بسم الله الرحمن الرحيم
HIS ROYAL HIGHNESS PRINCE
MOHAMMED BIN SALMAN
Foreword
Message from The Chairman of SHSC 2019 Scientific Committee

Here we are in the fourth version of Saudi Health Society Conference (SHSC) 2019. This international event continues to grow since 2015 under full support from Ministry of Health. Previous conference helped to build community of practice and improve Healthcare Simulation education in Saudi Arabia and the region. These conferences addressed many important themes, like the introduction of key concepts of simulation and community orientation, then addressing the importance of simulation in education and patient safety and finally supporting transformation and matching 2030 vision. This year we look forward to unify all efforts and optimize utilizing resources properly under the theme “Connect to Collaborate”.

Under this theme we will have many interesting talks, competitions and activities presented by national and international speakers. Also this year, the first model of collaboration will be between Ministry of Health and Saudi Society for Simulation in Healthcare (SSSH) which started to function and will handle scientific part of the conference.

All my Gratitude to anyone who make this successful story happen and special thanks to my colleagues in Scientific Committee who are working hard to translate your work and increase your participations to a successful conference.

It gives me pleasure to welcome you all to the Saudi Health Simulation Conference (SHSC) 2019 and we are excited Connect with you all to Collaborate together on 2019/11/11 in Riyadh, Saudi Arabia

Dr. Usamah Alzoraigi
Chairman of Scientific Committee
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Conference themes

Objectives / Topics area:

01. Explore simulation opportunities to enhance inter-professional education

02. Share simulation experience with Military and Aviation fields

03. Strategic integration of simulation in health programs and curricula

04. Simulate risk to spread safety
SHSC Executive Committee

Abdulrahman A. Alaiban
Deputy Minister of Human Resources
Ministry of Health

Ali Abdullah Allafi
Deputy Minister for Finance & Admin (CFO)
Ministry of Health

Dr. Abdulaziz Boker
Associate Professor And Consultant
Department of Anesthesia And ICU
The Director of Clinical Skills and Simulation Center at the College of Medicine
Head of Saudi Simulation Society

Saud Bader AlMutairi
Director General of Training & Academic Affairs
Ministry of Health
SHSC Scientific Committee

Dr. Usamah Saleh Al Zoraigi
Chairman of Scientific Committee
Consultant Anesthesiologist, Consultant in Health Care Simulation, Head of Post-Graduation Simulation at CRESENT Simulation Center at King Fahad Medical City

Dr. Usamah graduated from King Saud University (KSU), Riyadh, Saudi Arabia. He finished his Simulation Medicine Fellowship at STARTUS Simulation Center, Brigham and Women’s Hospital and Center of Medical Simulation, Harvard University, Boston, US in 2015. He is a member of the Anesthesia Scientific Board, Exam committee and participate to integrate simulation in residency training programs at SCFHS. Between 2016 -til 2019 he became Director of Anesthesia and Operating Rooms at King Fahad Medical city and Head of Operating Rooms between 2012 -til 2014. He has been invited as a speaker & instructor in both National & Internation Conferences.

Dr. Hani Lababidi
Senior Consultant in pulmonary and critical care medicine at King Fahad Medical City (KFMC) in Riyadh

He is an expert in medical simulation and he is currently the Director of The Center for Research, Education & Simulation Enhanced Training (CRESENT) at KFMC. Besides the various leadership positions, he chaired or participated in key hospital committees and functions. He has special expertise in hospital accreditation and information management.
Dr. Lababidi received his M.D from the American University of Beirut, Lebanon and then did his Internal Medicine, Pulmonary & Critical Care training in the USA. He holds American Board in Internal Medicine, Pulmonary Medicine and Critical Care Medicine.
Dr. Jameel AbouAlenin

The President of The Saudi Society of Emergency Medicine. The Chairman of the Department of Emergency Medicine at King Abdulaziz University Hospital. He is a Consultant and an Associate Professor of Emergency Medicine. The Deputy Supervisor of The Clinical Skills & Simulation Center for academic affairs, as well as The deputy chairman of the CPR Committee.


He also completed a Master Teacher, Leadership, and Development graduate certificate, as well as Masters of Public Health in Management at The George Washington University, USA. Medical degree (MBBS) and Internship from King Abdulaziz University.

Dr. Rola Alrabah

Executive Director of simulation and skills development center
Emergency Medicine and Simulation Education Consultant
Fellowship from university of California Irvine
Executive board member in the Saudi Society of Simulation in Healthcare
Master in Academic Medicine from university of Southern California

Mastoura F. AlOtaibi

Clinical Skills Center & Simulation Lab
General Directorate of Academic Affairs & Training
Ministry of Health
Dr. Tagwa Youssef Omer
Dean, College of Nursing-Jeddah
King Saud bin Abdulaziz University

Dr. Tagwa Omer received her PhD in Nursing in 2005 from George Mason University, Fairfax, VA. Earned a Master of Community Health Nursing, from King Saud University, Riyadh, and a BSN from King Abdul Aziz University, Jeddah. In 2006, she joined College of Nursing-Jeddah, King Saud bin Abdulaziz University for Health Sciences as Associate Dean for Administrative Affairs and by 2009 she became the Dean. She was a member of the Nursing Scientific Board at Saudi Commission for Health Specialty from 2007 and became the Chairperson from 2011 to 2015. Dr. Tagwa is a member of several committees including the Scientific Council for the KSAU-HS, the Scientific Advisory Board of the National Home Healthcare Foundation, working as an active member in the Saudi Licensure Exam (SNLE), the Scientific Advisory Committee for Nursing at the Ministry of Health, Directorate of Health Affairs in Jeddah, the American Association of the International Nursing Association for Clinical Simulation, and the John Hopkins Aramco Healthcare Advisory Committee, Has several research publications in Nursing Education and Nursing Practice.

NOURA ALSHAIBANI, M.D.

Emergency medicine physician, clinical simulation and medical education specialist, Emergency medicine department, ALAIN hospital, ALAIN - ABUDHABI United Arab Emirates

I am an Emirati physician with Arab board, and Jordanian board certified in emergency medicine. Proud to be first Emirati physician have a fellowship and training in clinical simulation, carried a certification from Center for Medical Simulation (CMS) with experience in providing a hands-on learning experience for the medical students, residents and physicians following the curriculum and offering countless practice opportunities.
I am certified as a medical educator have ACEP teaching fellowship.
Excellent planning skills combined with communication abilities and being considered professional and approachable.
SHSC Organizing Committee

Saud Bader Almutairi
Chairman of the Organizing Committee
Ministry of Health

Ahmed Hamad Alfehaid
Deputy Director General Fo Committee, General Directorate of Trainings of Academic Affairs
Ministry of Health

Adel Mohammed Al Hammam
Assistant of Training Center Director, General Directorate of Trainings of Academic Affairs
Ministry of Health

Hessah Awad Almotairi
Head of International Relations Department
Ministry of Health
AbdulAziz A. Alanazi
Training Center Faculty, General Directorate of Trainings of Academic Affairs
Ministry of Health

Samyah Meshal Alshammeri
Clinical Skills and Simulation Lab, General Directorate of Trainings of Academic Affairs
Ministry of Health

Mugefa Mohammed Albugami
Clinical Skills and Simulation Lab, General Directorate of Trainings of Academic Affairs
Ministry of Health

Maha Saleh Alaswad
First Administrative, General Directorate of Trainings of Academic Affairs
Ministry of Health
Debra Nestel is Professor of Simulation Education in Healthcare, Monash University, and Professor of Surgical Education, Department of Surgery, University of Melbourne, Australia. Debra is currently Editor-in-Chief, Advances in Simulation, the journal of the Society in Europe for Simulation Applied to Medicine (SESAM). In October, she will become the new Editor-in-Chief, BMJ Simulation and Technology Enhanced Learning (STEL), the journal of the Association for Simulation Practice in Healthcare (ASPiH). She is program lead for the Master of Surgical Education (Department of Surgery, University of Melbourne and Royal Australasian College of Surgeons) and Master of Surgical Science (University of Melbourne) and Graduate Certificate in Clinical Simulation (Monash University). Debra leads a national faculty development program for simulation practitioners - NHET Sim (www.nhet-sim.edu.au) and a virtual network in simulated patient methodology (www.simulatedpatientnetwork.org).

She has received national awards for her work in healthcare simulation (Ray Page Award for service to the simulation community, Simulation Australasia and a Program Innovation Award, Australian Government) and a Presidential Citation from the Society for Simulation in Healthcare. She has held many positions in professional associations across her career. Mainly a qualitative researcher, Debra has published over 200 peer-reviewed papers in health professions education, edited books on simulated patient methodology (2015), healthcare simulation (2017), surgical education (late 2019) and on research methods for healthcare simulation (late 2019) www.researchgate.net/profile/Debra_Nestel
Marc Lazarovici is a medical doctor (internal medicine), human factor trainer and computer scientist. He graduated from the Munich Medical School (LMU) in 2002 and studied computer sciences (part time) at the University Hagen between 2000 and 2011. Since 2003 he is a human factor and CRM trainer in the medical field. Currently, he is leading the Human Simulation Center at the Institute for Emergency Medicine, Medical Center of the Munich Ludwig-Maximilians-University, and working as trainer in different medical simulation trainings.

He is member of the SSiH, SESAM and cofounding member of the DGSiM (german simulation society). 2016 he has been elected for a two-years term into the Executive Committee of SESAM as its treasurer and 2018 he has been elected into the position of SESAM President-Elect, which led to him becoming SESAM President in 2019. He is cofounding member and active auditor in the SESAM Accreditation Group.

His research interests and activities focus mainly on further developing learning opportunities through simulation, be it by developing new augmented reality simulators or by researching the implications of the increasing use of AR/VR technology to the healthcare environment.
Dr. James Cleveland joined UT Health’s School of Nursing at San Antonio as a nursing faculty in the fall of 2009. He came to UT Health following his retirement from the Army as a Lieutenant Colonel after nearly 28 years of combined military service. He first joined the Army as an enlisted soldier, trained as an Environmental Health Specialist and Emergency Medical Technician, serving 1982 thru 1985. With use of his GI Bill, he attended the University of Wisconsin-Madison, and graduated with a BSN in 1989. James returned to active duty as an Army Nurse Corps Officer. He specialized in Emergency and Trauma Nursing, earning his Certification in Emergency Nursing (CEN). Served in both the Gulf War and Operation Joint Endeavor. In 1997, James became the Nursing Director for the Dwight David Eisenhower Medical Center ED, at Ft. Gordon, Georgia. During that time, he became a member of a national research consortium (civilian and military membership) developing and verifying the congressionally funded project «MedTeams." This successful program has since been implemented as AHRQ’s “Team STEPPS”, in which he is a Master Trainer. In 1999, Dr. Cleveland was selected as a team member of a Department of Defense initiative, the Joint Trauma Training Center located at Ben Taub Medical Center, Houston, Texas. This medical/nursing trauma team taught trauma care and conducted trauma care research. The team published their findings (2002) on the use of high-fidelity patient simulation (HFPS) as an innovative teaching strategy for military surgical teams. In 2002, the Army Nurse Corps sent James to the Medical College of Georgia for his graduate studies. He graduated in 2004 with an MSN as an Acute Care, Clinical Nurse Specialist in emergency and trauma nursing. Afterward, James was the Director for the Army’s Phase1 (practical nurse) program at the Academy of Health Sciences, Fort Sam Houston, Texas, 2006-2004. Dr. Cleveland was designated as the Team Leader for a deployable Medical Team which was to develop, design and deploy a portable medical training package to include simulation instruction for the Lebanese Armed Forces. His team successfully trained 25 medics/nurses and presented the HFPS to the Lebanese Surgeon General on behalf of the U.S. Embassy, Beirut. Dr. Cleveland’s last military assignment was as the Chief of Emergency Nursing Services, Emergency and Trauma Department, Brooke Army Medical Center, 2009-2006. Dr. Cleveland concurrently served as the Surgeon General’s Emergency and Trauma Nursing Consultant for the U.S. Army Medical Command. Dr. James Cleveland now serves as the Director for the Center for Simulation Innovation (CSI) and continues to teach in the role as a faculty member at UT Health.
Dr. Phrampus is the Director of the Peter M. Winter Institute for Simulation, Education and Research (WISER). He is a Professor in the Departments of Emergency Medicine and Anesthesiology of the University of Pittsburgh School of Medicine. He is the Medical Director of Patient Safety for the UPMC Health System and serves on the Quality Patient Care Committee of the Board of Directors. He is a Certified Professional in Patient Safety. He is a member of the Academy of Master Educators of the University of Pittsburgh School of Medicine and one of the inaugural fellows of the Society for Simulation in Healthcare.

Dr. Phrampus earned a bachelor degree in biology from Old Dominion University, and an M.D. degree from Eastern Virginia medical school in Norfolk, Virginia. He completed residency training and board certification in Emergency Medicine at the University of Pittsburgh.

Dr Phrampus has been leading WISER since 2006. WISER serves as the hub of simulation and educational infrastructure serving the UPMC Health System as well as the University of Pittsburgh’s Schools of Health Sciences with a main campus and eight satellite centers. WISER has been accredited by the Society for Simulation in Healthcare in all content areas including teaching, assessment, research and systems integration. It was the one of the first centers in the world to be accredited in all areas. He is a co-author of the world-renowned faculty development course for simulation-based education called Improving Simulation Instructional Methods (iSIM) which has been taught in over fourteen countries. Dr. Phrampus serves in numerous leadership roles in national and international simulation and patient safety efforts. He serves on the editorial board of the journal Simulation in Healthcare. He has previously chaired the International Meeting for Simulation in Healthcare, which is the largest multidisciplinary simulation meeting in the world. He was the 2013 President of the Society for Simulation in Healthcare which has over 3,800 members world-wide.

Dr. Phrampus has traveled extensively lecturing and conducting simulation workshops, demonstrations consulting, and assisting in proliferation of successful simulation start-up programs. In addition to the United States his education efforts have included Australia, Canada, Chile, China, Costa Rica, Germany, Hong Kong, India, Indonesia, Ireland, Italy, Malaysia, Norway, The Philippines, Saudi Arabia, South Korea, Singapore, Spain, Thailand and Tibet.
Bob Armstrong is Executive Director of the Sentara Center for Simulation and Immersive Learning at Eastern Virginia Medical School (EVMS) in Norfolk, Virginia.

He is also the Program Director for the National Center for Collaboration in Medical Modeling and Simulation, as well as Director of Corporate Relations at EVMS. Bob is currently the President Elect of the Society for Simulation in Healthcare. He also teaches in the Biotechnology and Management Program at Christopher Newport University in Newport News, Virginia, is Director of Simulation and Technology for eTrainetc, LLC, a healthcare simulation company, and consults with startup companies via his business Epicural, LLC.

Bob is a graduate of the U.S. Naval Academy and Naval Postgraduate School, holding a Master’s of Science in Computer Science. He retired from the U.S. Marine Corps as a Lieutenant Colonel in 2005 after a twenty-year career.
Dr. Smallheer is the Lead Faculty for the Adult Gerontology-Acute Care Nurse Practitioner program at Duke University School of Nursing. He actively practices with the Critical Care Medicine team in a medical and neurosurgery Intensive Care Unit. He is the Vice President of Outreach for the International Nursing Association for Clinical Simulation and Learning. His area of research is with using simulation in distance-based nursing programs to prepare nurse practitioners for acute and critical care.
Janice C. Palaganas
PhD, RN, NP, ANEF, FAAN, FSSH
Director of Educational Innovation and Development for the Center for Medical Simulation (CMS) in Boston, Massachusetts

Dr. Janice Palaganas is the Director of Educational Innovation and Development for the Center for Medical Simulation (CMS) in Boston, Massachusetts and faculty for Harvard Medical School, Department of Anesthesia, and Interprofessional Studies at the Institute for Health Professions, Massachusetts General Hospital. Dr. Palaganas has developed a passion in teamwork from her background as an emergency nurse, trauma nurse practitioner, director of emergency and critical care services, and faculty for schools of medicine, nursing, allied health, management, and emergency medicine. As a behavioral scientist and former clinician and administrator, Dr. Palaganas’ passion is in using healthcare simulation as a platform for interprofessional education (IPE) and has served as a member of the National Academy of Medicine’s (Institute of Medicine) report on measuring the impact of IPE on practice. Dr. Palaganas’ primary role is to develop educators in an IPE setting.

She led CMS’s Instructor Course educating educators in simulation globally and developed an interprofessional virtual campus as the principal investigator of a board grant awarded by the Josiah Macy Jr. Foundation. Dr. Palaganas has shaped the field of simulation, led the development of the Society for Simulation’s (SSH) Accreditation and Certification Program, was the editor-in-chief of two textbooks in simulation (Defining Excellence in Simulation Programs and Mastering Simulation 2nd Ed), authored several chapters, seminal articles and field-changing research including the national study for high-stakes assessment using simulation. She is currently the Chair of the Credentialing Commission of SSH with oversight over SSH Accreditation, Certification, Academy of Fellows, Dictionary, and Code of Ethics. She is a Fellow for the Academy of Nurse Educators, American Academy of Nursing, and was part of the inaugural group of the Academy of Fellows for Simulation in Healthcare. She is co-podcaster on “DJ Simulationistas….’sup?” and “SimFails.” Dr. Palaganas has been an invited keynote speaker and visiting professor in 30 countries. She is currently leading the creation of the first PhD in IPE and the first PhD in Healthcare Simulation within the MGH IHP and CMS.
Prof. Boker is the current Chairman of the Exam committee of the Saudi Scientific Boards of Anesthesia Care at Saudi Commission of Health Specialties (SCHS). He is the past Chairman of the Saudi Scientific Board of Anesthesia and Intensive Care at SCFHS. During his term as Board chairman, Prof. Boker led a major curriculum reform for the national training program in anesthesia and critical care medicine in Saudi Arabia and many other Arab countries. He obtained his medical college degree from King Abdulaziz University, Jeddah with honors, he then obtained Royal College of Canada certification in anesthesia and masters of medical education.

Prof. Boker has very active involvement in medical education and Health Simulation at local, regional, national, and international levels. Prof. Boker was the founding chairman for the Academic Department of Medical Education in 2006, and also founded of the King Abdulaziz University Clinical Skills and Simulation Center (KAU CSSC) in 2007 at college of medicine, Jeddah, Saudi Arabia. In 2016 and 2017, KAU CSSC achieved full accreditation status from Royal College of Physicians and Surgeons of Canada and Society of Simulation in Healthcare (SSH) in all accreditation standards, namely, core, teaching/learning, assessment, integration and Research in Simulation-Based Education. Also, in August 2017, the KAU CSSC team received the ASPIRE award, Simulation Category, from the AMEE (Association of Medical Education in Europe). KAU CSSC has become the first and only simulation center in the world to receive these three distinguished recognitions.

Given his outstanding record of educational program improvements and reforms, he was the first recipient of the «International Residency Educator of the Year (2014) Award» from the Royal College of Physician and Surgeons of Canada (RCPSC). In 2016, he was also the first recipient of the «Regional Excellence in Simulation Award» from 3rd UAE simulation & 2nd Society of Simulation Applied to Healthcare in Europe (SESAM) MENA Regional conference.
Dr. Alhawsawi is one of Saudi Arabia’s healthcare quality leaders and advocates. His passion to performance improvement started as a practicing physician, where he advanced in this role as a leader in provider organizations, researcher and health policy expert. Through his current role as Assistant Director General at the Central Board for Accreditation of Healthcare Institutions (CBAHI), the official body responsible for the assessment health care facilities in the Kingdom, Dr. Alhawsawi helped in establishing systems that achieve continuous improvement of the quality of services provided to patients and their families. Dr. Alhawsawi is particularly interested in healthcare systems and financing. He plays an active role as one of the lead quality consultants for the World Health Organization (WHO) in the region. He represented the Kingdom of Saudi Arabia in discussions for integrating National Health Accounts (NHA) and benchmarking Key Performance Indicators (KPIs) to the operational model of hospitals in different sectors. Recognized as an expert in improving quality in the region, Dr. Alhawsawi is frequently invited to speak on strategies to redefine care in the Kingdom, and has developed several health systems and models based on international best practices. He also serves as a trusted consultant for healthcare institution, industry leaders and consultancy firms. Additionally, Dr. Alhawsawi is an accomplished surgeon, serving as an Assistant Professor at the Faculty of Medicine, King Abdulaziz University, Jeddah, Saudi Arabia. To ensure that his experience is passed through the new medical generation, Dr. Alhawsawi took the role of Director of the surgery residency training program at the University, supervising hundreds of young physicians and helping them with their career advancement.
Dr. Abdulaleem Alatassi is working as an Assistant Professor at King Saud bin Abdulaziz University for Health Sciences. Clinically he is a Pediatric Anesthesiologist and ICU Consultant at King Abdulaziz Medical City. Administratively, he is the Deputy Executive Director of Patient Safety & Quality care and the Director of the Operating Room Services at King Abdullah Specialized Children Hospital. Academically, Dr. Alatassi is the current Chairman of the Saudi Scientific Board of Pediatric Anesthesia Fellowship at SCFHS and also the Deputy Chairman of the Simulation Committee in National Anesthesiology Training Program, SCFHS. He is involved in many ongoing Courses and Workshops mostly in the scope of medical simulation.

Dr. Alatassi pursued Anesthesia Residency training at the University of Toronto, followed by Pediatric Anesthesia Fellowship from Hospital of Sick Children, Toronto, Canada on October 2007, and Cardiac Anesthesia, Critical Care & TEE Fellowship and completed a Comprehensive Course for Medical Simulation from Harvard University on 2012. And recently had obtained a Master Degree in Executive Business Administration from the Stockholm School of Economics(SSE).

Dr. Alhawsawi holds a bachelor’s degree in Medicine from King Abdulaziz University, Jeddah, Saudi Arabia. Dual board certified in transplant and hepato-biliary surgery, he completed his training in Mount Sinai School of Medicine, New York. He is a member of numerous medical societies and national quality committees.

Dr. Alhawsawi is also a healthcare thought leader, and writes a weekly column in Okaz newspaper discussing issues related to healthcare system’s improvement and national development.

His mission of life is to contribute to the advancement of healthcare in the Kingdom; he divides his time between patient care, teaching and research in healthcare quality.
Dr. Abdulrahman Jafar A. Sabbagh
MBChB,FRCSC

Surgical Consultant Neurosurgeon, Pediatric Neurosurgeon, Epilepsy neurosurgeon
Assistant Professor, Section of Neurosurgery, Department of Surgery, King Abdulaziz University
Assistant Chairman of research and higher education. Department of Surgery, College of Medicine.
Head, Research and Development section, Clinical Simulation and Simulation Center, King Abdulaziz University, Jeddah, Saudi Arabia.
Chairman, Scientific Council of Neurosurgery, Saudi Commission for Health Sciences.
Saudia Arabia.

Dr. Saleh Abdullah Al Khunein, MD
Consultant Neuro-anesthesiologist & Neuro-intensivist
Head of Neuroanesthesia Division, Prince Sultan Military Medical City (PSMMC) – Riyadh

Military Rank: Colonel
Member of the Anesthesia Scientific Council / Saudi Board
Deputy Director of the Saudi Neurocritical Care Chapter / Saudi Critical Care Society
Assistant of the Military Medical Service Director for medical affairs
Dr. Alhaider is a practicing consultant pediatric respirologist and interventional pulmonologist with extended interest and experience in medical education. He holds a master degree of science in medical education and master degree in business and administration. Dr. Alhaider has been through multiple roles ranging from clinician educator to supervisory ones (program director of pediatrics, and program director in pediatric pulmonology). In the past, Dr. Alhaider has assumed leadership responsibilities as the deputy executive director of academic and training affairs in King Faisal Specialist Hospital and Research Centre (KFSH&RC) and as the chairman of the national scientific council of Pediatrics in Saudi Arabia. Currently Dr. Alhaider is the Executive director of training, at the Saudi Commission For Health Specialties (SCFHS), and he has active involvement in multiple strategic tasks that involve: curriculum development, quality assurance, train the trainers, trainees support and wellbeing, economy of medical education, and formative assessmen

Dr. Shadi Almoziny is a board certified emergency medicine consultant at King Fahad Medical City, Riyadh, Saudi Arabia. Dr. Almoziny holds subspecialty degree in medical simulation from Harvard Medical School, Boston, USA. In addition to his 12 years of clinical experience as an emergency physician, he is the chairperson of Life Support Training Department, CRESSENT, KFMC and he is the simulation lead at the Second Health Cluster in Central Region. He also holds other clinical and leadership positions. He is looking forward to utilizing his passion for and experience in medical simulation to help healthcare organizations maximize their patient safety and quality of care by using simulation for training and health care system integration.
Dr. Waleed M. AlHarbi
MHPE, PhD, RRT

Ph.D. in Medical Education with experience in the U.S., United Kingdom, and Saudi Arabia. Dr. AlHarbi has 6-year experience in healthcare simulation and is currently works as a consultant of medical education and simulation at the Center for Research, Education & Simulation Enhanced Training (CRESENT) at King Fahad Medical City. He is interested in simulation curriculum development, assessment, research, healthcare training, patient safety, non-technical skills, and human factors.

Dr. AlHarbi received his BSc in Chemistry from King Saudi University (Saudi Arabia), BSc in Respiratory Care from Loma Linda University (USA), Master of Science in Health Professions Education from University of Rochester (USA), and Ph.D. in Medical Education from University of Aberdeen (UK). He is credentialed by the National Board for Respiratory Care in the United States.

Dr. AlHarbi is a member of many recognized societies such as: Simulation Society in Healthcare, Saudi Simulation Society in Healthcare, Saudi Society for Respiratory Care, and American Association for Respiratory Care.

Dr. Yasser Mandorah
MD, FRCP(C), FCCP, ABIM

General director of Military Medical Services Directorate at Armed Forces Chief of General Staff Ministry of Defense, September 2019 until date. Member (Military Medical Service) of Ministry of Defense Executive Transformation Team in Chairman of chief of General Staff 2019-2018
King Saud Medical City, Riyadh, KSA.
Saudi and Arab Board in Pediatric King Khalid National guard Hospital, Jeddah, KSA.
Pediatric Emergency Fellowship king Fahad medical city, Riyadh, KSA.
Medical Simulation Fellowship, Ohio, USA.
Certified Standardized Patient instructor, Illinois university, Chicago, USA.
Comprehensive Instructor Workshop in Medical Simulation. Boston, Massachusetts. USA.
Member of simulation society of healthcare international.
Member of Saudi society of health simulation.
Director of cluster one simulation center Riyadh, KSA.
Program Director of Rotating Trainee in Ped-ED, KSMC, Riyadh, KSA.
Head of Academic Activity and pediatric emergency fellow simulation activity Ped-ED, KSMC, Riyadh, KSA.

Dr. Khalid M. Bajunaid is a neurovascular neurosurgeon and neuro interventionist. He is currently an assistant professor of neurosurgery at University of Jeddah. Dr. Bajunaid completed his training at Montréal Neurological Institute, McGill University and University of Western Ontario. He holds masters in management from McGill University as well as Masters of experimental surgery from the McGill University Neurosurgical Simulation and Artificial Intelligence Learning Centre.
Dr. Loui Alsulimani is an Emergency Medicine Consultant and Assistant Professor in the Emergency Department –Faculty of Medicine- at King Abdul-Aziz University. He did a Clinical Simulation fellowship at Brigham & Women’s Hospital (Harvard Affiliated Hospital - Boston- USA)2017-. He did a Disaster Medicine fellowship at Beth Israel Deaconess Medical Center (Harvard Affiliated Hospital- Boston -USA)2016-. Dr Alsulimani holds the Saudi And Arab Boards of Emergency Medicine. He earned a master’s degree in Health Professions Education from Massachusetts General Hospital Institute of Health Professions Education in 2018. Also, got the Diploma of Professional Development in Teaching and Learning from King Abdulaziz University. Dr Alsulimani is interested in promoting competency of healthcare professionals through education/training, assessment and system improvement.

Mr. Moath Nabeel Abuaysha

Lead of the 3D printing & planning unit at king Fahd medical city, Certified 3D printing professional from MIT University, Certified surgical Design and simulation from (iRSM) Alberta university, Certified Siemens NX design-integrated structural simulation tool. Represented Saudi in over 40 science and technology conferences local and globally. INTEL international prize winner, and Asia cup for the excellent project.
Qusay Hussein Ghazawwi

Captain – Instructor Pilot – Check Pilot

Dr. Waddaa Reda

MBBS, CHSE. 
Emergency Medicine consultant - Department of Emergency Medicine - King Abdulaziz University - Telemedicine and Digital Health Fellowship - Medical Simulation Fellowship - George Washington University

Dr. Waddaa Reda is consultant and an educator at Department of Emergency Medicine at King Abdulaziz University. At this position, he has been involved in the education of medical students and emergency medical residents and, through his simulation background, he has been integrating and using simulation regularly in the education process. Dr. Reda also has a formal training in Telemedicine, and new and innovative field that promises to bring healthcare to areas beyond it’s former reach. Through both his Telemedicine and Simulation Training, he aspires to promoting the use of Telesimulation and to use the tools of this new area in the advancement of medical education.
Mr. Ahmed Omar Hawsawi

Executive Director Nursing Affairs KFMC.
He is a RN, hold BSN from USQ Australia and MSN from Monash Australia and Master of Bioethics from KING Saud University KSA. He is a graduate of Harvard Business School (Senior Executive Leadership Program), with more than 24 years experience in healthcare Services

Dr. Mohammad Ali Agarni, MD

Graduated from King Saud university on 2008, a saudi board certified in rehabilitation medicine on 2016, currently works as a senior registrar in rehabilitation medicine department in prince sultan military medical city(PSMMC), i am also a major in saudi army with a two years experience in military simulation training in the south region, and in military academies

Ahmad Fahmi Haimour, RN, MSN

Ahmad Fahmi Haimour; a Master degree holder in “Adult Acute Care Nursing”, with previous clinical experiences in intensive care unit and emergency department for 6 years in Jordan; followed by academic experience as a lecturer in the faculty of nursing at Hail university for 2 years. Currently working in Nursing Education Administration at king Saud Medical City as a “Senior Nurse Educator” for 6 years in various nursing educational program; including simulation courses for different nursing specialties, simulation based research, orientation programs, nursing competency and curriculum development.
Tactical Combat Casualty Care (TCCC) is created by the U.S. Department of Defense Committee on TCCC (Co-TCCC) to teach evidence-based, life-saving techniques and strategies for providing the best trauma care on the battlefield.

«90% of combat deaths occur on the battlefield before the casualty ever reaches a medical treatment facility.»—Col. Ron Bellamy

Previously, military guidelines for trauma management mirrored tactics used in the civilian sector. Initiated by the elements of the Special Operations Command, the new strategies outlined in 1996 were collectively referred to as Tactical Combat Casualty Care (TCCC). Instead of the civilian-based approaches of the past, integrated strategies specific to combat realities continue to emerge.

Compared to standard pre-hospital treatment modalities, which are fundamentally based on blunt trauma, TCCC distinguishes itself from the norm by focusing primarily on the intrinsic tactical variables of penetrating trauma compounded by prolonged evacuation times. Today, TCCC is quickly becoming the standard of care for the tactical management and is the sole standard of care dually endorsed by both the American College of Surgeons and the National Association of EMTs for casualty management in tactical environments.
Ms. Abeer Al Hazmi is a Pediatric Nurse Specialist who is currently working as Deputy Director of Nursing at King Abdulaziz University Hospital (KAUH) in Jeddah, Saudi Arabia. She is also working as a Nurse Consultant for other institutions. As Deputy Director of Nursing of KAUH, Ms. Abeer contributes to the Nursing Strategic and Operational Plan and she is part of the JCI, Canadian and CBAHI accreditations of said hospital. Previously, Ms. Abeer was the Assistant Director of Nursing for Education and Research of KAUH. In this role, she developed and supervised many original and unique nursing education courses. She was also engaged in establishing postgraduate nursing diploma programs. Ms. Abeer is a Simulation Instructor since 2012. She received her training on this respect at CSSC in KAU. She is Director 6 simulation courses such as train the trainer, patient safety and code blue simulation. She Co-Director of many other courses. She participated in accreditation programs in the Simulation Center.

Dr. Rasha Mahfouz

Assistant Professor at Princess Nourah University (PNU), 2011 till Now. She graduated from Ain Shams University (ASU) in Egypt (2000), and she has MS in Psychiatric & Mental Health Nursing with Excellent degree (2005). She also has obtained a PhD in Nursing Sciences with clinical track from ASU in Egypt. She registered to Egyptian Nursing License. She also registered to Saudi Nursing License. Dr. Rasha She has strong teaching background where she has served for 18 years, as she was a Demonstrator, then Assistant Lecturer then Lecturer in faculty of Nursing, ASU, for 10 years. Now, she is an assistant Professor in College of Nursing, PNU from 8 years, also she had an admin role as a Director of Academic Advising Unit at PNU. She is member of Saudi Society for Child Care since 2016 and member of Saudi Society for Preventive Health in 2019. She has a strong passion in health promotion for general population. Her community service expanded in Egypt and KSA where she served diversity of population.

Abeer K. Alhazmi RN, BSN, PGD, MSN

Ms. Abeer Al Hazmi is a Pediatric Nurse Specialist who is currently working as Deputy Director of Nursing at King Abdulaziz University Hospital (KAUH) in Jeddah, Saudi Arabia. She is also working as a Nurse Consultant for other institutions. As Deputy Director of Nursing of KAUH, Ms. Abeer contributes to the Nursing Strategic and Operational Plan and she is part of the JCI, Canadian and CBAHI accreditations of said hospital. Previously, Ms. Abeer was the Assistant Director of Nursing for Education and Research of KAUH. In this role, she developed and supervised many original and unique nursing education courses. She was also engaged in establishing postgraduate nursing diploma programs. Ms. Abeer is a Simulation Instructor since 2012. She received her training on this respect at CSSC in KAU. She is Director 6 simulation courses such as train the trainer, patient safety and code blue simulation. She Co-Director of many other courses. She participated in accreditation programs in the Simulation Center.
Dr. Almarshed completed a medical simulation fellowship at Neil and Elise STRATUS Center for Medical Simulation at Brigham and Women’s Hospital/Harvard Medical School and he completed the Master of Medical Education at King Saud bin Abdulaziz University for Health Sciences in Riyadh.

Dr Almarshed is a board member in Saudi society of simulation in healthcare and chair of scientific committee. Chairperson of curriculum development department in King Fahad Medical City.

Dr Almarshed is a consultant for SCFHS to integrate simulation in residency curriculum in multiple specialties.

He presented simulation case studies at the Harvard Medical School Safety, Quality, Informatics and Leadership (SQIL) program 2015 and 2016. Dr Almarshed did his master thesis in simulation about debriefing to improve non technical skills for health care providers working in emergency departments.

Currently Dr Almarshed is one of the instructors of different simulation courses including: “ Enhancing Physicians Communication Skills “, Simulation Based Emergency Medicine Procedures, and the Basic Medical Simulation Course for Educators.

During the transfer of ED department to new building, Dr Almarshed was one of the team members who tested the new building readiness using simulation based scenarios to operate the new department with simulation to identify latent threats.

As International participation, Dr Almarshed was one of the speakers in the workshop titled “ Peers Simulated Debriefing Training Workshop” held in IMSH, 2016 and 2017. Dr Almarshed still works as an emergency medicine consultant at King Fahad Medical City in Riyadh as well as teaching in Center for Research, Education and Simulation Enhanced Training (CRESENT), Riyadh, KSA.
I am a pediatric emergency consultant at King Fahad Medical City (KFMC) Chairperson of undergraduate simulation at Center for Research Education and Simulation Enhanced Training (CRESENT) in KFMC Advanced Trauma Life Support (ATLS) instructor, Pediatric emergency fellowship program director A board member of SSSH responsible for the website and media an organizer of the volunteer group in the pediatric residency program. I am also the simulation Pediatric emergency fellowship director since March 2018, I run simulation courses for pediatric residents, Pediatric emergency departments, and director of the PASS Course in CRESENT.

I graduated from the KFMC pediatric residency program then pediatric emergency fellowship I went a to Canada to peruse my education in pediatric emergency at Sickkids, Toronto, 2013, then Simulation fellowship at University of Calgary, Alberta Children Hospital, KIDSIM Pediatric Simulation, 2014.

I presented in several conferences regionally and internationally, focusing in medical simulation such as in IMSH2014, IMSH2016, W21C SIMposium in Calgary 2014, simulation summit Toronto1, 2014st Saudi Health Simulation Conference workshop 2015, Princess Nourah bint Mohamed bin Saud Al Saud, Nov 2017 and Saudi Health Simulation Conference workshops 2018

Faculty in Simulation courses at KFMC:
- Instructor/cofounder at workshop Basic Medical Simulation Course for Educators at KFMC
- Instructor/cofounder at workshop FDSIM (faculty development of simulation
- breaking bad news simulation workshop instructor as well cofounder
- Lumbar Puncture simulation hands on course as facilitator
- Intensive Simulation for Pedia R1 Intensive Simulation for Pedia R1
- PASS (Pediatric Advance simulation scenarios workshop (founder, facilitator)
- FDSIM debrief like an expert (founder, facilitator)
as well as volunteering lecturer at Virtual Medical academy (VMA) which is nonprofit organization aiming to spread the knowledge virtually. I am member at Child Support Committee nonprofit organization an organization that helps and support psychological wellbeing of children and their parents.
- born in Jeddah.
- Join Saudia in pilot program.
- Flew as copilot.
- In the year 2000 became captain.
- In 2001 became IP,(instructor pilot)
- Trained more than 180 pilots in Saudia airline.
- Became the supervisor of initial pilot training program.
- Member of the acceptance team of flying simulators.
- Qualified and trained on MD90, GIV, BOEING 777, BOEING 787..
- Have experience of 30 years as pilot, 18 years of instruction experience.
- Total flying hours 18000.
- 12000 hours as instructor pilot.
- Instructor& check pilot in prince Sultan academy.
Scientific Program
<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
<th>Venue</th>
<th>Topic</th>
<th>Facilitators</th>
</tr>
</thead>
</table>
| 1       | 08:00-16:00| Sevilla AB | Combat Medic Training                                                | Director Col. Dr. Saleh Alkhunein  
Col. Naif Al Malki  
Col. Fahad Al Farraj, Col. Fahad Al Rashidi  
Lt. Col. Dr. Zamel Farraj  
Lt. Col. Dr. Abdulaziz Al Shammary  
Lt. Col. Dr. Adi Al Shuhrri  
Lt. Col. Dr. Ali Al Shahrani (Aviation)  
1st. Lt. Yousef Al Budairi  
Chief Sergeant. Saad Al Harthi, Chief Sergeant. Hayazea Al Bargi  
Staff Sergeant. Abdullah Al Qarni  
Staff Sergeant. Majed Al Maiki |
| 2       | 08:30-12:00| KFMC  | Simulation Technical Support: Read, Analyze and Run                  | Mr. Mohammad Alamar, Mr. Jalal Alfroukh, Mrs. Eman AbuHelueh, Miss. Aj Joharah AlDhafrin |
| 3       | 13:00-16:00| KFMC  | Hands-on Simulators Maintenance for Simtech                        | Mr. Mohammad Alamar, Mr. Jalal Alfroukh, Mr. Faisal Alamri                   |
| 4       | 08:30-12:00| Marbella | How to Conduct Research on Simulation-Based Educational Interventions Effectively? | Dr. Amani Azizalrahman, Dr. Ameera Cluntun, Dr. Mohammad Zaher          |
| 5       | 08:30-12:00| Valencia | Human Factor In Healthcare                                          | Dr. Abdullah Almarshed, Dr. Usamah Alzoraigi Dr. Waleed Alharbi           |
| 6       | 08:30-12:00| Majorca C | Prepare Nurse Instructors For Excellence in Simulation Education    | Dr. M Abdulaziz Aljohani, Mr. Abdulrhman Almohamadi, Ms. Nahlah Bazid |
| 7       | 13:00-16:00| Majorca C | Step by Step Approach to Debrief Medical Simulation Session        | Dr. Amani Azizalrahman, Dr. Usamah Alzoraigi, Dr. Shadi AlMoziny, Dr. Abdullah AlMarshad, Dr. Manal Baksh |
| 8       | 08:30-12:00| Cordoba | Military Moulage Workshop                                            | Ms. Reem Alajmi, Ms. Samah Madani, Mr. Amar Al Askah                      |
| 9       | 13:00-16:00| Malaga | How to Write Effective Simulation Curriculum Workshop                 | Mr. Amer Arab, Dr. Sawsan Alyousef, Dr. Waleed M. AlHarbi                 |
| 10      | 08:30-12:00| Majorca B | Debriefing in Life Support Courses: Do you have a Challenge?       | Mrs. Deepa Ramesh, Dr. Hala Al Alem                                      |
| 11      | 13:00-16:00| Majorca B | Simulation Based Interprofessional Education                        | Dr. Sara Alsuhaibani, Dr. Mona Aljahanany, Dr. Haifa Malakah, Dr. Ameera Cluntun, Dr. Madona Yahya |
| 12      | 08:30-12:00| Majorca A | Sexual Assault Simulation Course for Health Care Providers           | Dr. Dalia Alsiaif, Ms. Maram Alfarayidhi, Ms. Ghada Alshamsi, Ms. Marwa Albayat, Ms. Deena Hamdi |
| 13      | 08:00-16:00| MOH   | Obstetric Crises Resource Management Multi-disciplinary Simulation Based Course | Dr. Osama AlAbdulhadi, Dr. Nesreen Hamza, Dr. Mohammed Bakhsh, Ms. Fatima Aldossary, Dr. Khoulod Alsufyani, Dr. Yasser Faden |
## Day 01

### November 12 - 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Venue</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-08:40</td>
<td>Hilton Grand Hall</td>
<td>Morning Huddle</td>
<td>Dr. Usamah Alzoraigi</td>
</tr>
<tr>
<td>08:40-09:00</td>
<td>Hilton Grand Hall</td>
<td>Embrace Your Hypocrisy: Practice What You Preach!</td>
<td>Dr. Janice Palagnas</td>
</tr>
<tr>
<td>09:00-09:20</td>
<td>Hilton Grand Hall</td>
<td>Future Education and Interaction: Could AR and Telepresence Help?</td>
<td>Dr. Marc Lazarovici</td>
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<tr>
<td>09:20-09:40</td>
<td>Hilton Grand Hall</td>
<td>Training Till Competency through Simulation</td>
<td>Dr. Hani Lababidi</td>
</tr>
<tr>
<td>09:40-10:00</td>
<td>Lunch Area</td>
<td>Session Discussion</td>
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<tr>
<td>10:00-10:30</td>
<td>Lunch Area</td>
<td>Opening Ceremony</td>
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<tr>
<td></td>
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<td>Plenary session 1</td>
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<tr>
<td>10:30-10:50</td>
<td>Hilton Grand Hall</td>
<td>Saudi Simulation Centers: Connect and Collaborate</td>
<td>Dr. Usamah AlZoraigi</td>
</tr>
<tr>
<td>10:50-11:10</td>
<td>Hilton Grand Hall</td>
<td>A National Online Faculty Development Programme: Outcomes and Future Considerations</td>
<td>Prof. Debra Nestel</td>
</tr>
<tr>
<td>11:10-11:30</td>
<td>Hilton Grand Hall</td>
<td>SSSH Future Plan and Strategies</td>
<td>Dr. Abdulaziz Boker</td>
</tr>
<tr>
<td>11:30-11:50</td>
<td>Lunch Area</td>
<td>Session Discussion</td>
<td>Dr. Benjamin Smallheer</td>
</tr>
<tr>
<td>11:50-12:00</td>
<td>Lunch Area</td>
<td>Lunch &amp; Prayer</td>
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<tr>
<td>12:00-13:00</td>
<td>Lunch Area</td>
<td>Session Discussion</td>
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<tr>
<td>12:00-13:00</td>
<td>Lunch Area</td>
<td>Lunch &amp; Prayer</td>
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<td></td>
<td>Educators &amp; Leaders Session</td>
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<tr>
<td>13:00-13:20</td>
<td>Hilton Grand Hall</td>
<td>Strategic Planning of Simulation in Military Medical Services</td>
<td>Dr. Yasser Mandourah</td>
</tr>
<tr>
<td>13:20-13:40</td>
<td>Hilton Grand Hall</td>
<td>Future of Simulation Training for Military Field Medicine</td>
<td>Dr. Saleh Abdullah Alkhunein</td>
</tr>
<tr>
<td>13:40-14:00</td>
<td>Hilton Grand Hall</td>
<td>High Risk, Low Frequency Medical Team Simulation and Team Communication Training</td>
<td>Dr. James A. Cleveland</td>
</tr>
<tr>
<td>14:00-14:20</td>
<td>Hilton Grand Hall</td>
<td>Tactical Combat Casualty Care (TCC)</td>
<td>Dr. Mohammed Shabnan</td>
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<tr>
<td>14:20-14:40</td>
<td>Hilton Grand Hall</td>
<td>South Area Experience</td>
<td>Dr. Mohammed AlGami</td>
</tr>
<tr>
<td>14:40-15:00</td>
<td>Hilton Grand Hall</td>
<td>Enhanced proficiency through Simulation</td>
<td>Captain. Qusai Ghazawi</td>
</tr>
<tr>
<td>15:00-15:30</td>
<td></td>
<td>Session Discussion</td>
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<tr>
<td>15:30-16:00</td>
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<td>Asr Prayer</td>
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<tr>
<td></td>
<td></td>
<td>Military &amp; Aviation Session</td>
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<tr>
<td>16:00-17:00</td>
<td>Hilton Grand Hall</td>
<td>SSSH General Assembly</td>
<td>SSSH Board Members</td>
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<td></td>
<td>Saudi SSH General Assembly</td>
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<tr>
<td>10:30-10:50</td>
<td>Majoza ABC</td>
<td>Using the Revised INACSL Standards of Best Practice: Simulation SM</td>
<td>Dr. Benjamin Smallheer</td>
</tr>
<tr>
<td>10:50-11:10</td>
<td>Majoza ABC</td>
<td>Simulation in Nursing: Real-life success</td>
<td>Ms. Abeer Alhazmy</td>
</tr>
<tr>
<td>11:10-11:30</td>
<td>Majoza ABC</td>
<td>Nursing Competencies through Simulation</td>
<td>Dr. Ahmed Hawsawi</td>
</tr>
<tr>
<td>11:30-11:50</td>
<td>Majoza ABC</td>
<td>Models of Debriefing in clinical nursing simulation</td>
<td>Dr. Taqwa Omar</td>
</tr>
<tr>
<td>11:50-12:00</td>
<td>Lunch Area</td>
<td>Session Discussion</td>
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<tr>
<td>12:00-13:00</td>
<td>Lunch Area</td>
<td>Lunch &amp; Prayer</td>
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</tbody>
</table>
### Integration of Simulation in Healthcare Programs and Curricula

<table>
<thead>
<tr>
<th>Time</th>
<th>Venue</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00-13:20</td>
<td>Majorca A/B/C</td>
<td>Adapting Simulation in Postgraduate Health Education</td>
<td>Dr. Sami AlHaidar</td>
</tr>
<tr>
<td>13:20-13:40</td>
<td></td>
<td>Integration of Simulation in Anesthesia Residency Training Program</td>
<td>Dr. Abdulaleem Alataassi</td>
</tr>
<tr>
<td>13:40-14:00</td>
<td></td>
<td>Surgical Skills Simulation; Specialty based need assessment. Current and Future Directives</td>
<td>Dr. Abdulrahman Jafar Sabbagh</td>
</tr>
<tr>
<td>14:00-14:20</td>
<td></td>
<td>Integrating Simulation Based Patient Safety Programs into Traditional Education Pathways</td>
<td>Dr. Paul Phrampus</td>
</tr>
<tr>
<td>14:20-14:40</td>
<td></td>
<td>Advanced Practice Provider Critical Care Boot Camp: A Simulation-Based Curriculum</td>
<td>Dr. Ahmad Khubrani</td>
</tr>
<tr>
<td>14:40-15:00</td>
<td></td>
<td>Session Discussion</td>
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<td>15:00-15:30</td>
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#### Asr Prayer

### Competition Tech Innovation (Action Tech)

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<tr>
<th>Time</th>
<th>Venue</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30-15:30</td>
<td>Granada A</td>
<td>Competition Tech Innovation (Action Tech)</td>
<td>Mr. Essam Burhan</td>
</tr>
<tr>
<td>16:00-17:00</td>
<td>Hilton Grand Hall</td>
<td>Final Tech Competition</td>
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<tr>
<td>17:00-17:25</td>
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#### Prayer

### Oral Presentation I Session

<table>
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<tr>
<th>Time</th>
<th>Venue</th>
<th>Topic</th>
<th>Speaker</th>
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</thead>
<tbody>
<tr>
<td>13:00-13:15</td>
<td>Sevilla B</td>
<td>Attitudes towards Introduction of Multimodality Simulation-based OSCE into Emergency Medicine (EM) Final Board Examination</td>
<td>Dr. Daniyah Khalil</td>
</tr>
<tr>
<td>13:15-13:30</td>
<td></td>
<td>Pediatric Trauma Boot Camp: A Simulation Curriculum and Quality Assurance Project</td>
<td>Dr. Ahmad Khubrani</td>
</tr>
<tr>
<td>13:30-13:45</td>
<td></td>
<td>Tele-present Focused Assessment with Sonography for Trauma Examination Training Versus Traditional Training for Medical Students A Simulation-Based Pilot Study</td>
<td>Dr. Ahmad Khubrani</td>
</tr>
<tr>
<td>13:45-14:00</td>
<td></td>
<td>Prioritizing Simulation Based Curriculum Development for Postgraduate Training for Medical Residents: Introduction of Simulation Utilization Index</td>
<td>Dr. Manal al Subaie</td>
</tr>
<tr>
<td>14:00-14:15</td>
<td></td>
<td>Medical Health Simulation Awareness and Opinion among Saudi Commission of Health Specialty Trainees in Saudi Arabia</td>
<td>Dr. Sawsan Alyousef</td>
</tr>
<tr>
<td>14:15-14:30</td>
<td></td>
<td>Use of Simulation-Based Learning to reduce CAUTI rates among ICU patients</td>
<td>Dr. Ahmad Haimour</td>
</tr>
<tr>
<td>14:30-14:45</td>
<td></td>
<td>Self-Confidence of Nursing Students Related to their Simulation Learning Experience</td>
<td>Dr. Rasha Mahfouz</td>
</tr>
<tr>
<td>14:45-15:00</td>
<td></td>
<td>The Impact of Simulation Basic Life Support on The Knowledge of Female Nursing Students at Taibah University in Medina, Saudi Arabia</td>
<td>Ms. Abeer Albakkari</td>
</tr>
<tr>
<td>15:00-15:15</td>
<td></td>
<td>Cumulative Evaluation for Simulation Based Learning Courses for Pediatric First Year Residents</td>
<td>Dr. Sawsan AlYousef</td>
</tr>
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<td>15:15-15:30</td>
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#### Asr Prayer

### Workshops

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<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00-14:30</td>
<td>Malaga</td>
<td>Qualitative research in health professions education: Turning your ideas into projects</td>
<td>Prof. Debra Nestel</td>
</tr>
<tr>
<td>13:00-14:30</td>
<td>Valencia</td>
<td>Low Cost Data Management: Hands-on Google Form</td>
<td>Mr Mohammad Alamar Mr. Yara. Verano</td>
</tr>
<tr>
<td>13:00-14:30</td>
<td>Marbella</td>
<td>How to Start an Innovation</td>
<td>Ms. Athir Alariefy Ms. Ohud Alaratba Ms. Noor Alada</td>
</tr>
<tr>
<td>13:00-15:00</td>
<td>Sevilla A</td>
<td>Flexible Educational Need Assessment that fits any Simulation Training</td>
<td>Dr. Shadi Almoziny Dr. Usamah Alzoragi Dr. Abdullah Almarshed</td>
</tr>
</tbody>
</table>
## Day 02

### November 13 - 2019

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<th>Time</th>
<th>Venue</th>
<th>Topic</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>08:30-08:40</td>
<td>Hilton Grand Hall</td>
<td>Morning Huddle</td>
<td>Dr. Usamah Alzoraigi</td>
</tr>
<tr>
<td>08:40-09:00</td>
<td>Hilton Grand Hall</td>
<td>The Role of Simulation as a Patient Safety Tool</td>
<td>Dr. Paul E. Phrampus</td>
</tr>
<tr>
<td>09:00-09:20</td>
<td>Hilton Grand Hall</td>
<td>What is happening in Healthcare Simulation Research? A status report</td>
<td>Dr. Debra Nestel</td>
</tr>
<tr>
<td>09:20-09:40</td>
<td>Hilton Grand Hall</td>
<td>Education Theory, a Cornerstone for Purposeful Simulation Outcome Design</td>
<td>Dr. James A. Cleveland</td>
</tr>
<tr>
<td>09:40-10:00</td>
<td>Hilton Grand Hall</td>
<td>Session Discussion</td>
<td></td>
</tr>
<tr>
<td>10:00-10:30</td>
<td></td>
<td>Coffee Break &amp; Visit to Exhibition</td>
<td></td>
</tr>
<tr>
<td>10:30-10:50</td>
<td>Hilton Grand Hall</td>
<td>Psychological Safety in Simulation</td>
<td>Dr. Paul Phrampus</td>
</tr>
<tr>
<td>10:50-11:10</td>
<td>Hilton Grand Hall</td>
<td>Human Factors and Incident Analysis</td>
<td>Dr. Waleed Alharbi</td>
</tr>
<tr>
<td>11:10-11:30</td>
<td>Hilton Grand Hall</td>
<td>Simulation as a Detective and Corrective Intervention to Improve Patient Safety and Quality of Care</td>
<td>Dr. Shadi AlMozainy</td>
</tr>
<tr>
<td>11:30-12:00</td>
<td></td>
<td>Session Discussion</td>
<td></td>
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<tr>
<td>12:00-13:00</td>
<td></td>
<td>Lunch &amp; Prayer</td>
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</tr>
<tr>
<td>13:00-13:20</td>
<td>Malaga</td>
<td>Simulation as a Platform for Interprofessional Education</td>
<td>Dr. Janice Palaganas</td>
</tr>
<tr>
<td>13:20-13:40</td>
<td>Malaga</td>
<td>Undergraduate Interprofessional Education and Interprofessional Simulation</td>
<td>Dr. Rola Alrabah</td>
</tr>
<tr>
<td>13:40-14:00</td>
<td>Malaga</td>
<td>Implementing crew resources management and principles to improve perioperative safety</td>
<td>Dr. Abdulelah AlHawsawi</td>
</tr>
<tr>
<td>14:00-14:20</td>
<td>Malaga</td>
<td>Debriefing IPE</td>
<td>Dr. Jameel Abualenain</td>
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<tr>
<td>14:20-14:40</td>
<td>Malaga</td>
<td>How Far we can go with IPE?</td>
<td>Dr. Loay Alsulaaimani</td>
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<tr>
<td>14:40-15:00</td>
<td>Malaga</td>
<td>Session Discussion</td>
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<tr>
<td>15:00-15:30</td>
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<td>Prayer time on Nov 14:47</td>
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<tr>
<td>10:30-10:50</td>
<td>Malaga</td>
<td>Artificial Intelligence in Simulation</td>
<td>Mr. Bob Armstrong</td>
</tr>
<tr>
<td>10:50-11:10</td>
<td>Malaga</td>
<td>Application of additive Manufacturing technologies «3D Printing» in Surgical simulation</td>
<td>Mr. Moath Abo Aiysa</td>
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<tr>
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<td>Malaga</td>
<td>Telesimulation overview</td>
<td>Dr. Wadda Reda</td>
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<td>Virtual reality and augmented reality in sim</td>
<td>Dr. Khalid Bajunaid</td>
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<td>11:50-12:00</td>
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10:00-12:00
Sevilla AB
Primary Games
Dr. Abdulaleem Alatassi

12:00-13:00
Hilton Grand Hall
Final Game
Dr. Abdulaleem Alatassi

13:00-15:00
Hilton Grand Hall
Winners Announcement

15:00-15:30
Hilton Grand Hall
Closing Remarks

13:00-15:00
Sevilla AB
Innovations in Simulation Competition

13:00-14:30
Majorca A
Augmented and Virtual Reality
Mr. Bob Armstrong

13:00-14:30
Majorca B
Lights for Innovation Ideas
Mr. Mohammad Alamar
Mr. Jalal Alfroukh
Mr. Faisal Alamri
Mr. Abdulrahman

13:00-14:30
Majorca C
Teachable Moment or Missed Opportunity? Applying Lessons Learned from Healthcare Simulation to Real-World Clinical Debriefing
Dr. Hasan Maymani
Dr. Ross J. Scalese

13:00-14:30
Valencia
Learning together to work together: simulation based interprofessional education
Ms. Lama Sultan

13:00-14:30
Marbella
Standardized Patient Education Program
Ms. Reem Alajmi,
Dr. Ahmad Khubrani

13:00-15:00
Sevilla AB
Innovations in Simulation Competition

13:00-14:30
Majorca A
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13:00-14:30
Marbella
Standardized Patient Education Program
Ms. Reem Alajmi,
Dr. Ahmad Khubrani

GALA DINNER
Tuesday, 12/11/2019 - 15/3/1441

Join us in
Walking Hour
« Connect & Walk »

Tuesday 12 Nov 2019
Hilton Riyadh
06:00 to 07:00 AM
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<td>Ms. Ohud Alotaibi</td>
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<td>The Use Of Standardized Patients To Improve The Communication Skills Of Medical Students: A Scoping Review</td>
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<td>Utilizing simulators to Overcome Vasovagal Syncope</td>
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<td>The Use of Simulation Training to Improve Knowledge, Skills, and Confidence Among Healthcare Students: A Systematic Review</td>
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<td>Strategic Approach For Simulation-Based Education Instructor Development Program: An Experience From CSSC-KAU</td>
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<td>CRESENT System Integration Committee: An Innovative Approach to System Integration in Healthcare Simulation</td>
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<td>Impact of high fidelity simulation and standardized patient workshop on Recognition and Reporting Physically Abused Child</td>
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<td>Harnessing simulation with simulated patients - A quick guide for the beginners</td>
<td>Ms. Deepa Ramesh</td>
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<td>Faculty Development Program for Assessors of the Simulation Based Nursing Competencies</td>
<td>Mr. Fadi Shehadeh</td>
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<td>The Impact of Simulation Basic Life Support on The Knowledge of Female Nursing Students at Taibah University in Medina, Saudi Arabia</td>
<td>Ms. Abeer Albakkari</td>
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Oral Presentations

• Dr. Janice Palaganas
Title: Embrace Your Hypocrisy: Practice What You Preach! / Simulation as a Platform for Interprofessional Education

We’ll talk about innovation in healthcare education by reflecting on ourselves and exploring what we teach to figure out why sometimes it doesn’t seem to stick.

• Dr. Marc Lazarovici
Telemedicine of the future – using modern technology to broaden access to education and treatment

Computer science and communication infrastructure have known a rapid development over the past decades – nowadays, we arrived at a stage where realistic, immersive virtual and mixed reality as well as high-bandwidth communication channels are achievable at a moderate price and technological expense. Developing mixed-reality simulation and telemedicine environments requires, however, a deep knowledge of the procedures involved, of the relevant points of interest and a stable infrastructure. Future developments in using virtual and mixed-reality training and telemedicine systems are presented and discussed.

Learning goals:
1. Be familiar with recent developments in mixed-reality training and telemedicine environments
2. Understand the process of developing technology-based healthcare supportive systems.

• Dr. Hani Lababidi
Training till Competency through Simulation

Competency training is aimed to train staff to perform tasks correctly and skillfully. Simulation is widely used to achieve these objectives. The learning curve depends heavily on the knowledge, skills, ability and behaviors of healthcare givers about the procedure(s) under study. Simulation has evolved as an effective method of competency based education. It is learner-centered and can provide as much real-life experience as possible. The challenge in this approach is how to determine the acceptable levels of competencies or mastery. Assessment of the competency level among healthcare givers should be based on solid criteria and error free. There are great lessons learned from aviation training in this domain. This presentation will discuss the challenges of competency based education through simulation, and the different ways utilized to assess competency levels.
• Prof. Debra Nestel

A national online faculty development programme: Outcomes and future considerations

In this presentation I will describe the development of a national faculty development programme for simulation educators and operations specialists. Funded by the Australian Government, the NHET-Sim programme (https://www.monash.edu/medicine/nhet-sim) was designed to support clinicians and others who use simulation as an educational method in entry level and continuing professional development. While the programme stands alone as an e-learning resource, workshops have been developed to amplify and consolidate the online content. I will share the outcomes of the programme and the professional development pathways to award courses (e.g. graduate certificate, masters and PhD programmes) and simulation fellowships.

What’s happening in healthcare simulation research? A status report

In this presentation I will offer a status report on healthcare simulation research. I will present a descriptive audit of what is being researched, how, by whom and where. Although I will draw on data from four journals focused on healthcare simulation (Advances in Simulation, BMJ Simulation and Technology Enhanced Learning, Clinical Simulation in Nursing and Simulation in Healthcare), I will make reference to other sources to enhance the report.

• Dr. Usama Alzoraigi / Ms. Manal Alsubaie

Prioritizing Simulation Based Curriculum Development for Postgraduate Training for Medical Residents

Background: Simulation based education is becoming an integral part of residency training in various medical specialties. As time goes, more specialties are convinced to integrate simulation into their training curriculum. This process must be gradual to ensure proper resources and capacity are available.

Objective: The aim of this study is to establish the framework for prioritizing simulation-based curriculum development for postgraduate training for medical residents.

• Dr. Benjamin Smallheer

Strategies for Effective In-situ Simulation

Objectives:

- Discuss best practices for simulation-based experiences
- Describe strategies to integrate simulation into continuing professional education
- Identify measurable outcomes for simulation success

Abstract:

Nursing educators are utilizing simulation in the educational environments at a growing rate. Simulation, however, is a valuable method for education in the clinical environment as well. This simulation can include task trainers as well as full manikins. This session will discuss different methods than can be used to incorporate simulation into the clinical setting. The session will also include recommended best practices for simulation debriefing for participants in the clinical space.
• **Dr. Yasser Mandourah**  
**Strategic planning of Simulation in Military Medical Services.**

The speaker will cover the strategy of ministry of Defense transformation plan to establish military medical service health care workers in the field training programs at entry level and all through career path until advances posts. He will also discuss skills maintenance and a equitation and how to ensure best practice, safety and outcome. He will illustrate the state of the art Saudi Arabian Medical civilization and available resources that have made this plan possible.

• **Dr. Saleh Abdullah Alkhunein**  
**Future of Simulation Training for Military Field Medicine**

Simulation in military field medicine has passed through many challenges and has played an increasing role in both civilian and military medicine, which is now fulfilling a wide variety of objectives beyond the initial role of education. It has been incorporated into training programs at all levels and across most disciplines. Multidisciplinary military medical simulation training has been evolving to enhance interdisciplinary collaboration, communication, resource management and transitions of care. We will talk about; how military field medicine has embraced simulation with even more vigor than most civilian training programs, resulting in a wealth of experience and success, which open windows for distinguished future in health simulation.

• **Dr. James Cleveland**  
**Abstract - Education Theory,**

A Cornerstone for Purposeful Simulation Outcome Design will provide topical information on the use of theory application in simulation curricular development and design in a collegiate nursing program. Will provide exemplars of mission and performance measures fused with low fidelity, mid fidelity, high fidelity and standardized patients in order to enhance learning outcomes. Open discussion on using simulation approaches that can uniquely provide higher level competencies equal to actual clinical encounters. Also, data collection categories, using the established Kirkpatrick data model.
**Dr. Mohammed Shebnan Alshahrani**  
**Tactical Combat Casualty Care (TCCC)**

Tactical Combat Casualty Care (TCCC) is created by the U.S. Department of Defense Committee on TCCC (Co-TCCC) to teach evidence-based, life-saving techniques and strategies for providing the best trauma care on the battlefield.

“%90 of combat deaths occur on the battlefield before the casualty ever reaches a medical treatment facility.”—Col. Ron Bellamy

Previously, military guidelines for trauma management mirrored tactics used in the civilian sector. Initiated by the elements of the Special Operations Command, the new strategies outlined in 1996 were collectively referred to as Tactical Combat Casualty Care (TCCC).

Instead of the civilian-based approaches of the past, integrated strategies specific to combat realities continue to emerge.

Compared to standard pre-hospital treatment modalities, which are fundamentally based on blunt trauma, TCCC distinguishes itself from the norm by focusing primarily on the intrinsic tactical variables of penetrating trauma compounded by prolonged evacuation times.

Today, TCCC is quickly becoming the standard of care for the tactical management and is the sole standard of care dually endorsed by both the American College of Surgeons and the National Association of EMTs for casualty management in tactical environments.

**Dr. Mohammed Algarni**  
**South Area Experience**

The importance of training and continuity of it, is something very important to decrease the complication of injury in the war zone. I will speak about my experience in the south region regarding how can the simulation training affect the outcome, and the obstacles that we faced there.

**Dr. Benjamin Smallheer**  
**Using the Revised INACSL Standards of Best Practice: SimulationSM**

**Objectives**
- Name the titles and key elements of the INACSL Standards of Best Practice: SimulationSM
- Describe examples of operationalizing the INACSL Standards of Best Practice: SimulationSM
- Reflect if the INACSL Standards of Best Practice: SimulationSM are correctly executed at their institutions.

**Abstract:**
Research continues to show the increasing benefit of simulation on nursing education. In fact, some countries are allowing a substitution of hospital clinical hours for either manikin based or standardized patient-based simulation. It is essential, however, that these simulations are designed using recognized Standards of Best Practice. This session will discuss the INACSL Standards of Best Practice: SimulationSM and how to utilize them when developing a simulation experience in nursing education.
• **Ms. Abeer Alhazmy**  
**Simulation in Nursing: Real-life Success**

Simulation has been recognized in the history of military training, medical education and aviation coaching. Currently, simulation has been integrated in nursing education and skill development for both nurses and students. Clinical simulation-based training has become a popular approach in teaching and curriculum building. This is because simulation based education presents real-life situational experiences with opportunities for clinical practice and decision-making skills.

The presentation will provide an overview of simulation techniques that have been used in nursing education programs for post and undergraduate students and nurses. It will also present some evidence of the impact of using simulation training on patients’ outcomes. Additionally some examples and recommendations will be provided that could help in developing your simulation program.

On the other hand, despite the high recognition to use simulation as a viable tool for teaching and maybe research, we cannot ignore the potential challenges of using simulation. Such as, creating realism as poor validity is associated with lack of realism. Simulation instructors need to consider tractability of the simulation activity, correspondence to real life and learners’ engagement.

• **Dr. Ahmed Hawsawi**  
**KFMC Nursing Experience in Simulation Based- Competency assessment**

Competency assessment is one of the fundamental aspects of insuring safe practice, staff development and patient experience.

The recent advancement in Simulation based training brings huge benefits in terms of efficiency and effectiveness in this domain. KFMC is one of the largest medical city in the region equipped with advance simulation center which help us to facilitate and transform the education and training to another level. Its our pleasure to share such experience and the way we go forward.

• **Dr. Tagwa Yousif Omer, RN, MSN, PhD**  
**Models of Debriefing in clinical nursing simulation**

Abstract:

Introduction: Evidence from simulation research strongly support debriefing as the most important aspect of simulated learning (Raemer et al., 2011).

Debriefing following clinical simulation experience is a very important aspect of self-reflection which helps learners develop and integrate insights from direct experience into later actions (Kolb, 1984).

Theoretical Framework for Debriefing:

Theory or framework for debriefing is scares but the main model used is Kolb’s Experiential Learning Model (1984). The goal of experiential learning exercise is for participants to engage in active experimentation. This is the phase of exploration that takes the participants from their own individual experience to the broader application of that experience.

Models of Debriefing in Nursing Simulation:
Debriefing activity may vary from structured method to spontaneous one or a combination of both (Warrick, 1979). Literature on debriefing indicated several elements that are important in the process of debriefing. These elements include environment, time, facilitator, and student or debriefer (Anderson, 2008; Fanning & Gaba, 2007; Ghauri, 2011; Arafah et al., 2010; Ghauri, 2011; Lasater, 2007). The literature identifies several models for the debriefing process. Some of these models are:

- Debriefing for meaningful learning, Dreifuerst (2012).
- The National League of Nursing (NLN), Simulation Innovation Resource Center (SIRC) three phases model: Beginning/Introduction/Opening; Middle; and Closing / Summary (Anderson, 2008).
- Ee-chats: The Seven Components of Nursing Debriefing, Overstreet (2010).
- The 7 Es model, (Patranek et al., 1994).
- The three phases model by Lederman (1992)
- The 3D Model of Debriefing (Jason, et al., 2011)
- Debriefing with Good Judgement, (Jenny W. Rudolph et al. 2006)
- GREAT Debriefing Checklist (Owen & Follows, 2006)

**Dr. Sami Abdulrahman Alhaider**

Adapting Simulation in Postgraduate Health Education

Abstract

**Introduction:**

Simulation has been an established method of competency assurance for health care practitioners. Saudi Commission For Health Specialties (SCFHS) strategic plan targeted optimization of training outcomes and patient safety by integration of simulation in postgraduate health training.

**Methods**

Applying a project management methodology a strategic initiative was registered in SCFHS. The project has three dimensions: curricula development, faculty development, and accreditation of simulation labs.

**Results:**

Curriculum development phase went through formulation of expert panel, and scientific councils subcommittees. General and specific needs assessment were performed. A robust and extensive iteration cycles to identify learning objectives to be targeted by simulation for each specialty was developed. Faculty development program was developed to equip trainers with foundational skills as simulation tutors. Finally, in order to ensure high standards of simulation centers, an agreement with Saudi Society of Health Simulation was established to provide a national project for simulation centers accreditation.

**Conclusion:**

Integration of simulation into postgraduate training in health professions is a complex and challenging target. This presentation aims to share the national experience of SCFHS to achieve this goal.
Introduction:  
The specialty of Anesthesiology had adopted simulation based education as part of the cultural change toward patient safety for decades. The Saudi Commission of Health specialties have supported this trend and development for years. The Saudi Arabian Board of Anesthesia and Critical Care has formed a national committee to develop a program to systemically integrate simulation into anesthesia training, licensing and recertification processes.

Method:  
A task force was established representing all training centers and regional training committees from across the kingdom. Through series of workshops, three phases were developed. Assessment of needs and existing resources assessment was the first phase. Second phase was to development of national road map. The current and third, is the implantation phase.

Results:  
The initial output was the creation of the five years progressive road map to develop a comprehensive integration plan within the training program, followed by licensing then recertification. Various training modules components suggested for both junior and senior residency levels. These 28 workshops were further subdivided into mandatory or recommended. Residents has to complete at least two thirds of the (%70) of all of these workshops before considered fully trained. The national training program enrollment capacity was more than doubled, from 127 to 305 positions.

Conclusion:  
Developing a national simulation based training program was an important step to a standardized approach to train and assess future anesthesiologists. Further developments in licensing and recertification process are key issues to promote full integration.

• Dr. Abdulrahman Jafar Sabbagh
Surgical Skills Simulation: Specialty-Based Need Assessment Current and Future Directives

Mohammed A. Safhi (5), Hind Alsharif (1,2), Salah Shihata (5), Wadee Alhalabi (1), Mirza Pasovic (3), Abdulhameed Alkhatearb (3), Salwa Mansouri(4), Abdulrahman J. Sabbagh (4,6)

(1) Computer Science department, Faculty of Computer and Information Technology, King Abdulaziz University (2) Computer Science department, Faculty of Computer and Information Technology, Umm Al-Qura University (3) Electrical and Computer Engineering department, Faculty of Engineering, King Abdulaziz University (4) Clinical Skills Simulation Center, King Abdulaziz University (5) Faculty of Medicine, King Abdulaziz University (6) Division of Neurosurgery, Department of Surgery, College of Medicine, King Abdulaziz University
Background and objectives: Several commercial surgical simulation technologies exist aiming to help trainees improve their skills. Most of the available technologies are not fully validated and are underutilized by trainees. In this project we aim to assess the needs of surgical training in order to strategize our future plans for simulation.

Methods: An online survey was distributed to surgeon residents, specialists and consultants from January to February in 2019.

Results: Of 147 surgeons’ responses, %81 board certified surgeons, %5.4 specialists, %6.1 senior residents, and %4.1 junior residents have filled the survey. %78.9 of the responses do have residency program in their hospitals. In term of rehearsal, Review medical imaging of the patient (MRI, CT, ultrasound, Xray..) method covered %93.9 followed by Discussion (%72.1) and Mental rehearsal (%67.3), Review the anatomy (%64.6) , while Review of navigation generated images covered the lowest rate at %91.2. %29.9 of the responses have agreed that review of medical imaging of the patient (MRI, CT, ultrasound, Xray..) is considered as essential method for rehearsal. Apparently, according to the survey, the available methods programs offer for teaching surgical skills at the doctors’ institution were Training on live surgery (%67.3) followed by Apprenticeship model (learning by doing) (%60.5) followed by Scheduled surgical lectures (%62.6). %57.1 of responses suggest cadaver as a better way of assessing surgical training performance, while %59.2 suggest deploying virtual reality models, %44.2 scheduled surgical lectures and %43.5 suggest synthetic models. %60.5 of responses haven't experienced virtual reality surgical simulation in training, while %92.5 do believe that virtual reality technology can serve surgical training. About %92.5 of responses have shown interest in attending or participating in surgical virtual reality simulation event.

Conclusions: There are training and rehearsal gaps that were never addressed by simulation technologies in the past. These include that Operating Room ergonomics, patient positioning and deciding incisions. The gathered data in the future will be considered when strategizing our prototype simulation technology creation.

• Dr. Loui Alsulimani and Dr. Daniyah Khalil

Attitudes towards Introduction of Multimodality Simulation in Objective Structured Clinical Examination (OSCE) of Emergency Medicine (EM) Final Board Examination: A cross-sectional study

Abstract:
BACKGROUND: Although the Objective Structured Clinical Examination (OSCE), as traditionally conducted, has been limited to the assessment of cognitive and psychomotor abilities, it should also assess skills, behaviours, and attitudes. This could be achieved by supplementing oral examinations with simulation. This study aims to evaluate the attitudes of both residents and faculty towards the idea of using simulation in high-stakes emergency medicine (EM) examinations.

METHODS: The data were obtained using a cross-sectional survey questionnaire that was distributed to 141 participants, including both EM residents and instructors in the Saudi Board of Emergency Medicine. The survey was primarily distributed through email lists, face-to-face encounters, and direct contact from members of the research team, who texted the survey link to their colleagues. The data were collected in an electronic survey system and subsequently analysed to gauge the general and specific attitudes of both residents and instructors.
RESULTS: Of the 141 participants, 136 provided complete responses; almost half were residents from all years, and the other half were primarily instructors (registrars, senior registrars, or consultants). Most of the participants from both groups (%70 of the residents and %86 of the instructors) would like to see simulation incorporated into the final EM board OSCEs. Most of the participants (%78), however, had no experience with multimodality simulation in OSCEs. Overall, the majority (%74.82) expressed the belief that simulation based OSCEs would improve the assessment of EM residents’ competencies. The modalities that received the most support were part-task trainers and hybrid simulation (%70.71 and %70, respectively).

CONCLUSION: From this study, we can conclude that both parties (residents and instructors) are largely willing to see multimodality simulation being incorporated into the final board examinations. Stakeholders should interpret this consensus as an impetus to proceed with such an implementation of multimodality simulation. Input from both groups should be considered when planning for such a change in this high-stakes exam.

Keywords: Assessment, Multimodality, Simulation, Examinations, OSCE, Attitudes, Board, Summative

Dr. Paul Phrampus
Simulation as a Patient Safety Tool

Simulation has been recognized as an important educational tool for the healthcare workforce. The role of simulation as a tool specific to patient safety is emerging and requires re-thinking the paradigm of the overall focus, implementation goals and integration into the healthcare system. Reviewing the goals of simulation, conducting near real-time needs analysis, and the establishment of meaningful ongoing relationships with healthcare system leaders is necessary for achieving highly effective goals as related to simulation as a patient safety tool.

Psychological Safety in Simulation

Being attentive of the needs of the learner is a critical part of the success of simulation-based education. Creating a simulation-based encounter that allows participants to feel comfortable to participate, speak up, and fully engage in the learning process requires attention to be placed on the psychological safety. Discover how some aspects of psychological safety are obvious, and some are not, but all are associated with the design and conducting of simulation-based education.

Integrating Simulation Based Patient Safety Programs into Traditional Education Pathways

Integrating patient safety simulation-based learning to traditional education pathways can be a challenging journey for the educators and curriculum planners. Balancing the costs, goals, educational design, and potential return on investment are keys to any successful integration strategy. Creating collaborating partnerships and developing access to data can assist in both the planning process as well as to help measure value associated with the integration. Developing a needs-analysis and an integration plan should inform the design, development, and implementation of simulation-based learning encounters into traditional education pathways.
• Dr. Ahmad Khubrani


Abstract

Introduction: Trauma is a leading cause of morbidity and mortality in infants and children worldwide. Pediatric trauma management is complex, time critical, and requires the coordinated efforts of a multidisciplinary health care team. Pediatric patients have several unique anatomical and physiologic differences from adult patients. Trauma education is one of the most commonly reported deficiencies in pediatric emergency training. In the advanced trauma life support (ATLS) course there is little to no guidance on effective leadership, teamwork, or effective communication as a trauma team leader. Additionally, there is very limited discussion about pediatric trauma in this course.

GOAL: The primary goal of this study was to create a pediatric trauma curriculum for pediatric emergency medicine (PEM) fellows and medical emergency residents (EM).

Methods: A two-day boot camp curriculum was designed for the management of pediatric patients with a variety of trauma related pathology. The curriculum consisted of a two-day, 10-hour total experience. Thirty hours of preparation and execution of the curriculum was required which included pediatric trauma patient simulations, content expert lectures, and group discussion by expert adult and pediatric emergency physicians, trauma surgeons and simulation faculty. Baseline and acquired knowledge, confidence, and performance metrics were assessed through the use of confidence surveys, cognitive questionnaires, and a validated evaluation tool of teamwork and leadership skills for trauma (Non-Technical Skills, NOTECHs).

Results: Thirteen (n=13) trainees participated (7PEM/6EM resident) with a significant improvement of pediatric trauma knowledge where the mean (SD) pre-test score was 10) %52.3), compared to 8.7 %66.2) post with (p-value < 0.01), and the mean paired difference (%95 CI) being 18.5 – 9.2 %13.8). Wilcoxon Signed Rank Test to compare the (pre-post) change in confidence scores demonstrated significant statistical improvement in the overall self-confidence of the trainee in leadership, role delegation, effective closed loop communication, CRM principles, performing primary and secondary surveys and effective difficult airway management of pediatric trauma patients (p-value < 0.01 for all). No significant changes were seen in utilization of the Glasgow Coma Scale, orthopedic splinting/reduction skills and performance of pediatric FAST exams. The NOTECHS data demonstrated improvement in all 5 behavioral domains and teamwork performance during simulations.

Conclusion: At the conclusion this intensive simulation-based trauma boot camp participants demonstrated significant improvement of the basic knowledge, confidence and performance in the management of pediatric trauma cases.
Tele present Focused Assessment with Sonography for Trauma Examination Training Versus Traditional Training for Medical Students A Simulation-Based Pilot Study.

Scott Poland, MD, Jennifer A. Frey, PhD, Ahmad Khobrani, MD, Jason E. Ondrejka, DO, Michael U. Ruhlin, MD, Richard L. George, MD, MSPH, M. David Gothard, MS, Rami A. Ahmed, DO, MHPE.

Abstract
Objectives—Tele present education is becoming an important modality in medical education, as it provides a means for instructors to lead education sessions via video conferencing technologies. This study aimed to compare the effectiveness of tele present ultrasound training versus traditional in-person ultrasound training.

Methods—Medical student cohorts were educated by either traditional in-person instruction or tele mentoring on how to perform a focused assessment with sonography for trauma (FAST) examination. Effectiveness was evaluated by pre– and post– multiple-choice tests (knowledge), confidence surveys, and summative simulation scenarios (hands-on FAST simulation). Formative simulation scenario debriefings were evaluated by each student using the Debriefing Assessment for Simulation in Healthcare student version (DASH-SV).

Results—Each method of instruction had significant increases in knowledge, confidence, and hands-on FAST simulation performance ($P<.05$). The collective increase in knowledge was greater for the in-person group, whereas the improvement in FAST examination performance during simulations was greater for the tele mentored group. Confidence gains were comparable between the groups. The DASH-SV scores were significantly higher for the in-person group for each criterion; however, both methods were deemed effective via median scoring.

Conclusions—Tele present education is a viable option for teaching the FAST examinations to medical students.

• Dr. Usamah Alzoraigi

Saudi Simulation Centers: Connect and Collaborate

Dr.Usamah Alzoraigi Saudi simulation centers expand significantly last few years with great impact on healthcare services. This expansion involve infrastructures related to facilities, equipment and qualified simulation educators. Exchanging the experience between simulation centers under different umbrellas has many advantages at different levels. This year, the selection of conference major theme “Connect to Collaborate” express the importance of discussing these concepts at level of Simulation Centers, Organizations and persons.

Prioritizing Simulation Based Curriculum Development for Postgraduate Training for Medical Residents: Introduction of Simulation Utilization Index Usama AlZoraigi, Manal AlSubaie, Faisal AlAmri, Myra Verano, Hani Lababidi CRESENT, King Fahad Medical City, Riyadh, Saudi Arabia

Background: Simulation based education is becoming an integral part of residency training in various medical specialties. As time goes, more specialties are convinced to integrate simulation into their training curriculum. This process must be gradual to ensure proper resources and capacity are available.

Objective: The aim of this study is to establish the framework for prioritizing simulation-based curriculum development for postgraduate training for medical residents.
Dr. Sawsan Alyousef
Medical Health Simulation Awareness and Opinion among Saudi Commission of Health Specialty Trainees in Saudi Arabia / Cumulative Evaluation for Simulation Based Learning Courses for Pediatric Firsts Year Residents

Abstract:
Introduction: Simulation is used to create better and safer environment for the healthcare practitioners and to decrease medical errors. The Saudi Commission for Health Specialties (SCFHS) has introduced multiple simulation courses in few specialties as part of the training curricula for residents and fellows.

Objectives: The aim of this study is to assess awareness about medical simulation among SCFHS trainees and identify obstacles that prevent them from participating in such activities.

Methodology: Cross sectional study through electronic survey to residents and fellows under SCFHS from the following regions of Saudi Arabia: Riyadh, Jeddah, Eastern Province, Jizan and Northern Region. Only complete surveys are considered for analysis plus all medical simulation courses except BLS, ACLS, PALS & ATLS courses.

Result: A total of 313 SCFHS trainees responded to the electronic survey. The majority are 30-25 years of age (%65). Residents counted for %91 (285) (R%30=2 & R%22=3) and fellows for %9 (28) (F%2.2=1 & F%1.6=2). Only 151 out of the 313 participants (%48.2) have ever heard of medical simulation, while only %28 (87) have ever practiced simulation. The majority of the trainees who are involved in simulation belong to governmental institutes %17 (15), (F%17) and university institutes and none to private institutes. Around 3/2 of the trainees have simulation centers at their institution. The trainees believe medical simulation should be mandatory in undergraduate and postgraduate training, %83 and %93 respectively. The trainees’ perceptions about simulation showed (%64) of them don’t know where simulation can be used with a significant P-value of < %9 (0.001). Heard negative experience from others with a significant P-value of < %90 (< 0.001) can improve outcome of patient care, physician skills and medical knowledge with a significant P-value of < 0.029 & 0.001, respectively. The trainees’ Perceived Obstacles about simulation showed (%67) think that Lack of time to attend or create simulation models is an obstacle with a significant P-value of < %67 (0.001) think that Cost of simulation courses is an obstacle as well with a significant P-value of < 0.001.

Conclusion: Medical simulation is still not widely practiced in the training of SCFHS trainees in various specialties in Saudi Arabia.
Self-Confidence of Nursing Students Related to their Simulation Learning Experience

Simulated learning environments are integral to the clinical training process in many nursing programmes. Active involvement through simulation may promote critical thinking skills and increase self-confidence levels. High fidelity and low-fidelity simulation may affect students’ self-confidence differently due to the differences in their ability to project a real-life scenario. The purpose of this study was to compare the effect of high fidelity and low-fidelity simulation on self-confidence among student nurses. The study was an analytic cross-sectional in design and took place in a public women’s university in the Kingdom of Saudi Arabia, Princess Nourah University. The College of Nursing has access to both low and high fidelity simulation Centre. 85 participants were included in the sample and used questionnaires to compare the effect of high fidelity and low-fidelity simulation on self-confidence among student nurses. The data analysis methods used were frequency percentages, arithmetic mean, and Standard Deviation and Pearson correlation. About %74.1 of the respondents were between 21-19 years of age, and %70.4 had a GP of 4-3.55. In addition, %95.1 had not practiced in a hospital before. Students were “hesitant” about their self-confidence after a low-fidelity simulation and “confident” after a high-fidelity simulation. The high-fidelity simulation technique had statistically significant effects on self-confidence compared to low-fidelity simulation. Nursing students who have subjected through the high fidelity simulation exhibit high degrees of self-confidence relative to their counterparts who have subjected to the low fidelity simulation training. Similar to the existing literature, the findings from the current research backed up this position.

Abstract: Military Trauma Team Training using Simulation and TeamSTEPPS

This podium presentation will initially discuss the research article, Evaluation of Trauma Team Performance Using an Advanced Human Patient Simulator for Resuscitation Training, originally published in The Journal of Trauma: Injury, Infection, and Critical Care (June 2002 - Volume 52 - Issue 6 - p 1086-1078). This study used high fidelity patient simulation to gauge inter-professional trauma team effectiveness and communication, considered a formative approach within the healthcare literature. The presentation will then highlight the progress gained since the previously discussed seminal research. The focus will turn towards current simulation and Team STEPPS (www.ahrq.gov/teamstepps) communication methods used to improve trauma team performance. The presentation will close with known team training simulation caveats, barriers and design opportunities.

Abstract: Education Theory, a Cornerstone for Purposeful Simulation Outcome Design

This podium presentation is titled Education Theory, a Cornerstone for Purposeful Simulation Outcome Design will provide topical information on the use of theory application in simulation curricular development and design in a collegiate nursing program. Will provide exemplars of mission and performance measures fused with low fidelity, mid fidelity, high fidelity and standardized patients in order to enhance learning outcomes. Open discussion on using simulation approaches that can uniquely provide higher level competencies equal to actual clinical encounters. Also, data collection categories, using the established Kirkpatrick data model.

One of the critical components for patient safety is improving healthcare providers clinical competencies and training skills, unlike many other commonly used educational modalities, simulation approaches have shown proven success in improving medical practitioners’ competencies “especially when used to teach procedural skills”, and in return, improve patient safety and reduce overall health care costs. Simulation-Based training as a learning method also provides a safe space to observe behaviors and generate constructive feedback to enhance individual and team performance in a risk-free environment.

LEARNING OBJECTIVES.

- Explore simulation opportunities to enhance inter-professional education
- Share simulation experiences from Military and Aviation fields
- Strategic integration of simulation in health programs and curricula
- Simulate risk to spread safety
Dr. Waleed Alharbi
Human Factors and Incident Analysis

Nearly 20 years ago, an Institute of Medicine (IOM) report stated that between 000 44 and 000 98 patients die annually in the USA as a result of medical error (Kohn et al., 2000). Most of these errors are related to human errors and can be prevented. The importance of human factors has been increasingly recognized in the context of patient safety (Reader et al., 2007). In order to minimize human factors issues contributing to an error, the first step in doing so is to identify the causes and contributory factors of errors. By investigating incidents, we can identify problems and the taking corrective actions to prevent such error in the future.

Dr. Jameel Abualenain
Debriefing IPE

Simulation is gradually being used for the training of interprofessional personnel. Interprofessional education (IPE) is recognize as an essential component to develop a healthcare workforce that is primed for interprofessional collaborative practice. Interprofessional simulation (IPS) can be an effective method for growing understanding of professional roles and responsibilities and improving communication and teamwork. The debriefing phase is regarded as being essential for the learners during simulation. The educators’ methods of conducting the debriefing, and the exploratory questions to the learners to facilitate reflection are viewed as vital. Part of IPE/IPS success relays on the educators’ familiarity with the methods of debriefing. I will shed the light on the importance of debriefing during IPE/IPS and will go over some of the interprofessional debriefing tools; such as the Debriefing Interprofessionally: Recognition & Reflection (DIPRR).

Moath Abo Aiysha
Application of Additive manufacturing technologies “3D Printing” in Surgical Simulation

Abstract

Taking a closer look into the mechanisms of Additive manufacturing “3D Printing technology. Exploring the applications of Additive manufacturing in healthcare surgery, simulation, and training. investigating cases study and run through the workflow of Surgical planning and the future of 3D printing in health care.
• Dr. Khalid Bajunaid
Virtual Reality and Augmented Reality in Healthcare Simulation

Presentation objective and background:

With the great challenges that face educators to help trainees acquire and maintain competency, simulation training provides learning opportunities in a safe environment. In this presentation, we will attempt to explore the utilization of augmented reality (AR) and virtual reality (VR) as a contemporary model of health care education. We will be discussing the definition and various technologies of Augmented reality and Virtual reality in the context of health care simulation and education. Additionally, we will discuss the available AR/VR simulators and their application in health care education. Finally, we will attempt to discuss some of the challenges that face virtual reality simulation.

Dr. Rasha Mahfouz
Self-Confidence of Nursing Students Related to their Simulation Learning Experience

Simulated learning environments are integral to the clinical training process in many nursing programmes. Active involvement through simulation may promote critical thinking skills and increase self-confidence levels. High fidelity and low-fidelity simulation may affect students’ self-confidence differently due to the differences in their ability to project a real-life scenario. The purpose of this study was to compare the effect of high fidelity and low-fidelity simulation on self-confidence among student nurses. The study was an analytic cross-sectional in design and took place in a public women’s university in the Kingdom of Saudi Arabia, Princess Nourah University. The College of Nursing has access to both low and high fidelity simulation Centre. 85 participants were included in the sample and used questionnaires to compare the effect of high fidelity and low-fidelity simulation on self-confidence among student nurses. The data analysis methods used were frequency percentages, arithmetic mean, and Standard Deviation and Pearson correlation. About %74.1 of the respondents were between 21-19 years of age, and %70.4 had a GP of 4-3.55. In addition, %95.1 had not practiced in a hospital before. Students were “hesitant” about their self-confidence after a low-fidelity simulation and “confident” after a high-fidelity simulation. The high-fidelity simulation technique had statistically significant effects on self-confidence compared to low-fidelity simulation. Nursing students who have subjected through the high fidelity simulation exhibit high degrees of self-confidence relative to their counterparts who have subjected to the low fidelity simulation training. Similar to the existing literature, the findings from the current research backed up this position.
Simulation-Based Training
Implementing Crew Resource Management principles to improve perioperative safety.

Dr. Abdulelah Al Hawsawi, MBBS, FRCSC, DABS
Saudi Patient Safety Center Director General, Riyadh, KSA

INTRODUCTION
Both the frequency and magnitude of medical errors in the hospital setting are increasingly a matter of public concern in many countries. Therefore, healthcare leaders, globally are seeking rigorous methods for improving and sustaining quality of healthcare outcomes.

It is well recognized that both broken interdisciplinary communication and poor teamwork are contributing factors to medical errors and thus patient harm and therefore one of the critical components to ensure safety in care delivery is improving multidisciplinary interaction and team dynamics. This is applicable to all healthcare settings with special attention to the perioperative setting, considering the rapid turnover and criticality of patients and teams in the same setting.

Crew Resource Management was first developed in aviation, and the application of its principles in healthcare training facilitates the prevention of harm in patients. Beyond the improvement of technical skills, the integration of CRM principles through simulation provides the learners with the capacity to work with other team members, to pay attention to the work environment (situational awareness) and to manage physiological or psychological constraints in critical situations. The principles of CRM are meant to help prevent and manage difficulties and reflect both, the social-team-oriented and cognitive-individual-oriented aspects of human factors.

CRM integration in simulation provides a safe space to observe behaviors and generate constructive feedback to enhance individual and team performance in a risk-free environment, which in return, improve patient safety and reduce overall health care costs.

LEARNING OBJECTIVES.
- Explore the role of simulation in enhancing inter-professional education, with focus in Operating Room.
- Share simulation experiences from aviation fields
- Discuss the strategic integration of Crew Resource Management training in health simulation programs.
WORKSHOPS
Description:
This workshop is a how to design a special operations field medical training that combines military special operation forces combat casualty care tactical medical knowledge and skills into a one-day training workshop. It is designed to provide a plan for tactical combat casualty care capabilities to military, red crescent, and other disaster and emergency medical facilities.

Objectives:
The aim of this workshop is to familiarize instructor’s curriculum designers with Simulation Based combat medic concepts, methods and tactics used in both military and civilian high-risk scenarios. Primarily Physician/Medic led, the exercise covered numerous medical skill plans ranging from administering IVs, airway obstruction management, as well as the documentation of the critical trauma scenario, and how to adapt and design core skill training according to our need.
Description
SimTech needs to be competent in determining the needs of each simulation activity; and that will happen after a certain amount of training and experience. Prepare the technical needs of any simulation activity depends on asking the right questions and the ability to read and analyze the session plan.

This workshop will allow the participants to practice how to extract the important technical data from different sample simulation activities (e.g. Consumables, simulator, Rooms, AV tools, Forms, setup .. etc). Also the participants will practice the setup and preparation for each activity, and operate one of the proposed advance scenarios.

Objectives
- At the end of this workshop participants will be able to:
  - Extract technical needs from 4 different sample activities by filling the given form
  - Decide the suitable tools and instruments for 4 different sample activities on the given form
  - Prepare and setup the scene for one sample advance simulation Scenario
  - Work in team to operate one sample advance simulation Scenario
Description
Maintaining Simulators for longer life service is not an easy job, especially in the busy centers with certain type of simulators that are heavily used. It is very important for Technical staff to apply the best possible techniques and tactics to maintain a functional simulators.
This workshop will provide hands-on training for simtechs on manikins function checkup and preventive maintenance, then will demonstrate the diagnostic approach of troubleshooting malfunctions

Objectives
At the end of this workshop participants will be able to:
• List 5 important aspects of manikins checkup
• Operate 3 different types of simulators
Troubleshoot 5 different malfunctions in simulators
Target Audience: Simtech Staff
Description
There are many research conducted about simulation based education, most of study the outcome of it to prove if simulation is effective in education which already approved in the literature, researchers should shift the think in to “who, what, when, where, why and how” of simulation-based educational interventions. In this workshop, we will discuss how research questions can be developed to address simulation-based education interventions, Recognize the different categories of simulation-based research identify the pitfalls of simulation-based research, Describe the threats to internal validity when designing studies, Create and share examples of simulation-based research by designing questions

Objectives
Learning objectives and desired results: At the end of the workshop the learners will be able to: 1. Recognize the different categories of simulation-based research. 2. Identify the pitfalls of simulation-based research. 3. Describe the threats to internal validity when designing studies 4. Create and share examples of simulation based research by designing questions
Description
In this workshop we will introduce the human factor principles, explore examples of major incidents linked to human factor, understand scientific methods to analyze incidents, identify latent threats in the medical environments, and discuss simulation as teaching tool to enhance skills that prevent human errors.

During the workshop, the participants will dive in different exercises that include; short interactive presentations, case studies, simulation scenario followed by debriefing.

This course designed for simulation educators who are looking for educational tools that enhance their skills to prevent human errors, identify latent threats and improve their efficiency and safety within their organizations.

Objectives
By the end of this workshop Participants will be able to:
- Differentiate between different human factor principles that are tightly linked to healthcare.
- Conduct case studies to identify important human factors related to incidents happened within participants organization.
- Identify threats and manage errors in healthcare principles.
- Develop simulation activities to target improving human behaviors
Description
Nursing education is a key element in providing qualified health care staff with the highest quality of service. It is also considered the best way to maintain patient safety. Improving nursing education is one of the most important means of improving and developing the health system. Therefore, we have prepared a workshop aimed at rehabilitating instructor in the field of nursing with the latest educational methods in nursing simulation.

Objectives
1. To Know of the concept of nursing education in health simulation
2. To understand The most important principles on which nursing education is based on health simulation
3. To get Practice to build confidence for the nursing educator
4. To provide a safe environment for the trainee during simulation session.
5. To create a good scenarios depending on the nursing skills challenges
6. To understand process of debriefing in a non-judgmental, open-minded way.
Description
Debriefing is a challenging skill that needs a clear observation and effective communication between facilitators and learners to close performance gap effectively, successful debriefer deliver the knowledge without being judgmental aiming to increase the returned knowledge from the session, we are going to describe effective methods of debriefing as well practice in the workshop, the facilitator learner ratio will be 5:1 to make sure each learner has a chance to practice and feel comfortable to debrief alone after the session.

Objectives
• Debriefing session objective: At the end of the workshop the learners will be able to:
  • Definite and recognize history of debriefing
  • Identify performance gap during the learner performance
  • Identify the Difference between Judgmental, nonjudgmental debriefing and Debriefing with good judgment
  • Apply effective debriefing strategies plan in medical simulation session
  • Choose appropriate debriefing strategy to identify and close performance gaps in session’s simulated sessions
Description
Simulation-based learning becomes a broad term as an exciting and dynamic educational method which helps to engage learners in ways that traditional didactic programs cannot achieve.
However, the methods of creating, developing and delivering successful simulation-based learning programs can be challenging related to the needs of simulators and equipment, availability of trained simulation specialists and creating clear and effective simulation curriculum.
Simulation course curriculum sets standards, goals and learning outcomes that will help the course authors, the instructors, and the simulation technologists as well to work in an organized manner to deliver an effective and high-quality education and training to the learners.
During this workshop different educational methods like small group discussions, presentations, videos, competitions and hands-on training will be used to help the participants in writing an effective curriculum for their planned simulation courses. The participants will learn how to assess and evaluate the educational needs of their targets learners, select and write effective goals and objectives, choose appropriate educational methods to achieve such objectives, write the course agenda and build simulation scenarios.

Objectives

At the end of this workshop the learners will be able to:
1. Identify the 6 step approaches in writing the simulation curriculum
2. Write effective goals and objectives clearly and based on the learner needs.
3. Differentiate between different teaching methods and its indications.
4. Design new simulation curriculum by integrating the six steps approach into the simulation curriculum template.
5. Design effective simulation scenarios based on the selected course objectives.
Debriefing requires a new skill set in which many instructors especially the life support instructors have little Experience and also given less importance. The learners in this workshop will go through an experiential learning process using the structure supported debriefing process that is routinely used in basic and advanced life support courses as used in the AHA instructor manuals. The concept of this workshop is to discuss different techniques to enhance debriefing techniques in life support simulation training. Using didactic lectures and an interactive role play of the workshop facilitators and demonstration of the structure supportive debriefing methodology using actual basic and advanced life support teaching station, checklists will provoke more discussions among the participants and will play a major role in the learning impact. Discussions and answering the questions during the course will give a cue of the attitude and interest of the participants towards this workshop. Facilitator's direct observation can provide more information on learners interest in developing their skills in applying the debriefing skills learned and also understand their challenges in grasping the material. This will enable us to amend /apply any needful changes for the future workshop and make it more effective. the participants here will learn about generating Critical thinking and learner self-discovery. They will actively participate in exchanging the challenges in every Time-bound sessions they will teach and understand the difference between debriefing and feedback.

Objectives
• Recognize the concept of debriefing
• To acquire the knowledge of debriefing skills
• Recognize the importance of debriefing and feedback
• To create a safe learning environment for the learners
• To understand the application of learner centric debriefing and overcome with the time bound challenges in life-support courses
Description
Inter-professional education (IPE) has been shown to improve learning outcomes for health professionals in multiple disciplines. As a result, it is increasingly advised being incorporated into health professions education. Princess Nourah bint Abdulrahman University (PNU) has started an IPE education course based on simulation to prepare students in different health colleges for their future career as a health care provider. In this workshop we would like to share our unique experience on how to implement an IPE course utilizing simulation.

Objectives
1. Outline the importance of IPE
2. List educational methodologies used in IPE activities
3. Summarize the educational theories behind using simulation in interprofessional educational activity
4. Identify ways to develop an IPE simulation scenario
5. Identify logistics needed and challenges in designing an IPE activity
Description
Sexual and physical assault often go undetected and some are only discovered incidentally during routine medical examinations, and from there it is sent to the forensic clinic to be seen by experts. Regardless of the medical profession, whoever first receive the case must be well trained and well informed and able to conduct the exam including: taking an accurate history, thorough documentation and description of the findings and proper evidence collection while maintaining the integrity of the chain of custody in a professional manner, and provide an acceptable interpretation of their findings for the sake of the legal process.

Objectives
To be aware of the normal anatomy and physiology of the ano-genital area
To know how to accurately conduct the exam to achieve the best possible outcome
To be able to recognize and distinguish abnormal findings in the ano-genital area
To know the fundamentals of proper and relevant evidence collection and the importance of the chain of custody and cross contamination
Description
Course provides a high-level structured approach to recognition, resuscitation and treatment of emergencies and trauma in those with the altered physiology and anatomy of pregnancy. It also give the participants the opportunities to learn, apply and practice the concepts.

Objectives
By the end of the course, participants will be able to:
1. Demonstrate essential teamwork principles for optimal management of obstetric emergencies.
2. Demonstrate familiarity with the basic concepts of crisis management, including: situational awareness, problem-solving, and decision-making in critical situations
3. Identify all available resources needed in the provision of patient care
4. Demonstrate consistent communication in an organized, complete manner, and ensuring closed loop communication
5. Apply the role effective leadership during multi-disciplinary crises.

Describe proper management of critically ill obstetric patient.
This workshop provides an orientation to qualitative research in healthcare simulation. Participants will leave the workshop with insight to various facets of qualitative research processes. It is beyond the scope of the workshop to achieve more than an overview but participants will be given resources to investigate and develop their research skills. A starting point for the workshop will be participants’ ideas for research. We will focus on principles, analyze (using published examples) and write our own research questions. We will consider methodologies, methods, and note commonly used theories, analytic approaches and reporting conventions. The workshop will be highly interactive.

Objectives:
1. Outline principles of qualitative research
2. Write research questions suited to a qualitative paradigm
3. Discuss two theories relevant to healthcare simulation research
4. Describe commonly used methods in qualitative research
Description
Google Form is very important and powerful tool for data collection, especially for newly established simulation centers, programs or courses; it has a variety of features and options that help you design a data collection form and manage it the way you like. This mini-workshop will provide hands-on training on google forms and data field customization which can help trainees to explore different features, imagine and design their own forms.

Objectives
At the end of this workshop participants will be able to:
• List the possible uses of Google Form in simulation management
• Create a Simple Google Form from Different data collection fields (e.g. simple Text, Numbers, Multiple choice, email)
• Apply data validation on a selected google form fields
• Create a Sample Likert-Scale by utilizing Google Form
• Extract and save the data on Google and Excel Sheets
Description
A hands on workshop on how to start an innovation

Objectives
• Learners will be able to identify what is an innovation.
• Learners will be able to identify the steps on how to start an innovation
• Learners will be able to implement the steps on real life scenarios
Description

The workshop will help educators to do a comprehensive need assessment that can be used to guide any simulation training. The need assessment methodology will combine collecting comprehensive lists of skills/behaviors from multiple sources and from content experts in the field and then prioritizing the need assessment results to agree on the final training needs.

The workshop will include 3 rounds were participants will work in small groups and report their work to the larger group.

Objectives

By the end of this workshop, participants will be able to:

1) Design an educational need assessment for any training program
2) Decide on the top list of educational needs that should be included in simulation training program
3) Engage the content-experts during the need assessment process.
• Key Topic of Course
Implementation strategies and lessons learned from a +10 year journey of the use of AR/VR at Eastern Virginia Medical School.

• Content Level
○ This course is geared toward novice and experienced simulation operation specialists desiring to learn more about the implementation and use of AR/VR in medical education.

☐ Learning Objectives:
• Understand the various methodologies for use of AR and VR
• Understand the various commonly accessible AR/VR technologies
• Obtain information about sources of relevant AR/VR research
• Understand the challenges specific to healthcare AR/VR
Description
Innovation in simulation is trending in the current days as the need for new cost-effective training models and simulators is growing. Sometimes specialty or experience of the innovator affect his ability to imagine or execute an idea; so they need to explore more about the capabilities and characteristics of different items (e.g. Chemicals, Electronic, IT, ..etc.).
This workshop will explore sort of items that can be utilized and applied in creating a low-cost Simulator, these items include electronics, 3D printing and Casting. The workshop will also discuss the different possibilities and other tools that can be utilized and how they can be used.

Objectives
At the end of this workshop participants will be able to:
- List a minimum of 3 items that can be utilized in innovation for simulation
- Describe the concepts of molding and casting in creating simulators
- Describe a minimum of 4 types of electronic sensors that can be utilized in creating simulators
- Describe how the 3D printing can be utilized in creating simulators or spare parts
Interprofessional education (IPE) builds inter-professional collaboration attitude/skills of health professionals. The aim of this workshop is to improve interprofessional collaboration and teamwork for better health care outcomes accomplishing Saudi Vision 2030. The workshop involves interactive activities and different teaching methods.

Objectives
• Identify different teaching strategies for developing simulation based IPE
• Create realistic simulated cases for IPE
• Describe the challenges and opportunities of incorporating IPE into curriculum

Teachable Moment or Missed Opportunity? Applying Lessons Learned from Healthcare Simulation to Real-World Clinical Debriefing

Dr. Hasan Maymani, Dr. Ross Scalese

Description
Workshop to discuss the clinical debriefing

Objectives
• Distinguish debriefing from feedback
• List barriers to debriefing in clinical practice

Learning together to work together: simulation based interprofessional education

Ms. Lama Sultan

Description
Interprofessional education (IPE) builds inter-professional collaboration attitude/skills of health professionals. The aim of this workshop is to improve Interprofessional collaboration and teamwork for a better health care outcomes accomplishing Saudi Vision 2030. The workshop involves interactive activities and different teaching methods.

Objectives
• Identify different teaching strategies for developing simulation based IPE
• Create realistic simulated cases for IPE
• Describe the challenges and opportunities of incorporating IPE into curriculum
POSTER PRESENTATION
ABSTRACT

Background and objectives: This paper proposes a new method of paranasal sinus and nasal cavity image processing in MicroArray Algorithm. Malignancy can occur in nasal mucosa and paranasal sinuses leading to severe complications. Nasal cavity imaging is essential for the detection of malignancy for early diagnosis and treatment. Most malignancies differ based on their growth and behavior. These cancer types can be studied under Component Analysis (PCA) that has highest bright then output segmentation of all kind of image analyzing problems. Our aim is to localize the scanned organs of human body; segmentation is the only identity boundaries of an objects, segmentation is the main role as implies a great clinical value to review the best available evidence (level and quality) for the use of simulation training to improve clinical skills, knowledge, and confidence among Healthcare Students: A Systematic Review.

Methods: Images of paranasal sinuses and nasal cavity are segmented using microarray algorithm (MAA) which are obtained from the modalities i.e. red channel, green channel and blue channel. The MAA Algorithm for segmentation; the k-means index defined as follows: $\text{k-means index} = \sum \limits_{i=1}^{N} \sum \limits_{j=1}^{K} \left( \frac{|x_i - c_{j}}{\text{var}(x)} \right)^2$, where $x_i$ is the pixel value of the image at position $i$, $c_j$ is the centroid of the $j$th cluster, and $\text{var}(x)$ is the variance of the pixel values in the image. The level of evidence base on the JBI Model of Healthcare paradigm, strength of evidence and quality of evidence. A quality improvement framework of five practice. There is no conflicts of interest.

References

The Use of Simulation Training to Improve Knowledge, Skills, and Confidence Among Healthcare Students: A Systematic Review

College of Applied Medical Sciences, Riyadh King Saud University for Health Sciences

Table 1: Inclusion and exclusion criteria

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<thead>
<tr>
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<tbody>
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<tr>
<td>Training</td>
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<td>Simulation</td>
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Table 2: Level and strength of evidence

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<tr>
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<td>1</td>
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<td>2</td>
<td>Moderate</td>
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<tr>
<td>3</td>
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Output
Using MAA
– Post paranasal sinuses and nasal cavity.
performed on more than three microscopic images of the paranasal sinuses and nasal cavity. The analysis of microarray image is
transcription abundance between two sample spot.

Results: Segmentation: The Microarray image analysis is in the following two stages Image

Figure 1 describes the flow of medical image processing of para nasal sinus and nasal cavity Imaging system. Segmentation is a technique that divides an image into its constituent parts, such as pixels, and is used to identify objects within the image. Acoustic image segmentation is an emerging field of image analysis that focuses on the detection of specific areas within an image. The MAA Algorithm components labelling operator scans the image by moving along a row until it closer sight in form of pixels. So it's very easy to identify by the ENT surgeon and the medical image processing of para nasal sinus and nasal cavity.

Medical Image processing of para nasal sinus and nasal cavity from cone-beam CT images using by MicroArray Algorithm (MAA).

Introduction
Simulation is an exercise that mimics realistic functions in a controlled environment. The use of simulation in the healthcare field has started more than a hundred years ago; however, the use of simulation is seen as a most important part of education and training for health professionals in many health education facilities because of 1) the recent advances in simulation technology, 2) increased awareness of patient safety, and 3) emphasis on healthcare outcomes and accountability.1,2

Simulation provides students with an opportunity to transfer theory to practice in an integrated learning environment, and serves as an effective opportunity to practice skills, optimize decision-making, improve awareness of patient safety, and promote confidence in healthcare education involving the use of, table, and high-fidelity simulation experience. The level of simulation is based on the type of techniques that the simulation provides reality to the students.

Currently, there are no specific best practice models (or gold standards) in simulation training. Research-based simulation training is an area where research to cover the various aspects of practice. For example, limited data is available on the benefits of using a combination of two or more simulation types in a single simulation experience, debriefing is still largely ignored in the simulation research process. The primary purpose of this study was to review the best available evidence (level and quality) for the use of simulation training to improve clinical skills, knowledge, and self-confidence among healthcare students.

Methods
A systematic review of quantitative and qualitative literature was conducted using the following databases: PubMed, MEDLINE, EMBASE, and PsycINFO database as well as three major journal collections provided by ProQuest. In addition, search results were compiled against the bibliographies of the reviewed studies, and Google Scholar was used to locate relevant literature for inclusion. The systematic review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. A systematic review is a detailed, rigorous, and unbiased evaluation of the available evidence on a particular topic. The systematic review process includes identifying, screening, and selecting studies; summarizing the findings; and sharing the results. Data from studies meeting inclusion criteria were extracted and summarized (Table 1). The level and strength of evidence was rated for each study (Table 2).

Table 1: Inclusion and exclusion criteria

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<tr>
<td>Education</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Training</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Simulation</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 2: Level and strength of evidence

<table>
<thead>
<tr>
<th>Level</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strong</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
</tr>
<tr>
<td>3</td>
<td>Weak</td>
</tr>
</tbody>
</table>

The level of evidence is based on the JBI Model of Healthcare paradigm, strength of evidence, and quality of evidence. A quality improvement framework of five practice. There is no conflicts of interest.

References

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INTERPROFESSIONAL SIMULATION BASED LEARNING new understanding

Hamza ALQurneh, King Fahad specialist hospital-dammam, Senior Educator, BSN, AHA faculty.

Abstract

Among the health care providers whose working in the simulation activities, there is a lack of the understanding of the meaning of the interdisciplinary simulation as evidence by the lack of detailed definitions, as we are seeing one of the simulation instruction from one discipline inviting other professionals for his simulation activities and doing the debriefing mostly isolated on, so gathering the simulation instructors from the different professions together to develop the scenario to suite all disciplines objectives and recall the objectives through disciplines debriefing.

Introduction

Inter-professionalism has been climbing the healthcare agenda for over 50 years Simulation education attempts to create an environment for health care professionals to learn, without potential safety risks for patients. Integrating simulation and interprofessional education can provide benefits to individual learners 4. The complex health care needs of today’s society require health care professionals to work as a collaborative team. Safe, quality health care depends on the ability of the health care team to cooperate, communicate, and share skills and knowledge appropriately. 3 Interprofessional education provides a collaborative approach for the development and mastery of their competencies. Simulation-based experiential learning is recognized as an effective way to promote interprofessional education teamwork. 3

Over the literature review performed as most of them tried to define the interprofessional simulation as a team approach method of simulation utilizing the all discipline, which is right but let us add more on this understanding, as known that any simulation scenario involving more than one discipline at the same scenario but let ask ourselves did more than one simulation faculty met before the scenario and wrote their shared objectives and the individual objectives, e.g., Airway management simulation scenario, does the physician instructor wrote the scenario along with nurse instructor and the RT instructor to come up with one shared objectives scenario and sub objectives only disciplines objectives, including the debriefing strategies for the overall objectives and debriefing for the related specialty, if we are not doing this that mean we are not practicing interprofessional simulation scenario, we are practicing one domain simulation specialty and the remaining team are like confederate,

Results

As a results of this literature review we found that most of the literature have the following:

Inter-professional education (Sim. IPE) occurs when participants and facilitators from two or more professions are engaged in a simulated health care experience to achieve shared or linked objectives and outcomes. (1. The Sim-IPE is designed for the individuals involved to “learn about, from and with each other to enable effective collaboration and improve health outcomes” (WHO, 2010, page 31)

And why we should use inter professional simulation:

Essential to achieve safe, quality patient-centered care; Empowers individuals to collaborate as a team approach in a controlled environment that replicates the health care setting; Intended to train practitioners to collaboratively address challenges in healthcare delivery, and provides realistic, contextual learning experiences in which roles and professional identity can be learned, developed, and assessed. (2

To achieve optimal outcomes, Sim-IPE should:

Be based on theory, follow best practices in simulation-based and interprofessional education, Address institutional and local issues institutional and/or community needs or goals, Include an evaluation plan, published 2016 (See INACSL Standard of Best Practice: Standard VII: Simulation Design for further details) (5

But no one of the literature treat or touch the real meaning of the interprofessional simulations, all definitions given at the literature are corrects but let us give new additional meaning, which simply more one professionals are meeting to create one simulation scenario used one shared or multiple objectives, so each disciplines will treat his own objectives at the same time will allow of the others to treat their objectives and supposed to be multi faculties from different discipline who will write his objectives, like arrhythmia management simulation scenario, Where the simulation physician instructor and nurse simulation instructor will meet to write the scenario where the physicians will focused of how the MD will follow the arrhythmia management guidelines and the nurse will focus on how to utilize the defibrillator and follow the steps of the management.

Discussion

Currently, there is a lack of coordination in the provision of health care services. IS may play a vital role in shaping the delivery of health care by effectively coordinating efforts among all professionals. Professionals who engage in IS will be better prepared to work productively as a team and to take a holistic approach leading to improved patient outcomes.

The result of this concept analysis should produce underlying attributes of the concept, (Walker and Avant, 2011) (Poore, Cullen, & Schaar, 2014)

Analysis indicates if improvements are to take place, IS must include shared learning opportunities & reflection fostering transformative learning.

IS: is needed to provide health care professionals with an understanding of others roles and perspectives and to foster cohesiveness and common goal setting IS

Through an alignment of perspectives, daily practices can be changed leading to patient safety enhancement.

References:

2) The effect of an interprofessional simulation-based education program on perceptions and stereotypes of nursing and medical students: A quasi-experimental study, Kelly S. Lockeman., Nital Inf 
4) Learning from Simulation-Based Medication Error Reporting: A Mixed Methods Analysis, Serbho, L. S. et al., Clinical Simulation in Nursing, Volume 13, Issue 6, 306 – 308

Chart 1The percentages of the responses to BLS knowledge among the sample.
HARNESSING THE SIMULATION CENTER WITH SIMULATION PATIENTS

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INTRODUCTION

Human simulation is a recognized methodology that involves human role players interacting with learners in a wide range of experiential learning and assessment contexts. At the inception of the practice, the human role players portrayed patients and were commonly referred to as standardized or simulated patients (SPs). In more recent years, SPs may portray an expanded scope of roles (e.g., clients, family members, healthcare professionals).

There are many medical and nursing colleges who are still needing guidance and support in starting to use the standardized or simulation patients in their simulation based learning. The Association of Standardized Patient Educators (ASPE) is the global organization focused on human simulation. ASPE’s mission is to share advances in SP-based pedagogy, assessment, research, and scholarship. It also supports the professional development of those who engage in human simulation.

The ASPE SOBP (standards of best practice) are organized into five domains as seen in the diagram below. Each domain is divided into principles with accompanying key practices. This provides clear and practical guide-lines for educators who work with SPs.
The Impact of Simulation Basic Life Support on The Knowledge of Female Nursing Students at Taibah University in Medina, Saudi Arabia

Abeer Albakkari, Adalah Alenzy, Nahlah AL Zahrani, Naglaa Aleatebi, Eman Alroyli
University of Taibah, College of Nursing

Abstract

This study was designed to evaluate the effectiveness of simulated basic life support on the level of knowledge retention among nursing students. The participant included 24 female nursing students of the level fourth of the academic year 1440-1441 at Taibah University. The students randomly selected. Both group participants were educated for one day using the study’s BLS protocol, including manual self-learning, pre-test, mini-lecture, and post-test. Group B had a simulation practice. Group B showed significantly higher scores than the control group did in post-test.

Introduction

Simulation in nursing education has recently outspread, and the use of high-resolution simulators has grown. Simulation defined as a useful tool used to integrate realistic clinical situations in a safe environment, allowing nursing students to develop cognitive and psychomotor skills (Parker & Myrick, 2009). The simulation often focuses on the application and incorporation of the knowledge, psychomotor and cognitive skills aims at improving student’s clinical decisions capability (Mohamed, et al., 2016).

There are several models of simulation used in nursing education and the clinical environment including; full-body mannequins, task trainers, standardized simulated patients, virtual or computer-generated simulation, or hybrid simulation, which is combination of several models of simulation techniques that can be used to facilitate learning (Weller, et al., 2012; Liaw, et al., 2014). Simulation-based learning is an invaluable assistant to traditional training methods and efficiency assessment. In Saudi Arabia, with the increasing of nursing programs, the number of nursing students are rising, and there is a demand for valuable clinical experience. The importance of practical learning as one of the essential concerns that help the awareness of nursing students’ practice in a clinical setting. The increasing number of nursing students leads to significant developments for clinical placements. Furthermore, the opportunities for nursing students to translate their knowledge to skills in the clinical area and use their critical thinking have also decreased. As a result, it may affect the quality of their education due to no available or limited chance for them to be rotated in the clinical area.

Methods and Materials

Experimental study design with pre and post-test will be used in the current study. Experimental designs are the most powerful designs for testing hypotheses of cause-and-effect relationships. They are the “gold standard” for intervention studies because they yield the highest-quality evidence about the effects of an intervention (Poll & Beck, 2013). Pre/post-test designs are the preferred method to measure the degree of change occurring as a result of interventions (Shuttleworth, 2009).

All female nursing students of the level fourth of the academic year 1440-1441 at Taibah University, who had never undertaken any simulation-based education of basic life support or attend any courses regarding BLS training; Both groups want more of BLS training (A=100%, B=66.7%). Where to attend the course. Regarding the student's preference of more BLS training; 33.4 % of the experimental group B and 25% of the control group A, they had BLS training in and outside the college. Regarding the reasons of BLS training outside the college; 25% of the control group(A) reported little time as a reason of BLS training outside the college, 16.7% of the experimental group (B) reported “not sure” where to attend the course. Regarding the student’s preference of more BLS training; Both groups want more of BLS training (A=100%, B=66.7%).

Results

The study included 12 nursing students from two classes of fourth level (Control group A vs. experimental group B) (N=12). The results demonstrated noticeable improvement in the students’ BLS knowledge and skills after the lecture; the proportion of the correct answers before the lecture was; (A=25.6%, B=15.8%). After the lecture the proportion raised to; (A=29.1 %, B=29.6 %). Whereas, the experimental group B witnessed a high rise by 13.8 %, while the control group improved by only 3.1 %.

Regarding the BLS training; 31.4 % of the experimental group B and 25 % of the control group A, they had BLS training in and outside the college. Regarding the reasons of BLS training outside the college; 25 % of the control group(A) reported little time as a reason of BLS training outside the college, 16.7% of the experimental group (B) reported “not sure” where to attend the course. The study ensure that using simulation as a strategy for nursing education promote student knowledge and skills. Simulation prepares the student for real-life experience and speeds the transition to a professional career. This test box will automatically re-size to your text. To turn off that feature, right click inside this box and go to Format Shape, Text Box, AutoFit, and select the “Do Not AutoFit” radio button.

Discussion

The current study has some limitation, there was a low response rate from the students. The population is small which makes it difficult for generalization of the result.

Conclusions

Click here to insert your Conclusions text. Type it in or copy and paste from your Word document or other source. This study concludes that there was a highly improves in BLS knowledge levels were observed among the experimental group, even amongst the control group students after the lecture. However, the findings of this study ensure that using simulation as a strategy for nursing education promote student knowledge and skills. Simulation prepares the student for real-life experience and speeds the transition to a professional career. This test box will automatically re-size to your text. To turn off that feature, right click inside this box and go to Format Shape, Text Box, AutoFit, and select the “Do Not AutoFit” radio button.

Contact

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Email: hawaalsubh@gmail.com
Phone:0557155689

References

A total of 33 nursing educators underwent two-day workshop on competency validation. Multi educational modalities were used.

**OBJECTIVES:**
To examine the effect of faculty development on utilizing of simulation-based education on inter-rater and intra-rater reliability among nursing educators.

**METHODS:**
A total of 33 nursing educators underwent two-day workshop on competency validation. Multi educational modalities were used.

1. Participants were shown a video of hand hygiene that was intentionally made with flaws. They were requested to make assessment utilizing a pre-approved checklist.
2. Didactic part that covered the following topics: validation methods, simulation-based competency assessment, OSCE, structured oral exam, written exam, direct observation, reliability, validity, constructive feedback and debriefing.
3. Role playing in 3 scenarios: 1) two educators randomly selected, one as learner and the other as assessor. 2) three educators, one as learner and 2 as assessors. 3) one assessor evaluating more than one learner at the same time. Inputs from the educators were collected. Six competencies were used in the study: feeding tubes insertion, peripheral IV insertion and discontinuation, urinary catheter insertion and removal, aseptic wound care, medication administration and use of defibrillator. Hand hygiene competency wasn’t discussed at all.

**RESULT:**
All 33 nursing educators rated the hand hygiene video before and after faculty development course. Four were excluded because of incomplete forms. The intra-rater reliability was 54.5% (+ - 14.30%). The inter-rater reliability was 45.7% (+ - 28.0%) in the pre-assessment and 50.5% (+ - 33.7%) in the post assessment with statistically insignificant p-value (p=0.6682). All participants gave constructive feedback and comments of how to structure the simulation-based nursing competencies including logistics, material used, dividing the competency into stages, checklists and assessment methods. All nursing educators agreed to make generic competency assessment mandatory for all new staff, and to have follow up courses to improve and maintain knowledge and skills.

**CONCLUSIONS:**
Major variations exist in evaluating simulation-based nursing competencies among assessors. Faculty development provided critical feedback; however, it didn’t have a significant impact on inter-rater reliability.
Perception of Satisfaction and Self-Confidence with High-Fidelity Simulation among Nursing Students in Government Universities

Fatimah Aldhafeeri, MSN, Dalayal Alosaimi, MSN, PhD
Ministry of Health, Medical Surgical Nursing College of Nursing, KSU

Introduction

Simulation as teaching method is an effective tool as a real-life without life-threatening of the patient and promoting students' performance. High Fidelity Simulation as a teaching-learning methodology is usually implemented by the teaching institutions in the world. With the several factors that hinder the students' clinical learning experiences, it is necessary to determine the students' viewpoint regarding the use of HFS in increasing their confidence and satisfaction.

Methods

The aim of this study was to assess the student perceptions regarding Satisfaction and self-confidence toward High Fidelity Simulation as a learning. A cross-sectional correlation descriptive design with a quota stratified sample was used in this study which was conducted at King Saud University (KSU) and Princess Nourah University (PNU) in Riyadh.

The instrument:
Consisted of Demographic variables and two instruments developed by the National League for Nursing (NLN): The Simulation Design Scale (student version) and Student Satisfaction and Self-confidence in Learning. The researcher has a written approval from the Institutional Review Board (IRB) of Faculty of Nursing, at KSU and PNU. Descriptive statistics and SPSS v. 25 have been used in this study.

Table 1. Summary of Subtopics on Students' Perception towards High Fidelity Simulation as a Learning Strategy.

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives and Information</td>
<td>3.77</td>
<td>0.860</td>
<td>Agree</td>
</tr>
<tr>
<td>Support</td>
<td>3.64</td>
<td>0.964</td>
<td>Agree</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>3.69</td>
<td>0.983</td>
<td>Agree</td>
</tr>
<tr>
<td>Feedback / Guided Reflection</td>
<td>3.82</td>
<td>1.063</td>
<td>Agree</td>
</tr>
<tr>
<td>Fidelity</td>
<td>3.95</td>
<td>1.145</td>
<td>Agree</td>
</tr>
<tr>
<td>Composite Mean</td>
<td>3.78</td>
<td>1.001</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Table 2. Level of Satisfaction and Self-Confidence of Nursing Students using High Fidelity Simulation n= 132

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Satisfaction</td>
<td>3.73</td>
<td>1.002</td>
<td>Satisfied</td>
</tr>
<tr>
<td>Level of Self Confidence</td>
<td>3.64</td>
<td>0.792</td>
<td>Confident</td>
</tr>
</tbody>
</table>

Table 3. The correlation between students' perceptions about key simulation features and the profile of participants

<table>
<thead>
<tr>
<th>Items</th>
<th>Chi square</th>
<th>p-value</th>
<th>Chi square</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with Learning</td>
<td>5.00</td>
<td>.024</td>
<td>5.00</td>
<td>.024</td>
</tr>
<tr>
<td>Self-confidence in Learning</td>
<td>5.00</td>
<td>.024</td>
<td>5.00</td>
<td>.024</td>
</tr>
</tbody>
</table>

Table 4. The relationship between the student perception of satisfaction and self-confidence in using HFS based on the profile of participant

<table>
<thead>
<tr>
<th>Items</th>
<th>Chi square</th>
<th>p-value</th>
<th>Chi square</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>5.79</td>
<td>.05</td>
<td>5.79</td>
<td>.05</td>
</tr>
<tr>
<td>Marital Status</td>
<td>5.00</td>
<td>.024</td>
<td>5.00</td>
<td>.024</td>
</tr>
</tbody>
</table>

DISCUSSION

The finding reveals that the students agree that Fidelity in Simulation denotes real-life factors, situations and variables were built into the simulation scenario. Students agree that the teaching materials used in Simulation was helpful and motivated them to learn, and that various learning materials and activities are provided to promote learning the Medical Surgical curriculum. Student's age is significantly correlated with problem-solving only as compared to the other features of the Simulation Design Scale. Findings revealed that students' perception of satisfaction has no significant relationship with the profile of the participants. With regards to the profile and self-confidence in learning, it was only the student's level which is not significantly related to the level of confidence.

Conclusions

Simulation as teaching method is an effective tool as a real-life without life-threatening of the patient and promoting students' performance. Future studies are needed to examine other learning outcomes such as clinical competence, motivation among student using HFS as a learning strategy.

Recommendation:

1. Further researchers are required to identify strategies that will enable the nurse educators to promptly identify and respond to student learning styles and characteristics.
2. More research is needed to examine the transferability of the impact from the simulation experience into the clinical setting and utilizing a larger sample size.
3. There is a need to examine other learning outcomes such as clinical competence, motivation and learning knowledge and may be evaluated.
4. A comparative study to be done in different regions in Saudi Arabia between government and private universities.

Bibliography

Fatimah Mana-Albahrani has completed the Master Degree from King Saud University in Riyadh. She is a nurse specialist in ministry of health, Saudi Arabia. She has been working in the health care system for 17 years and held several positions.

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The Efficacy of Resident-Led Simulation-Based Training of Central Venous Catheterization for First-Year Emergency Medicine Residents: A Cross-Sectional Pre- and Post-Study

Ghaida A Jabri, Moath A Binhomaid, Majid Alsalamah, Sameerah M AlSomali
Department of Emergency Medicine, Ministry of the National Guard - Health Affairs, Riyadh

Introduction
The growing number of trainees engaged in the healthcare system in the region raises challenges to meeting the best-practice standards in preparation for residency programs. Lack of infrastructure and staffing may play a major role.

Objectives
To assess the efficacy and feasibility of residents-led simulation-based education in Central Venous Catheter (CVC) placement workshop.

Methods
A cross-sectional pre- and post-test design was used with dedicated one-to-one teaching. A validated 28-item checklist was used in the assessment. The training and assessment were performed by two PGY-3 EM residents, supervised by an EM consultant.

Results
A sample of 25 residents participated in the workshop with similar baseline characteristics. The scores of the participants improved significantly after the simulation training (mean pre-test: 8, mean post-test: 26, p-value <0.05). Participants with previous experience in central line placement, also improved their post-test scores (mean pre-test: 13, mean post-test: 27, p-value < 0.001). Participants’ self-confidence in CVC placement improved with the post-test but the difference was not statistically significant.

Conclusions
This study provided evidence that the resident-led simulation workshops are feasible and effective to meet the best practice standards for rapidly growing residency programs. Future prospective studies are required to measure the effect comprehensively.

Appendix

CVC proficiency score checklist

<table>
<thead>
<tr>
<th>No.</th>
<th>Step</th>
<th>Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Informed consent obtained: must do all benefits</td>
<td>A B C</td>
</tr>
<tr>
<td>2</td>
<td>Consent given</td>
<td>A B C</td>
</tr>
<tr>
<td>3</td>
<td>Place the patient on slight Trendelenburg position</td>
<td>A B C</td>
</tr>
<tr>
<td>4</td>
<td>Flush the ports with normal saline</td>
<td>A B C</td>
</tr>
<tr>
<td>5</td>
<td>Clamp each port (ok to keep brown port open)</td>
<td>A B C</td>
</tr>
<tr>
<td>6</td>
<td>Remove brown port from end catheter to accommodate wire</td>
<td>A B C</td>
</tr>
<tr>
<td>7</td>
<td>Area is cleaned with chlorhexidine</td>
<td>A B C</td>
</tr>
<tr>
<td>8</td>
<td>Resident gets in sterile fashion (must be full body drape)</td>
<td>A B C</td>
</tr>
<tr>
<td>9</td>
<td>The US probe is properly set up with sterile sheath and sonoamographic gel</td>
<td>A B C</td>
</tr>
<tr>
<td>10</td>
<td>Area is draped in usual sterile fashion (must be full body drape)</td>
<td>A B C</td>
</tr>
<tr>
<td>11</td>
<td>The vein is localized using anatomical landmarks with US machine (if no US used this is wrong)</td>
<td>A B C</td>
</tr>
<tr>
<td>12</td>
<td>The skin is anesthetized with 1% lidocaine in a small wheal</td>
<td>A B C</td>
</tr>
<tr>
<td>13</td>
<td>The dermis structures are anesthetized</td>
<td>A B C</td>
</tr>
<tr>
<td>14</td>
<td>Localize the vein with this needle (optional)</td>
<td>A B C</td>
</tr>
<tr>
<td>15</td>
<td>Using the large needle or catheter–syringe complex, cannulate the vein while aspirating (must be done with US)</td>
<td>A B C</td>
</tr>
<tr>
<td>16</td>
<td>Remove the syringe from the needle or advance the catheter into the vein removing both the syringe and needle</td>
<td>A B C</td>
</tr>
<tr>
<td>17</td>
<td>Advance the guidewire into the vein no more than approximately 12 – 15 cm</td>
<td>A B C</td>
</tr>
<tr>
<td>18</td>
<td>Knick the skin with a scalpel to advance the dilator</td>
<td>A B C</td>
</tr>
<tr>
<td>19</td>
<td>Advance the dilator over the guidewire and dilate the vein</td>
<td>A B C</td>
</tr>
<tr>
<td>20</td>
<td>Advance the triple lumen over the guidewire</td>
<td>A B C</td>
</tr>
<tr>
<td>21</td>
<td>Never let go of the guidewire</td>
<td>A B C</td>
</tr>
<tr>
<td>22</td>
<td>Once the catheter is inserted remove the guidewire in its entirety</td>
<td>A B C</td>
</tr>
<tr>
<td>23</td>
<td>Advance the catheter to approx. to 14-15 cm on the right side, 16-18 cm on the left side</td>
<td>A B C</td>
</tr>
<tr>
<td>24</td>
<td>Ensure there is blood flow/flush each port</td>
<td>A B C</td>
</tr>
<tr>
<td>25</td>
<td>Secure the catheter in place (staple or suture)</td>
<td>A B C</td>
</tr>
<tr>
<td>26</td>
<td>Place dressing over catheter</td>
<td>A B C</td>
</tr>
<tr>
<td>27</td>
<td>Get chest x-ray</td>
<td>A B C</td>
</tr>
<tr>
<td>28</td>
<td>Notify that the catheter is ok to use</td>
<td>A B C</td>
</tr>
<tr>
<td>29</td>
<td>Maintain sterile technique</td>
<td>A B C</td>
</tr>
</tbody>
</table>

Skill Key: A = done Correctly  B = Done Incorrectly  C = Not Done
The Use of Standardized Patients to Improve The Communication Skills of Medical Students: A Scoping Review

DR. HANI ABOZAID MBBS, SBFM, ABFM
TAIF UNIVERSITY

INTRODUCTION
Standardized patients are an essential learning tool and have an advantage over real patients where they are flexible, provide valuable feedback, teach communication and physical examination skills. Communication skills are among the essential competencies for medical students, and the evidence emphasizes that appropriate communication skills have significantly improved the patient’s compliance and satisfaction along with excellent outcomes.

Objectives: This Scoping Review aimed to review the existing research on whether the use of standardized patients is improving the communication skills of medical students and how this can be measured.

Methods

Data sources: An expert Librarian searched for the articles that related to the English language, patient simulation, standardized patient terms, medical education terms, Medical Students, and communication. Moreover, this search conducted between 1946 to November Week 2 2018 in Ovid MEDLINE(R), and related keywords were selected to get the concepts of standardized patient and communication. All article titles and full-text have reviewed for inclusion or exclusion by the author.

Study selection: all studies examined the effect of the use of standardized patient to improve the communication skills of medical students were included in this Scoping Review.

Results

There were five studies were included after reviewing the full-text articles. The result of the reviewed studies significantly supported the use of Standardized Patients to improve communication skills in general, Nonverbal communication, Break Bad News, preclinical and clinical years for medical students.

Conclusion

The reviewed studies agreed on a short-term effect of using the Standardized Patients to improve the communication skills of medical students while a long-term impact on actual patients was not significant and not well studied. Communication skills teaching and training should be integrated systematically into the curriculums of medical schools.

Bibliography

Impact of the Preoperative Visit of a Simulation Operating Theater in Reducing Preoperative Anxiety in School Age Children and Their Parents: A Single Blinded Randomized Controlled Trial
Hussein A. Baratt, MM, RN, Cera-T; Usamah Alzaidy, MD, Director of APMA, Sub-Specialty Consultant Simulation Medicine; Frai Shubbak, DM, SFPA, CBI, M3, Sub-Specialty Consultant Pediatric Anesthesia

King Fahd Medical City
Anesthesiology & Peri-Operative Medicine Administration (APMA)

Introduction
Preoperative anxiety (PA) affects 65% of children undergoing surgical procedures, it is the most commonly reported emotion that contributes in many peri-operative complications, which include: prolongation of anesthesia induction, male adaptive behavior changes, tremor, bed-wetting at night, eating and sleep disorder, and others.

Although stressed parent participates in increasing the level of children preoperative anxiety, and then, many studies show the positive effect of calm parents during anesthesia induction, on the worry of the children.

The role of the preoperative intervention and preparation on reducing the PA has been proven in the literature, some of them were used in our anesthesiology department at King Fahd Medical City/Riyadh, like presence of the parents during induction, and Midazolam prescription prior induction; recently, the Simulation operating theater was introduced in the preoperative clinic as one of the preoperative strategies which may contribute effectively in decreasing the PA in children undergoing surgery and their parents.

Objectives
The aim of this study is to explore the impact of the preoperative visit in simulation operating theater on children’s and parent’s anxiety level before and during intraoperative anesthesia induction.

Methods
In this interventional single blinded randomized control trial, a sample of 120 ASA-I,II pediatric patients (age range 4 to 14 years) who have been scheduled for elective day case procedures under general anesthesia were recruited and randomly assigned to control (n=60) and intervention (n=60) group.

In the control group patients were received the routine pre-operative preparation. Patients and their parents in the other group were taken in a tour to a simulation operating room, where they received education and introduction of the real-world situation to achieve learning process of health providers.

Children’s anxiety level had been measured twice on the day of surgery using m-YPAS, firstly at holding area and secondly inside operating theater before anesthesia induction (T1). In the intervention group n=57 with mean age of 7.9 (SD 2.7) years.

Conclusions
a. A total of 120 children between 4 and 14 years old, were included and assigned equally and randomly to control (n=60) and intervention (n=60) intervention groups, 4 children were excluded later on as they were given sedatives in the preoperative period. Tota of 116 children were taken in the study and distributed in control group n=59 with mean age of 4 (SD 2.5) years, and intervention group n=57 with mean age of 7 (SD 2.7) years.

b. There was no significant difference among the groups on age, gender, parental status, previous history of anesthesia, type of procedure, and parent’s presence during anesthesia induction.

c. In the control group PA of the children were at 70 and 82.6% at T1, comparing to the children in the intervention group 35.5% were under 50 at T1, showing significant differences with p=0.006 and p=0.002 for both levels.

Preoperative anxiety affects 65% of children undergoing surgical procedures, it is the most commonly reported emotion that contributes in many peri-operative complications, which include: prolongation of anesthesia induction, male adaptive behavior changes, tremor, bed-wetting at night, eating and sleep disorder, and others. Although stressed parent participates in increasing the level of children preoperative anxiety, and then, many studies show the positive effect of calm parents during anesthesia induction, on the worry of the children.

The role of the preoperative intervention and preparation on reducing the PA has been proven in the literature, some of them were used in our anesthesiology department at King Fahd Medical City/Riyadh, like presence of the parents during induction, and Midazolam prescription prior induction; recently, the Simulation operating theater was introduced in the preoperative clinic as one of the preoperative strategies which may contribute effectively in decreasing the PA in children undergoing surgery and their parents.

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In the control group patients were received the routine pre-operative preparation. Patients and their parents in the other group were taken in a tour to a simulation operating room, where they received education and introduction of what they are going to experience at operating room, with focusing on the intraoperative induction of anesthesia, and they were encouraged to apply vital signs monitor and provide mock anesthesia induction to a child mannequin.

Children’s anxiety level had been measured twice on the day of surgery using m-YPAS, firstly at holding area and secondly inside operating theater before anesthesia induction (T1). In the intervention group n=57 with mean age of 7.9 (SD 2.7) years.

The preponderance of pre-operatively anxious children and parents shown in this study exceeded the worldwide data. The results were in accordance with other studies regarding the concept of child anxiety with a high prevalence in pre-operative period, and parent’s presence during anesthesia induction and the need for reducing anxiety.

Preoperative anxiety is a serious public health problem that has been increasing significantly in the last years around the world and can be realized in every domain of life. (1,4) Yearly, more than 1 million people die because of violence and numerous of nonfatal injuries happen as well (1,3). Furthermore, violence had a significant impact on the quality of life apart from contributing to disease, death, and disability.

The health care provider should be trained to identify, to communicate with patients, families, and community effectively, as well as how to report violence cases. Simulation is now a well-established educational tool that fosters the learning process of health providers. It can be defined as an artificial replication of sufficient components of the real-world situation to achieve certain goals. It allows trainees to obtain the necessary knowledge and skills without the need for real patients.


The knowledge of the attendees was explored before and after training as well as the satisfaction.

Conclusions
Revision of the medical curricula to assure that it contained knowledge and practices regarding child abuse and violence. On another hand, increase a Weame among healthcare providers by using HFS and SP may improve the knowledge and reporting skills.
Pilot-phase Findings from the Simulation-Based Performance and Compliance Testing for Age-appropriate Chest Compression in Kids (SPOTCheCK) Study

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2Department of Emergency Medicine, Alpert Medical School of Brown University, Providence, RI, United States

INTRODUCTION
- High quality cardiopulmonary resuscitation (CPR) with effective chest compressions in accordance with American Heart Association (AHA) guidelines is critical for survival and improved neurological outcomes in cardiopulmonary arrest.
- In 2015, the AHA guidelines were revised to minimize complexity in CPR training by more closely aligning the recommendations for adult and pediatric chest compression standards.

RESULTS
- Quality of chest compressions monitored with CPR feedback devices (Zoll Non-blinded, prospective pilot study

METHODS
- To investigate whether individual adult and pediatric care providers deliver high quality cardiopulmonary resuscitation (CPR) with effective chest compressions in accordance with American Heart Association (AHA) guidelines that general emergency medicine physicians.

RESULTS
- To investigate whether individual adult and pediatric care providers deliver high quality cardiopulmonary resuscitation (CPR) with effective chest compressions in accordance with American Heart Association (AHA) guidelines that adult and pediatric care providers deliver high quality cardiopulmonary resuscitation (CPR) with effective chest compressions in accordance with American Heart Association (AHA) guidelines that general emergency medicine physicians.

DISCUSSION
- Overall compliance with AHA chest compression guidelines was low.
- Pediatric physicians were more in compliance with the AHA pediatric chest compression guidelines than emergency medicine physicians, whereas emergency medicine physicians were more in compliance with the AHA adolescent chest compression guidelines.

CONCLUSIONS
- A larger study may further elucidate these findings.
- Increasing provider awareness of chest compression recommendations for different pediatric age groups through simulation-based assessment and feedback may lead to overall improvement in pediatric resuscitation.

Table 1: Chest Compression Performance of Pediatric and Emergency Medicine Providers on Infant Manikin

<table>
<thead>
<tr>
<th></th>
<th>Pediatric Providers (n=10)</th>
<th>Emergency Medicine Providers (n=10)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean correct compressions, %</td>
<td>80% (100)</td>
<td>80% (100)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Mean compression depth, inches (SD)</td>
<td>2.5 (0.8)</td>
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<td>0.82</td>
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<td>Mean compression rate, bpm</td>
<td>100 (20)</td>
<td>100 (20)</td>
<td>0.36</td>
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<tr>
<td>Mean compression rate, bpm</td>
<td>120 (20)</td>
<td>120 (20)</td>
<td>0.36</td>
</tr>
</tbody>
</table>

Table 2: Chest Compression Performance of Pediatric and Emergency Medicine Providers on Child Manikin

<table>
<thead>
<tr>
<th></th>
<th>Pediatric Providers (n=10)</th>
<th>Emergency Medicine Providers (n=10)</th>
<th>p value</th>
</tr>
</thead>
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<tr>
<td>Mean correct compressions, %</td>
<td>83.9 (31.6)</td>
<td>80% (100)</td>
<td>0.03</td>
</tr>
<tr>
<td>Mean compression depth, inches (SD)</td>
<td>2.5 (0.8)</td>
<td>2.5 (0.8)</td>
<td>0.30</td>
</tr>
<tr>
<td>Mean compression rate, bpm</td>
<td>100 (20)</td>
<td>100 (20)</td>
<td>0.30</td>
</tr>
<tr>
<td>Mean compression rate, bpm</td>
<td>120 (20)</td>
<td>120 (20)</td>
<td>0.30</td>
</tr>
</tbody>
</table>

Table 3: Chest Compression Performance of Pediatric and Emergency Medicine Providers on Adolescent Manikin

<table>
<thead>
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<th></th>
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<th>Emergency Medicine Providers (n=10)</th>
<th>p value</th>
</tr>
</thead>
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<td>80% (100)</td>
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<td>2.5 (0.8)</td>
<td>0.30</td>
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<tr>
<td>Mean compression rate, bpm</td>
<td>100 (20)</td>
<td>100 (20)</td>
<td>0.30</td>
</tr>
<tr>
<td>Mean compression rate, bpm</td>
<td>120 (20)</td>
<td>120 (20)</td>
<td>0.30</td>
</tr>
</tbody>
</table>
Saudi Arabian nursing educators perceptions of virtual simulation as an educational tool for undergraduate nursing students: A descriptive qualitative study

Ohud Alotaibi (1, 2)*, Julia Morphet(2)* Samantha Dix(2)*

(1) King Abdullah Bin Abdul-Aziz University Hospital, Riyadh, Saudi Arabia.
(2) School of Nursing and Midwifery, Monash University, Victoria, Australia

Introduction

Within the nursing education field, there have been significant developments in simulation which have been largely applied to the undergraduate nursing curriculum (Berragan, 2011). Simulation is a teaching-learning strategy which promotes students' clinical competency (Decker et al., 2008). One of the simulation techniques which this research emphasises is virtual simulation. Virtual simulation refers to a computer-based simulation environment which provides students with highly immersive interaction (Decker et al., 2008). This study focuses on exploring Saudi Arabian postgraduate nursing students' perceptions of the virtual simulation program developed for nursing education, since a literature review showed that there has been no prior study conducted regarding virtual simulation in nursing in Saudi Arabia. Virtual simulation, which is one of the recent models of simulation, is a computer-based simulation which can replicate real or imagined patient or clinical environments and provide students with a highly interactive experience (Foronda et al., 2016; Vidal et al., 2013). The benefit of using virtual simulation is that it encourages students to practice nursing skills through training on a virtual patient and having immersive experience (De Gagne et al., 2013). Also, what distinguishes virtual simulation is that it bring participants from various geographical places together in one context for convenient participation (De Gagne et al., 2013).

Virtual simulation

The participants were exposed to vSim for Nursing™ / Fundamentals, which is an innovative virtual simulation learning resource. It is jointly developed by Laerdal Medical and Wolters Kluwer (Laerdal Medical and Wolters Kluwer, 2016). It is designed to imitate real nursing scenarios which integrate with curriculum resources. To allow nursing students to interact with virtual patients in a virtual simulation environment which offers a safe and realistic online environment (Laerdal Medical and Wolters Kluwer, 2016). The aim of vSim for Nursing™ is to develop nursing students’ clinical decision-making skills, competence and confidence. In the vSim for Nursing™, each scenario has a different diagnosis and requires different options for patient care. Students are required to successfully provide the appropriate nursing care to obtain a high score at the end of the scenario.

Figure 1: vSim for Nursing™

Methodology

A qualitative design with descriptive approach was considered an appropriate design for this research study. This research design was chosen because it focuses on understanding human experiences, individual perceptions and the opinions of the research participants (Schneider & Whitehead, 2016). The study was conducted at Monash University Nursing and Midwifery. From 23 Saudi Arabian students who were enrolled in postgraduate nursing studies, 6 students showed interest and attended in the introductory classes. One student withdrew before interviews and 5 students participated in the interviews. The population of this study represents 21.7 % of the total population of Saudi Arabian postgraduate nursing students at Monash University.

Results

This virtual simulation was new to the participants and they were exposed to it for the first time in this study. Most of the participants identified that the instructions of vSim for Nursing™ were easy and clear but that they needed an introductory session to illustrate the vSim for Nursing™ user instructions. The vSim for Nursing™ has case scenarios with sufficient details which immerse the users in a closed clinical environment of the real clinical environment. It was found that the interaction with virtual simulation supports the participants with semi-real feel of experience. The most significant advantage that the participants asserted that virtual simulation is such an adequate tool to prepare students for the clinical environment. The participants indicated that virtual simulation is a suitable alternative to practice nursing care if there are difficulties with practicing in a real clinical environment such as lack of clinical instructor and shortage of students’ clinical placements. Virtual simulation is an excellent way to develop students’ skills, such as critical thinking, organizing priorities, communication, English language, medical terminology and independent-learning skills. Poor internet connection affected the participants’ perceptions regarding the application of virtual simulation in Saudi Arabia. Applying virtual simulation to the Saudi Arabia context is culturally acceptable and no changes needed to be made to the virtual simulation system to suit the Saudi health culture.

Discussion

While participants in the current study have distinctly different nursing educational backgrounds and experiences, it was clearly observed that the dominant perspective of the participants’ experiences was positive. By applying Kolb’s learning-style model in this study, the participants who were exposed to virtual simulation in this study expressed that they enjoyed using and practicing a useful learning tool, which they described as a unique learning tool. It was felt that virtual simulation could provide them with a significant opportunity to improve critical thinking more than clinical skills. Both students and teachers deemed that virtual simulation is an innovative and positive pedagogy and is a highly satisfying educational tool which could be included in student clinical make-up classes and content preparation. This is in line with the perceptions of the students in the current study, who indicated that virtual simulation is a practical tool to prepare students for the clinical environment.

Conclusions

Virtual simulation in nursing has significant advantages which could enhance students’ non-technical skills such as critical thinking and communication, teaching strategies and curriculum development in faculties. Saudi Arabia has a shortage of research in simulation, particularly virtual simulation in nursing, which affects simulation-based education effective use and application. Overall, the findings of the current study illustrate that virtual simulation is a suitable learning tool to be applied in Saudi Arabia. It is important to understand the critical role of different types of simulation models in nursing education, particularly in Saudi Arabia. This would assist in the development of nursing education in order to enhance educational and teaching tools. This study explored participant perceptions of virtual simulation, which is an important learning tool. In addition, it helped highlight the opinions about the importance of applying this learning tool in Saudi Arabian nursing education. This may encourage Saudi researcher to conduct further research in virtual simulation as an educational tool in nursing. It is hoped that study findings prompt the introduction of virtual simulation in Saudi Arabian nursing education.

Contact

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References

METHODS

Simulation-based education (SBE) is a teaching methodology that creates a learning environment where students perform psychomotor & clinical reasoning skills in a realistic & controlled environment. Adoption of SBE in any health profession requires instructors/educators to expand their teaching practice, knowing how to develop simulations, integrate them into teaching. Effectively assess simulated performance is becoming a core role for instructors/educators in health care. For many instructors/educators, a knowledge and skill gap exists between the demand for simulation and competence in developing and using simulation. Therefore, Clinical Skills & Simulation Center (CSSC) in King Abdulaziz University provided a strategic approach for Simulation-based Education instructor program into three phases which are; Train of Trainers as “First phase”, Orientation/Identification as “second phase”, and Integration of simulation in the educational programs as “third phase” to achieve the goal and mission of CSSC to support to integrate simulation effectively in the simulation program.

RESULTS

In academic year 2012 to 2016, the total number of participants attended the TOT courses are 820. Out of 820 participants, 119 are from KAU 35 from them used the SBE on the programs, while in 2016 to 2019, a total of 226 trainees attended and out of 226 participants are from KAU, 219 from them used the SBE on the programs. In 2012-2016, the percentage of KAU instructors who participating in TOT were able to use simulation as a teaching tool were 15% (figure 1), while 97% in 2016-2019 period.

CONCLUSION

Compared to previous years, there has been an increase in the number of simulation-based education training programs and curricula even with decreasing number of TOT concise courses provided at KAU. The comprehensive 3-phases strategic approach has not only increased the number of sustainability of the TOT graduates, but it may have also facilitated the individual integration process of different new education programs. The Orientation/Identification phase may be the most critical to set the stage for the rest of the process.
Vasovagal syncope is common in clinical practice, and referred to as neurocardiogenic syncope [1,2]. Vasovagal syncope is noncardiogenic kind of syncope, and it is different from orthostatic hypotension [3]. At initial stage of vasovagal syncope, there are tachycardia with normal blood pressure followed by bradycardia which leads to decrease blood flow to the brain, causing brief lose consciousness. Vasovagal syncope mostly proceeded by sight of blood or extreme emotional distress [4]. It is usually harmless and does not require treatment, unless there is a trauma risk during vasovagal syncope episode. There are several maneuver mentioned in literature to prevent it as the Applied Tension Technique (which was developed by Lars-Göran Öst). The technique involves tensing the muscles in the body, which will raise the blood pressure and so reduces faint episodes [5]. We report a case in which she completely recovered from vasovagal syncope after using a venipuncture training Pad.

Method

A 20-year-old female dental student was completely healthy and asymptomatic till the age of 17 years when she fainted during blood extraction test, second similar episodes at age of 19 years following blood sight for college test, after this patient was trained on tension technique also had different exposures by watching movies on blood extraction and surgeries, but in spite of these methods, recently she developed third episode after vaccination. All the 3 episodes were short for 1 minute and recovered fast after laying her down and raising her feet up she developed nausea and lightheadedness for 30 minutes during recovery phase. There was no history of orthostatic hypotension, cardiac or neurological abnormalities, has strong family history of similar symptoms in mother, two of her uncles and grandfather from mother side. Physical examinations including vital signs were all normal. Her resting heart rate of 75 beat/minute and blood pressure of 110/75 mm Hg. So just before patient start her clinical practice in dentistry she was trained on venipuncture Pad (Figure 1) simulator which used to train nurses and junior physician on blood extraction and intravenous cannulation which has blood like color solution (Figure 2).

Result

While the patient was doing her first trial on the venipuncture pad she felt sweating and dizziness when she saw the blood but only for few seconds without fainting then she resumed the training smoothly, she continued training on the venipuncture pads several time per day for 3 days without any problem. One month later, patient start her clinical training at dentistry college (4th year) and she was able to inject anesthesia to patients without any complication also she received her 3rd dose of hepatitis vaccine and she was totally asymptomatic.

Conclusion

Typical and infrequent vasovagal syncope usually diagnosed by history only and do not need further investigation such as head-up tilt-table test (HUTT) which is usually required for atypical features, seizure activity and older patients [6]. Avoiding the trigger event is the best treatment for infrequent and typical presentation of vasovagal syncope [7]. But this is not feasible in our patient as she is dentistry student. Medical therapy such as beta-adrenergic blockers did not show efficacy in preventing syncope [8], other studies showed that repeated exposure to triggers can decrease fear, if not then apply tension physical maneuvers which showed its effectiveness on certain patients [9] and it is done by alternating action of muscle tensing in arms, trunk, buttocks, while crossing the legs for 10 to 15 seconds followed by body relax for 20 to 30 seconds, repeat 5 times [10,11]. In case of frequent episodes or atypical presentation of vasovagal syncope, studies had showed that electro-anatomic-mapping (EAM)-guided cardioneuroablation (CAN) strategy is feasible and safe in vasovagal fun and inexpensive. Our patient got great benefit from training on venipuncture Pad and she was able to overcome vasovagal syncope due to blood and needle phobia. We would recommend such hands on exposure for patients with blood-needle phobia to prevent vasovagal syncope.

Bibliography

CRESENT System Integration Committee: An Innovative Approach to System Integration in Healthcare Simulation
Shadi Almoziny, Hani Lababidi
Center for Research, Education and Simulation Enhanced Training (CRESENT)
King Fahad Medical City, 2nd Health Cluster, Riyadh, Saudi Arabia

Introduction
The involvement of medical simulation within any healthcare system is rarely integrated into the whole healthcare delivery process. Rather, medical simulation is usually introduced as a sporadic, unintegrated, unplanned and inconsistent intervention.

Methods
The System Integration Committee, under the Center for Research, Education & Simulation Enhanced Training (CRESENT), King Fahad Medical City (KFMC), is formed to apply consistent, planned, collaborative and integrated interventions, in conjunction with systems engineering and risk management, to address KFMC healthcare system needs and achieve excellent clinical care, enhanced patient safety and improved outcome metrics across the healthcare system.

The committee is led by a chairperson who is a simulation expert with fellowship training in medical simulation. Objective data and metrics about KFMC healthcare system performance are collected by concerned groups, departments or administrations that includes: Corporate Planning & Development Administration, Quality Management Department, Risk Management Department, Continuing Professional Development Department, Executive Administration of Nursing Services. The strategy that was followed at CRESENT regarding System Integration was to bring the leaders at KFMC around the same table as members of CRESENT System Integration Committee. The committee membership requires the members to be in higher leadership positions within the healthcare system at KFMC because they are looking at the bigger picture of the healthcare system and can prioritize the needs.

Results
The committee agreed to prioritize its work to address the High Volume-High Impact issues that are well documented and tracked through objective metrics. Also, the committee agreed to address other issues whenever they arise based on their urgency and impact. Patient handover was identified as one of the major High Volume-High Impact issues that need to be addressed. The simulation program at CRESENT is now part of the iSBAR Handover Project and it is involved in multiple steps within the project that are applicable to simulation.

Conclusion
The committee brought CRESENT system integration initiative to a higher level, i.e the Quality Council, which will support the execution of the committee recommendations. The committee represents an organized bi-directional feedback loop between CRESENT and the healthcare system at KFMC to help to integrate simulation programs into the whole KFMC healthcare system.

Bibliography

Evaluating team performance during resuscitation based inter-professional (IP) training for medical student in simulation center

Shatha Almahdaly, BSc.AHA instructor  
University of Cardiff

Introduction

The Operating room environment has a substantial challenging in term of communication. Therefore, Among medical profession there are some barriers which might impact the effective communication included “lack of confidence, lack of experience, complexity of healthcare, the distracting nature of healthcare settings, and lack of structure and standardization” (Boaro et al., 2010; Law et al., 2014; Nadaam, 2009; Pfaff et al., 2014; Rice et al., 2010). Furthermore, the Joint Commission (2015) documented that there is connection between miscommunication and harmful medical errors on patient safety. Foronda et al. (2014) emphasized that there is an increase in developing of inter-professional practice such as workshops, online program, and contribution of inter-professional simulations. Though, the WHO (2016) highlighted that there is a lack of training in the educational institutions regarding preparing the health professionals, for applying the best practice and having good communication skills for patient safety. The establishment of the inter-professional educational revolution among professionals, healthcare professionals have become increasingly comfortable with publicly acknowledging the inter-professional differences such as variety in training, education, roles, and languages (Foronda et al., 2014). Regardless, the growth that shows there are challenges remains between the professions within operating room in terms of communication. The differences between specialists perform obstacles for effective communication included “lack of confidence, lack of experience, complexity of healthcare, the distracting nature of healthcare settings, and lack of structure and standardization” (Boaro et al., 2010; Law et al., 2014; Nadaam, 2009; Pfaff et al., 2014; Rice et al., 2010). The aim of the study is to investigated the previous studies regarding simulated inter-professional education (IPE) communication within healthcare during resuscitation to classify further recommendations and optimally improve the performance.

Methods and Materials

A conduction of Simulated case scenarios among undergraduate senior students, medicine and nursing using the scale of communication and teamwork assessment healed within the academic year in simulation center (Eccles, M et al 2005). The search included relevant studies database of PubMed, Medline, CINAHL, and Google Scholar. Exploring lists of selected articles reference and reviewing the update recommendations from experts. Keywords, were used inter-professional communication, medical, nursing for students and professional team members. As we were attempting to understand and define the different ways of communicating between professionals in a variety of contexts, were included for intentionally unrestricted criteria. Articles in English with publication dates from 2005 until 2014 were included, represent the several methodologies with increased breadth. Abstracts for related subjects were read and 45 studies were kept in consideration. The included articles were 15 in the review.

Results

Initially, Macdonald S. et al. (2018) indicate the impact of inter-professional education among senior undergraduate nursing, medicine students on high fidelity simulated can raise the teamwork performance through enhancing the participants critical thinking, engagement, improve confidence, and enhance psychomotor skills; however, there is inadequate data on the influence of inter-professional education on development teamwork. While Lou, Y et al. (2019) study resulted that education in Inter-Professional Based Advanced Cardiac Life Support Within Simulation has significant change on participants behavior 0.5 by using the Communication and Teamwork Skills Assessment (CATS) scale, to assess: situational awareness, cooperation, communication, and crisis situation (Frankel, et al. 2007).

Additionally, Smith et al. (2016) deliver for the undergraduate medical student a tutoring session before starting scenarios to clarify the roles and responsibilities of team members during resuscitation on high fidelity patient simulator, then shows the importance of team performance on six participants working together through Advanced Cardiac Life Support (ACLS) session. Finally, every student has been given an anonymous evaluation by using Likert rating scales a standardized questioning students which is a valid tool as Ang et al. (2013) indicated. Running a simulated inter-professional education (IPE) optimally can improve their performance on decision making, leadership, teamwork and communication skills during the situation.

Discussion

An optimal study design evaluates the feeling and behaviour for both senior undergraduate medical students team (medicine and nursing) to communicate professionally during resuscitation via observational qualitative video-based practice, utilizing the assessment scale of communication and teamwork within the academic year held in simulation centre (Eccles, M et al 2005).

Conclusions

The author found teamwork performance can be enhanced by simulation training to provide effective and interactive opportunities for clinical learning. The researcher suggested that PS-ACLS training can increase teamwork performance for nursing and medicine students. The coordination of professionals for the educational restructuring of IPS-ACLS training should be strengthened. Given the “increasing complexity of the contemporary clinical situation, effective teamwork in multidisciplinary practice is critical to patient safety and quality of care” Lou, Y. et al. (2019, May); The simulation-based approach among professionals is an effective strategy for focusing students to respond more easily to a real emergency requiring resuscitation. Although the inter-professional training can improve student behavior during resuscitation there is still a gap of knowledge and lack of studies.

Contact

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Email: shatha.almahdaly@gmail.com

References


Join the
CHAMPIONS SHIP
SAUDI HEALTH SIMULATION CONFERENCE 2019
CALL for Participation: Simulation Assisted Challenges

Instructions:
The SimDawri is becoming an iconic event of SHSC. It is a showcase of healthcare teams competing against each other in a safe friendly environment. Each team will experience a problem requiring simulation-based intervention. The team members are supposed to show their best simulation-assisted performance within 12-10 minutes’ time. Typically, each team consists of 4 participants, 3 physicians-on-training from different specialties and one nurse or respiratory therapist. five teams are sought from different regions of Saudi Arabia; however, this year our great and enthusiastic audience is invited to gather the fifth team to compete in the semifinal as well!
An Audience voting and expert panel will choose the team with the most effective simulation performance. The semi-final session will be held on November 2019, 12; while the «DAWRI Finale» will be attended by all SHSC 2019 attendees on November 2019, 13;

Simulation centers and academic institutions wishing to participate should send the names of their team members before September 1st, 2019. We appreciate your interest to promote a safe simulation learning environment and looking forward to see you all at SHSC2019.

Chairman of SimDawri
Dr. Abdulaleem Alatassi
Innovation in medical simulation Award

Eligibility
- Nominees must be a current member of the Saudi Society of Simulation in Healthcare
- Nominees can not receive the award more than once every 3 years

Categories
Educational Leadership
The candidate should meet or exceed the following criteria:
- Demonstrates significant innovation in simulation education
- Actively promotes and implements aspects of innovation in simulation education
- Influences the development or implementation methods of simulation education beyond their own facility
- Acts as a role model for creating and sustaining a culture of creativity
- Motivates colleagues and learners

Evidence required includes:
- Three Letter of recommendations (each one page maximum) from colleagues/learners, describing examples of how the candidate fits each of the criteria above.

Simulation Technology
The simulation technology should meet or exceed the following criteria:
- Increases the quality of education in the course, program, office, or institution.
- Contributes to a more efficient way of simulation education.
- Adds value to the institution while containing or reducing costs.
- Can be replicated at other institutions with minimal difficulty.
- The innovation should be original.
- No more than three years old
Evidence required includes:
- Description of the innovation, with pictures or videos of it being utilized in simulation education.
- Letter of support (one page maximum) from an expert in the same field describing the quality, efficiency and originality of the innovation
- Learner ratings of the innovation
- Cost data

Research
The research should meet or exceed the following criteria:
- Utilizes medical simulation as for education, assessment, or quality improvement.
- Addresses an important educational or clinical issue.
- Its hypothesis or methods are creative and original.
- Its results advance the local / international knowledge about the topic.
- Published no longer than three years ago.

Evidence Required Includes:
- A copy of the article concerned
- A letter (one page maximum) describing how the publication fits the criteria above

Deadline of submission:
Oct 2019, 15 submitted to SHSC@moh.gov.sa
SimTech Competition 2019

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November 11-13, 2019

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- Fix & Troubleshoot
- Detect & Predict
- Computers & Networks
- Scenario Programming
- Audiovisual Setup Tricks
- Simulation Fidelity Enhancement

TARGET AUDIENCE

- Simulation Operation Specialist
- Simulation Biomed
- Simulation IT
- Simulation Educator
- Staff from simulation centers & skill labs, from national and international institutions

LOCATION

Saudi Health Simulation Conference
Riyadh, Kingdom of Saudi Arabia

INQUIRIES

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