"How Reliable Am I?"

Final Report

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A. Goals: The goals of this project were
(1) to develop exemplars of online inter-observer training modules for
students who need to establish their reliability in the scoring and
interpretation of valid and reliable observational assessment tools, and
(2) to establish "proof of concept" by having the students apply their
knowledge to a second assessment tool.

Evaluation: Proof of concept will be evaluated by
(1) examining the developmental progression of inter-observer reliabilities
within each training module, and between the Exemplar Project modules and
the Exemplar Replication Project modules, and
(2) comparing number of trials to criterion (≥ 90% agreement) between the
Exemplar Project and the Exemplar Replication Project.

B. Project Modules

Five narrated PowerPoint modules were developed, with links to a secure SHRS
Mediasite server for watching the patient videos:
(1) Introduction to the Performance Assessment of Self-Care Skills (PASS)
(2) Characteristics of the PASS tool
(3) Practice rating and scoring the PASS
(4) Calculate your inter-observer reliability for the PASS
(5) Transfer what you have learned to a second set of tools: Functioning
   Everyday with a Wheelchair-Capacity (FEW-C) and FEW-Performance
   (FEW-P)

For the PASS exemplar modules, five patients with increasingly complex
cognitive and/or physical impairments were filmed while performing four
increasingly difficult tasks: (1) Taking out the Garbage, (2) Dressing,
(3) Tub/Shower Transfers, and (4) Medication Management.
For the proof of concept exemplar replication modules, one patient was filmed performing two tasks in the Clinic environment, which students rated using the FEW-C: (1) Operate wheelchair, and (2) Reach to Different Surface Heights.

Two test modules were also created: (1) the test, and (2) the answers. The test consisted of videos of two patients each performing two of four PASS tasks: (1) Taking out the Garbage, (2) Dressing, (3) Tub/Shower Transfers, and Medication Management, and one patient performing two FEW-P tasks in the Home: (1) Operate wheelchair, and (2) Reach to Different Surface Heights.

C. Results

Proof of concept will be evaluated by
(1) examining the developmental progression of inter-observer reliabilities within each training module, and between the Exemplar Project modules and the Exemplar Replication Project modules,

Developmental Progression of inter-observer reliabilities within training modules:

**PASS: Easiest to hardest:**
(1) Taking out the Garbage: 97.23%
(2) Dressing: 96.85%
(3) Tub/Shower Transfers: 91.10%
(4) Medication Management: 96.17%
Average for PASS exemplar training modules: 95.34%

There was no developmental progression, and there were no significant differences among the inter-observer reliabilities training modules, by task or by patient. By starting with the easier tasks and less impaired patients, students were able to rate and score accurately for all modules.

**FEW-C: Easiest to hardest**
(1) Operate wheelchair: 93.11%
(2) Reach to Different Surface Heights: 88.71%
Average for FEW-C exemplar replication training modules: 90.91%
There was no developmental progression and there were no significant differences among the inter-observer reliabilities training modules, by task (the patient was the same in both videos). We used existing videos for the FEW-C and FEW-P, and the quality was not as good as for the new PASS videos.

Between the Exemplar Project Modules and the Exemplar Replication Project Modules

**PASS Exemplar Project Training Modules**
Average Performance: 95.34%

**FEW-P Exemplar Replication Training Modules**
Overall Test Performance: 90.91%

**PASS Exemplar Project Test Modules**
Overall Performance: 94.45%

**FEW-P Exemplar Replication Test Modules**
Overall Test Performance: 94.33%

Although we anticipated that performance on the exemplar replication modules would be better than on the exemplar modules, that was not the case for either the training or test modules. However, average performance met clinical standards (≥ 90%) in all instances.

(2) **comparing number of trials to criterion (≥ 90% agreement) between the Exemplar Project and the Exemplar Replication Project.**
- No students needed to repeat trials for either the PASS or the FEW-C

D. Conclusions

The four exemplar training modules (Modules 1-4) were effective for teaching students how to rate a clinical criterion-referenced tool (the Performance Assessment of Self-Care Skills -- PASS) for increasingly complex patients performing increasingly complex tasks. Overall performance on the modules remained stable, and exceeded the minimum standard for inter-observer percent
agreement ($\geq 80\%$). In fact, students consistently met the clinical standard of $\geq 90\%$.

Performance on the exemplar replication module (Module 5) indicated that transfer of learning occurred, and that students were able to apply what they had learned about rating and score the PASS to a new tool (Functioning Everyday with a Wheelchair – FEW-C). Average performance on the exemplar replication module tasks exceeded the minimum percent agreement standard of $\geq 80\%$ for both tasks, and met clinical standards ($\geq 90\%$) for one of the tasks.

Student performance on the modules exceeded previous classroom performance. Students reported that the modules were easy to follow, that the opportunity to replay videos and see multiple examples was helpful, and the material was relevant to future clinical practice.

All students received a certificate of competence in inter-observer reliability for the three tools used in the modules. The certificates provide documentation of their skills and can be added to their professional portfolios.

Thank you for the opportunity to develop these modules, and they will be integrated into our Master of Science and Master of Occupational Therapy curricula in AY2111.

Also included with this report are:
(1) student handouts
(2) student test materials
(3) a DVD with the 7 modules
(4) a DVD with the training and test videos (students access them by clicking on a link in the Power Point modules, which then provides them access to a secure SHRS network---Mediasite)