Use of Objective Structured Clinical Examination in a Senior Baccalaureate Nursing Course for Assessment of End of Program Outcomes

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Presentation Objectives

1. Apply the use of OSCE in an undergraduate curriculum.

2. Identify the potential use of OSCE for end of program outcome assessment.
Definition of OSCE

An observed examination of clinical skills in a controlled simulated environment, with the utilization of structured checklists, simulators and standardized patients.

(Jones, Pegram & Fordham, 2010; Meechan, Jones, & Valler, 2011; Paul, 2010)
Basic Principles

- Objective structured assessment of clinical skills
- A series of stations
- Predefined competencies
- Use of simulators or standardized patients
- Students move between stations at timed intervals
Role of the Examiner

OSCE examiner (faculty) is an observer.

• Examiner does not ask questions
• Only observe performance behaviors and mark the standardized checklist accordingly
• Some stations may require students to answer written questions without observer present
Why OSCE?

• Healthcare industry acknowledged students not ready for clinical practice (Kardong-Edgren, 2013)

• Highly adaptable to a variety of competencies (Bartfay, 2004)

• Needed objective method to assess clinical skills prior to graduation

• Clinical skills not objectively assessed after first semester junior year
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</thead>
<tbody>
<tr>
<td>Proposal to UGCC</td>
<td></td>
<td></td>
<td>Pilot 1 held</td>
<td>Pilot 2 held</td>
<td>Pilot 3 cancelled</td>
<td>OSCE added to curriculum</td>
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<tr>
<td>Determine assessment areas</td>
<td></td>
<td></td>
<td>Debrief participants</td>
<td>Debrief participants</td>
<td>Begin logistical implementation</td>
<td>Debrief participants</td>
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<tr>
<td>Determine related clinical skills</td>
<td></td>
<td></td>
<td>Revise stations</td>
<td>Decision to cancel Pilot 3</td>
<td>Select models &amp; examiners</td>
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<tr>
<td>IRB Approval</td>
<td>Begin logistical implementation</td>
<td>Revise directions &amp; debriefing</td>
<td>Revise stations</td>
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<td>Select cohort, models &amp; examiners</td>
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<td>Develop electronic rubric</td>
<td>Revise rubrics, debriefing &amp; logistical implementation</td>
<td>Revise directions for participants</td>
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<td>Logistical implementation</td>
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Pilot Study

• **Purpose:** Two pilot studies were conducted to implement OSCE in second semester senior year.

• **Methodology:** Qualitative descriptive

• **Framework:** Experiential Learning Theory (Kolb, 1984)

• **Scenario:** Holistic and cultural diversity
Description

- Orientation
- **Station 1 - Knowledge**: Ten point quiz on wound healing
- **Station 2 - Psychomotor skill**: Perform dressing change
  - (mannequin with voice over - standard set of responses)
- **Station 3 - Patient teaching**: Homecare instructions for dressing change (standardized patient)
- Debriefing
Criteria For Passing OSCE

• Station 1 = 10% of Total score
• Station 2 = 70% of Total score
• Station 3 = 20% of Total score

Must meet all Critical Behaviors & achieve > 85% of total points
Implementation of OSCE

- Rubrics developed for stations
  - Adapted from previous courses
  - Expert review
  - Pilot 1: paper rubrics
  - Pilot 2: electronic rubrics

- Faculty orientation

- Student preparation
  - Pilot 1 & 2: list of content areas for OSCE
  - Pilot 2: added orientation power point
Data Collection

• Student Scores
  – Individual stations and overall score

• Survey
  – Faculty and students completed online evaluation survey immediately following the OSCE

• Focus groups
  – Faculty and students participated in discussion around OSCE
Combined Pilot Results

(N=17)

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<thead>
<tr>
<th></th>
<th>Points</th>
<th>Critical Points</th>
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</thead>
<tbody>
<tr>
<td>Station 1-passed written exam</td>
<td>9</td>
<td>na</td>
</tr>
<tr>
<td>Station 2-passed perf. skills</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Station 3-passed pt. teaching</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Passed OSCE</td>
<td>0</td>
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</table>
Survey Results: Students

Did you prepare for the OSCE?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>A LITTLE</th>
</tr>
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<tbody>
<tr>
<td>N = 16</td>
<td>3</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

How did you feel before starting the OSCE?

<table>
<thead>
<tr>
<th></th>
<th>NERVOUS</th>
<th>CALM &amp; CONFIDENT</th>
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<tbody>
<tr>
<td>N = 16</td>
<td>12</td>
<td>4</td>
</tr>
</tbody>
</table>
Survey Results: Students

How do you feel now that the OSCE is over?

<table>
<thead>
<tr>
<th>N = 16</th>
<th>BETTER</th>
<th>WORSE</th>
<th>NERVOUS</th>
<th>SAME</th>
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<tbody>
<tr>
<td>11</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
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</table>

Do you feel that an OSCE would be a beneficial method of testing skills competency in the undergraduate nursing program?

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<tr>
<th>N = 16</th>
<th>YES</th>
<th>MIXED FEELINGS</th>
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<tbody>
<tr>
<td>13</td>
<td>3</td>
<td></td>
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Survey Results: Faculty

OSCE Support

• “I am in full support of adding an OSCE to every semester of the nursing program.”

• “I approve of beginning with an end-of-program OSCE and moving down through Senior 1 and Junior 2 semesters.”

• “...identify the best course in which to situate the OSCE each semester.”
Survey Results: Faculty

Faculty Concerns regarding OSCE
• “I'm not sure we have the resources to give students opportunity to re-take OSCE's until they pass them.”

Electronic OSCE Rubrics
• Easy to use
• Liked ability to write comments
• Reset automatically
Recommendations

- OSCE in week 1-2 of second semester senior year
- Conduct OSCE over 1-2 days (maximum)
- Student orientation
- Faculty orientation
- Use of electronic directions, rubrics, and evaluation tools
- Score 15% of course grade
- Remediation plan
Remediation Plan

• Develop individualized remediation plan with OSCE team

**Level 1**
1 missed Critical Behavior and > 80% of total points
  • Practice and review specific content
  • Retake station within 1 week

**Level 2**
>1 missed Critical Behavior and/or < 80% of total points
  • Practice and review entire content
  • Retake entire OSCE within 6 weeks
References


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