MP34: Organized BLUS Course Objectively Improves Trainee Performance in a Single Session

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INTRODUCTION

- Trainees need more simulation based training as surgical volumes have decreased in residency training
- BLUS (Basic Laparoscopic Urologic Skills) Curriculum was developed in 2009 (adapted to E-BLUS in Europe).
- It has been validated as a measurable training tool through EDGE (Electronic Data Generation and Evaluation), GOALS (Global Objective Assessment of Laparoscopic Skills) and CSATS.
- BLUS has not been utilized widely in North America

OBJECTIVE

Does the BLUS curriculum lead to measurable objective skills improvement in a single session?

METHODS

- Residents evaluated at baseline and then taught the BLUS curriculum for each task
- Improvement evaluated through:
  - Pi Score (Performance Improvement)
  - CSATS (Crowd Sourced Assessment of Technical Skills)

METHODS

Course offered to all Residents enrolled in AUA Basic Science Course (2018)

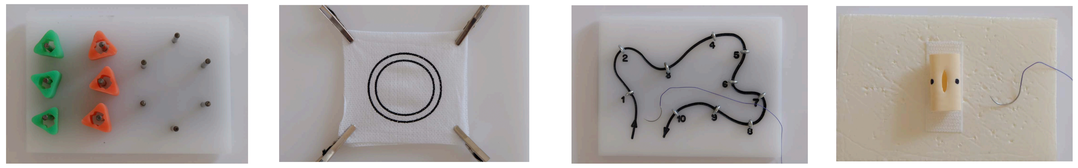
→ 55 participate in BLUS Course (all PGY2/3; M:F 4:1)

→ Residents perform 2 baseline runs of tasks:
1. Baseline – Pi
2. Baseline - CSATS

→ All residents receive BLUS teaching by expert faculty in each of the 5 tasks.

→ Residents practice 2 runs while getting proctored (Run 3 and 4)

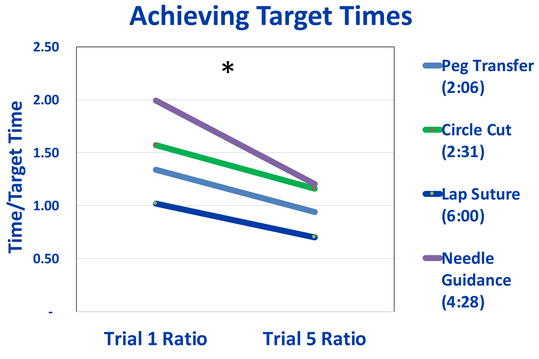
→ Last 2 runs of each task are used for assessment:
5. Final - Pi
6. Final - CSATS



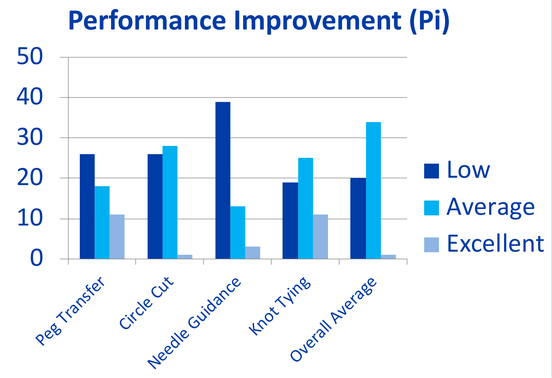
BLUS Tasks (left to right): Peg Transfer, Circle Cut, Needle Guidance, Knot Tying

RESULTS

- No difference in baseline scores between sex or groups 1 and 2
- Residents self-assessed their lap expertise lower than overall technical expertise (1.6 vs. 3.1)

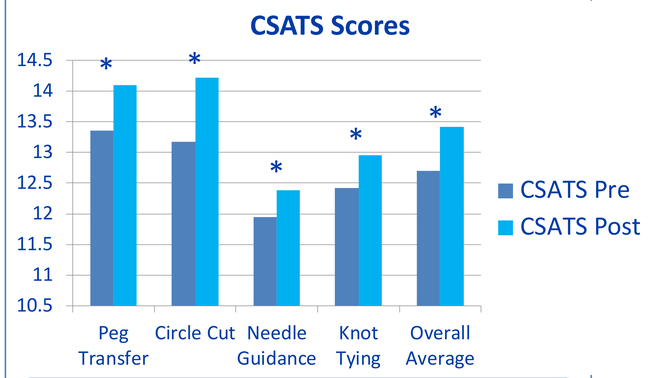


Graph 1: All residents had significant improvement in target times (p<0.001) with average decrease in 25%. This was used for 'time score' calculation in Pi score.



Graph 2: Median Pi score = 23.3; Most residents (71%) had 'average' Pi Scores; No difference between ♂/♀. Pi score correlated most with knot tying (R=0.71).

CSATS RESULTS



Graph 3: Average CSATS scores improved significantly for all tasks (p<0.01) with median improvement 0.7 (IQR 0.3-1.1). Needle Guidance correlated best (R=0.71).

CONCLUSIONS

- Single BLUS training session shows residents can significantly improve using objective validated scoring tools (Pi Score and CSATS)
- BLUS and similar skills curriculum should be incorporated into residency training programs to teach and evaluate resident competency

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