

Student Perceptions of an Observed Simulation Hand-off Exercise

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ABSTRACT

Purpose: The purpose of this study was to explore the attitudes and knowledge of second year physician assistant (PA) students about safe and effective patient “hand-off” procedures.

Methods: This was a cross-sectional, descriptive study of second-year PA students engaged in an Observed Simulated Hand-off Exercise (OSHE). Students were administered a post-OSHE survey querying their comfort and knowledge of safe hand-off techniques. Students were paired with one student going off-shift (P1), and the other coming on-shift (P2). The P1 student performed a history and physical on a standardized patient and gave the hand-off report to the P2 student. The hand-off report was observed and graded by a faculty member.

Results: A six question survey was administered to the class of 40 students (N=40). Data was collected on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The following average scores were obtained: knowledge effective hand-off, 3.92; comfort gathering hand-off information, 4.07; ability to organize hand-off data, 3.87; comfort performing a hand-off, 3.78; effective hand-offs recognized as important in PA training, 4.3.; usefulness of the exercise, 4.02. The results suggested that students benefitted from the exercise and felt better prepared to safely hand-off patients.

Discussion: Patient hand-offs are the process of transferring responsibility for clinical care from a clinician going off-shift to a clinician coming on-shift. Hand-offs are dangerous due to failure of communication between outgoing and incoming clinicians. Educating PA students to complete patient hand-offs properly is important for patient safety, providing continuity of care, and developing teamwork. This study suggested that educating students for safe hand-offs improved their confidence and knowledge of the hand-off process.

BACKGROUND

Patient hand-offs are defined as “the process of transferring primary authority and responsibility for providing clinical care from one departing caregiver to one oncoming caregiver.”¹ Hand-offs are inherently dangerous due to failure of effective communication between clinicians.² Seventy-six percent of residents in one study reported major errors occurring during hand-offs.² In 2003, the Accreditation Council for Graduate Medical Education (ACGME) began limitations to resident duty hours to improve patient safety.³ As a consequence, there was an increase in the number of patient hand-offs and the dangers associated with that activity. Medical schools are now mandated by the ACGME to train students in hand-off communication.⁴ Although training is mandated there is no standardized mechanism for safe hand-offs.

METHOD

This was a descriptive study of 40 second-year PA students after completion of an OSHE. Students were presented a lecture on hand-off safety and then performed the OSHE with standardized patients in our OSCE suite. Students had 15 minutes to interview and examine the patient, five-minutes to prepare notes, and two-minutes to “hand-off” the patient. The receiving student was required to synthesize information and perform a repeat-back of the patient information. Faculty graded each student using a rubric. A faculty also provided critical review of student hand-off effectiveness. Students were graded on organization, communication, content, judgement, and use of the I-PASS format. The I-PASS mnemonic (Table 1) was developed by Starmer et, al. as a standardized way to verbalize the hand-off information.⁵

Table 1

I-PASS Communication	Pertinent Information
I: Patient Identification, Illness	Stable, Unstable, Watcher
P: Patient Summary	Situation, Background, Assessment, Recommendations
A: Action List	Timeline of To-Do List
S: Situation Awareness	Current Status / Contingency Plans
S: Synthesis by Receiver	Repeat Back of Patient Summary and To-Do actions, Questions

RESULTS

Table 2

Post-OSHE Handoff Questionnaire - Second Year PA Students	Scores
Q1. I am more knowledgeable about effective patient hand-offs	3.92
Q2. I am more comfortable in my ability to gather pertinent patient information efficiently for hand-offs	4.07
Q3. I am comfortable in my ability to organize pertinent information for patient hand-offs	3.87
Q4. I am more comfortable in my ability to perform an effective patient hand-off	3.78
Q5. Safe patient hand-offs are an important part of PA training	4.31
Q6. This exercise was a useful addition to the clinical curriculum	4.02

DISCUSSION

Importance of Handoffs: The purpose of the OSHE was to train PA students to ensure high-quality, safe, and efficient continuity of care.¹ Hand-offs may be times of confusion and miscommunication. As part of our clinical year training we introduced the OSHE. Horwitz reports that one study to educate clinicians about safe hand-offs resulted in a decline in medical errors from 33.8 /100 admissions to 18.3 /100 admissions.⁴ As survey results indicate, preparing our students in a simulated environment increased their knowledge and comfort in communicating patient information during a change of shift.



Hand-off of Patient Information



Faculty-student critical review after OSHE

CONCLUSION

Patient hand-offs during shift changes are inherently dangerous. Lack of hand-off skills increases medical errors and compromises patient safety. Hand-off training has been shown to improve patient outcomes.⁴ Hand-off training is required by some accrediting agencies. Campbell PA program has developed the Observed Simulation Hand-off Exercise to teach safe and effective hand-off strategies for clinical year students. Student perceptions of the exercise were highly rated (Table 2), with an overall positive rating of 3.99/5, after completion of the OSHE. Other PA programs may want to consider developing a similar OSHE hand-off exercise.

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