



Can Surgery Fellows Accurately Self-Assess Their Technical Performance? Analysis of the Fellowship Council EPAs

Tom Farrell, Boris Zevin, Peter Szasz
Department of Surgery, Queen’s University, Canada

Background

- Self-assessment accuracy is crucial for self-improvement and continuing professional development¹, and is integral to formative evaluations in EPA-based surgical education.
- Accuracy of self-assessment amongst surgery trainees is mixed², and no studies have focused specifically on fellows completing EPA-based surgical training.
- This study aimed to fill the gap relating to the accuracy of fellows’ self-assessment as compared to faculty assessment for the same technical procedure.

Methods

- Retrospective cohort study of fellows who completed a 1-year Advanced GI MIS/Bariatric Fellowship during the 2023-2024 academic year through the Fellowship Council³.
- Entrustment levels from both the fellow and faculty for each EPA encounter (fellow-faculty dyads) were obtained
- The significance of the difference between average entrustment levels between fellow-faculty dyads was tested using the Wilcoxon signed-rank test. A Pearson correlation coefficient was used to assess association between fellow and faculty entrustment levels.
- A Generalized Estimating Equation was used to assess the changes to the absolute difference between fellow-faculty dyads for increasing caseloads, and for the passage of time during the fellowship year

Results

- 45 fellows with a combined 584 dyads were analysed
- The mean EPA entrustment level provided by fellows was 2.98 ± 0.86 , with a median = 3 [IQR 2 – 4], while the mean entrustment level from faculty was 3.28 ± 0.80 , with a median = 3 [IQR 3 – 4].
- The difference between fellow and faculty entrustment levels was statistically significant ($p < 0.01$)
- There was a moderate, positive association between faculty and fellows, $r(584) = .465$, $p < 0.01$.
- Accuracy improved with both case load ($p < 0.01$) and time in fellowship ($p < 0.01$).

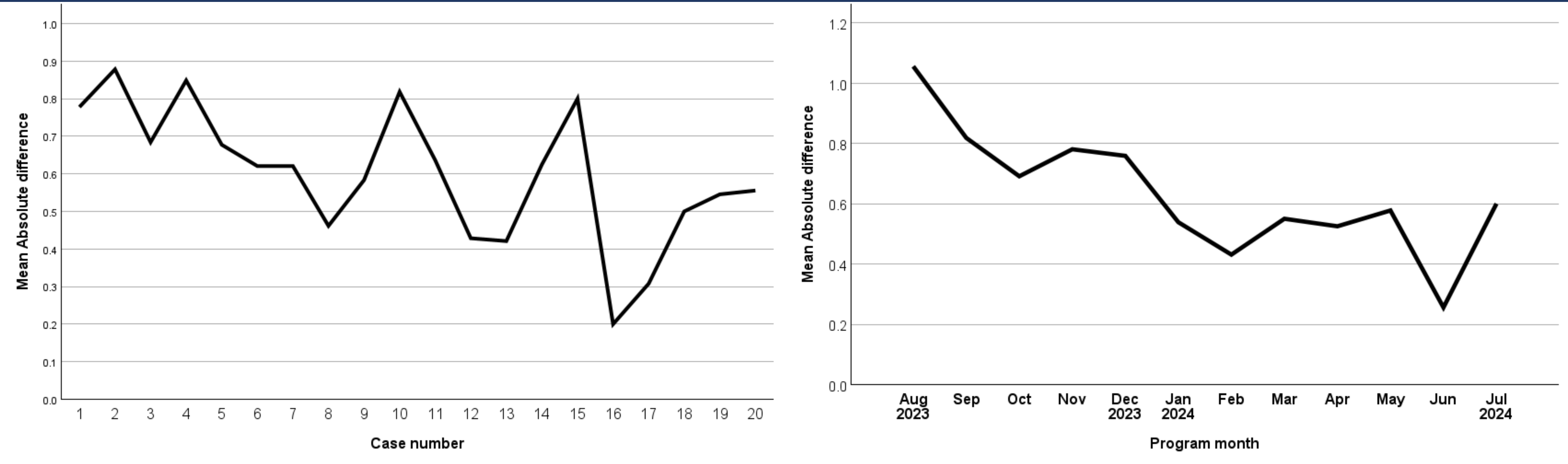


Figure 1. Mean absolute difference between fellow and faculty dyad entrustment levels with increasing case number and time

Table 1. Distribution of differences in EPA entrustment levels for faculty-fellow dyads (n = 584)

(Signed) difference calculated as Fellow – Faculty	Frequency
-3 (faculty level is 3 units higher than fellow)	6 (1.0%)
-2 (faculty level is 2 units higher than fellow)	30 (5.1%)
-1 (faculty level is 1 unit higher than fellow)	188 (32.2%)
0 (faculty and fellow level are the same)	282 (48.3%)
+1 (fellow level is 1 unit higher than faculty)	68 (11.6%)
+2 (fellow level is 2 units higher than faculty)	7 (1.2%)
+3 (fellow level is 3 units higher than faculty)	3 (0.5%)

Conclusion

- Advanced GI MIS/Bariatric Surgery fellows were accurate self-assessors, though more stringent than their faculty counterparts. They also improved their accuracy with case number and time.
- Fellows who have large discrepancies in entrustment levels relative to faculty, and those who consistently overrate themselves may require targeted intervention.
- Interventions to improve self-assessment may include: self-assessment rubrics, verbal feedback, simulation, electronic portfolios, coaching, and watching video playback of performance^{1,4,5,6}

References

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Acknowledgments

We would like to acknowledge the Fellowship Council, who approved this work, and Anton Svendrovski for statistical analysis.