

Addressing Gaps in Preclerkship Students' Procedural Skills

A Workshop Series with Simulations

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Background

- Procedural skills are an essential and practical component of medical education.
- Pre-clerkship medical students receive limited procedural training, which contributes to gaps in confidence and competency.
- Procedural skills training improves pre-clerkship student self-confidence in performing procedures.
- To address the need for early procedural skill exposure, we developed a workshop to provide hands-on instruction for various clinical procedures.

Objectives / Goals

- Evaluate the effectiveness of our workshop on increasing student confidence in performing procedures.
- Identify opportunities for workshop improvement by analyzing quantitative and qualitative participant feedback.

Methodology

- 42 MS1s completed a workshop consisting of 6 stations, each lasting 20 minutes, where they received hands-on instruction from faculty in performing the various procedures.
- Surveys were administered before and after the workshop to assess participants' self-confidence in performing each skill, using a 10-point Likert scale.
- Post-workshop surveys also included questions about the workshop experience, evaluated with a 5-point Likert scale with space for qualitative feedback.
- Self-confidence scores were analyzed using paired t-tests.



Image 1. Incision and Drainage of Abscess Station

Results and Analysis

Figure 1. Average Self-Confidence Scores from Pre to Post Survey

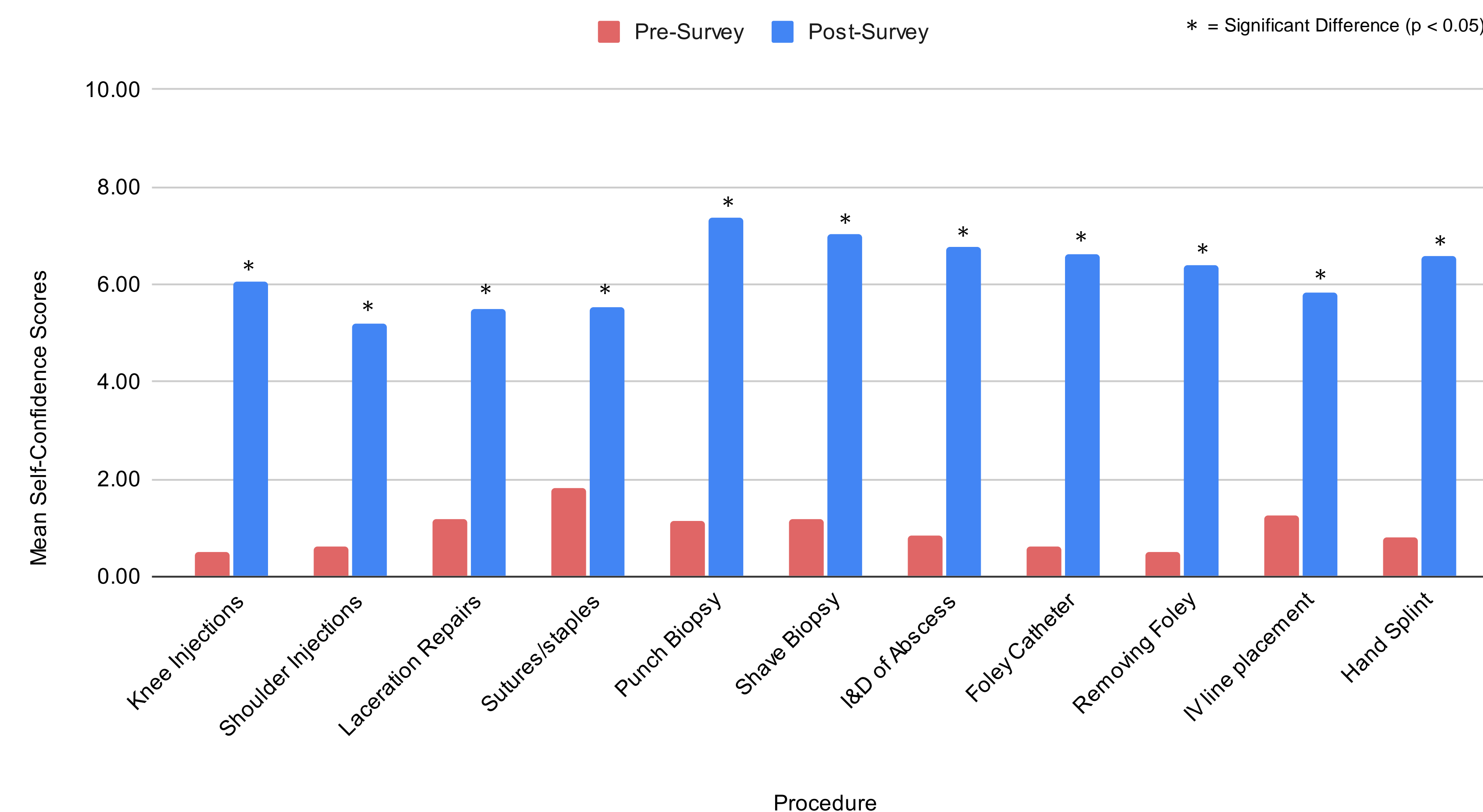


Figure 2. Workshop Feedback Results

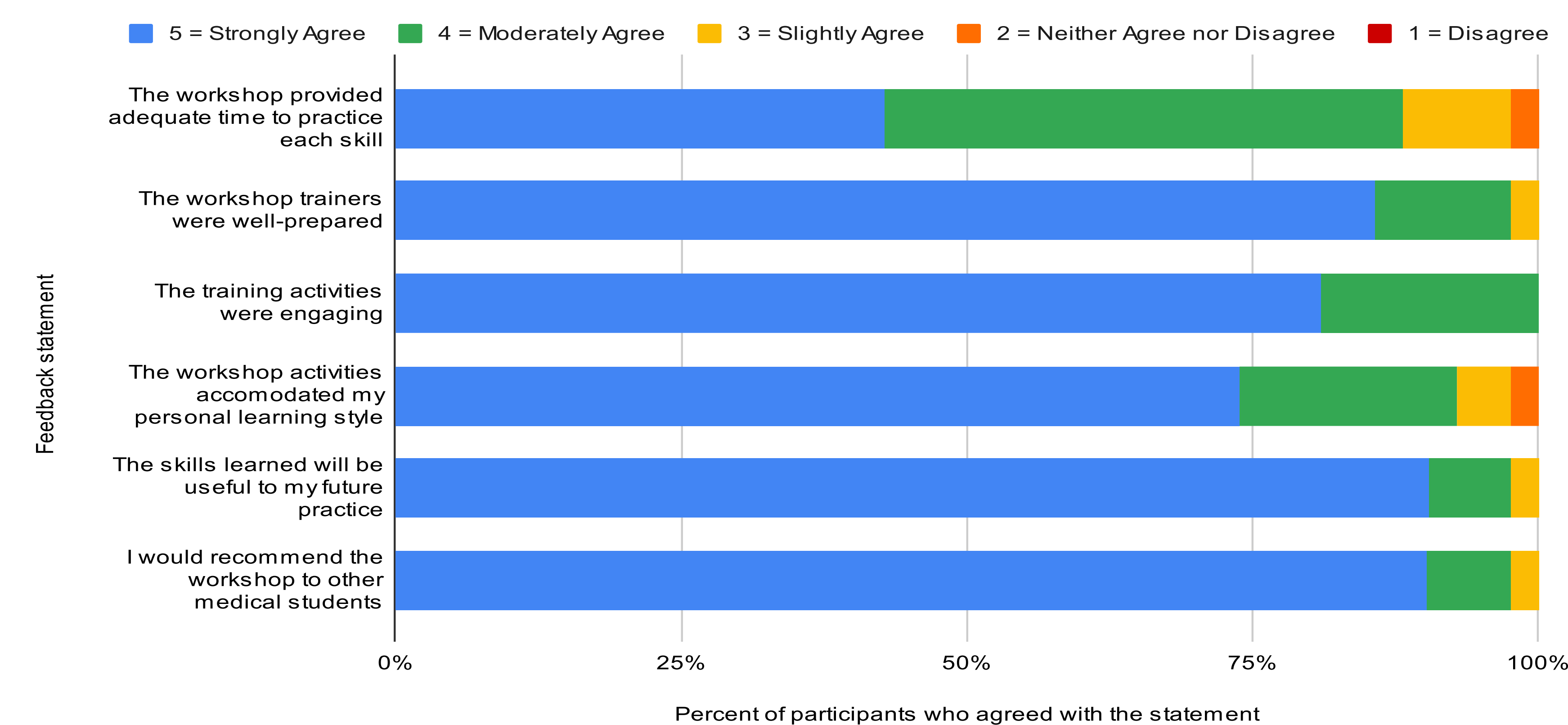


Figure 3. Qualitative Feedback

What we can improve upon

- "Maybe more instructions and signs @ each station"
- "I would budget more times for transitions between stations"

What we did well

- "I liked the ppt parts, visual aids were good for each part."
- "This was a very informative and helpful session"

Discussion and Conclusion

- Participants showed a significant overall increase in confidence about their procedural skills after our workshop intervention.
- Participants positively rated the experience, strongly agreeing that the workshop is useful to their future practice and is recommended to other medical students.
- Based on quantitative and qualitative data collected from this pilot workshop, our study suggests changes to current medical educational frameworks.

Limitations

- Workshop participants may have greater interests in procedural skills or prior experiences which may skew workshop outcomes and may not reflect the entire student population.
- The small sample size of medical students from one medical school may reduce the generalizability of the results.

Future Directions

- We expect that students will demonstrate skill retention during our upcoming follow-up workshop with scores ranging from competent to expert during test out.
- Further research will determine how best to support students in their abilities to retain these skills and encourage utilization of these skills in their early careers.

References



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