
Sex Disparities in Operating Room Utilization among Cataract Surgeons: A 10-Year Retrospective Population-Based Analysis

Danielle Solish¹, Marko Popovic², MD MPH, Hargun Kaur³, Jim Shenchu Xie³, Radha P. Kohly², MD PhD,

¹Faculty of Health Sciences, Department of Medicine, Queens University

²Department of Ophthalmology and Vision Sciences, University of Toronto

³Michael G. DeGroote School of Medicine, McMaster University

Introduction: Sex-based differences in operating room (OR) distribution have not been extensively studied in ophthalmology. This is the first study to use objective, population-level data to assess sex differences in the number of OR days amongst cataract surgeon in Ontario.

Methods: In this retrospective population-based analysis, physician billing data between 2010 and 2019 were analyzed to identify all cataract surgeries in this timeframe. The number of cataract surgeries per day and number of OR days per year were extracted. Data were stratified by surgeon sex and career stage (defined as early: <45, middle: 45-55; and late: >55 years of age).

Results: Between 2010 and 2019, 1.05 million cataract surgeries were performed in Ontario. There was an average of 195 ± 3 comprehensive cataract surgeons per year, of which 39 ± 5 were female. The proportion of females increased from 16.8% of all surgeons in 2010 to 24.4% in 2019. The greatest proportion of male surgeons were in the late phase of their career, whereas the greatest proportion of female surgeons were in the early stage of their career. On average, males had $44.9 + 1.90$ OR days per year and females had $32.5 + 1.90$ OR days per year, resulting in females averaging $12.45 + 1.90$ fewer OR days every year. The OR utilization remained consistent across career stages. The greatest number of OR days per year for both sexes occurred during mid-career. Case volumes per OR day were similar across sexes, but males performed on average 172.7 ± 30.6 more surgeries per year.

Conclusions: Despite performing similar case volumes per OR day, female surgeons had less OR time compared to their male counterparts, and this remained consistent across career stages and over the 10-year period. Metrics used to determine OR allocation should be well-defined and transparent to achieve sex parity.