Coaching for Success: A Strategy for Early Identification & Remediation for FNP Student "Strugglers"

Therese Hidalgo
Coaching for Success: A Strategy for Early Identification & Remediation for FNP Student “Strugglers”

UNM-HSC - EDUCATION DAY
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Objectives:

- Identify the Formative OSCE as a valid method for assessing clinical competency using the “FACTS” Checklist as a tool for the identification of FNP students who are struggling clinically.

- Apply the “FACTS” Checklist Tool as a method for evaluating clinical competency and targeted feedback based on the OSCE performance.

- Appraise the value of a small group problem-based learning method utilized in a 4-week coaching class for “strugglers”
OSCEs & Clinical Practice

- What is an OSCE
- Why do we use OSCE’s?
- How do they compare with clinical site evaluations?
FACTS Evaluation Tool

- Communication style/patient interaction
- Focused Health history
- Focused Physical Exam
- Differential Diagnoses
- Assessment/Plan
- Overall Performance
Self-Regulation Learning Model

- Self-generated feedback
- Effective Faculty Feedback
- Taught Effective Strategies
- Observed Practice

Also

(1) Forethought (before)
  - Task Analysis
  - Motivational beliefs

(2) Performance Phase (during)
  - Self-observation
  - Self-control

(3) Self-Reflection (After)
  - Self-judgment
  - Self-reaction
Research Questions: Coaching for Success

- Does a targeted, 4-week coaching seminar positively affect first year FNP students’ performance on a Summative OSCE after failing an earlier Formative OSCE?

- Do first year FNP students who have failed the Formative OSCE and have taken the coaching seminar have a higher percentage of improvement compared to the students who passed the Formative OSCE and did not take the coaching seminar?

- Does the number of coaching sessions improve the outcome of the Summative OSCE scores?
Research Plan

- Research Design:
  - Quasi-experimental study
    - Pre & Post- intervention comparisons

- Sampling:
  - Convenience sampling of first-year FNP students taking their 1st adult health clinical course 27 students included in class cohort.
    - 15 identified as “strugglers”
    - 12 identified as “non-strugglers”
Coaching/Remediation: Clinical Skills

- Student Assessment/Evaluation
- Feedback
  - Faculty
  - Self-reflection
- Coaching/Remediation Strategies
  - Individualized
  - Small group problem-based learning
  - Simulation
- Program Evaluation
  - Student Survey
  - Performance on Summative OSCE
Methodology

Data Collection

- Formative and Summative OSCE performance scores (percentages) during 1st clinical course of the first-year FNP curriculum (Spring 2018)
  - “FACTS” Checklist
- The difference in performance scores (percentages) between the Formative and the Summative OSCEs will be compared for individual students
- The differences in performance scores (percentages) between the Formative and the Summative OSCEs will be compared between the “Strugglers” and the “Non-Strugglers”
- The differences in averaged difference in performance scores (percentages) between the Formative and the Summative OSCEs for those attending the 4-week coaching seminar compared to the number of sessions attended
### Results

**Table 1:** "Strugglers" individual percentage scores, normalized gain $g$ for individual scores, and number of attended remediation sessions.

<table>
<thead>
<tr>
<th>ID Code</th>
<th>Formative OSCE</th>
<th>Summative OSCE</th>
<th>$&lt;g&gt;**$</th>
<th>Coaching Sessions</th>
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### Results

**Table 2:**
“Non-strugglers” individual percentage scores, normalized gain <g> for individual scores, and number of attended remediation sessions.

<table>
<thead>
<tr>
<th>ID Code</th>
<th>Formative OSCE*</th>
<th>Summative OSCE*</th>
<th>&lt;g&gt;**</th>
<th>Coaching Sessions</th>
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### Results

Table 3
Means and Standard Deviations on the Measure of Normalized Gain of Percentage Score Differences between the Formative and Summative Percentage Scores between “Strugglers” and “Non-strugglers” groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>$\eta$</th>
<th>$M$</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>“Strugglers”</td>
<td>15</td>
<td>60.4*</td>
<td>13.9</td>
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<tr>
<td>“Non-Strugglers”</td>
<td>12</td>
<td>41.6*</td>
<td>27.8</td>
</tr>
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</table>

* normalized gain = $<g>$ as statistically significant at ($t(25) = 2.30, p = 0.03; CI = 1.93-35.67$)
Survey Results

Qualitative data analysis:
Survey of 63% of remediation participants obtained retrospectively about 1 month after summative OSCE.

- 75% felt more comfortable with the summative OSCE; 25% neither agreed/disagreed
- 83% felt they were successful with the summative OSCE; 17% neither agreed/disagreed
- 100% agreed small group learning worked for them
- 83% agreed the guide sheet examples were useful tools for learning; 17% weren’t sure
- 92% would come to sessions such as this even if not required; 8% disagreed
The increase in averaged normalized gain \(<g>\) scores between the two groups is statistically significant using the unpaired t-test: \(t(25) = 2.30; p = 0.03; CI = 1.93 = 35.67\) with a large effect size; Cohen’s \(d = 0.903\).

The correlation between the number of mediation sessions attended compared to the average normalized gain \(<g>\) in scores of the “strugglers” using the Pearson Correlation Coefficient \((r) = 0.67\) for \(n = 15\).
Discussion

- “Strugglers” with coaching compared to “Non-strugglers” without coaching demonstrated a 19% increase in normalized gain \( g \) scores.
- “Non-strugglers” w/course compared to those without any coaching demonstrated an 11% increase in normalized gain \( g \) scores.
- The students felt strongly the coaching sessions were helpful in preparing them for the summative OSCE.
Conclusions/Future Plans

- Coaching program successful for early identification of “Strugglers” with the opportunity to receive targeted clinical coaching to better prepare “struggling” students for clinical experiences.
- Some more work needs to be done to continue to evaluate FACTS Checklist for reliability-validity
- Students appreciate small group, case-based learning
- Clinical Enrichment Topics Course (Summer of 2018)


