientific

articles in Portuguese, English and Spanish in the databases LILACS, SCIELO IBECS, MEDLINE / PubMed and Scopus using the descriptors thinking, thinking, teaching and nursing. Published articles were selected from the years 2010 and 2015, identifying 3147 articles and of those, 23 were selected articles.

Results: all analyzed articles described some kind of theoretical framework to sustain the research. The studies were performed following the six steps using a summary table with key information to be collected in scientific production and revealed three relevant categories: theoretical frameworks of critical thinking, application of critical thinking in health and instruments evaluation of critical thinking.

Conclusion: 60% of the studies analyzed have referred Peter Facione on the basis of their research proposals. Eight different instruments were identified for evaluation of the PC being exploited in health. Thus, it was noted the need for further research to understand this phenomenon and its effects on education and assistance in health. It was shown with this integrative review a multitude of definitions used in studies which focus on critical thinking, however, there is a predominance of references to Facione, Scheffer and Rubenfeld, Ennis and Paul, which serve as the basis for construction of research in the field the criticality of thought in various health professions and also education. It is noteworthy that there are many tools for assessing critical thinking, but also in the international literature we see the recurrence of studies using instruments developed by Facione, which may be related to its efficacy and positive results found.

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## **Qualitative and Qualitative Phytochemical Screening of Medicinal Herbal Ocimum Tulsi Leaves**

The drastic changes in human life style and food habits over the last century have led to various chronic diseases. Diabetes mellitus is one such disease, which is causing serious problems to human health in all parts of the world. Diabetes Mellitus is a metabolic disorder characterized by high blood glucose levels due to defect in insulin secretion, insulin action or both. Poor control of the condition can result in long term complication such as diabetic nephropathy, neuropathy, retinopathy, hypertension, dyslipidaemia and cardiovascular disease, which can lead to a heart attack or stroke. Scientific reports revealed that diabetes cannot be cured completely. Current therapy for diabetes is centred around controlling blood sugar levels to keep them in the normal range. However, diabetes is often associated with dyslipidaemia and oxidative stress, which contributes to the damage caused to organs. Therefore, to adequately control diabetes, blood lipid levels and oxidative stress need to be controlled alongside blood glucose. The modern systems of medicine have not shown any significant effect for the treatment of the disease. There are also concerns about the cost and safety in long-term use for some of these

drugs. Hence focus has been turned towards traditional system of medicine. Medicinal plants play an important role in management of diabetes mellitus. During the past few years many bioactive drugs have been isolated from plants. Herbal medicines have shown good clinical practice in the therapy of diabetic mellitus.

The genus *Ocimum* is of the basil family Lamiaceae, which contains approximately 150 species of aromatic plants that are found mainly in the tropical regions of the world. Many of these species have extensive medicinal applications in indigenous medicinal systems of countries in Asia, Africa and South America. Lamiaceae is one of the holiest and sacred herbs grown in India. This plant is known to possess antiseptic, analgesic, anti-inflammatory, antimicrobial, antistress, Immunomodulatory, hypoglycaemic, hypotensive and antioxidant properties. Among these species are *Ocimum sanctum* L. or *Ocimum tenuiflorum* L., also known as Tulsi or Holybasil, an aromatic plant. There are two sub- types of *Ocimum sanctum* called Krishna tulsi which is the black-purple variety, and the white Vana tulsi. It is widely used in Ayurveda and Siddha system of medicine to cure various ailments.

The dried powder of Tulsi was placed in the thimble of Soxhlet apparatus, distilled water employed as a solvent. The extract was concentrated using Rotavapor. Then the extract was dried in a digital water bath till a dark green residue was obtained. The percentage yield was 10%w/w. The test residue and powder was subjected to phytochemical analysis to find out the presence of phytochemical constituents and compared. The phytochemical tests employed for alkaloids and tannins, Cardiac glycosides, saponins, terpenoids and flavonoids. The latter are known for their strong antioxidant properties.

Here reported investigation carried out to determine the qualitative and qualitative analysis of phytochemical screening and possible chemical components including assessment of antioxidant properties. The analytical techniques employed for chemical investigation comprised Atomic Absorption Spectroscopy, Thin Layer Chromatography, Mass Spectroscopy, Infrared spectrophotometry, UV and Visible spectroscopy, High Pressure Liquid Chromatography, Nuclear Magnetic Resonance and scanning electron microscope. *Ocimum sanctum* L. leaves analysis of hydro alcoholic extract revealed mainly Eugenol, an important phytochemical bioactive compound of Ayurvedic and other marketed herbal formulations. This study is currently in progress.



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## **Development of a New High Performance Hollow Fiber for Oxygenators**

**Background:** ECMO systems are mainly used in hospitals to treat patients with acute respiratory distress syndrome (ARDS). Even more challenging is the treatment of infants with ECMO therapy. One of the major problems is the priming volume of the oxygenator. The research group of the TH Köln runs a research project named MemO2 to develop a new hollow fiber. This new hollow fiber has a much thinner outer diameter, which allows reducing the priming volume. Due to the lower priming volumes a better tolerance of the treatment is expected.

**Method:** Development of a new hollow fiber with the melt spinning and cold stretching method, which is tested in a new constructed oxygenator test housing. Comparison of the different oxygen saturation and carbon dioxide elimination rates through different gas-blood flows. Identifying problems causing abnormal pressure gradient and plasma leakage by using different membrane materials during blood testing.

Based on defined limits for the gas-side pressure drop and the shearing rate which take effect on the blood, new fiber dimensions are found.

**Results:** The calculations are showing which hollow fiber diameters are possible in theory. The TH Köln research group tested several settings within a testing bench. The tests show a tendency, the thinner the hollow fibers are, the better gas transfer can be reached.

**Conclusion:** The better gas transfer means that the Priming volume is not only reduced by the geometrical effect, but furthermore the total surface area of the membrane can be minimized. As a result, less blood comes into contact with less external surface.

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## **Factors Affecting Clinical Decision Making Skills of Nurses**

**Aim:** This descriptive study aims to determine factors affecting clinical decision-making skills of nurses.

**Material and Method:** The research was realized with 225 nurses at internal diseases and surgical units of a state hospital between 4 April and 15 May 2015. After the needed consents were taken, data were collected via a questionnaire form having 19 questions on sociodemographic and working-life features of nurses. Nurses' clinical decision making perception was assessed by Jenkins's (1983) Clinical Decision Making in Nursing Scale (CDMNS). It consists 40 items with 4 subscales: "search for alternatives or options", "canvassing of objectives and values", "evaluation and re-evaluation of consequences", and "search for information and unbiased assimilation of new information". Each subscale has 10 items whereas the score range is from 40 to 200 in the whole scale and 10 and 50 in the subscales with no cutting point. A high score taken from the scale indicates the perception in decision-making is high, vice versa. Percentage, Mann Whitney U test, and Kruskal Wallis test were used for data analysis.

**Findings:** Of nurses, 88% were female, 68% were married, 41.3% had Bachelor's degree, 94.7% worked as service nurse, 72.9% worked as a nurse for 1 to 5 years, 92% worked as a staff nurse, 48% were satisfied with their current department, 76.9% worked in shifts, and 51.1% defined work-life quality as "good" and job satisfaction as "medium". Median scores for the whole CDMNS and its aforementioned subscales were 134, 34, 34, 32, and 32 respectively.

**Conclusion:** CDMNS score differed in terms of education level, marital status, years of work at the current department, working status, state of satisfaction with the current department, and job satisfaction level of nurses. In order to promote clinical decision-making skills of nurses, reconstruction of curriculums in the nursing education is suggested.

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### **Determining the Use of Herbal Medicine among the Hospitalized Patients of the Physical Therapy and Rehabilitation Unit**

**Aim:** This descriptive study aims to determine the use of herbal medicine methods by inpatient patients of a physical therapy and rehabilitation unit.

**Material and Method:** The research was realized with the participation of 207 patients between 2 March and 1 September 2014. After needed consents were taken, data were collected via a questionnaire form having 37 questions on sociodemographic and clinical features of patients and their use of herbal medicine methods and analyzed by Percentage, Chi-square, and Fisher's exact tests.

**Findings:** Of study participant patients, 76.8% were female, 98.1% were married, 34.3% were primary school graduate, and 99% had social insurances. It was determined 96.1% of patients were satisfied with the current medical treatment; 33.3% were suggested complementary and alternative treatment methods by relatives; 28.5% thought both medical treatments and complementary and alternative treatment methods were effective; 4.3% found herbal drugs as safe; 91.3% thought there might be possible side effects of herbal drugs when interacted with other drugs; and only 1.4% believed that herbal drugs were more effective than other drugs and utilized some herbs such as linden (52.2%), lemon (48.3%), garlic (17.9%), mint (16.4%), daisy (10.1%), and ginger (9.7%). Use of herbal medicine by patients differed in terms of marital status, social insurance, family structure, satisfaction with the current medical treatment, considering herbal drugs as safe, and considering herbal drugs as safer than other drugs.

**Conclusion:** In this study, although the majority of patients did not find herbal drugs as safe and thought of probable side effects in case of interaction with other drugs, approximately half of them (48%) utilized herbal drugs during medical treatment. We therefore suggest that use of herbal medicine by patients should be determined and patients should be informed about the advantages and disadvantages of these treatments in an unprejudiced way.

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### **Inhibitory Effect of *Aristolochia Maurorum* on Antibiotic-resistant MRSA**

*Staphylococcus aureus* (*S. aureus*) is frequently part of the skin mucous membranes of humans. However, certain strains that can cause infections are becoming resistant to antibiotics. Methicillin-resistant *S. aureus* (MRSA) is one that has become resistant to most antibiotics. MRSA strains are most often found associated with institutions such as hospitals. Literature is raising the alarm that MRSA is becoming increasingly prevalent in community-acquired infections.

The susceptibility of bacterial isolates to *Aristolochia maurorum* extracts as well as isolated aristolochic acid was screened using disc diffusion method. Broth microdilution method was used to determine minimum inhibitory concentrations (MICs) of plant extracts and seven antibiotics representing different classes. Inhibitory effect of the combination of *A. maurorum* extracts and the isolated alkaloids with half MIC of the selected antibiotics was investigated.

*A. maurorum* aerial parts methanol extract was found to be the most potent against *S. aureus* and MRSA compared to the roots and leaves in *disc diffusion method*. However, all tested extracts were able to induce growth inhibitory effect when combined with half MIC concentration of antibiotics. MRSA was more susceptible to antibiotic effect when combined with plant extracts with inhibitory effect ranging from 60-90%.

Results of this study suggest potential therapeutic implications of methanol extracts of *A. maurorum* in the treatment of MRSA infections.

**Dolly Shun**

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## **Shift Huddle: Culture of Safety and Window of Opportunity**

Shift huddles are brief meetings conducted on a nursing unit. Typically, they are scheduled at least twice a day at shift change. The purpose of the huddle is to communicate potential safety problems facing patients or the staff.

We focused on two concepts- safety risk factors and after-action review (AAR), to develop the huddle. A review of literature was conducted to identify key components of the process. Additionally, the huddle was designed to focus on safety risk factors from the events that occurred on our adult medical-surgical nursing unit during the previous 6 months. The design was used to identify crucial components of a safety huddle and to create opportunities to reinforce safety initiatives.

The format of the huddle includes the following:

- A. Safety risk factors the staff needs to be aware of for hospitalized adults throughout their shift. These included patients who posed a high fall and/or high injury risk; a score of 3 or above on the Modified Early Warning Score (MEWS) or Systemic Inflammatory Sepsis Response (SIRS) score, patients at risk for skin breakdown with a BRADEN score of 18 or below; patients with a urethral catheter; and patients with central venous access devices (CVADs).
- B. Patient incident/events/near misses and safety issues that occurred on the previous shift.
- C. Good catches.
- D. Physician/staff concerns and staff recognition.
- E. Education/updates on safety initiatives.

Staff members have firmly embraced the process of having 5 to 10 minute huddles. They feel that it had positive impact on patient outcomes and staff satisfaction. Additionally, it has promoted a sense of teamwork that benefits both staff and patients.

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**A Cross-Sectional Study on user Satisfaction with Hospital  
Information Systems and Services**

**Context:** These days, almost all clinical and administrative processes in hospitals are dependent on IT-related services. However, without appropriate metrics specifically designed for healthcare contexts, it will be impossible to evaluate the benefits of these technological investments and to design them so as to optimally meet user needs. So far only few investigations have presented first insights on user perspectives in hospitals.

**Objectives:** Measure and validate user satisfaction with hospital IT services, specifically to (1) provide a descriptive picture of the present situation from the subjective perspective of health professionals; (2) calculate first reference values for hospital senior management and CIO's (as well as a basis for benchmarking); (3) statistically test specific metrics and scales designed for healthcare contexts; and (4) identify starting points to increase the quality of hospital IT systems and IT support.

**Methods:** A cross-sectional study was employed. Six instruments / scales were developed and empirically validated: (1) General User Satisfaction; (2) Appropriateness of IT equipment, (3) IT hotline, (4) IT on-site service, (5) IT on-call duty; and (6) IT training for users. The adapted three-dimensional IsoMetrics inventory was employed to evaluate user friendliness of clinical IT applications, such as hospital information system. Psychometric properties and appropriateness were analysed.

**Results:** Our investigation in 28 hospitals (n=2.318) shows that the developed instruments are suitable for assessing user satisfaction with hospital information services. The majority of users reported acceptable or good IT service quality, such as IT hotline support. 34 percent of physicians perceived a notably poor usability on clinical IT applications. Nurses tend to rate higher than physicians. Considerably differences between high and low-performing hospitals suggest starting points for further improvement.

**Conclusion:** This research project provides valid measures and first reference data on user satisfaction with hospital IT services that can be applied to national and international context.

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**Creating a Health and Wellness Paradigm in the “OMICS”  
Era**

Healthcare systems worldwide are currently in a state of creative disruption and stress. There is a revolution occurring due to extremely rapid technological advances that enable detailed molecular profiling of individuals to achieve more precise diagnoses of disease and to more accurately match therapies to the individual. This is being driven by new and rapidly developing “omic” technologies such as genomics, proteomics, metabolomics, etc. On the other hand, the healthcare system is under increasing strain as health-related spending reaches unsustainable levels due in large part to an aging population. Thus, it is imperative to move from an acute care and treatment of frail elderly paradigm to a health and wellness paradigm that fosters healthy aging. Healthy ageing is the process of optimizing opportunities for health, participation and well being in order to enhance quality of life as people age.

Today, we intervene late, when the patient exhibits symptoms of disease. Under the new paradigm, we may intervene much earlier in the natural cycle of diseases, years before they strike their victims. We must now develop a much more preemptive approach that manages disease over its entire life cycle, from identifying an individual's susceptibility to a disease, to prevention, early diagnosis, reduction of complications, and smarter therapies. “Omic” technologies are paving the way to make this future a reality and are capable of providing definitive molecular-level, person-specific data while increasingly becoming more accurate, comprehensive, and inexpensive. Examples are genomic analyses to characterize the DNA in our cells, proteomic and metabolomic analyses of molecules in our blood and other biosamples, and microbiomic analyses of the microbes coexisting with our bodies.

This presentation will introduce a discussion of today's concepts of healthy aging and the impact “omic” sciences will play in making this future a reality.

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## **Violence and Abuse against the Elderly**

Introduction: Violence against the elderly is any act or omission, committed in public or private location that causes death, damage or physical or psychological suffering. Mistreatments are single or repeated acts, or even lack of action that causes suffering or distress and which occur within a relationship of trust. Objectives: to analyze the violence and abuse against the elderly; identify the types of violence suffered by the elderly and investigate the old front of conduct to situations of abuse. Methodology: Qualitative study conducted with 100 elderly enrolled in Basic Units of the municipality of Picos Health, Piaui, through a semi-structured interview guide. Data were processed in IRAMUTEC software and analyzed by Hierarchical Classification Descending. The study was approved by the Research Ethics Committee of the University Center Uninovafapi - CAAE: 49541115.1.0000.5210. Results: were presented in 5 semantic classes: Class 1 - elderly Rights related to violence and abuse; Class 2 - Elderly Care in the family and society; Class 5 - Knowledge of the elderly on violence and ill-treatment; Class 4 - Types of violence suffered by the elderly. Class 3 - Assistance to the elderly in cases of violence and abuse. Conclusion: Violence and abuse are related to the acquired rights through legislation / the Elderly that determines their rights and contribute to their protection. The elderly have knowledge about the types of violence highlighting the financial violence. The assistance provided to the elderly in cases of violence and abuse is limited to police reports records in police stations, the request for aid to tutelary and prosecutorial advice to seek justice and protection. The care of the elderly in cases of violence is neglected by health services, except when there is physical abuse with injuries and wounds.



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### **Osteosarcoma during Pregnancy - Case Report**

In Poland, sarcomas represent about 1% of all cancer diseases. Every year about 800 new cases are diagnosed. Osteosarcoma is the most frequently recognized primary malignant bone tumor.

Osteosarcomas are diagnosed more frequently in children and adolescent males, whereas in pregnant women they are extremely rare. We present a case of a 29-year-old pregnant woman with a highly diverse osteosarcoma. A patient who was in 23rd week of pregnancy was treated with multiple doses of chemotherapy while fetal health was being monitored.

The plan for a therapeutic process included inducing a pregnancy solution at the moment of the fetus reaching maturity, then continuing oncological treatment.

According to the established protocol of treatment in 34 week pregnancy was completed via cesarean section. The woman gave birth to a daughter in good condition. Surgical treatment was conducted after delivery until complete post-pregnancy healing. There was no reduction of dose or quantity of planned and conducted courses of chemotherapy due to pregnancy.

The paper offers an analysis of diagnosis and therapy of pregnant women with osteosarcoma based on own experience and on the basis of a relevant literature.

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### **Rapid and Simple Colorimetric Biosensor for the Detection of Proteases**

Rapid and simple colorimetric biosensor for the detection of protease using magnetic-nanoparticles was developed. The designed biosensor was based on the use of a specific synthetic peptide substrate labeled with magnetic-nanoparticles and then covalently attached to a gold sensing platform. This interaction masks the golden color of the sensor and turns it black. Upon proteolysis, colorimetric change would be observable by the naked eye with an increase in the golden surface visible concomitants with the increase in the protease concentrations. The developed biosensor was capable of detection proteases in buffer and spiked samples with a very low detection limit. This portable biosensor license the development of a cost-effective lab-on-a-chip device and so it is suitable for point-of-care diagnostic application.

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## **The Effects of Preoperative Education on Postoperative Compliance: Dental Surgery Patients**

**Aim:** The aim of this study was to evaluate the effects of preoperative education on postoperative compliance of the patients who underwent dental surgery.

**Method:** The study was designed as semi-experimental type. The study was performed with 100 patients who underwent dental surgery in Dentistry Research and Application Center in Black Sea Region between April and September 2016. The study was designed in two groups; Group I (n=50) preoperative education and Group II preoperative education with a brochure develop by researchers. Postoperative compliance was evaluated on postoperative 7<sup>th</sup> day. Preoperative education prepared and implemented by researchers. Data were collected with Personnel Information Form with five questions (age, gender, etc.) and Postoperative Compliance questionnaire with ten questions. The data were analyzed using SPSS software (Statistical Package for the Social Sciences, version 16, SPSS Inc. Chicago, IL, USA). The data were evaluated by using descriptive statistical methods and Chi-square ( $\chi^2$ ). Permission for the study was obtained from the Bulent Ecevit University Clinical Research Committee (Reg. Number: 2016-41-24/02).

**Results:** The mean age of the patients was  $26.03 \pm 6.38$  (min: 20, max: 45) and 50% of the patients were men. There were not statistical difference between Group I and Group II according to age group, gender, marital status and employment status ( $p > 0.05$ ). Total ten items was evaluated in two groups. There was not statistical significance in six items (using antibiotics regularly, using analgesics regularly, compress after surgery, nutrition, smoking, postoperative spit), but there was statistical significance in four items (postoperative cold application, brushing teeth, gargling, having acidic foods).

**Conclusion:** According the results of this study, preoperative

education with a brochure more effective than preoperative education for dental surgery patients.

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## **The Effect of Maternal Obesity on Maternal and Neonatal Health**

The aim was to investigate the effect of maternal obesity on maternal and neonatal health. The study was made as case-control study between the dates March 2015 – August 2016 in woman after childbirth service of İskenderun State Hospital in Turkey. The woman in testing were separated into two groups as normal weight according to before pregnant body mass index (control group n=144) and obese (case group n= 142) and the study was completed with 286 women in total. Data were collected with Data Collection Form and Edinburgh Postpartum Depression scale. Data collection forms were completed with method face to face meeting with puerperant, some data were completed with taking from patient files and with telephone meeting after 6 weeks later from birth. Complementary statistics were used for data analysis, chi square test and student t-test.

It was determined that the average of obese women is higher than women of control group about age, pregnancy, count of living child and average of obese women is lower than women of control group about education level, average of birthday week ( $p<0,05$ ). It was determined that women of obese group is living process higher rate about pregnancy, early and late term complications after birth according to control group ( $p<0,05$ ). There is no difference between groups about risk of depression after birth the end of 6 weeks ( $p>0,05$ ). Caesarean rate is high for newborns of both groups of women. There is no statistics difference about birth forms, starting breastfeed of newborns in first half hour, concerning complication of new birth ( $p>0,05$ ). It was determined 1 and 5 minutes Apgar score of new birth of obese women are lower ( $p<0,05$ ). As a result, problems of obese women occur at a higher rate according to women with normal kilos in terms of antenatal and postpartum. We advise examination from preconceptional period for women who are expecting a baby, as well as making service training and advising for obese women.

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## **From Established to Emerging Research Trends in Health Information Technology for Nurses**

**Background & aims:** Health information technology, such as electronic health records and clinical decision support systems, are being adopted and implemented internationally. These systems play an increasingly important role in nursing, providing nurses with advanced electronic tools for better patient care. Along with the increasing focus on creating and implementing health information technology for nurses came the emergence of the interdisciplinary field of nursing informatics. However, little is currently known about the state of nursing informatics and the cutting edge research trends in this field. Our goal is to therefore summarize and describe the latest research trends in nursing informatics as presented at one of the central nursing informatics conferences internationally.

**Methods:** We summarized the major research trends in nursing informatics as captured in the proceedings of the 13th International Congress in Nursing Informatics (held in Geneva, Switzerland, June 2016). We extracted and standardized the keywords assigned to all the congress presentations and conducted a frequency analysis to identify the most common trends.

**Results:** We extracted 1,525 keywords assigned to 393 abstracts (podium and poster presentations and papers) presented at the congress. After standardizing the terms, we identified 14 research themes assigned to ten or more abstracts. The most common themes included mobile health (16% of all abstracts); education (15.5%); electronic health records (13.5%); standardized terminologies (9.7%); and system design (7.9%). Some of the emergent trends included data/text mining (3.6%); and big data (2.5%).

**Discussion & conclusions:** Our findings indicate that while several traditional themes in nursing informatics research prevail (e.g., education or standardized terminologies), new trends are emerging, compared to the literature from the previous years (e.g., big data and text/data mining). Our results can inform future health informatics educational curricula or development of the next generation of health information technology systems for nurses.

**Discussion & conclusions:** Our findings indicate that while several traditional themes in nursing informatics research prevail (e.g.,

education or standardized terminologies), new trends are emerging, compared to the literature from the previous years (e.g., big data and text/data mining). Our results can inform future health informatics educational curricula or development of the next generation of health information technology systems for nurses.

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### **Prenatal Screening in Kazakhstan: The Existing Problems**

**Background:** Congenital and genetic diseases are the most urgent problems nowadays. Approximately 4 500 children with congenital malformations are born in Kazakhstan annually.

These problems are due to not only an ecological situation in some regions of the country, but also insufficient efficiency of the existing screening program.

**Aims:** to reveal problems of the existing program of prenatal screening in Kazakhstan and further improvement of program.

**Methods:** This work is a fragment of a research of the PhD-student, which has begun since 2016. Within a framework of research, the retrospective analysis of a situation on congenital malformations in all regions of Kazakhstan is carried out. Assessment work of organization system and of personnel potential who engaged to program implementations begun.

**Results:** Congenital malformations, including genetic anomalies of development were registered mostly in such regions as Akmola, East Kazakhstan and Pavlodar. According to the retrospective analysis, congenital malformations is the first reason of neonatal mortality (20%). In all regions of the country, except the large cities shortage of highly qualified personnel engaged to ultrasonic diagnostics.

**Conclusion:** Prenatal screening in Kazakhstan demands considerable improvement that would decrease high rates of prevalence and congenital malformations mortality.



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## **Autonomy Levels and Professional Attitudes of Nurse Educators**

**Introduction:** Autonomy and professionalism are the essential components of one's professional status. Developed professional values are very important in nursing education. Nurse educators play a very important and critical role in maintaining scientific development and providing high quality education in nursing.

**Objective:** The objective of this study is to determine autonomy levels and professional attitudes of nurse educators.

**Material-Method:** The study population consists of 2009 educators, 856 of whom were senior lecturers, 475 of whom were lecturers and 678 of whom were research fellows who all work in nursing education institutions at bachelor's degree level. With the effect size of 0.3 and 99% power and 0.05 margin of error, the study sample consists of 486 people, 172 of whom were senior lecturers, 103 of whom were lecturers and 211 of whom were research fellows. Geographical distribution was taken into consideration to ensure that the study sample represents the entire country. 24 schools in 7 geographical regions were randomly selected. The Individual Identification Form, the autonomy sub-dimension of the Sociotropy-Autonomy Scale and Healthcare Professional Attitude Inventory were used to collect data in this study. Approval was obtained from the Scientific Ethics Committee of a university and written consents were obtained from the schools and educators included in the study.

**Findings:** The mean age of the educators included in the study was  $35.4 \pm 8.39$  and 94.2% of the educators were female. 35.5 % of the educators were senior lecturers, 21.2% were lecturers, and 43.4 % were research fellows and the mean years they worked in the profession was  $13.02 \pm 8.93$ , and the mean years worked as an educator was  $9.60 \pm 7.81$ . The mean score for autonomy was  $80.04 \pm 15.69$  and the mean score in the Healthcare Professional Attitude Inventory was  $146 \pm 10.59$ . The mean score for autonomy was the highest among full professors, and

the mean score for the healthcare professional attitude inventory was the highest in associate professors and the mean scores for both scales were the lowest in research fellows. A positive low-level correlation was found between the age, the number of years in the profession, mean number of years as an educator and the mean score in the Healthcare Professional Attitude Inventory.

**Conclusion:** Based on the study findings; the authors concluded that autonomy levels of nurse educators were higher than the average and their professionalism was at a high level and there was a positive correlation between the two scales and with the increasing professional experience, professional attitude also improves.

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&

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## **Decision Making Model for the Emerging Nanotechnologies**

Among the reasons for difficulty in decision making for the emerging technologies like nanotechnology is the evolving nature of the new technology, new materials, limited or unavailability of the historic and current data, private and protected nature of the data, product knowledge to monitor and control potential toxic exposure, and other untested or unavailable data on the environment and health effects (Phillips, Bahadori, Barry, Bus, Gant, Mostowy, Smith, Willuhn, & Zimmer, 2009). The demand for lighter material in healthcare for prosthetics, the automotive and aerospace industries search for Nanomaterial. The pharmaceutical industries are challenged with the increase of systematic diseases to provide soluble drug delivery targeting affected tissue, organs, or cells. Investors are seeking opportunities to find the hidden niche in the nanotechnology markets. The ultimatum to meet these industry demands, provide opportunities to investors, newly created nanotechnology industries, and industries looking to expand in other markets. In such complex and ambiguous environment, with limited understanding or predictability for the known and unknown effects of the emerging technology on environment and health, development of the framework for a decision-making model would be an imperative. Successful and appropriate decision-making model may come from the leadership insight and governance, stakeholder alliances, sharing of the unknowns, problems, solutions, and advancements. The work presented in the paper is based on a qualitative modified Delphi study by Dr. Audré Dixon for her doctoral degree in Doctor of Health Administration at the University of Phoenix Online.

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## **Nurses' Well-Being as a Quality Indicator for Improved Care**

**Background:** Within a hospital, the main task of executive nurses is to manage their team and to organize associated processes as to provide high quality care to patients. Appropriate communication skills are, as such, a key success factor. Efficient communication ensures higher job satisfaction resulting in lower turnover intention and decreased burnout.

**Aim:** This study aimed to explore the relationship between communication satisfaction and job satisfaction and the impact on burnout and turnover intention among a cohort of executive nurses.

**Method:** In a multicentre study in three hospitals, data were collected on communication satisfaction and job satisfaction in a large sample of nurses (n = 1455). Data included (1) the Communication Satisfaction Questionnaire (Downs & Hazen, 1977) (translated in Dutch and subsequently validated and pilot tested), (2) the scale 'Turnover intention' of the Questionnaire on the Experience and Evaluation of Labour and (Van Veldhoven & Meijman, 1994), (3) the Maslach Burnout Inventory (Maslach et al., 1996). Job satisfaction was measured by means of a visual analogue scale. Within this large sample, executive nurses were selected and compared to nursing staff in general.

**Results:** Within the three participating hospitals, respectively 106 executive nurses and 1349 ward nurses completed the questionnaire; 68.9% (73/106) of the respondents are female. The executive nurses have an average age of 48 years. Their mean work experience is 26.0 years. The vast majority works on a fulltime basis (94.3%, 100/106). An average job satisfaction level of 7.59/10 was found. Only one person had a score  $\leq 5$  on job satisfaction (0.95%, 1/106). Concerning communication satisfaction, executives were found most satisfied with the trust received from their supervisor (90.6%) and least with their communication overload (45.3%). 57.5% (61/104) has a low, 36.8% (39/104) an average and only 3.8% (4/104) a high turnover intention. None of the respondents had a burnout profile. 12.3% (13/104) has a high emotional exhaustion, 11.3% (12/104) a high depersonalization and 12.3% (13/104) a low personal accomplishment. These data were comparable with ward nurses and are summarized in the following tables.

	<b>Executive nurses</b>	<b>Ward Nurses</b>
Average job satisfaction	7.59/10	7.49/10
Trust received from their supervisor	90.6%	81.8%
Communication overload	45.3%	-

<b>TURNOVER INTENTION</b>	<b>Executive nurses</b>	<b>Ward Nurses</b>
LOW	57.5%	59.9%
AVERAGE	36.8%	33.3%
HIGH	3.8%	6.9%

<b>BURNOUT</b>	<b>Executive nurses</b>	<b>Ward Nurses</b>
INDICATIVE FOR BURNOUT	0%	2.9%
High emotional exhaustion	12.3%	12.4%
High depersonalization	11.3%	10.7%
Low personal accomplishment	12.3%	21.9%

**Conclusion:** Levels of job satisfaction among executive nurses are comparable to those among ward nurses. Burnout indication and turnover intention are low. Nevertheless, there is room for improvement with regard to communication satisfaction as nurse executives experience considerable communication overload. This can be a particular focus for management in order to increase job satisfaction and to decrease the incidence of burnout and turnover intention among key collaborators within the organization.

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## **Evaluation of Value-based Pricing Models for Cancer Drugs in a Clinical Setting**

**Background:** Spending on cancer drugs has risen ten-fold and costs are often passed on to patients. Currently, there are several value frameworks available to assess if the high costs of these drugs are warranted based on their value to the patient. In addition, incremental cost effectiveness ratios (ICER), the 'gold standard' measure of value, directly assign a dollar value to the amount of utility that a patient can receive from a drug. Despite the variety of methods of assigning value to cancer medications, there is no consensus on which method, if any, should be used when determining cancer drug value. Individual institutions must therefore choose how they want to utilize value frameworks in their healthcare systems.

**Objective:** To (a) determine the availability of cost-effectiveness studies for 11 new cancer medications for the UCSF Medical Center's formulary (b) determine other available frameworks for assessing value and evaluate their utility in a clinical managed care setting (c) construct a model of decision-making and supply chain movement incorporating value, cost-effectiveness, and patient-centeredness.

**Methods:** The investigators performed literature searches to determine the availability of cost-effectiveness analyses and other value frameworks for the aforementioned 11 new cancer medications that could help the Medication Outcomes Center (MOC) of UCSF's Medical Center assign value to cancer drugs. In addition, six clinicians filled out the ASCO Value Framework to determine the value of the frameworks and correlation of framework scores with cost effectiveness analyses results. Finally, the investigators built a model that incorporates value into the patient-physician and UCSF health care system decision-making process and pricing of oncology medications.

**Results:** The investigators found three value frameworks can potentially be used for cancer drugs: the American Society of Clinical Oncology (ASCO) Value Framework, the

National Comprehensive Cancer Network (NCCN) Evidence Blocks, and Memorial Sloan Kettering's Drug Abacus. ASCO's Value Framework was the most developed and patient-centered of these

frameworks; therefore, it was used in our validity assessment. Scores for evaluation of nivolumab/ipilimumab combination vs. either drug ranged from 13 to 42, with the greatest variation in toxicity, which ranged from -20 to 20. The framework scores did not specify a comparator. Ten of 11 cancer drugs had at least one cost-effectiveness study published, showing good availability. We suggested formation of a high-cost oncology subcommittee to begin collecting value-based data and assessing patterns. Furthermore, the model also suggests incorporating value into the supply chain of the medication by having manufacturers assign rebates that reflect the value of the medications to the patients. We also suggest that insurers adopt value-based copays for patients rather than a fixed pricing scheme that is determined by the manufacturer.

**Conclusions:** Although the ASCO framework was the best framework for clinical use, it does not provide reliable scores across clinicians and needs more guidelines based on assessment of scoring patterns across drugs. To reduce variability, clearer instructions and more specific guidelines must be implemented on an institutional basis. ICER scores are available as an accurate value framework and can be a validity check on newer frameworks. The creation of an institutional high-cost oncology subcommittee is necessary in order to assess and fill out these frameworks based on the needs of the institution and its patient population. It would be especially informative for this subcommittee to begin collecting data using the ASCO framework to assess its utility to the institute. Additionally, value must be incorporated into pricing at both a manufacturer and payer level.

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**Validity of Health Education Program in Prevention and  
Increasing Awareness of some Prevalent Health Problems  
among Children at Remote Areas**

Inhabitants of S. Sinai have unique characteristics that are different from Egyptians living at other governorates. More than half of population descends from Bedouin tribes. The area is desert with lack of water supplies. Previous published data demonstrated high prevalence of goiter (16.32%) and many dermatological diseases among children and adolescents.

We aimed to provide simple and applicable health education program and evaluate its efficacy for increasing awareness about goiter and decreasing rates of skin diseases among S. Sinai children.

Subjects and Methods: Prospective cohort study was designed. Ras Sider district which has the highest prevalence of goiter and skin diseases among S. Sinai children was selected. 731 school children; representing 20.57% of all registered school children in the studied area; were recruited for the study. Examined children were representing all the population variations regarding age, gender, geographic distribution and ethnic origin.

Ethical approval of NRC was taken.

The study included 3 consecutive phases:

Phase I: included collecting personal and medical history of children, thorough clinical examination, detailed dermatological examination for 15 diseases and 1<sup>st</sup> screening of awareness about goiter through a simple questionnaire including 4 questions about iodine function, ID manifestations, goiter prevention and goiter management.

Phase II: Applying health education program in the form of fliers and presentations.



5 fliers enclosing required educational were prepared, 2 goiter and 3 concerning dermatologic diseases. Fliers were distributed for children and simple explanation about diseases was provided according to age of children. Discussion about each disease regarding manifestations and prevention was mediated. 3 presentations, one goiter and 2 for the studied dermatologic diseases. Data were presented through data show followed by open discussion.

Phase III: Evaluation of efficacy of health education program through detailed dermatological examination for 15 skin diseases and rescreening of awareness about goiter through simple questionnaire after 1 year of providing education program

Results: It showed that awareness about goiter regarding iodine function, ID manifestations, goiter prevention and goiter management increased significantly ( $p < 0.001$ ) in all school grades. It increased from 21% to 82% in 1<sup>ry</sup>, from 23% to 84- 91% in prep and from 45% to 84-95% in secondary schools.

Dermatologic examination before education program showed that the prevalent diseases before education program were sebo rrheic dermatitis (60.07%), pitriasis alba (37.77%), pediculosis (25.18%) and xerosis (19.96%). The prevalence was variable with age groups.

Education program caused high significant decrease in pediculosis, fungal infections, seborrheic dermatitis, xerosis and scabies ( $p < 0.001$ ). Significant decrease was present in acne vulgaris ( $p < 0.03$ ) and impetigo ( $p = 0.01$ ). Warts, and PRA decreased but without significant difference.

Conclusion: Simple health education program provided in a presentable way through physicians proved to be very effective in decreasing dermatologic rates of skin diseases and increasing awareness about endemic health problems as goiter in S.Sinai.

This program will help in decreasing school absence days and decrease medical advice and therapy costs for family and health authorities.

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### **Examples of Nanoparticles' Toxicity to Susceptible Populations**

Applications of nanotechnology-based industrial and consumer products lead to more and more environmental accumulation of nanoparticles and increasing risk of human exposures. This increases threat to human health<sup>1</sup>, especially to susceptible populations such as reproduction system of male<sup>2</sup>, pregnant<sup>3</sup>, lactating<sup>4</sup>, and overweight populations. To clarify such threats, we have built mice models for these groups, simulated nanoparticle exposures to them, and evaluated effects on their health. Our data suggest that 1) nanoparticles exhibit similar biodistributions in model mice to normal mice; 2) aggravation of disease is more evident in susceptible populations; 3) accumulation of nanoparticles in pregnant and lactating mice causes health threat to their pups; 4) minor toxic effects could be repaired and more serious effects caused disease progression, such as in overweight mice; 5) more oxidative stress and inflammation inductions may be accountable for disease aggravations.

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## **The Relationship between the Support Needs and Pain-Fatigue Levels of Women Undergoing Postpartum**

**Objective:** The research was carried out to determine the relationship between the support needs and pain-fatigue levels of women that experience postpartum.

**Method:** The research was performed as a cross-sectional study on 302 women that underwent postpartum after normal and cesarean delivery in a state hospital of Central Anatolia Region of Turkey between January-June 2016. Personal Information Form, Visual Analogue Scale (VAS), Visual Analogue Fatigue Scale (VAS-F) and Postpartum Support Questionnaire (PSQ) were used for data collection. The gathered data were evaluated with t-test, ANOVA and Pearson Correlation analysis with a  $p < 0.05$  significance level.

**Results:** Participating women's VAS was found as  $3.50 \pm 1.89$ , fatigue sub-scale was found as  $50.91 \pm 22.55$ , energy sub-scale was found as  $21.89 \pm 10.30$ , importance of need was found as  $124.25 \pm 45.03$ , and the mean score for the received support was found as  $83.88 \pm 46.27$ .

A statistically significant positive correlation was determined between VAS and importance of need ( $r = 0.212$ ;  $p = 0.000$ ) scores; and between VAS and received support ( $r = 0.137$ ;  $p = 0.017$ ) scores. A statistically significant negative correlation was found between the energy sub-scale (among fatigue sub-dimensions) and importance of need score ( $r = -0.213$ ;  $p = 0.000$ ); and between the energy and received support ( $r = -0.154$ ;  $p = 0.007$ ) scores, whereas no significant relationship was found between the fatigue sub-scale, and importance of need and received support scores ( $p > 0.05$ ).

**Conclusion:** Pain, fatigue and energy levels of participating women were determined to be lower than moderate, and they were found to have received no postpartum support. They nonetheless seemed to take no notice of their needs. However, high pain and low energy levels of women increase the importance of support need and necessitate higher levels of received support.

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### **My Emotions & My Patients' Care Effect of Nurses' Emotions on Nurses' Caregiving Roles in Surgical Wards**

**Aim:** Nursing is a profession that aims to help the patients, identify and meet the care needs of them. Both patients and nurses have emotions and emotions are effective on behaviors of the people and affect the tasks performed cognitively. When viewed from this respect, it is considered that surgical settings can be emotional intensity units. The study aims to determine effect of the emotions of the nurses who had been working in surgical units on their caregiving roles.

**Methods:** This descriptive and correlational study was conducted with 74 nurses who were working in Trakya University Health Center for Medical Research and Practice, Surgical Units and volunteered to participate in the study. Data were collected by data collection form, Attitude Scale for Nurses in Caregiving Roles and Need for Affect Scale. Frequency, percentage, mean, standard deviation and correlation analysis were used for data assessment.

**Results:** In this study, it was found that mean age of the nurses was  $31.91 \pm 6.01$ , mean of professional experience was  $10.48 \pm 6.31$  and mean of the weekly working time was  $46.58 \pm 6.58$ . In their clinic, 54.2% of the nurses reported that they were faced with emotionally distressing situations and most of the emotionally distressing situations were deaths in painful conditions and at a young time. A statistically significant relationship was found between nurses' motivation to approaching emotion-inducing situations and their caregiving roles.

**Conclusion:** This study demonstrated that the attitudes for caregiving roles of the surgical nurses were at a good level and nurses' motivation to approaching emotion-inducing situations had positive effects on these attitudes. Nurses should be aware of the patients' and their own emotions, and improve themselves in terms of recognizing and understanding emotions of the patients. Further research examining relation of nurses' and patients' emotions should be performed in other clinical areas and specific units.

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## **Investigation of Intensive Care Nurses' Knowledge and Attitudes Regarding Closed Suctioning System**

**Objective:** This study is planned to examine intensive care nurses' knowledge and attitudes regarding the closed suctioning system (CSS).

**Methods:** The sample of this descriptive and cross-sectional study includes 147 nurses (%79.4) who work in anesthesia and internal medicine intensive care units of two university hospitals and two training research hospitals in the city of İzmir, Turkey. The research took place between September 1 and December 30, in 2016. The research data were collected via an identifier form and the questionnaire of intensive care nurses' knowledge and attitudes regarding closed suctioning system. Descriptive statistics, Mann-Whitney U and *t* test were used in evaluating the data.

**Results:** The median age of nurses' is  $29.31 \pm 4.84$ , their working time in the intensive care units is  $4.96 \pm 4.06$  and 82.3% of them are female with the 79.6% of a graduate degree in nursing. It was determined that 65.3% of the nurses have not received an in service training regarding CSS and %82.7 of them want an education on it. The nurses' median scores of knowledge, regarding CSS, is  $7.07 \pm 2.42$  (0-20 points) and it was stated that there was no statistically significant difference between their median knowledge scores and the institution where the nurses worked, gender, education level, receiving in-service training and their desire of an education ( $p > 0.05$ ). The 69.4% of nurses stated that the usage of CSS' catheters was easy, while 58.5% of them claims that the duration of suctioning was shorter. While % 47.6 of nurses state that when dense secretion occurs, and %57.8 of them indicate that if the catheter does not suction secretions of the system sufficiently they change catheter before the expiration date; on the other hand %58.8 of them points out that the catheter is sufficient to suction secretions.

**Conclusions:** It can be said that, regarding closed suctioning system, the median knowledge scores of the nurses, who work in the intensive care units of the hospitals under the scope of this research, is low but their attitudes towards the usage of closed suctioning system is

positive. According to our findings, for improving the knowledge of nurses regarding closed suctioning system the periodic in service training can be implemented, and the use of this method in intensive care units can be promoted.