Using the Triangulated OSCE to Assess Student Performance in Simulation

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INTRODUCTION

Objective, Structured Clinical Examinations (OSCEs)
• Formative or summative
• Gold standard in assessing clinical skills

Challenges in the use of OSCEs
• Lack of widely circulated, validated evaluation tools
• Variable psychometric properties
• Inter-rater reliability
• Heavy faculty workload to observe each encounter

PURPOSE STATEMENT

Develop valid, reliable OSCE evaluation method
• Less reliant on standardized patient (SP) and student recall
• Resource efficient
• Objective data
• Accurately assesses performance
• Sensitive to detect clinical deficits
• Remediation process improvement

PROCEDURAL STEPS

1. Establish sim cases in order of increasing difficulty and complexity
   • Reflect iterative acquisition of skills
2. Define minimum criteria required for scenario [e.g. provide care without worsening morbidity & mortality if it were real-world patient (Angoff procedure)]
3. Create rubric with criteria and outcome measures
4. Triangulate student performance
   • Faculty observation (50%)
   • Student experience via quiz, reflection or clinical note (25%)
   • SP feedback via Essential Elements of Communication (EEC) (25%)
5. Beta test - establish operational inter-rater reliability and content validity

RESULTS

• Rubric completed independently by 2 faculty before face-to-face feedback
• Evaluators scored consistently within 1-2 points, noted similar deficits
• Established validity & reliability of quiz encounters by observation
• Triangulated performance- observation, quiz, EEC
• 2 / 29 (%) required remediation
• Detected struggling students across didactic and clinical competencies

DISCUSSION

• Tailored remediation plans crafted to support individual students
• All students passed clinical, coursework, certification exams and subsequently credentialed (historical 1st pass rate = 99.9%)
• Valid & reliable quizzes needed changes for balanced scoring
• Scenarios aligned with rubric-- ease grading, clarify expectations
• Evaluation of curricular effectiveness
• Guided clinical remediation process

REFERENCES


Note. Adapted from Ling, Fuller, Taylor & Johnson, 2018.