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Health Informatics Competencies, Workforce and the DNP: Why Connect These 'Dots'?

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Abstract. This panel will provide the perspectives of nurse informatics experts on the development of informatics education integrating health information technology (HIT) and immersive simulation. The panel will also address student and provider access to the electronic health record (EHR) for educational purposes. This panel examines the education and preparation of students and practicing nurses to meaningfully use EHRs. The target audience is clinicians, educators, trainers, students and those interested in the meaningful use of EHRs and achievement of the Informatics competencies defined by AACN and TIGER.

Keywords. Electronic health records (EHRs), simulation, ethics, nursing education, health informatics education, doctor of nursing practice (DNP)

1. Panelists

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University of Texas at Austin, School of Nursing

Benham-Hutchins completed her PhD at the University of Arizona. Her research focuses on health informatics and nursing systems. She has extensive experience teaching informatics content at the graduate and doctoral level.

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Brixey completed a PhD in Health Informatics from the School of Health Information Sciences, University of Texas Health Science Center in Houston. Brixey holds a joint teaching appointment between UTHealth School of Biomedical Informatics and School of Nursing. She is responsible for teaching graduate level informatics courses.

William Scott Erdley, PhD, RN erdley@buffalo.edu

Behling Simulation Center, University at Buffalo, SUNY

Erdley has been active in nursing and health informatics since the early 1990's. His area of expertise for the past 5 years is in immersive high-fidelity patient simulation. He is the Simulation Education specialist at the Behling Simulation Center working with health students from medicine, nursing, dentistry, pharmacy and physical therapy.

Kay Sackett Fitzgerald, EdD, RN, <u>kay.sackett@gmail.com</u> Kay Sackett Fitzgerald Consulting Fitzgerald completed her EdD at Temple University. She is a fellow of the NLM/MBL informatics group. She has experience teaching nationally and internationally at the undergraduate and graduate areas of interest including healthcare informatics and technology, online education, and evidence-based practice.

Angela M. Ross, DNP, MPH, PMP, PHCNS-BC <u>AngelaM.Ross@uth.tmc.edu</u> University of Texas Health Science Center at Houston

Ross served over 20 years in the U.S. Army Medical Department. Her most recent positions were Chief Medical Information Officer and IT Project Manager. Ross earned her MS in informatics and DNP from the University of Maryland at Baltimore. Ross holds a teaching appointment at UTHealth School of Biomedical Informatics

2. Panel Description

Introduction: J. J. Brixey, Moderator (10 minutes)

The use of the EHR in nursing curriculum has been influenced by the AACN Essentials [1], which specifically identifies that nursing students develop informatics skills involving the use and understanding of the EHR. This panel discussion presents different perspectives regarding the educational use of the EHR.

Meaningful "Educational" use of the EHR. M. Benham-Hutchins (10 minutes) HIT, specifically the EHR, provides tools for nursing students to incorporate the data, information, knowledge and wisdom (DIKW) model [2] into their learning activities. To optimize this, nursing students and practicing clinicians should have the ability to track a former patient in the EHR to learn about the results of their interventions and the patient's progression. This requires development of policies and guidelines that incorporate patient consent and confidentiality [3].

To "ehr" or not to "ehr": This is the question. W. S. Erdley (10 minutes)

Many human-patient immersive simulation labs and centers integrate electronic health records (EHRs) into the learning experience. This presentation will provide a short literature review, as well as an argument for careful planning and consideration of organizational and instructional goals / direction as determinants of investing in a simulated EHR for immersive simulation experiences.

Healthcare informatics competencies and nursing workforce: An educational intervention. K. Sackett Fitzgerald (10 minutes)

Improvement of healthcare informatics competencies is a nursing workforce issue and a medium for doctorate in nursing practice (DNP) students' scholarly inquiry. The author describes online experiential learning activities that incorporate evidence-based strategies, the AACN Essentials of Doctoral Education [1] and TIGER recommendations for integrating technology into practice and education [4].

EHR workforce Education: Teaching 24/7, N=1. Dr. Ross (10 minutes)

Health Care is a 24/7 operation and staff education is required to support the continuity of care through all shifts. EHR education may consist of classroom instruction targeted at user types, identification and training of super users (peer trainers), and one-on-one (over-the-shoulder) training to support users through the new

system implementation. One-on-one/over-the-shoulder training is vital to the success of a system implementation. Over-the-shoulder trainers should be available on all shifts in the early weeks of system implementation. Trainers and IT staff collaborate to assess user issues and aim to provide quick system updates.

Summarize panelist presentations – Dr. Brixey (moderator) 10 minutes

Questions & answers (30 minutes)

Sample list of debatable questions

- 1. Which is more important in the creation of a DNP HIT course, the DNP Essentials or the TIGER Informatics Competencies?
- 2. What are the ethical and competing concerns which influence the ability of nursing students and practicing clinicians to use the EHR to track previously cared for patients?
- 3. Is one-on-one training in the clinical environment worth the cost?

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