

## **Sigma's 30th International Nursing Research Congress**

### **Teaching Advanced Health Assessment to Nurse Practitioner Students Using Simulation**

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#### **Purpose:**

Advanced health assessment (AHA) is required in Masters of Science in Nursing and Doctor of Nursing Practice programs. Finding preceptors for student clinical experiences is becoming more challenging due to recent increases in numbers of schools with competing programs, and productivity requirements for preceptors. Additionally, faculty noted that students were overwhelmingly weak on history taking and differential diagnosis when leaving the AHA course; often, this trend followed students through their population focused courses. With these issues in mind, we decided to look for other ways to provide students with the experience of getting thorough histories, doing physical exams, determining differential diagnoses and coming up with diagnostics. This presentation describes the use of simulation to achieve these goals.

#### **Methods:**

I-Human is a subscription website that provides hundreds of cases reflecting multiple populations appropriate for all levels of student learning. We piloted i-Human in our existing course requiring 52 hours of clinical with preceptors to see how the students used the program, their responses and how best to use it as a learning tool. Once we were sure it would achieve our learning goals, we approached the faculty and proposed changing the course from clinical to didactic. The course has about 100 students every semester and at least 10 faculty. Thus, we had plenty of feedback from our pilot to help us make decisions for subsequent courses. We analyzed the student's individual work on each case, as well as the results from the class as a whole.

#### **Results:**

The pilot showed students improved their history taking skills, critical thinking and differential diagnosis skills when using i-Human. We believe this is because the expert who wrote the case provided detailed feedback on all aspects of the "visit" including history taking, physical exam and differential diagnosis. Students were able to write a SOAP note and compare it to that of the expert, enhancing their ability to practice recording patient data. Faculty and students both appreciated the feedback on the cases, which was provided in visual charts and spreadsheet format to pinpoint the student's strengths and challenges.

The revised didactic online course requires students to practice their history and physicals on willing family and friends and come to two on campus clinical lab days to refine skills with faculty. They also practice mock OSCEs in a group situation to prepare for day two, when students do an individual OSCE to demonstrate their history and physical skills. During the debrief of the mock OSCEs, students practiced differential diagnosis and presentation skills with faculty. They then submit a SOAP note on the OSCE case to be graded.

#### **Conclusion:**

The feasibility of using simulation to replace clinical preceptors was proven to be acceptable to students and faculty. Simulation seems to be superior in some respects, namely, developing thorough history taking and improving critical thinking abilities regarding differential diagnosis. Students were also able to achieve very good OSCE scores despite having had no clinical experience with preceptors.

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**Title:**

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**Keywords:**

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**References:**

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**Abstract Summary:**

Increased numbers of nurse practitioner programs have made it difficult for students to locate appropriate preceptors in some areas. This presentation examines alternative methods of teaching advanced physical assessment skills.

**Content Outline:**

1. Background of the problem.
  - Increased number of academic programs preparing nurse practitioner students
  - Preceptor workload and productivity requirements
  - Historical lack of payment to preceptors and/or sites
  - Recent trends in paying preceptors/sites
  - Trends towards partnerships between agencies/schools
2. Online simulation.
  - Description of online program
  - Advantages and disadvantages
3. Student and faculty feedback
  - During health assessment course
  - In subsequent courses
4. Student outcomes
  - grades; ability to perform a skilled history and physical, and to identify differentials and working diagnosis; SOAP note writing.
  - trends in subsequent population focused courses

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