



EFFICACY OF AN INTENSIVE “SURGICAL BOOT CAMP” ON LAPAROSCOPIC SUTURING PERFORMANCE AMONG REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY (REI) FELLOWS

Author Block L. R. Goodman,¹ N. Yoo,² S. Pfeifer,³ R. T. Scott, Jr.,¹ D. Shah⁴; ¹IVI/RMA, Basking Ridge, NJ, ²Saint Peter's University Hospital, New Brunswick, NJ, ³Weill Cornell Medical College, New York, NY, ⁴Reproductive Endocrinology and Infertility, University of Pennsylvania, Philadelphia, PA

Abstract:

OBJECTIVE: To determine the efficacy of a two-day intensive surgical boot camp in improving laparoscopic suturing performance among REI fellows.

DESIGN: Prospective comparison of REI fellow performance on structured laparoscopic suturing drills before and after two days of intensive training using laparoscopic simulators.

MATERIALS AND METHODS: 41 REI fellows attended a national surgical skills boot camp in January 2017 focused on techniques in minimally invasive reproductive surgery. The two-day course included a 15-minute lecture and video demonstration of laparoscopic suturing and knot tying as well as a total of 60-minutes of guided practice using laparoscopic simulators (dry labs) and 90-minutes of guided practice using cadaveric models (wet labs). Each fellow was asked to perform three structured tasks modified from the Fundamentals of Laparoscopic Suturing (FLS) curriculum, including: 1) placement of three running stitches, 2) an extracorporeal (EC) knot, and 3) an intracorporeal (IC) knot. Mean times for each fellow were compared before (pre-test) and after the guided instruction (post-test) using paired t-tests

RESULTS: All 41 fellows completed the pre-test; 3 fellows failed to complete the post-test. The results of the timed tests are showed in Table 1 with data presented as mean \pm standard deviation in minutes.

Task	Pre-test (n=41)	Post-test (n=38)	Delta	P-value
Running	4.3 +/- 1.7	2.8 +/- 1.5	-1.5 +/- 1.8	<0.01
EC knot	5.8 +/- 1.8	3.8 +/- 1.8	-2.0 +/- 1.6	<0.01
IC knot	7.9 +/- 2.9	4.9 +/- 2.6	-3.0 +/- 2.6	<0.01

CONCLUSIONS: Focused, short-term training using pelvic simulators can improve laparoscopic suturing skill in REI fellows. Given inconsistent and sometimes limited surgical training in REI fellowship programs, a surgical boot camp may provide a means by which fellows can obtain and retain the requisite skill set for reproductive surgery.