

Implementation and reception of a shelf exam review session for medical students

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BACKGROUND

- To prepare third-year medical students for National Board of Medical Examiners (NBME) Subject (shelf) examinations, review sessions are offered by many other clerkship programs.
- There is a lack of evidence supporting interventions to improve performance on NBME exams.¹
- Some studies have shown resident-led didactic review sessions improve medical student NBME test scores, although results are not consistent.¹⁻³

OBJECTIVE

To develop and implement a sustainable review session that would enhance the medical student experience with teaching on the surgery clerkship, and secondarily, to examine the session's effect on test performance.

METHODS

- Intervention:** A two-hour case-based question-and-answer session was implemented in Block 2 of the '20-'21 academic year and offered for each subsequent 6-week block.
- Evaluation for Improvement:** Anonymous survey responses with 1-5 Likert scale and free response prompts were used to track satisfaction with the session and to refine the delivery, timing, and content of the session.

Surveys were distributed via email immediately following the session with one reminder during the exam window.

- Performance Effect:** Deidentified shelf exam equated percent correct scores were compared in a pre- and post-implementation fashion with a two-sample independent t-test. [Block 2 '19-'20 – Block 1 '20-'21 vs. Block 2 '20-'21 – Block 1 '21-'22]

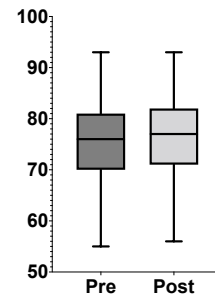
RESULTS

Test Performance

There were 154 students in the pre-implementation group and 139 in the post-group.

- Mean exam performance increased from 75.3 (SD 7.5) to 76.6 (SD 8.3), although the difference was not statistically significant ($p=0.193$).

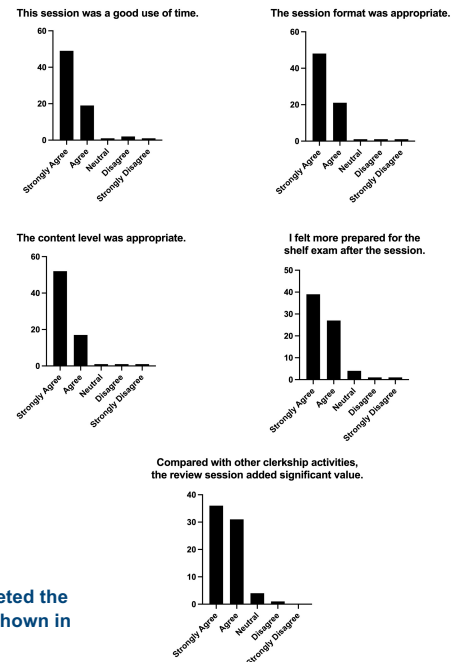
Figure 1. Distribution of NBME test scores before and after review session implementation



Survey Responses

72 of 160 (45%) of students completed the post-session survey with results shown in Figure 2.

Figure 2. Likert scale survey responses



CONCLUSIONS

- A resident-led shelf exam review session was well-received by medical students according to post-session survey data.
- Mean exam scores increased after implementation, although the difference was not statistically significant.
- Other factors such as the addition of protected study time, changes in the clerkship rotation schedule, and pandemic-related disruptions limit the ability to attribute differences in exam performance specifically to this intervention.
- While the direct effect of review sessions on exam performance remains uncertain, high satisfaction among participants merits further efforts to sustain this offering and recommend implementation of similar resident-led review sessions within other clerkship programs.

REFERENCES

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