



Advanced Practice Providers as Clerkship Preceptors in the Longitudinal Integrated Clerkship Model

Melanie Mandell BA¹, Jennifer Adams MD^{1,2}, and Whitney Giamberardino MD^{1,3}

1: University of Colorado School of Medicine; 2: University of Colorado Department of Medicine, 3: University of Colorado Department of Obstetrics and Gynecology

Background

- Identifying enough physician preceptors to oversee medical students during their clerkship presents a challenge for many undergraduate medical institutions [1]
- Certified Nurse-Midwives have participated in OB/GYN undergraduate and graduate medical education as preceptors since 1993 [2]
- However, little is known about the medical student experience of working with APPs across specialties, especially within the longitudinal integrated clerkship (LIC) model

Methods

- A survey was designed to capture the extent to which medical students at the University of Colorado School of Medicine (CUSOM), where all students participate in an LIC, work with supervising APPs
- We surveyed 197 CUSOM students at the end of clerkship academic year 2024-2025 regarding their experiences with supervising APPs during their LIC or immersion time
- Survey responses were collected on a 5-point Likert scale with an optional text response
- Results were analyzed with descriptive and comparative statistics and content analysis
- A chi-squared goodness of fit test was used to analyze Likert responses

Results

- Survey response rate was 92.9% (183/197)
- Eighty-two of the 183 respondents (44.8%) worked under the direct supervision of at least one APP during their outpatient LIC and/or their inpatient immersion(s)
- Compared to physicians, students were significantly less likely to report higher satisfaction with APP supervisors in clinical knowledge, assessments, feedback, and education
- Compared to physicians, students were significantly more likely to report higher satisfaction with APP supervisors in comfort asking questions and approachability

Student Satisfaction with APP Preceptors Compared to Physician Preceptors

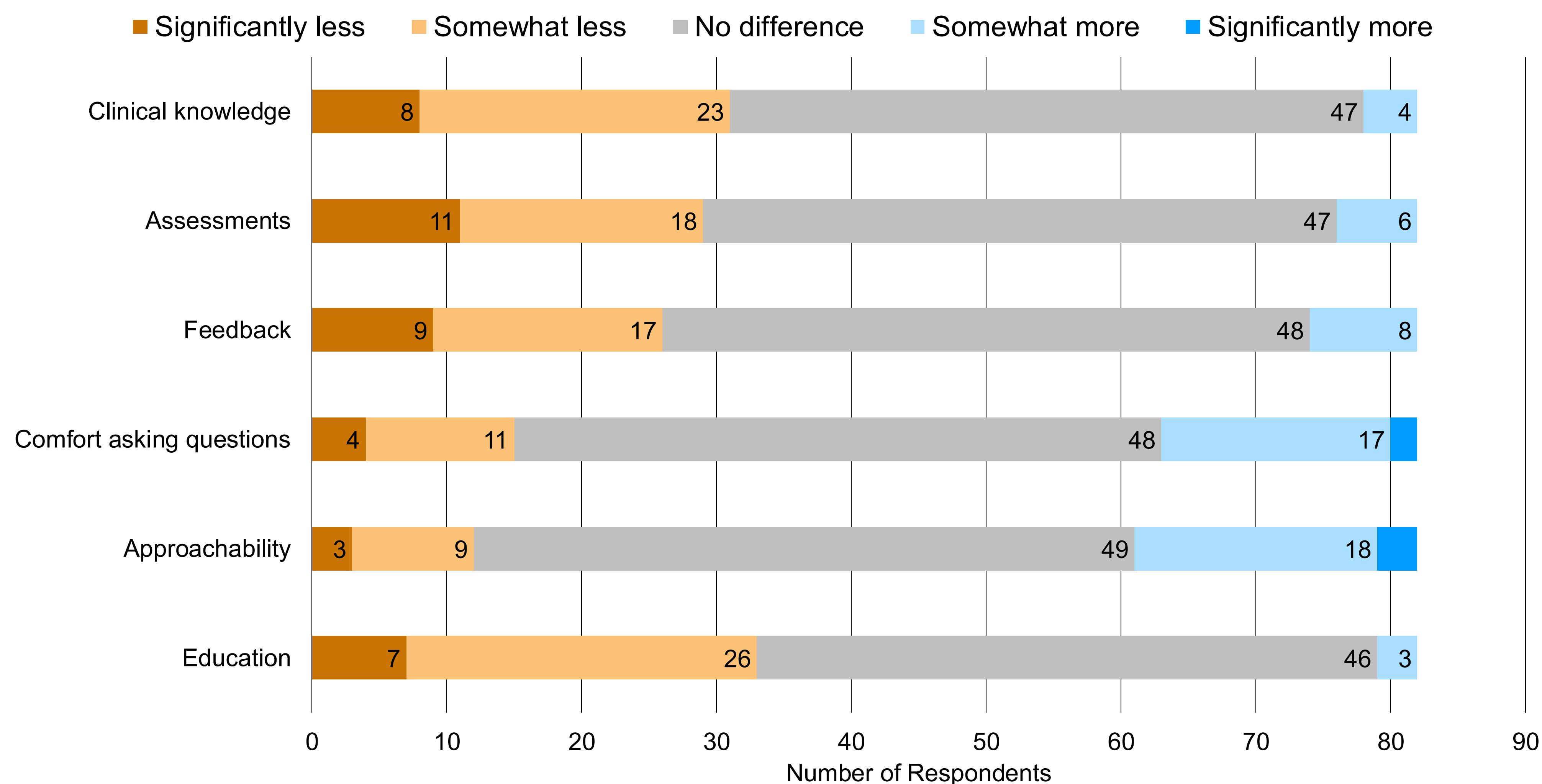


Figure 1. Medical student satisfaction with APP preceptors by Likert scale response data (N = 82).

Discussion

- The greatest number of respondents reported no difference in satisfaction between APP and physician preceptors across the six domains surveyed, suggesting that APPs provide a non-inferior learning experience to physicians
- Significantly more students were satisfied with physician vs. APP supervisors in the domains of clinical knowledge, assessments, feedback and education. This may suggest physicians excel at providing specialty-specific knowledge and may have benefited from faculty development opportunities not as widely accessed by APPs
- Conversely, significantly more students reported higher satisfaction with APP vs. physician supervisors in areas of approachability and comfort asking questions. This may suggest APPs are particularly effective at creating supportive and approachable learning environments
- Qualitative comments reveal varying expectations between physician and APP supervisors, suggesting a knowledge gap in how to supervise and evaluate medical students
- Future projects should investigate specialty-specific experiences with APPs to better characterize APP supervision in different clinical contexts and how engaging APP teachers can optimize the clerkship learning environment

Exemplar Quotes from Content Analysis of Open Text Responses

Advantages

- "Working with APPs was great and strengthened my understanding of how to work on interprofessional teams."
- "I found that my engagement with the APPs was much more substantive than with residents...The APPs I worked with had more time for me."
- "On my surgical immersion, I interacted with 5+ surgical PAs who taught me so much about the management of surgical patients and suturing... the PA had more time to spend teaching."

Disadvantages

- "APP's expectations were not aligned with the rest of attending physicians' expectations."
- "I felt that as a medical student, I should be seeing more opportunities of what the MDs in that field would be treating."
- "APPs should not be replacements for physicians as a physician supervisor will have more insights into med student education and career planning."

Acknowledgements & Disclosures

No disclosures. We would like to thank the CUSOM Office of Assessment, Evaluation, and Outcomes.

References

- Christner JG, Dallaghan GB, Briscoe G, Casey P, Fincher RM, Manfred LM, Margo KI, Muscarella P, Richardson JE, Safdieh J, Steiner BD. The Community Preceptor Crisis: Recruiting and Retaining Community-Based Faculty to Teach Medical Students-A Shared Perspective From the Alliance for Clinical Education. Teach Learn Med. 2016 Jul-Sep;28(3):329-36. doi: 10.1080/10401334.2016.1152899. Epub 2016 Apr 19. PMID: 27092852.
- Afriot, CI. Nurse-Midwives as faculty preceptors in medical student education. J Nurse-Midwifery. 1993;38(6):349-352.