Evaluation of a course change using Objective Structured Clinical Exams (OSCE’s)

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Statement of Problem

PICO/T: In Nurse Practitioner student advanced health assessment courses, what is the effect of using standardized patients and a video-based Objective Structured Clinical Evaluation (OSCE) on student and faculty outcomes, compared with the non-standard clinical skills evaluation procedures used in the past?

Synthesis of Evidence

- OSCE’s were first developed in the 1970’s in Scotland to address educational needs of medical students.
- Use of OSCE’s is currently standard practice for medical students.
- Research supports OSCE formats as reliable and valid in measuring clinical skills of medical students.
- Only recently have OSCE’s been used to evaluate Nurse Practitioners.
- OSCE can be organized as real-time events, video-based events, or a combination of both.
- Video-based OSCE’s provide evaluators and students with educational advantages over real-time events.
- An important consideration in OSCE design is the use of valid and reliable OSCE evaluation tools.

Description of Innovation/Practice Change

- Decision made to implement standardized patients (SP) and video-based OSCE.
- Administrative approval to cover costs ($25/student to pay for SP time).
- Collaboration with simulation centers on each campus to meet our particular needs.
- Each student had the opportunity to either be video recorded, or see fellow student recorded prior to proficiency evaluation.
- Each student demonstrated H&P on one SP for proficiency. Total of 2-3 SPs used per campus.
- For proficiency testing, students performed a history and physical exam on a SP, while being video recorded in a simulated clinic environment.
- Students then demonstrated proficiency in documenting the clinic visit.
- Afterward, students then had the opportunity for self-evaluation by reviewing the video encounter and documenting their perceived strengths and weaknesses during the exam.
- Finally, faculty on both campuses evaluated the video and self-evaluation of their own students using the same electronic evaluation form.

Implementation Framework

- Competency Outcomes Performance and Assessment (COPA) Model
- Developed by Lenburg in the 1990’s as a theoretical framework promoting competence in nursing clinical practice.
- 4 Key Concepts:
  - Identification of core practice competencies
  - Defining competency outcomes
  - Determining effective interactive learning strategies
  - Identifying objective competency performance evaluation methods
- 8 Core Practice Competencies in Nursing:
  - Assessment and Intervention Skills
  - Teaching Skills
  - Communication
  - Management Skills
  - Critical Thinking Skills
  - Leadership Skills
  - Human Caring/Relationship Skills
  - Knowledge Integration Skills

Evaluation

Anonymous student feedback included comments such as:
- “I really liked having a standardized patient. I think it helped not knowing who the person was and there was definitely a lot less pressure even when I knew subconsciously that I was forgetting things. I was able to move forward and not get bogged down in the worry about being judged in the moment.”
- “I think the use of standardized patients was MUCH better than performing the exam on a peer. Although we are all very nervous during this exam, this reduces anxiety and makes it a more realistic setting. I was very glad to have the opportunity to review my video and reflect on my performance. It allowed me to see myself from another perspective and was very helpful for me to see areas in which I can improve.”

Results:
- Increased consistency of faculty expectations between campuses
- Greater opportunity for formative and summative feedback to students
- More discriminate test scores (2010 mean 96.17; 2011 mean 86.87)
- Increased student learning opportunity (skills and self-assessment)
- Increased student anxiety per student comments on course evaluations
- Decreased disparity between testing and clinical situations
- Increased parity with other health professional student testing procedures

Comparison of Proficiency Grade Distribution

<table>
<thead>
<tr>
<th>2010</th>
<th>2011</th>
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<tbody>
<tr>
<td>Performed on Peer</td>
<td>Performed on SP</td>
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References