

# Objective Structured Clinical Exams (OSCE) in Pediatric Nurse Practitioner (PNP) Program

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## Abstract

This is a quality improvement educational program to replace one exam within a semester. Pediatric Nurse Practitioner (PNP) students are graduate students in the School of Nursing. It can be difficult to evaluate the progress of these learners through their nurse practitioner program using only multiple-choice exams, which can assess knowledge but do not test the ability to apply that knowledge.

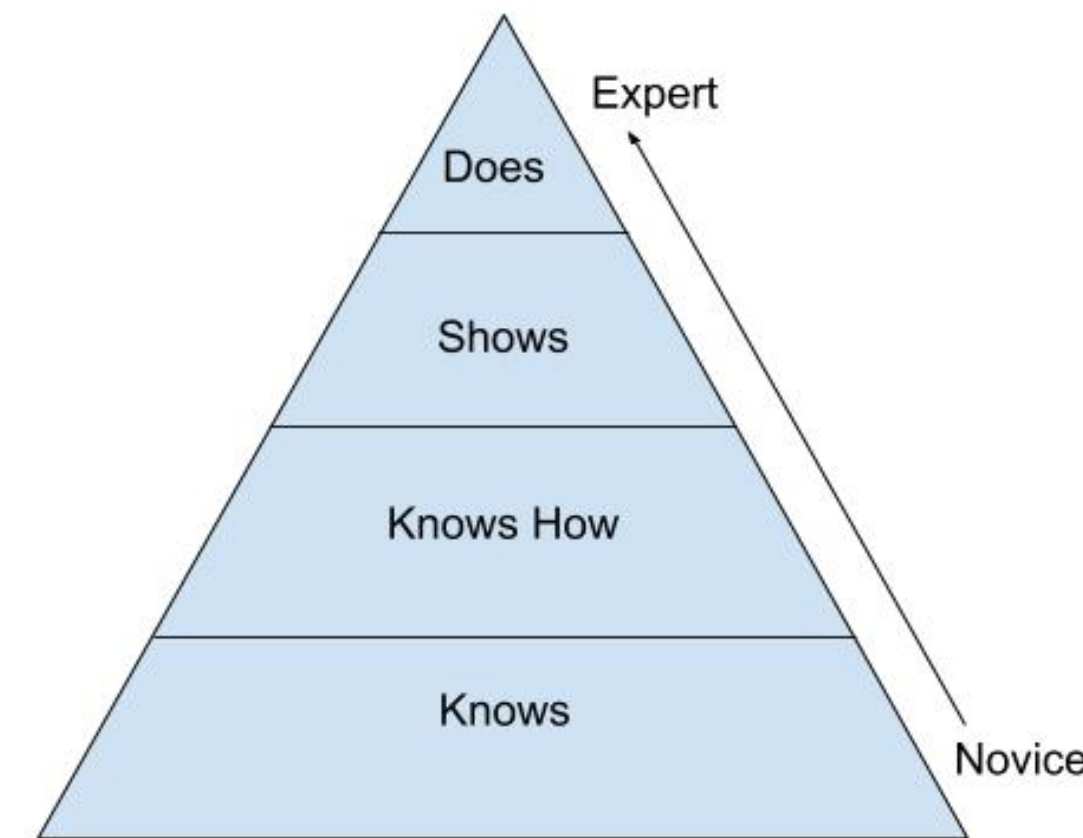
## Methods

The OSCE was administered at the end of the third semester of the four semester PNP program in place of a usual multiple-choice exam. By this time, they have received the majority of the didactic content and have completed about half of the required clinical hours of the program. The written test included 15 stations, 42-questions on clinical scenarios that include interpretation of x-rays and other visual images. The topics are all common in pediatrics. It took about 2.5 hours to administer the exam with another 90 minutes allotted to review and debrief the scenarios. The students rotated through stations where clinical scenarios were presented in written format with specific questions. Faculty used rubrics to grade the scenarios.

The test offers a different way of evaluating the knowledge and clinical competence of the students. At the end of the exercise, a short survey will be conducted that is voluntary and anonymous using Google Forms to measure their satisfaction and experience with the exam in comparison with the multiple choice exams used in their previous courses.

## Background & Purpose

It is important to assess PNP clinical reasoning skills, and one way to do that is to use an Objective Structured Clinical Exam or OSCE. A modified OSCE that was created for resident physicians in pediatrics is available from MedEdPORTAL, an online repository of educational materials, and the goal of this project is to pilot the use of that resource to test Emory PNP students in order to better address their clinical reasoning skills. There are a variety of exams available, and for this project, I selected the PL-I exam for Pediatric Interns.



## Conclusion

The use OSCEs is just another instrument that is available to educate the next generation of NPs. It allows for the evaluation of another dimension of clinical competence, using Miller's "shows how" instead of simply relying on the traditional measurements from the "knows how" or "knows" levels.<sup>12</sup> Within the pediatric program, areas of improvement have been identified for sharpening clinical decision-making and critical thinking based on student responses.

## Results

Overall, the students did really well on their OSCE. Compared to the Pediatric Interns, their scores were similar in that they ranged from (48-67) with a maximum allowable score of 75 and an average of 56. This compares to the 50-58 points for the 300 residents who were included in the publication. We have no way to knowing how this correlates to their performance on their specialty certification exam.

In the post-survey, the students were asked and average scores out of 5 are reported:

- The OSCE was a meaningful way for assessing my clinical skills. (3.9)
- The OSCE reflected real-life clinical conditions. (4.1)
- The OSCE provided me with an opportunity to show my clinical knowledge. (3.9)
- This is a worthwhile experience for students. (3.7)

## References

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## Summary of the Ottawa Conference on Objective Structured Clinical Exams

<b>Reliability</b>	OSCEs are more reliable than unstructured observations. They offer: <ol style="list-style-type: none"> <li>1) Structured marking schedules</li> <li>2) Wider sampling of clinical cases that portrays a more reliable picture of the learner's overall competence</li> <li>3) Increasing number of OCSE stations increases reliability in the OSCE performance score</li> <li>4) Multiple OSCE assessors reduces bias in the overall OSCE score</li> </ol>
<b>Validity</b>	<ol style="list-style-type: none"> <li>1) Sampling of stations and how it relates to the objectives of the course results in face validity. Does the exam test the relevant topics of the course?</li> <li>2) Higher OSCE performance is correlated with stronger clinical skills</li> </ol>
<b>Educational impact</b>	OSCEs are designed to reinforce or augment both clinical and text-book learning
<b>Cost efficiency</b>	Use OSCEs to test clinical competence but utilize other methods for knowledge assessment
<b>Acceptability</b>	OSCEs are perceived to be fair by both students and faculty



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