



Clinical Skills Assessment Impact on Student Performance

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Introduction

This project started in 1999 as a response to concerns regarding physical exam skills of the medical students at University of Pittsburgh School of Medicine during third year rotations. In addition, there was no formal objective evaluation of these skills in the first two years of the curriculum.

Methods

For the last four years, students performed a 60 minute history and physical exam on a standardized patient at the end of the second year.

- Faculty members filled out a 130 item checklist of both the patient interaction skills and the standard history and physical exam
- Checklist was taken directly from class syllabus
- Items scored as attempted (either correct or incorrect) or not attempted

Due to the success of the exam in 2001, the course director adopted the H&P as the final exam for the course in 2002, with a passing score set at 2 standard deviations below the mean.

For the 2003 and 2004 exam, an identical H&P was put in place as a midterm exam in the middle of the course. The students were given feedback in terms of their overall score and areas where they needed improvement, and were informed that the passing score for the course would be 70% on the final H&P.

Results

Table 1. Average score increased each year after SP implementation

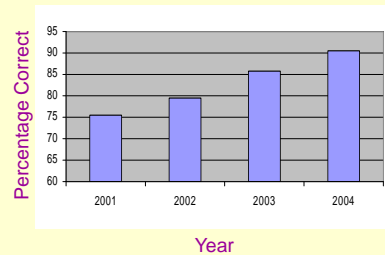
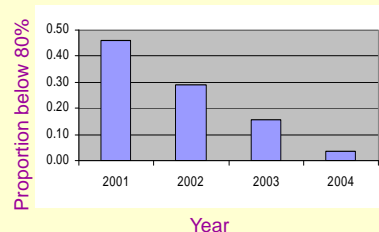
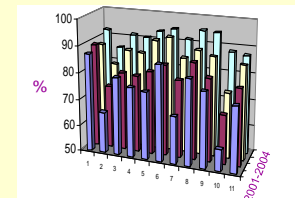


Table 2. Proportion of Scores Below 80% decreased each year after SP implementation



Results

Table 3. Mean Score increased in each subject area



- 1 = Chief Complaint
- 2 = Past Medical History
- 3 = Social and Family History
- 4 = Eye exam
- 5 = Ear, Nose and Throat exam
- 6 = Neck exam
- 7 = Back exam
- 8 = Heart exam
- 9 = Abdominal exam
- 10 = Extremity exam
- 11 = Neurological exam

| | CC | PMH | SFH | EYES | ENT | NECK | BACK | HEART | ABD | EXTR | NEUR | TOTAL |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| sig 1-2 | 0.21 | <0.001 | 0.84 | 0.07 | 0.002 | 0.44 | <0.001 | 0.086 | 0.2 | <0.001 | 0.017 | <0.001 |
| sig 2-3 | 0.39 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | 0.14 | 0.004 | 0.004 | <0.001 | <0.001 |
| sig 3-4 | <0.001 | 0.004 | <0.001 | 0.003 | 0.134 | 0.132 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0.256 |
| sig 1-4 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |

Conclusions

- The original intervention in 2001 demonstrated:
 - lower level of competency than desired
 - physical exam skills can be measured
 - baseline performance for future years
- Incorporation of the exam into the course seemed to "legitimize" the exam to the students, leading to higher perceived expectations and higher performance
- Addition of a midterm "practice" exam seemed to help clarify expectations further, leading to another increase in scores
- Increased faculty awareness of clinical skills abilities led to increased involvement in the course