CUMULATIVE OSCE IN QATAR
A Pilot Project for the Middle East

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Setting the Stage

• Competency-based assessment and use of performance-based assessment methods rare in many world regions
• Health professions programs throughout developing world regions are seeking international accreditation
• Accreditation standards require rigorous assessment plans to ensure students achieve program learning outcomes
• OSCE is a ‘gold standard’ assessment method that can be used to measure professional competencies

Examples

• Pharmacy Examining Board of Canada
• NAPLEX
• BCPS
• Prometrics
OSCE in Qatar

- National pilot project to assess feasibility of a national OSCE in Qatar

Blueprinting

- QU-CPH is fully accredited by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP)
- OSCE blueprinted to educational outcomes published by the Association of Faculties of Pharmacy of Canada (with cultural adaptation)
- Four key areas of focus
  - Communication, Gathering Information, Management, Follow Up

Case Development / Validation

- Cases developed and validated by groups comprising of 5-6 faculty and practicing pharmacists
- Groups given a template with disease state, complexity, and type of interaction
- After case development, a different group validated the case

Standard Setting

- Anghoff method
  - For every checklist point each group member would ask themselves:
    - “What is the percentage of minimally competent students (exiting from QU-CPH) that would be expected to achieve this point?”
  - Group discussion to determine consensus
  - Weighted scores tallied to determine overall passing score
  - Balanced with global assessment contribution
Data Analysis Plan

• Students assessed on both content of interaction and global communication skills
• Passing rates were established based on standard setting
• Inter-rater reliability for both analytical checklists and global assessments calculated using intraclass correlation coefficients

Student Results

The Day Of

Reliability / Validity

<table>
<thead>
<tr>
<th>Topic</th>
<th>Complexity*</th>
<th>Analytical ICC</th>
<th>Global ICC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osteoporosis</td>
<td>S-S</td>
<td>0.62</td>
<td>0.85</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>S-S</td>
<td>0.92</td>
<td>0.81</td>
</tr>
<tr>
<td>Infectious Dis.</td>
<td>S-C</td>
<td>0.81</td>
<td>0.24</td>
</tr>
<tr>
<td>Cardiology</td>
<td>C-S</td>
<td>0.68</td>
<td>0.36</td>
</tr>
<tr>
<td>Pain</td>
<td>C-S</td>
<td>0.87</td>
<td>0.74</td>
</tr>
<tr>
<td>Asthma (device)</td>
<td>S-S</td>
<td>0.56</td>
<td>0.30</td>
</tr>
<tr>
<td>Depression</td>
<td>S-C</td>
<td>0.96</td>
<td>0.55</td>
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</tbody>
</table>

*Problem-Patient; S = Simple, C = Complex
Predictive Validity

- Two courses selected to assess predictive validity for performance scores on the OSCE

<table>
<thead>
<tr>
<th>Course</th>
<th>Percentage of overlap with each quartile</th>
</tr>
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</table>
| Professional Skills VI          | Q1: 60%  
|                                 | Q2: 17%  
|                                 | Q3: 33%  
|                                 | Q4: 0%    |
| Integrated Case-based Learning IV| Q1: 40%  
|                                 | Q2: 33%  
|                                 | Q3: 33%  
|                                 | Q4: 33%  |

Recommendations

<table>
<thead>
<tr>
<th>Component</th>
<th>Action</th>
<th>Resources</th>
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<tbody>
<tr>
<td>Case Development</td>
<td>Emphasis on appropriate use of prompts</td>
<td>Human</td>
</tr>
<tr>
<td>Standard Setting</td>
<td>Facilitated discussion</td>
<td>Human / Time</td>
</tr>
<tr>
<td>Assessor Training</td>
<td>More practice examples and discussion for standardization</td>
<td>Human / Time / Financial</td>
</tr>
<tr>
<td>Standardized Patient Training</td>
<td>Capacity building by training SPs during course-based assessments</td>
<td>Human / Time / Financial</td>
</tr>
<tr>
<td>Curriculum Review</td>
<td>Increase complexity of cases within current OSCE assessments</td>
<td>Human / Time</td>
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