Title:
A Bundled Approach to Improve Handoff Education in Prelicensure Nursing Students

Margaret A. Avallone, DNP, RN, CCRN
School of Nursing, Rutgers University School of Nursing Camden, Camden, NJ, USA

Session Title:
QSEN Competencies: Developing Nursing Skills
Slot:
O 01: Monday, 19 September 2016: 4:45 PM-5:30 PM
Scheduled Time:
4:45 PM

Purpose:
The purpose of this presentation is to describe the rationale, components, implementation and evaluation of the Nursing Handoff Educational Bundle (NHEB), a comprehensive bundled strategy to standardize the instruction and evaluation of handoff communications in a prelicensure baccalaureate program.

Keywords:
QSEN, prelicensure and safety

References:

Abstract Summary:
Nursing students must learn effective handoff skills to promote patient safety. The prelicensure handoff educational process is often variable and dependent on students’ clinical experiences. The Nursing Handoff Educational Bundle (NHEB) is a comprehensive bundled strategy to standardize the instruction and evaluation of handoff communications.

Learning Activity:

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVES</th>
<th>EXPANDED CONTENT OUTLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe the rationale for development of the Nursing Handoff Educational Bundle</td>
<td>a. Novices are silent during handoffs and rarely ask questions; Experts ask more clarifying questions. b. Students witness inconsistencies and variable quality in handoff practice during clinical experiences. c. Starmer and colleagues demonstrated significant reduction in near-miss and adverse events when a resident handoff educational bundle was implemented.</td>
</tr>
</tbody>
</table>
2. List the system components of the Nursing Handoff Educational Bundle.  
The Nursing Handoff Educational Bundle consists of a. an educational workshop b. clinical faculty education c. use of a standardized minimum data set for giving and receiving handoff report d. use of the Handoff CEX tool to standardize the evaluation of handoffs.

3. Describe how clinical educators can use the Handoff Clinical Examination Tool (Handoff CEX) to evaluate provider and receiver handoffs.  
The Handoff CEX can be used as a formative evaluation tool to provide weekly feedback during clinical experiences. The CEX domains measure provider and receiver handoff organization, communication skills, content, clinical judgment, setting, patient-centered measures, and an overall score. The tool has published validity and reliability (Horwitz et al, 2013). Additionally, the tool could be considered for incorporation into clinical evaluation tools.

4. Describe the project design of the NHEB pilot program.  
A quasi-experimental study design was used to evaluate the NHEB pilot program. A convenience sample of 28 ABS nursing students were evaluated at the beginning and end of a 15-week clinical experience. Students were observed while giving and receiving handoff report to each other, and data was collected using the Handoff CEX.

5. Discuss results of the study and implications for practice  
The Handoff CEX provider scores in the group of students who received the NHEB improved significantly (M=4.64, SD=1.3) compared to the control group (M=1.5, SD 1.34) (t=7.33, p=.000). The recipient handoff scores also improved significantly (M=5.5, SD=1.39) compared to no improvement in the recipient control group (M=0.36, SD = 1.39), (t=12.7, p=.000). Additionally, student workshop evaluations were favorable. Mean Scores ranged from 4.57- 4.79 out of 5. These results suggests that exposure to the NHEB may improve student handoff communication skills and provide an opportunity to practice these skills with structured support and standardized evaluation during clinical experiences. Based on the results in the ABS program, plans are in place to implement the NHEB in the Traditional Program in the same School of
Nursing. Additionally, this bundled approach to nursing handoff education has applicability to the clinical education and onboarding of novice nurses in all healthcare settings.

Abstract Text:

Background:

Inadequate handoff education in prelicensure nursing programs may pose a significant latent safety risk (Avallone & Weideman, 2015). Nearly 88% of novice nurse adverse events and near misses involve handoffs (Ebright et al., 2004). Novice nurses are less skilled in effective questioning techniques compared to expert nurses and are often more silent during handoffs (Horwitz et al., 2013, Rayo et al., 2013). Handoffs are challenging to master, and cognitively taxing for novices. Nursing students must learn effective handoff skills to promote patient safety. Though handoff communication skills are essential components of the undergraduate nursing safety curriculum, the educational process is often inconsistent and dependent on the student’s clinical experiences. Additionally, the evaluation of the learning is often subjective. From a human factors perspective, safety is improved by standardizing processes in education, implementation, and evaluation. Starmer et al. (2013) demonstrated that a Handoff Educational Bundle for medical residents significantly reduced medical errors and rates of preventable adverse events. A formalized, bundled nursing handoff educational intervention may improve student handoff performance and provide valid measures for assessment and evaluation during clinical experiences.

Purpose:

The purpose of this presentation is to describe the rationale, components, implementation and evaluation of a Nursing Handoff Educational Bundle (NHEB), a comprehensive bundled strategy to standardize the instruction and evaluation of handoff communications in a prelicensure baccalaureate program. The NHEB includes a student handoff workshop, standardized minimum data set for giving and receiving handoffs, clinical faculty education, and structured, formative evaluation of student handoffs during clinical experiences using the Handoff Clinical Evaluation (CEX) tool (Horwitz et al., 2013).

Methods and Procedures:

A quasi-experimental pre-test, post-test design was used to evaluate the NHEB in a convenience sample of 28 accelerated baccalaureate of science (ABS) nursing students. Data was collected at the beginning and the end of a 15-week time period. Fourteen (14) students who received the NHEB were compared to a similar group (n=14) who were not exposed to the intervention. Students were observed providing and receiving handoff report to each other during clinical experiences, and were scored using the Handoff CEX.

Comparison group students and clinical faculty received the workshop education following completion of all data collection activities. Institutional Review Board approval was sought and obtained prior to study initiation.

Workshop
The three-hour educational workshop for students included content in focused communication strategies from TeamSTEPPS, use of the situation-background-assessment-recommendation (SBAR) minimum data set, information on bedside handoffs, and the crucial role of the receiver in creating a shared mental model and the development of priorities. Workshop teaching strategies included role-play simulation with case studies. Each student was given the opportunity to role-play as a handoff provider, handoff recipient and an observer. The case studies provided complex scenarios. Key information was purposefully left off the situation-background-assessment-recommendation (SBAR) minimum data set to add complexity to the simulation. Students created a shared mental model by asking questions, clarifying, supplying, or requesting missing information while providing and receiving handoffs to each other. Peer review was incorporated when students, in the role of observers, provided feedback using the Handoff CEX.

Clinical faculty education

Handoff best practices and the NHEB were presented to intervention group clinical faculty in a two-hour collaborative workshop. The workshop moderator and clinical faculty shared challenges and strategies teaching best handoff practices in clinical settings. The Handoff Clinical Examination (CEX) was presented to clinical faculty as a standardized tool to provide formative evaluation of provider and receiver handoffs during clinical experiences. The clinical faculty discussed ways to integrate handoff best practice into weekly clinical experiences using the Handoff CEX to standardize the evaluation process.

Instrument:

The Handoff CEX tool was used in two ways. First, it was primarily used for research purposes pre and post-test to rate students’ handoffs at the beginning and the end of the 15-week clinical experience. Secondly, intervention-group clinical instructors used the Handoff CEX to provide formative feedback to students on handoff performance during clinical experiences. The CEX domains measure provider and receiver handoff organization, communication skills, content, clinical judgment, setting, patient-centered measures, and an overall score. The tool has published validity and reliability (Horwitz et al, 2013).

Results:

The Handoff CEX provider scores in the group of students who received the NHEB improved significantly (M=4.64, SD=1.3) compared to the control group (M=1.5, SD 1.34) \( (t=7.33, p=.000) \). The recipient handoff scores also improved significantly (M=5.5, SD=1.39) compared to no improvement in the recipient control group (M=0.36, SD = 1.39), \( (t=12.7, p=.000) \). Additionally, student workshop evaluations were favorable. Mean Scores ranged from 4.57- 4.79 out of 5.

Conclusion:

These results suggest that the NHEB may improve student handoff communication skills and provide an opportunity to practice these skills with structured support and standardized evaluation during clinical experiences. The Handoff CEX tool provides a valid, standardized instrument to evaluate handoffs and may be considered for incorporation into clinical evaluations. Based on the success of this pilot study in the ABS program, plans are in place to further implement the NHEB across the Traditional Baccalaureate program in the same School of Nursing. This bundled approach to nursing handoff education has applicability to the clinical education and onboarding of novice nurses in all healthcare settings.

References:


