

General Versus Technique-Specific Surgical Skills Assessments: Do We Need to Reinvent the Wheel?

Background: Reliable and valid methods of evaluating operative performance are essential for surgical training programs and education research. Laparoscopic surgery entails a unique skill set, but it is unclear whether it requires a specific assessment form or whether more general assessment tools can be applied. The primary purpose of this study was to assess the concurrent validity of 2 previously validated assessment scales. One of these scales was designed specifically to assess laparoscopic skills and the other to assess more general surgical skills. Construct validity and reliability of both scales were also assessed.

Methods: Postgraduate year (PGY) 1–5 general surgery and urology residents ($N = 33$) performed a live human laparoscopic cholecystectomy. Three attending surgeon raters scored their performance using previously validated objective structured assessment of technical skills (OSATS) and Global Operative Assessment of Laparoscopic Skills (GOALS) global rating scales.

Results: Pearson's correlation coefficient between OSATS and GOALS was 0.975 ($P = .01$). Evidence of construct validity was demonstrated for both OSATS and GOALS with senior residents (PGY 3–5) demonstrating significantly higher scores than the junior (PGY 1–2) group ($P < .001$). Both OSATS and GOALS demonstrated reliability with a Cronbach's alpha of 0.959 and 0.957, respectively.

Conclusions: Reliability and construct validity were confirmed for both OSATS and GOALS global rating scales. The near total correlation between the 2 scales questions the need for separate laparoscopic assessment tools. This study highlights the real strengths of OSATS, the use of which allows for more consistent nomenclature and standardized skills assessment across surgical platforms.

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