Gender Equity in the Fundamentals of Laparoscopic Surgery Exam

INDIANA UNIVERSITY SCHOOL OF MEDICINE
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BACKGROUND

- Passage of the Fundamentals of Laparoscopic Surgery (FLS) Exam has been a requirement for the American Board of Surgery (ABS) Certification since 2010.
- Recent work from our group has identified a gender disparity in the Fundamentals of Endoscopic Surgery (FES) pass rates associated with visuospatial aptitude (VSA).
- Equity is an important factor to the validity of high stakes exams.
- We hypothesized that a gender disparity might also exist in FLS pass rates.

METHODS

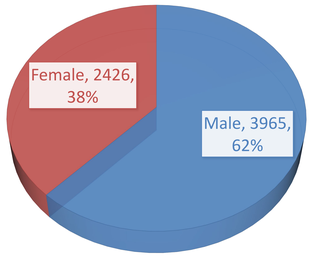
- Deidentified national FLS program data from the first six years of graduate resident performances after implementation of the requirement (2010-2016) were analyzed.
- Univariate and then multivariate logistic regressions were performed to examine the relationship of gender identity, PGY level, and specialty on first time pass rates.
- Passage of both the cognitive and skills tests independently is required to pass.

RESULTS

Population

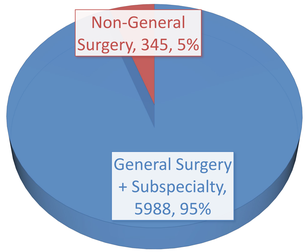
- 7567 first-time test takers between 2008 (when requirement was announced) and 2016 were present in the database.
- Non-residents and those who graduated before 2010 (when the requirement took effect) were removed from analysis leaving 6408 residents which were analyzed.

GENDER IDENTITY OF TEST TAKERS

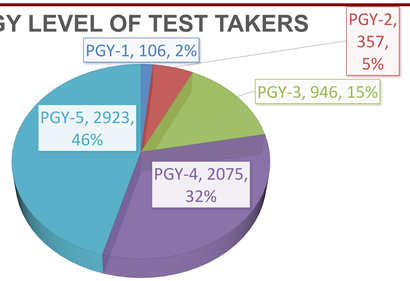


RESULTS

SPECIALTY OF TEST TAKERS



PGY LEVEL OF TEST TAKERS



Factors and their correlation to FLS pass rate on multivariate regression

Variable		OR	95% CI	*P* value
Male Gender		1.30	0.92-1.84	0.14
PGY level vs PGY-1				
	PGY 2	2.06	0.90-4.68	0.087
	PGY 3	3.52	1.64-7.55	0.001
	PGY 4	3.98	1.93-8.19	< 0.001
	PGY 5	4.08	1.97-8.42	< 0.001
General Surgery Specialty		4.49	2.95-6.82	< 0.001

CONCLUSION

- Gender, despite its known association with visuospatial aptitude (VSA) and despite a gender disparity found in FES pass rates, was not associated with FLS pass rates.
- Increasing PGY level was associated with an increasing likelihood of passing.
- Non-general surgery specialties were less likely to pass FLS on the first attempt. This is likely because it was not a requirement for these groups during the study period
- This work supports the validity of the FLS exam.

ACKNOWLEDGEMENTS

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FLS™ FUNDAMENTALS of LAPAROSCOPIC SURGERY