## **Nursing Education Research Conference 2018 (NERC18)**

# Utilizing Standardized Patients and High-Fidelity Simulation to Promote Interdisciplinary Communication

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Changes in health care practices, patient outcomes, and advances in technology have brought about a radical need for restructuring health care education. Individuals entering health careers today have been involved in the digital age since infancy. Traditional teaching methods need to be augmented with today's technology to accommodate the learning styles of this generation. Students need to be taught in a way that will prepare them to perform in the changing health care environment.

Miscommunication has been linked to medical errors and in trauma situations these errors have an increased risk of becoming fatal. It is imperative for patient safety that effective team communication occurs. Paramedic and nursing students alike require the ability to perform during stressful situations from both the medical and psychological aspect of care.

Professors from the areas of Nursing and Emergency Medical Services hosted an interdisciplinary mass causality training exercise. The college partnered with high school students who have identified interest in health professions, a local fire department and a local towing company to create a realistic automobile accident with over 20 patients exhibiting multiple traumatic injuries. The simulation began when a driver, distracted by texting, missed a stop sign and drove into a busy intersection, hitting several pedestrians and other motor vehicles in the process. Over 50 Paramedic and Nursing students participated in the exercise utilizing disaster management skills.

The event created an ongoing collaboration between disciplines at the college, and bridged the gap between practice and education through use of simulation (high fidelity simulators and scripted patients), while offering innovative ways to teach our next generation of health care responders. The interdisciplinary approach to education will be invaluable to the students and faculty as they gained knowledge of each discipline.

This study utilized standardized patients and high fidelity simulation to promote knowledge, skills, and attitudes of team structure, leadership, situation monitoring, mutual support, and communication in a controlled setting during a disaster.

QSEN was used as a framework for the study which focused on teamwork/collaboration, patient-centered care, and safety. A test retest format was performed utilizing the Agency for Healthcare Research and Quality (AHRQ, 2017) *TeamSTEPPS Teamwork Attitudes Questionnaire* along with a post-simulation reflection paper identifying themes of participants' attitudes.

#### Title:

Utilizing Standardized Patients and High-Fidelity Simulation to Promote Interdisciplinary Communication

# **Keywords:**

communication, inter-professional/interdisciplinary and simulation

#### References:

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# **Abstract Summary:**

Effective communication and the ability to perform medical and psychological aspects of care during stressful situations improve patient outcomes. Standardized patients and high fidelity simulation is utilized with high school, paramedic and nursing students to promote knowledge, skills, and attitudes of effective team communication in a controlled disaster setting.

## **Content Outline:**

- I. Introduction
  - a. Use of simulation in teaching millennials
  - b. Standardized patients
  - c. Communication errors and patient outcomes
- II. Body
  - a. QSEN framework
    - i. Teamwork/collaboration
    - ii. Patient-centered care

# iii. Safety

### b. TeamSTEPPS

- i. Team structure
- ii. Leadership
- iii. Situation monitoring
- iv. Mutual Support
- v. Communication
- III. Findings IV. Discussion
- V. Conclusion
- VI. Limitations/Future research

First Secondary Presenting Author

# **Corresponding Secondary Presenting Author**

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**Professional Experience:** I have expertise in pediatric care and have been a nurse since 1982. I have worked with patients and their families at Arkansas Children's Hospital and Rainbow Babies and Children's hospital in Cleveland. I started to teach nursing 10 years ago and obtained my CNE (Certified Nurse Educator). I have also been active in simulation and technology uses with education and obtained my CHSE (Certified Healthcare Simulation Educator). I have published a chapter on growth in development in the following textbook- Pediatric Nursing: Critical Components of Nursing Care: F.A. Davis Company.

**Author Summary:** Dr. Mary Grady is a nurse who has worked in the area of pediatrics for the past 35 years. She has worked at Arkansas Children's Hospital and Rainbow Babies and Children's hospital in Cleveland. She currently is an Associate Professor of Nursing at Lorain County Community College and Co-Coordinator of the LCCC Healthcare Simulation Center. She is a leader in innovative educational methods utilizing technology to enhance classroom learning for students and patient discharge education.

Second Primary Presenting Author

## **Primary Presenting Author**

Nanci M. Berman, MSN, RN Lorain County Community College Division of Health and Wellness Sciences Professional Practice Clinician Elyria OH USA **Professional Experience:** July 1998 – Present Clinical Nurse, Rainbow Babies and Children's Hospitals, Cleveland, OH November 2016- Present ITT Transfer Nursing Student Liaison, Lorain County Community College, Elyria, OH September 2015- December 2015 Adjunct Clinical Instructor, Cuyahoga Community College, Cleveland, OH August 2014- Present Professional Practice Clinician, Lorain County Community College, Elyria, OH January 2011- August 2014 Adjunct Instructor, Lorain County Community College, Elyria, OH

**Author Summary:** Nanci M. Berman has been a nurse for nearly 20 years. She possesses skills in pediatric hematology, oncology, and bone marrow transplant, adult hospice and hospice management, and education in an associate degree nursing program. She is working to advance her education by obtaining her DNP with projected graduation in May 2018. She has completed many hours of low and high fidelity simulation and is working to obtain her CHSE certification.

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Professional Experience: Lorain County Community College, Elyria, Ohio Aug 2005 – Present Director, EMS and Fire Science Programs Co-Coordinator of Health Simulation Center Eaton Township Fire Department, Eaton Township, Ohio May 1998 – Present Firefighter / Paramedic Assistant Chief NASA Glenn Research Center – Contractor Sep 1995 – Present Lead Engineer for Combustion Emissions Analysis Team Education: Case Western Reserve University, Cleveland, Ohio Jan 1998 Bachelor of Science in Chemical Engineering Lorain County Community College, Elyria, Ohio Aug 2000 Paramedic Certification Cuyahoga Community College, Parma, Ohio Jun 2001 Firefighter I & II Certification Certifications: Nationally Registered Paramedic State of Ohio certified Paramedic State of Ohio certified Firefighter II State of Ohio certified EMS Instructor National Incident Management System 100, 200, 300, 400, 700, 800 AHA BLS Instructor AHA ACLS Instructor AHA PALS Instructor

**Author Summary:** Dawn Sgro is the Director of the EMS and Fire Science Programs at Lorain County Community College and the Co-coordinator of the LCCC Health Simulation Center. She has been a Paramedic-Firefighter for nearly 20 years. She is certified as Healthcare Simulation Educators from the International Society for Simulation in Healthcare.