Analysis of student challenge data from objective structured clinical examinations
Phillip H. Lee, PharmD, BCPS, Amber M. Hutchison, PharmD, BCPS, Erika L. Kleppinger, PharmD, BCPS
Auburn University Harrison School of Pharmacy, Auburn, AL

Background
- The Contemporary Aspects of Pharmacy Practice (CAPP) course is the clinical skills lab series taught at Auburn University Harrison School of Pharmacy (HSP)
- CAPP is a six semester sequence taught in the first three professional years (PY1 through PY3)
- Individual labs complement course work in corresponding courses
- Labs are taught on both the main and satellite campuses
- At the end of each semester, the students participate in an Objective Structured Clinical Examination (OSCE)
  - The OSCEs count for 40% of the final course grade
  - PY1 and PY2 students participate in five total stations and
  - PY3 students participate in six total stations per semester
  - The score for each 10 minute station is composed of a skills checklist (80%) and a communication rubric (20%)
  - Standardized patients (SP) grade the majority of stations
  - SP grades have been previously validated at HSP®
- Challenge Procedures
  - After the OSCEs, students are allowed to review their checklists
  - Students may challenge station grades during the review
  - A pharmacist regrades the station by watching a recording
  - Both the skills and communication checklists are regraded
  - Station grades may increase, decrease, or not change

Method
- This was a retrospective study approved by the IRB
- Challenge data for the OSCEs were collected for all 6 courses of the CAPP sequence over three semesters on both campuses
  - Included PY1 through PY3 Fall 2013 through Fall 2014
- Data collected included
  - Number of students challenging at least one station
  - Number of stations challenged
  - Changes in station grades
  - Final grade changes
  - Data were analyzed using descriptive statistics
  - Rate of station challenge
  - Rate of station grade changes
  - Rate of final grade changes

Results
- During the three semester study period 1,287 students participated in 6,413 OSCE stations that were subject to challenges.

<table>
<thead>
<tr>
<th>Students challenging, %</th>
<th>Stations challenged, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>PY1</td>
<td>PY2</td>
</tr>
<tr>
<td>Fall 2013</td>
<td>8.7</td>
</tr>
<tr>
<td>Spring 2014</td>
<td>14.9</td>
</tr>
<tr>
<td>Fall 2014</td>
<td>10.7</td>
</tr>
<tr>
<td>Total</td>
<td>11.4</td>
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</tbody>
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Other Observations
- Pharmacists grading challenged stations noticed common themes during the process
  - At times, the total grade of the station remained the same, but items the student received credit for changed
  - Stations with a higher initial grade were more likely to have no change or decrease
  - The process allowed faculty members a chance to evaluate a random selection of OSCE stations which provided an opportunity for quality improvement with SPs

Conclusions
- A relatively low percentage of students challenged an OSCE station
  - A low percentage of overall stations were challenged
  - About 50% of challenges resulted in an increase in the skills portion of the grade
  - Around 10% of challenges resulted in a change to the communication portion of the grade
  - Comparatively, the percentage of final grade changes was lower than percentage of checklist grade changes

Lessons learned
- The challenge system allows for correction of station grades originally graded by SPs
- The challenge process provides a quality control system for SP graded OSCE stations

Future Plans
- We will continue to use the challenge process as part of the CAPP lab series
- We will share these data and observations with students to help guide them during the challenge process

Final Course Grade Changes
- Students Who Challenged
- All Students

Reference