Simulation Training for Correction of Male Stress Urinary Incontinence: Assessment of Surgical Knowledge and Confidence with Cadaveric Laboratory Training

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Introduction

- Transobturator retrourethral slings (TORUS) and artificial urethral sphincters (AUS) are the gold standard for surgical treatment of male stress urinary incontinence
- Familiarity with these procedures during residency training is important, however exposure may vary across training programs
- Simulation surgical training has proven to be a valid and an increasingly popular method to teach surgical skills and enhance resident performance in the operating room
- As part of the 2018 Society of Urologic Prosthetic Surgeons and the Sexual Medicine Society of North America Annual Meeting, urology residents participated in a structured course which included didactic lectures and a hands-on cadaveric laboratory

Aim

The aim of our study is to determine if a focused training course on prosthetic surgery for male incontinence can improve resident knowledge and confidence.

Methods

- Participants completed surveys before the lab as well as 2 weeks and 6 months after
- Surveys consisted of 30 multiple-choice questions to assess procedural knowledge and self-confidence regarding prosthetic surgery for male stress urinary incontinence
- Analysis assessing pre and post lab responses were performed using the Wilcoxon signed rank test for matched pairs. Secondarily, resident training year and previous AUS and sling experience were assessed
- Coloplast and AMS provided unrestricted educational grants to SUPS.

Demographics

Participants	32
Age (median[range])	29 [27-34)
Level of Training	
PGY-3	5 (15.6%)
PGY-4	*20 (62.5%)*
PGY-5	6 (18.8%)
PGY-6	1 (3.1%)

AUS Experience	
<5	*16 (50%)*
5-10	11(34%)
>10	5 (16%)
Sling Experience	
<5	*30 (94%)*
5-10	2 (6%)
>10	0

Results - Confidence

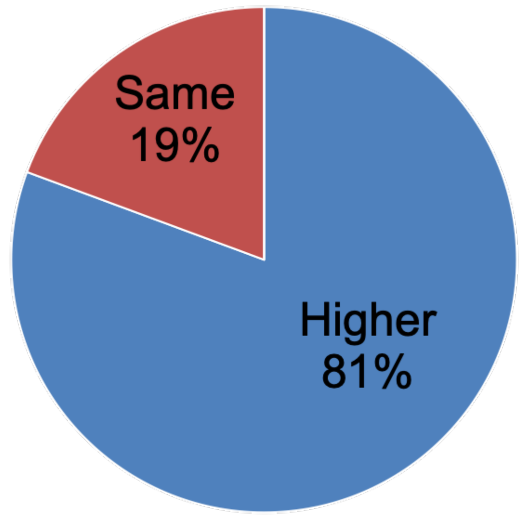

Figure 1: Difference in Median Confidence between pre-conference and 2 weeks after the course. Of the 31 respondents 25 had higher confidence scores and 6 had the same level of confidence

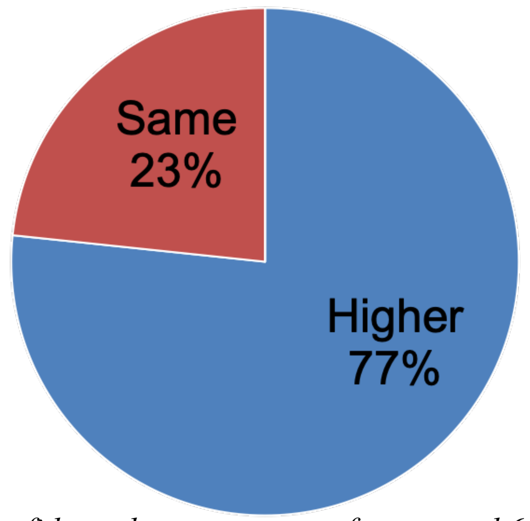

Figure 2: Difference in Median Confidence between pre-conference and 6 months after the course. Of the 30 respondents 23 had higher confidence at 6 months and 7 indicated the same level of confidence

Results - Knowledge

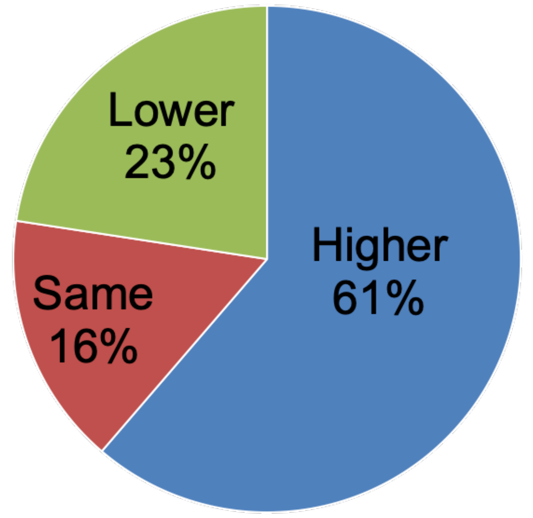

Figure 3: Difference in Median Knowledge between pre-conference and 2 weeks after the course. Of the 31 respondents: 19 had improved, 5 were similar, and 7 had a lower score

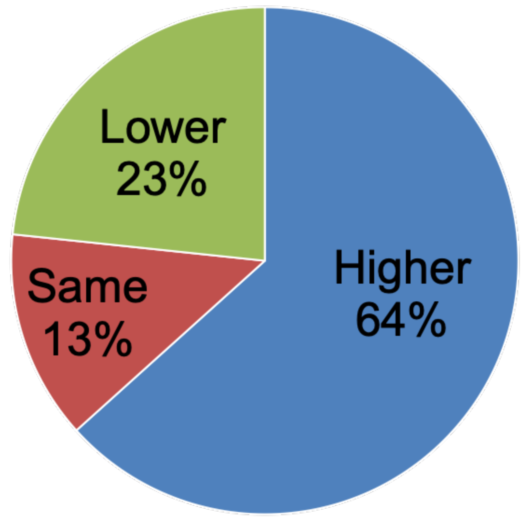

Figure 4: Difference in Median Knowledge between pre-conference and 6 months after the course. Of the 30 respondents: 19 had improved, 4 were similar and 7 had a lower scores

- There were no differences in confidence and knowledge stratified by residency training level or AUS/sling experience

Conclusion

- Simulation training of urologic residents improves both knowledge and confidence in prosthetic surgery for male stress urinary incontinence
- Furthermore, the benefit is maintained at least 6 months following course completion
- In the current climate of educational constraints and limited prosthetic educator availability, simulation courses play an important role in providing valuable hands on education

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