Gender Differences in Perioperative Patient Safety Reporting Systems at a Tertiary Medical Center

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Introduction
Patient safety event reporting is a form of quality control utilized by many hospitals in the United States.

Given a recent publication correlating differences in reported events based on surgeon’s gender (Wallis, 2017), we aim to explore differences in safety event reporting based on the surgeon’s gender.

Methods
• All perioperative event reports involving surgeons in an academic hospital in 2016 were identified.
• Events were classified using the Human Factors Analysis and Classification System for Healthcare (HFACS-Healthcare) by 3 trained researchers into four tiers:
  - “Organizational influences” – e.g., operations, procedures, command structure
  - “Supervisory factors” – e.g., willful disregard for existing rules, failure to correct known problems
  - “Preconditions for unsafe acts” – e.g., communication: sharing necessary information across team members
  - “Unsafe acts” – e.g., decision-based errors, skill-based errors
• Differences in event reports by surgeon gender were explored.

Results
• 136 (27.9%) of 624 surgeons were female, performing 20.3% of cases.
• There were 140 male and 31 female event reports (29 with no surgeon identification).
• Adjusting for overall surgeon gender proportion, there was no difference in overall frequency of reports by gender (22.8% female, 22.4% male, p=0.99).
• However, there were differences in the nature of the event report by gender with a larger proportion of reports of male surgeons being categorized as “Preconditions for Unsafe Acts” type (44.3% vs. 3.2%, p<0.01) and a larger proportion of reports of female surgeons being categorized as “Unsafe Acts” type (45.7% vs. 71.0%, p<0.02).
• Of the 22 cases with patient injuries, 18 identified the surgeon (11 male, 7 female).
• A higher proportion of reports with female surgeons involved a patient injury as opposed to male surgeons (22.6% vs. 7.9%, p=0.04).
• However, an in-depth review of the nature of the injuries revealed differences in the severity of injuries reported by gender with the majority of serious events associated with male surgeons.
• Of the cases where there was a delay (11), the surgeon was identified in 8 (all male).

Conclusions
Our findings of surgeon gender differences in perioperative event reporting contrast other studies that have shown superior outcomes for female surgeons.

Further investigation is needed to explore the underlying reasons for these event reporting differences (i.e. bias, diverging practice patterns, or specialty-specific differences) and to correlate their association with patient outcomes.