Longitudinal Perceptions of Performance and Anxiety on Objective Structured Clinical Exams

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INTRODUCTION
Many schools of pharmacy have incorporated Objective Structured Clinical Examinations (OSCEs) into the curriculum for student assessment. Compared to written and oral examinations, OSCEs provide a balanced, structured means to test both clinical and communication skills.

Studies in other health professions indicate OSCEs are generally considered more stressful than other forms of assessment, however little is known about the effects on student pharmacists. 

High levels of anxiety may interfere with learning, attention span, and optimal student performance, leading to diminished execution and performance on assessments.

The Yerkes-Dodson law describes the relationship between test anxiety and performance as a curve in which anxiety improves functioning and increases motivation up to the peak of the curve, and anxiety decreases functioning and causes stress once past the peak. Other models present similar findings with regard to anxiety affecting performance.

Auburn University Harrison School of Pharmacy utilizes OSCEs as a formal assessment for each of 6 semesters (PY1-PY3) in the skills lab course series Contemporary Aspects of Pharmacy Practice (CAPP). Each OSCE consists of 5 or 6 stations and contributes 40% toward the overall course grade.

Skills assessed on the OSCE are progressively more challenging as students progress through the curriculum.

Students are asked to complete a self-assessment survey immediately following each OSCE.

OBJECTIVES

To compare student anxiety levels and perceived performance across 6 semesters of OSCEs in a skills laboratory:

- Summarize the perceived performance of students after completion of an OSCE in their first, second, and third years of pharmacy school.
- Quantify the level of anxiety students report prior to an OSCE in their first, second, and third years of pharmacy school.

METHODS

Self-Assessment Survey

- Completed by students after each OSCE

- Students asked to estimate:
  - Overall and individual station performance
  - Anxiety level prior to the OSCE
  - Anxiety level compared to previous OSCEs
  - Anxiety level compared to written exams in the course (data not presented)
  - Amount of time spent preparing for the OSCE
  - Additional course improvement questions (data not presented)
  - Survey data collected over 3 years (Fall semester 2012 - Fall semester 2014)

Analysis

- Descriptive statistics and visual graphs utilized

- Longitudinal comparison made across “Class of 2016” students

- CAPP I (Fall 2012), CAPP II (Spring 2013), CAPP III (Fall 2013), CAPP IV (Spring 2014), CAPP V (Fall 2014)

- Longitudinal comparisons made within individual

- Fall semester courses (CAPP I, CAPP II, CAPP III, CAPP IV, CAPP V) – data from 3 years
  - Spring semester courses (CAPP II, CAPP IV, CAPP VI) – data from 2 years

- Auburn University Institutional Review Board (IRB) approved as “Exempt” protocol

RESULTS

How much do you think nervousness adversely affected your OSCE performance?

Class of 2016 → 95% participation

Survey Response Rates: Overall → 86% participation

Class of 2016 → 95% participation

How many hours did you spend studying or preparing for the OSCE (outside of class time)?

Class of 2016 Average reported study time: 11.20 ± 6.69 hours

How well do you feel you did on the OSCE overall?

Class of 2016

Class of 2016

RESULTS

How did your level of nervousness compare to how you felt during previous CAPP OSCEs?

How did you feel less nervous for this OSCE?

Class of 2016

How did you feel less nervous for this OSCE?

Class of 2016

IMPLICATIONS

Results of the surveys suggest:

- Perceived student performance declines as students complete more challenging OSCE stations occurring later in the course series
- Student reported anxiety seems to improve as students become more comfortable with the exam format
- Incorporation of additional strategies to help reduce student anxiety may help with OSCE performance in the future

Limitations:

- All data is self-reported
- Survey data was not compared to actual student performance
- Different students may have responded to the survey each year

REFERENCES


Scan here for additional presenter contact information.