Title

The influence of Gender on Operative Autonomy in Surgical Training (GOAST) – Regional Pilot Study

Abstract

Background:

Global surgical literature suggests that female trainees have less operative autonomy than their male counterparts. This pilot study had the primary objective to identify difference in autonomy by gender, and to power a national study to carry out further quantitative and qualitative research on this subject.

Methods:

This was a retrospective, cross-sectional study utilising eLogbook data for all orthopaedic trainees (ST2-8) and consultants with CCT date 2016-2021 in a single Scottish deanery. The primary outcome measure was percentage of procedures undertaken as lead surgeon (supervised-trainer scrubbed, unscrubbed, performed or training trainee). Data analysis comprised the Chi-square test for categorical variables (significance $p<0.05$).

Results:

15 trainees and two recent consultants participated, of which 10 (59%) were male (mean grade 5.2), and 7 (41%) were female (mean grade 4.3). Trainees were lead surgeon on 64.8% of procedures. Operative autonomy rose with grade (36.5% ST1 to 89.2% ST8, OR 14.3). Operative autonomy was slightly higher in male vs female trainees (66.5% and 61.4% respectively, p=<0.0001), with female trainees less likely to operate without a supervisor present (STU/S vs P/T, m 46%:20%, f 48%:14%).

Findings

This pilot study found that there was a significant difference in operative autonomy between male and female trainees, however this may be explained by differences in mean grade of male vs female trainees. Only 4 trainees took time OOT, all of whom were female. Extension to a national multi-centre study should repeat the quantitative method of this study with additional qualitative analysis including assessing effect of time OOT to explore the reason for any gender discrepancies seen across different deaneries in the UK.

Disclosure

This study has received funding from the AO Foundation and Tayside Orthopaedic Research Collaborative. We have no conflict of interest to declare, and have received Ethics approval from University of Edinburgh.

Authors & Affiliations

Jennifer Cherry (Presenting)
Ninewells Hospital, Dundee, United Kingdom

Samantha Downie

Ninewells Hospital, Dundee, United Kingdom

Thomas Harding
Ninewells Hospital, Dundee, United Kingdom

Sarah Gill
Queen Elizabeth University Hospital, Glasgow, United Kingdom

Simon Johnson
Perth Royal Infirmary, Perth, United Kingdom