A Staff-Student Co-Enquiry Investigation of Peer to Peer Objective Structured Clinical Examination (OSCE) Revision in Medical Imaging

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The Development of our Staff-Student Partnership

Conversation with MI staff
Planning and Running P2P Exam Revision
Observed Success
The Development of our Staff-Student Partnership

Students as Partners: The co-collaboration of staff and students actively engaging in the process of learning and working together (Mercer-Mapstone et al., 2017)

What is an OSCE & OSCEs at Deakin

- **OSCE: Objective Structured Clinical Examination**
  - Structured and Objective: clinical scenario, patient, marking scheme
  - Expensive & labour intensive

- **OSCEs at Deakin & Medical Imaging:**
  - 1st and 2nd year students
  - 10 Stations held over two days
  - 5 minutes per station, with 1 minute changeover in between
P2P Learning

• Peer learning “the use of teaching and learning strategies in which students learn with and from each other without the immediate intervention of a teacher” (Boud et al., 2014)

• Benefits:
  - Instructors: evaluative judgement, ability to teach, empathy & giving feedback, communication skills, confidence
  - Learners: reassurance from peers, role models, student perspective
  - Staff: extra teaching capacity –important when teaching resources are increasingly stretched

• Challenges:
  - Inaccuracy of peer-generated information and discomfort in feedback exchange

P2P Learning & OSCEs

- Medical Education
  - Graduate students organisers were provided with training by staff & assisted by junior doctors to run an OSCE (Gill et al., 2012)
  - Rotating roles, students derived own marking criteria and compared with staff (Cushing et al., 2011)

- Medical Imaging
  - Novel approach in that students organised the whole OSCE
  - Undergraduate students

OSCE Planning: Rationale-Decision Making

• Aim to prepare 1st year students to eliminate ‘fear of the unknown’

• Something our cohort wished we could have experienced before our OSCEs
  - Important to us to ensure we presented the students with the most accurate representation we could
  - Recruitment of patients, assessors, timekeepers, student organisers
OSCE Revision sessions

• 2 sessions – approx. 38 students signed up to attend the session

• 3 different stations – developed based on our perceptions of our OSCE experience
  - Station 1: Patient Communication
  - Station 2: Patient Positioning and Exposures
  - Station 3: Start to Finish
Station 1

Sally Jenson is a 20-year-old female presenting to your imaging department with pain and distension of the abdomen. The referring doctor has requested an abdomen series.

You are required to:
- Correctly identify the patient
- Give the patient appropriate changing instructions
- Explain to the assessor which projections you will perform, and why?
- Tell the assessor which exposure factors you would use
OSCE Revision Session Feedback

**Station 1**

Sally Jenson is a 20-year-old female presenting to your imaging department with pain and distension of the abdomen. The referring doctor has requested an abdomen series.

You are required to:

- Correctly identify the patient
  
  Name, Address, DOB, X-ray Region, Pregnancy?

- Give the patient appropriate changing instructions
  
  Piercings?, Remove all clothing except underwear, including bra and change into a gown, opening at the back

- Explain to the assessor which projections you will perform, and why?
  
  AP Supine, or Erect (justify why) & PA Chest

- Tell the assessor which exposure factors you would use
  
  Supine: 70kVp, 20mAs; Erect: 80kVp, 25mAs; Chest: 90kVp, 2mAs
  * Justification: may vary depending on patient size and AEC
Our Research Project – Aim & Participants

**Aim**

- Evaluating 1\textsuperscript{st} year student perceptions of the benefits of student-led OSCEs conducted by 2\textsuperscript{nd} year students in Bachelor of Medical Imaging in the context of peer-to-peer (P2P) learning

**Participants**

- Voluntary anonymous participation
  - n = 25 students who attended P-OSCE
  - n = 6 who didn't attend
- Organising students
  - n = 2 online questionnaire

Deakin University CRICOS Provider Code: 00113B
Deakin University ethics approval HEAG-H 17_2017
Our Research Project - Method

STEP 1: Questionnaire co-created by staff-student partnership for dual perspectives

STEP 2: Survey handed out to 1st year students

STEP 3: Data entered into spreadsheet (checked twice)

Deakin University ethics approval HEAG-H 17_2017
## Motivation for Attending the OSCE Revision Session

<table>
<thead>
<tr>
<th>Frequency (n=25)</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run by students</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Provide a student</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>12</td>
<td>8</td>
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<tr>
<td>experience OSCE process</td>
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<td>0</td>
<td>1</td>
<td>7</td>
<td>16</td>
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<tr>
<td>Prepare me for the OSCE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>18</td>
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### Perspectives on P-OSCE vs. OSCE

<table>
<thead>
<tr>
<th>Frequency (n=25)</th>
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<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
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<tbody>
<tr>
<td><strong>Station content was similar in both OSCEs</strong></td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>15</td>
<td>1</td>
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<tr>
<td><strong>P-OSCE was a good preview of the OSCE</strong></td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>13</td>
<td>6</td>
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<tr>
<td><strong>P-OSCE had a similar atmosphere to the OSCE</strong></td>
<td>0</td>
<td>3</td>
<td>9</td>
<td>10</td>
<td>3</td>
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<tr>
<td><strong>P-OSCE was well run</strong></td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td><strong>P-OSCE helped me prepare for the OSCE</strong></td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td><strong>P-OSCE reduced my anxiety about the OSCE</strong></td>
<td>3</td>
<td>5</td>
<td>11</td>
<td>5</td>
<td>1</td>
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The P-OSCE helped my performance in the OSCE
Perspectives on P-OSCE vs. OSCE

Reduced my anxiety about the OSCE
# Perspectives on P-OSCE Feedback Session

<table>
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<tr>
<th>Frequency (n=24)</th>
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<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
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</thead>
<tbody>
<tr>
<td><strong>Was well run</strong></td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td><strong>Was relevant to me</strong></td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>13</td>
<td>3</td>
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<tr>
<td><strong>Helped me know how I was going</strong></td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>13</td>
<td>4</td>
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<tr>
<td><strong>Helped me understand what I needed to do</strong></td>
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<td>1</td>
<td>5</td>
<td>14</td>
<td>2</td>
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<tr>
<td><strong>Helped me improve my performance</strong></td>
<td>0</td>
<td>4</td>
<td>9</td>
<td>5</td>
<td>6</td>
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</table>
The Feedback Session

Would have been better if staff provided the feedback
I Would Attend Another P-OSCE

% Frequency

Rating

SD  D  N  A  SA

0  10  20  30  40  50  60  70  80

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Discussion

• What I have learned from ...
  - running the OSCE revision sessions
  - the staff-student partnership

• The revision sessions are beneficial based on ...
  - the preliminary data
  - the overall anecdotal discussion with first years and classmates
  - the overall positive experience
Limitations

• Subjective self-report data, objective measure of effectiveness (correlate to OSCE performance)

• Time lapse between P-OSCE (October 2016), OSCE (November 2016) and evaluation (April 2017)
2017 OSCE Revision

FUTURE DIRECTIONS
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• Deakin University Medical Imaging Staff

• Deakin Learning Futures & School of Medicine
References


