### Title:

Evidence-Based Educational Strategies That Promote Handoff Effectiveness: Connecting the Dots Between Senders and Receivers

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#### Keywords:

Evidence-based educational strategies, Handoff and Patient Safety

#### **References:**

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#### **Abstract Summary:**

Communication breakdown during patient handoff have long been identified as contributors to adverse patient events. Multiple evidence-based educational strategies aimed to improve and evaluate overall handoff effectiveness in Baccalaureate nursing students are discussed in this presentation.

# Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to identify issues related to change-of-shift patient handoff.	Introduction and Background: Overview of current issues related to handoff: * Issues related to errors in care, with main focus on patient safety issues. *Lack of handoff education in nursing programs. * Lack of focus in education on connecting the dots of being the "sender" and "receiver" of patient handoff.
The learner will be able to describe evidence- based teaching strategies that promote experiential learning in nursing students of effective handoff delivery and reception.	Benefits of simulation as handoff teaching strategy: Repetition of simulated handoffs is a safe, risk-free method for students to repeat skills, receive feedback, and learn from their errors (Lee, Mast, Humbert, Bagnardi, & Richards, 2016). High-fidelity simulation has been repeatedly identified as one educational strategy to improve clinical judgment in novice nurses and help bridge the practice- education gap (Dreifuerst, 2012; Lasater, 2011). Handoff delivery teaching strategies: A flipped classroom is an evidence-based method to support clinical education and increase critical thinking skills, which are crucial for safe patient care (Burns, 2012; Yu, Zhang, Xu, Wu, & Wang, 2013). Case studies promote critical thinking and decision making by cultivating the connection between didactic content and clinical learning experiences (Pupil, 2011; West, Usher & Delaney, 2012). Role-playing using the SBAR format is a strategy that promotes effective handoff communication skills using a standardized method recommended by the Joint Commission and Agency for Healthcare Research and Quality (Wang, Blazeck, & Greene, 2015) Teaching strategies for receiving patient handoff: *Overview of lack of education regarding teaching students to "receive" handoff. *Discuss the specific evidenced based components of this simulation experiencefidelity,or realism, as a necessary component of the simulation design characteristics in the NLN/Jeffries Simulation Framework. Fidelity was enhanced

	by using practicing nurses, an electronic medical record, bedside handoff and standardized patients are evidence-based strategies used to allow students an opportunity to be the receivers of patient handoff. *The clinical scenario is based on standardized, tested, NLN/Laerdal® simulation scenarios.
The learner will be able to discuss evaluative processes to assess nursing students' handoff delivery and reception.	Evaluation of handoff delivery: The Handoff CEX tool (Horwitz, 2012) is used to evaluate handoff competence including setting, organization, content, communication skills, judgment, and professionalism after the students complete a simulated patient scenario. Evaluation following student receiving handoff: Clinical competence following students receiving patient handoff is measured using the Crieghton Competency Evaluation Instrument (C-CEI©, Hayden, Smiley, Alexander, Kardon-Edgren & Jeffries, 2014). The C-CEI© focuses on 23 general nursing behaviors divided into four categories: assessment, communication, clinical judgment, and patient safety.

## Abstract Text:

Ineffective communication has long been recognized as a barrier to safe patient care (James, 2013). The World Health Organization (2007), Joint Commission (2011), and the Agency for Healthcare Research and Quality (Westat et al, 2016) have identified communication failures during handoff as a national and international challenge to safe patient care. Fifty-three percent of the approximately 447 thousand respondents in The Agency for Healthcare Research and Quality's 2016 Hospital Survey on Patient Safety Culture deemed that important patient care information is often lost during shift changes. Forty-seven percent of the respondents indicated that shift changes were problematic for patients in their respective hospital (Westat et al, 2016). The Joint Commission Center for Transforming Healthcare (2011) estimates that 80% of medical errors result from breakdowns in communication when patients are "handed off" during change of shift report. Problems with patient handoffs are an international concern. According to the World Health Organization (2007), "hand-over (handoff) problems are rooted in the way that healthcare providers are educated or not educated (in team training and communication skills)". The WHO World Alliance for Patient Safety has developed patient safety solutions focused on communication during patient handoffs. They call for educators to incorporate training on effective handoff communication large.

Handoff education requires thoughtful preparation and planning to maximize attainment of program outcomes and minimize potential risks while ensuring integration of best practices in the clinical setting. However, formal instruction on handoff is not typically taught in undergraduate nursing programs (Kerr, Lu, McKinlay, & Fuller, 2011). Additionally, the literature provides very little information on handoff instruction and evalutation in undergraduate nursing education. The purpose of this presentation is to

discuss evidence-based educational strategies to improve effective handoff delivery and reception to maximize patient safety.

Multiple teaching and learning strategies have been incorporated into the curriculum of a midsize university's school of nursing. Strategies that promote effective handoff delivery are implemented and evaluated in the classroom, health assessment lab, simulation, and clinical settings during the first semester of nursing school and continued throughout the curriculum. A flipped classroom is initially used to introduce the handoff process. A flipped classroom is an evidence-based method to support clinical education and increase critical thinking skills, which are crucial for safe patient care (Burns, 2012; Yu, Zhang, Xu, Wu, & Wang, 2013). The students then practice handoffs using case study scenarios, and role play, using the Situation, Background, Assessment, Recommendation (SBAR) format, Case studies promote critical thinking and decision making by cultivating the connection between didactic content and clinical learning experiences (Pupil, 2011; West, Usher & Delaney, 2012). Role-playing using the SBAR format is a strategy that promotes effective handoff communication skills using a standardized method recommended by the Joint Commission and Agency for Healthcare Research and Quality (Wang, Blazeck, & Greene, 2015). In health assessment and simulation labs, students have more opportunities to practice patient handoff after completing physical assessments on manikins and standardized patients. Repetition of simulated handoffs is a safe, risk-free method for students to repeat skills, receive feedback, and learn from their errors (Lee, Mast, Humbert, Bagnardi, & Richards, 2016). The Handoff CEX tool (Horwitz, 2012) is used to evaluate handoff competence after the students complete a simulated patient scenario. Handoff setting, organization, communication skills, content, judgment, and professionalism are evaluated using a nine-point Likert scale. The tool enables the faculty to provide standardized and detailed feedback on the students' handoffs.

Although researchers agree that the transmission of accurate information is vital (Cohen, Hilligoss, & Kajdacsy-Balla, 2012; Young, Wachter, O'Sullivan, & Irby, 2016) it is imperative that the receiver of the handoff is able to process the information to form necessary clinical judgments. Clinical judgment following handoff is crucial and the ability to make sound clinical judgments has been identified as an essential skill for practicing nurses and is a hallmark of professional nursing. The nurse must understand the overall patient condition in order to plan care, which involves determining priorities of care based on the actual and potential patient situation. A literature search revealed no studies in undergraduate nursing education that focus on students being the sender and receiver of handoff. To connect the dots and provide students an opportunity to practice receiving patient handoff, fourth semester students participate in a handoff simulation experience. Simulation is an effective, evidence-based (Hayden, Smiley, Alexander, Kardon-Edgren & Jeffries, 2014) experiential learning strategy that can be used to help students gain a sense of salience as well as improve clinical competence in a risk-free environment. High-fidelity simulation has been repeatedly identified as one educational strategy to improve clinical judgment in novice nurses and help bridge the practice-education gap (Dreifuerst, 2012; Lasater, 2011). Jeffries (2012) included fidelity, or realism, as a necessary component of a simulation design as well as a component of the NLN/Jeffries Simulation Framework. To increase the fidelity of the experience, students receive bedside handoff from a practicing nurse, with the use of an electronic medical record (EMR). Standardized patients are used to further create a realistic scenario. The clinical scenario is based on standardized, tested, NLN/Laerdal® simulation scenarios owned by the school of nursing. Students are allowed up to 10 minutes after the handoff to use available resources such as the patient's EMR, a nursing drug handbook and a medical-surgical textbook. Clinical competence is measured using the Crieghton Competency Evaluation Instrument (C-CEI<sup>®</sup>, Hayden et al. 2014) from a remote viewing room. The C-CEI© focuses on 23 general nursing behaviors divided into four categories: assessment, communication, clinical judgment, and patient safety.

Despite longstanding identification of the relationship between communication breakdowns during end-ofshift handoff and patient safety, errors are still occurring globally (Johnson, Barach, & Arora, 2011). Insufficient handoff education is identified as a root cause of ineffective handoff and thus patient care errors (The Joint Commission Center for Transforming Healthcare, 2011). Nurse educators must develop and validate educational strategies to address handoff deficiencies in nursing students so that they will have the knowledge and skills needed to provide safe, consistent, and person-centered care. The implementation of a variety of evidence-based handoff educational strategies throughout the curriculum uniquely encompasses handoff delivery and reception. These strategies are implemented to increase nursing students' proficiency and confidence as well as enhance clinical judgment needed for effective handoffs. This in turn, will potentially bridge the practice-education gap related to handoff communication, and promote patient safety as students transition into practice, and advance in their professional careers.