



Do Non-Technical Skills Improve with Technical Skills Training? A Comparison of Non-Technical Skills Rating and Operative Performance Rating in Simulation



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INTRODUCTION

- Non-technical skills are an important component of surgeon's performance in the OR. However, this is not formally trained or assessed.
- The primary aim of our work was to design a task which could be used as a part of a curriculum in proficiency based education to formally train in technical and non-technical skills

METHODS

- SUBJECTS:** 10 PGY1 residents
- TASK:** Open hand-sewn gastrojejunostomy in a simulation center based OR.
- TRAINING:** Practice and didactics. Skills assessed pre and post training.
- Resident hand-motions and OR perspective video recorded.
- Technical skills assessed by OSATS (Objective Structured Assessment of Technical Skills)
- Non-technical skills assessed by NOTECHS (Non Technical skills)
- Pre-Post differences tested by paired T test
- Correlations tested by Pearson's correlation coefficient.
- Inter-rater reliability tested by Intra Class Correlation coefficient (ICC).

RESULTS

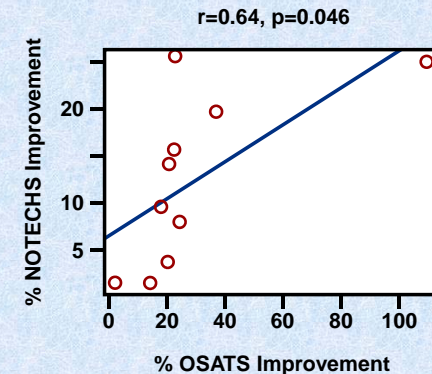
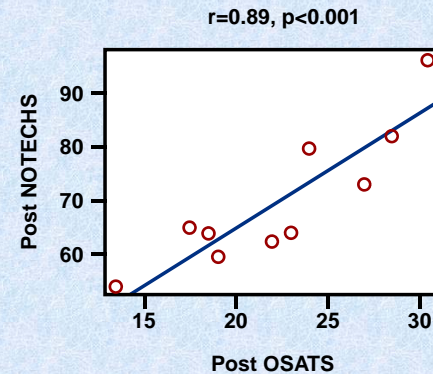
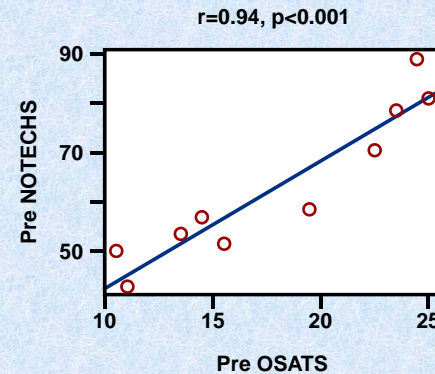
- Improvement in OSATS and NOTECHS post training
- Excellent correlation between OSATS and NOTECHS scores
- Modest correlation between degree of OSATS and NOTECHS improvement
- Excellent inter-rater reliability for OSATS and NOTECHS

Means

	Pre	Post	P value (T test)
OSATS	18	22.35	p=0.001
NOTECHS	63.25	69.95	p=0.0006

Inter Rater Reliability

	ICC	P value
OSATS	0.939	p<0.001
NOTECHS	0.928	p<0.001



CONCLUSION

- Technical performance correlates well with non-technical skills.
- Correlation between degrees of improvement in technical and non-technical skills is modest.
- Multi-modality training of surgeons should focus on training in both technical and non-technical skills.