



Objective

To assess the self-awareness of third-year pharmacy students regarding their performance on Objective Structured Clinical Examination (OSCE) performance, utilizing a standardized self-assessment tool

Background

- The final iteration of the Skills Development courses was restructured into an Advanced Pharmacy Practice Experience (APPE) Readiness course.
- This course is composed of 5 OSCEs with pre-specified APPE-Readiness criteria that must be passed to successfully pass each OSCE, to then advance to APPEs.
- As such, OSCEs provided a good opportunity to measure and assess student self-awareness in accordance with Center for the Advancement of Pharmacy Education (CAPE) domain 4.1, which defines self-awareness as a core competency metric.

Methods

Survey Tool

- Following each of the 5 OSCEs, a self-awareness survey was disseminated and completed by the students (Figure 1).
- The survey was based on a previously published, simple, standardized self-assessment tool¹ for completion by a pharmacy learner after an OSCE that was shown to be reliable and valid for overall learner performance.
- The questions were based on the APPE-readiness criteria evaluators used to determine if a student "passes" or "requires remediation".

Analysis

- Faculty investigators reviewed responses to the survey for trends of self-awareness in OSCE performance ("nailed it!" or "need more practice") and applied statistical analysis to assess correlations with actual OSCE performance.
- For students in the "require remediation" group, investigators assessed improved perception from the original OSCE to the remediation OSCE.
- Lastly, logistic regressions were used to analyze whether student self-perceptions differed by question type and OSCE.

Figure 1. OSCE Self-Awareness Survey Example

APPE readiness criteria	Self-assessment	
For professionalism, I felt...	<input checked="" type="checkbox"/> I nailed it!	<input type="checkbox"/> I need more practice
For the following skills, I felt...		
▪ Determine the appropriateness of drug therapy and/or vaccine therapy	<input checked="" type="checkbox"/> I nailed it!	<input type="checkbox"/> I need more practice
▪ 2b) Use clinical reasoning to justify clinical recommendation	<input checked="" type="checkbox"/> I nailed it!	<input type="checkbox"/> I need more practice
For clinical knowledge, I felt...	<input checked="" type="checkbox"/> I nailed it!	<input type="checkbox"/> I need more practice
For interpersonal communication, I felt...	<input checked="" type="checkbox"/> I nailed it!	<input type="checkbox"/> I need more practice

Briefly describe why you feel you nailed it or need more practice?

Key Findings

Only OSCE 1 and 5 contained a singular self-awareness survey question that had a significant association between students perceiving they need more practice and actual requirement for remediation (Figure 2)

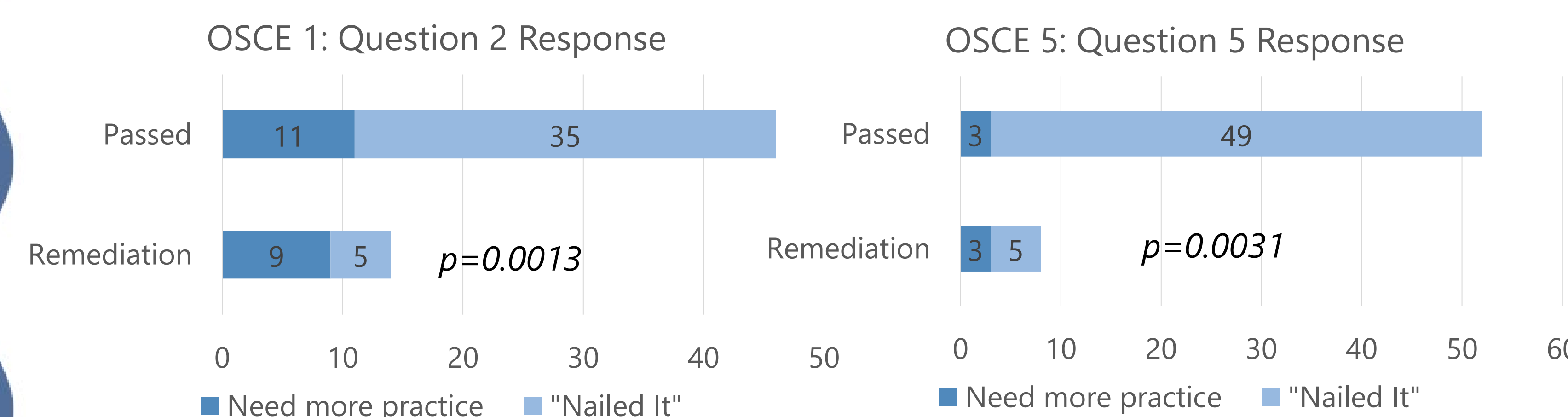
Only OSCE 1 and OSCE 4 had a significant association in improved perception of performance following remediation of those respective OSCEs (Figure 3)

While students perceived poorer performance with less time to prepare, there was no significant differences between actual student performance on OSCEs with time to prepare (3&5) vs. OSCEs with no time to prepare (1,2&4) (Figure 4)

Interestingly, all students always perceived success in "professionalism" focused self-awareness questions, regardless of performance (Figure 5)

In multiple OSCEs (OSCE 1,3&5) students were more likely to indicate needing more practice in "knowledge" focused self-awareness questions

Figure 2. OSCE Self-Awareness Survey Question Responses Correlating with OSCE Performance



OSCE 1 Q2: For determining the appropriateness of drug therapy and/or vaccine therapy? I felt I...
OSCE 5 Q5: For interpersonal communication, I felt I...

Results

Figure 3. Student Perceived Performance of Knowledge Before and After Remediation

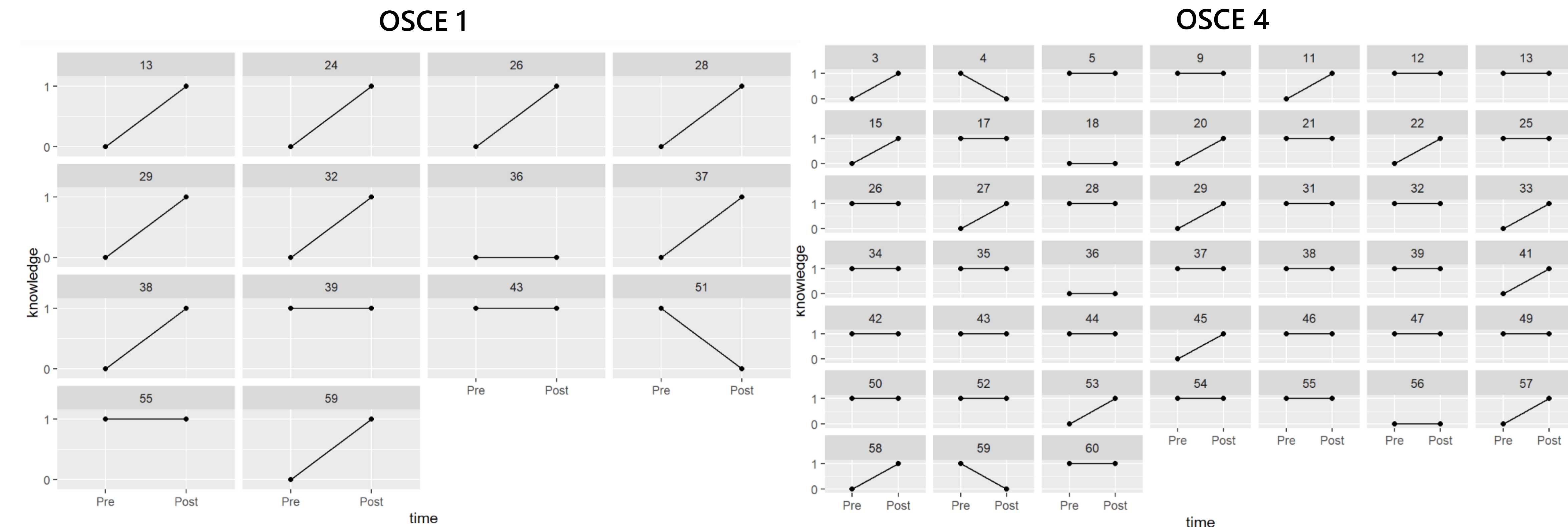


Fig 4. Each student requiring remediation, completed the same survey for the original OSCE (0) and the remediation (1). Only responses regarding to their perception of clinical knowledge performance on OSCE 1 & 4 were significantly changed following remediation.

Figure 4. Student Perception of Performance Correlated with OSCE Performance: Time to Prepare vs. No Time

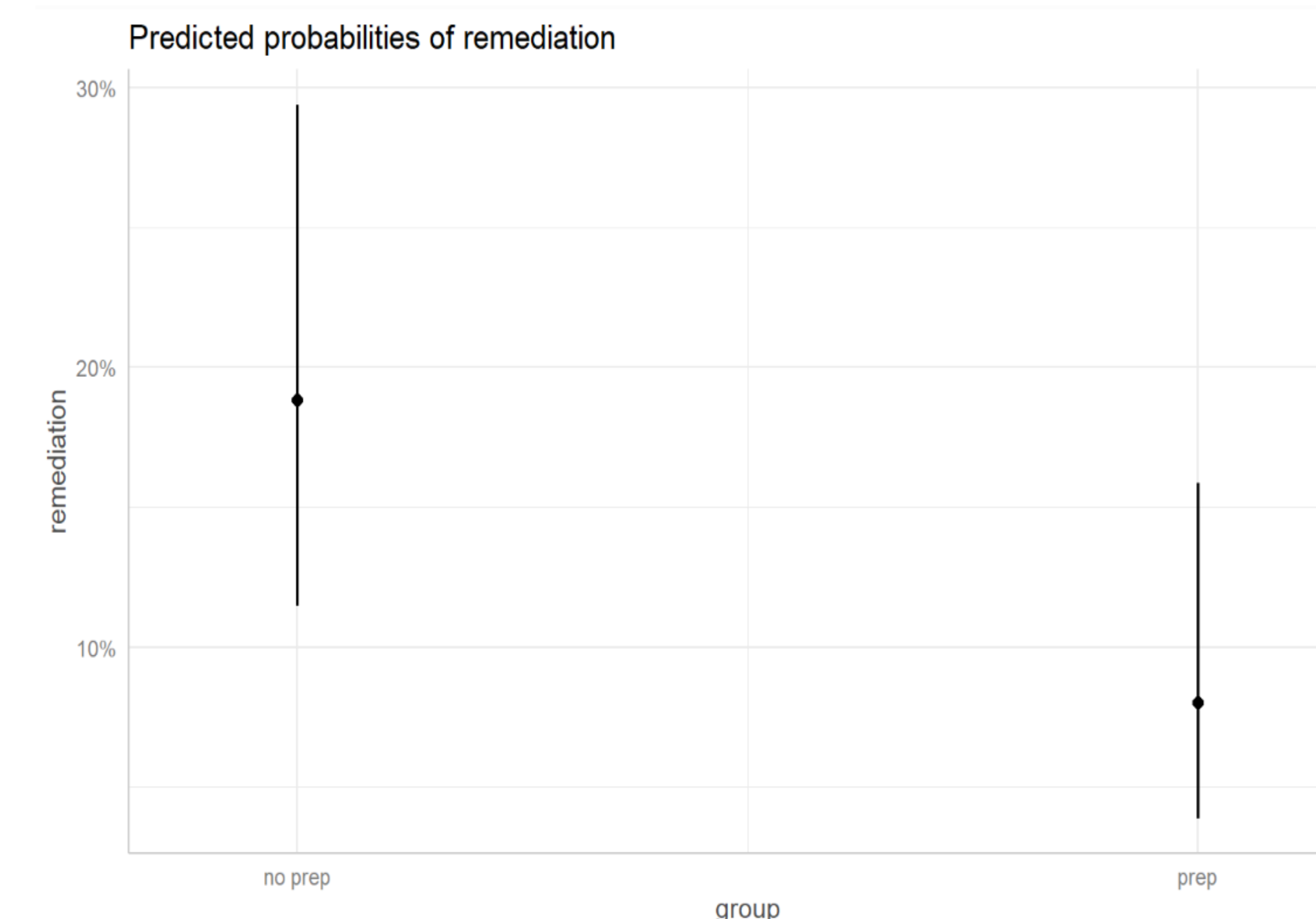


Fig 5. Likelihood for remediation was not correlated with less/no time to prepare for an OSCE in comparison to OSCEs that allowed time to prepare

Figure 5. % Student Perception on OSCE Professionalism



100% of students on every OSCE stated they "Nailed It" for their professionalism skills, regardless of performance on OSCEs. As a result, this question was removed from analysis of association with true performance as an outlier.

Discussion

- Only 2 questions of all 5 surveys (O1Q2, O5Q5) indicated self-identified need for improvement that correlated with the outcome of the OSCE. This could be indicative of poor student self-awareness or the need for a more reliable survey
- Students felt more confident after their second attempt in 2 OSCEs, which correlated with qualitative feedback after the course and may warrant more opportunities for OSCE practice in earlier years and iterations of Skills courses
- Despite student responses, relative OSCE performance did not change with more time to prepare
- Professionalism self-awareness likely needs to be re-defined and revisited for students in OSCE situations

Conclusions

While minor trends in student perception of OSCE performance were observed, most self-assessment responses did not show a significant association to need for remediation. Additional iterations of self-awareness assessment may be required in the didactic curriculum prior to experiential rotations.

References

- Raake SE et al. *Curr Pharm Teach Learn.* 2022 Mar;14(3):276-280.

The authors declare no potential conflicts of interest with respect to the research presented.