Integrated assessment in a competency-based didactic curriculum

Lise Johnson, PhD and Cathy Ruff, MS PA-C

Physician Assistant Program, Rocky Vista University

OVERVIEW
The Physician Assistant (PA) program at Rocky Vista University is the first competency-by-design PA program in the United States. One of the novel features of this program is the fully competency-based didactic curriculum. Assessment is a challenging feature of all competency-based programs which becomes even more difficult in the context of classroom education. Requirements for a competency-based assessment include: an objective standard of performance, an opportunity for students to demonstrate different levels of mastery, integration of subject material across different courses, and the ability to identify and provide targeted interventions for struggling learners.

INTRODUCTION
To satisfy these requirements a novel assessment model was developed for the RVU PA didactic curriculum. The major features of this assessment are:

1. It is integrated across all of the didactic courses. The faculty choose a common presentation and each course director writes questions relating to that presentation.
2. The questions are broad and open-ended, answered by students in a short answer or essay style.
3. Grading is not based on points but on the students’ demonstration of knowledge at a benchmarked milestone.
4. Students who do not achieve the expected milestone on one or more questions are asked to retake that question within a short time frame.

It is hypothesized that the integrated assignments will enable faculty to assess student competence and will more effectively prepare students for their first competency exam and national certifying exams. Furthermore, it is predicted that the integrated assignments will increase the confidence of both the faculty and the students that the students are competent and prepared for their clinical rotations.

METHODS
The integrated assignments were implemented in the PA 2019-2020 academic year. Interleaved with these assessments were block exams – standard multiple choice exams including questions from each course. As part of standard program assessment surveys were administered to both faculty and students to gauge perceptions about the new assessment modalities and student competence.

RESULTS
Most students felt the integrated assignments were “good” or “very good” at assessing their competence (30/35). They prepared differently for these assignments than they did for block exams (31/35), they felt more confident in their own competence based on these assignments as compared to block exams (29/35), and the feedback they received on these assignments helped them to gauge their own progress towards competence better than block exams (24/35). Critically, most students reported that the integrated assignments helped them to connect subject matter from multiple different domains (28/35). Test anxiety and competitiveness were not consistently impacted by the assignments.

The faculty unanimously agreed that the extra information gained from the assignments was valuable, even though it increased the burden of grading. Most agreed that student performance was a better reflection of student competence – with some caveats. Issues were identified with rubric design and the retakes did not fully increase the faculty’s confidence that students were competent.

CONCLUSIONS
These data are very limited (only 35 students and 8 faculty) and represent trends only. However, these early data suggest that both students and faculty perceive value is added by the addition of the integrated assignments to the assessment model. In addition, the integrated assignments are more consistent with a competency based curriculum and therefore make it possible to compare student competence and progression between didactic and clinical phases of PA education. At the end of the didactic year students will participate in two cumulative assessments. The first is the PACKRAT, a multiple-choice assessment for PA students which has been shown to be predictive of PANCE pass rates. The second assessment is an OSCE-style exam which assesses student clinical competence. Future work will evaluate the relationship (if any) between performance on the integrated assignments, performance on the multiple choice block exams, and performance on the PACKRAT and competency exams.

REFERENCES

