



Gender equality challenges in orthopaedic surgery: A systematic review

Pechlivanidou E.^{1,2}, Antonopoulos I.³, Agapitou L.¹, Margariti R.¹

1. 1st Orthopaedic Department, P. & A. Kyriakou Children's Hospital, Athens, Greece, 2. Department of Hygiene, Epidemiology and Medical Statistics, Medical School, National and Kapodistrian University of Athens, 3. Department of Anatomy, Medical School, National and Kapodistrian University of Athens



Introduction

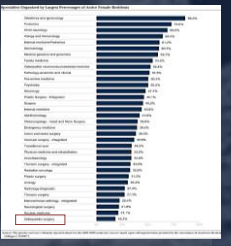
What proportion of women who received training to attend a Ruth Jackson Orthopaedic Society Meeting Pursued a Career in Orthopaedics?

Can a strategic pipeline initiative increase the number of Women and Underrepresented Minorities in Orthopaedic surgery?

The Perry Initiative's Impact on Gender Diversity Within Orthopedic Education

Female and Male Physicians: Different Practice Profiles Will increasing numbers of female GPs affect practice patterns of the future? David Zorine, Christel A. Woodward, Barbara M. Farmer, Mar. Cathan, and Charles H. Goldstein

Women in Medicine and Patient Outcomes: Equal Rights for Better Work? Anna L. Parke, Eike F. Heusinger



Physicians

Targeted issue	N (%)
factor influencing workload, income and salary	4 (6.8%)
career choices	5 (8.5%)
employment offers	6 (10.2%)
academic and leadership perspectives	6 (10.2%)
were evaluating generally the gender diversity	3 (5.1%)

Results (2)

- Orthopaedic surgery is described as an unfriendly career field for women as surgeons or sports leading physicians while women are generally underrepresented in the academic field of orthopaedics. Regarding patients, female gender consists both a risk and prognostic factor influencing the prevalence of degenerative disease and the outcome of the operative treatment in reconstructive orthopaedics.
- Female gender is a risk factor for multiple sports injuries and influences the pathogenetic mechanisms resulting in ACL reconstruction. Regarding spine surgery, women are less likely to have surgery suggested, and such suggestion underlines severe disease's progression.

Search Strategy

Pub Med
Embase

- gender
- sex
- equal
- equality
- equal*
- differ*
- difference
- different
- orthopedic
- orthopaedic
- orthop*

Materials & Methods

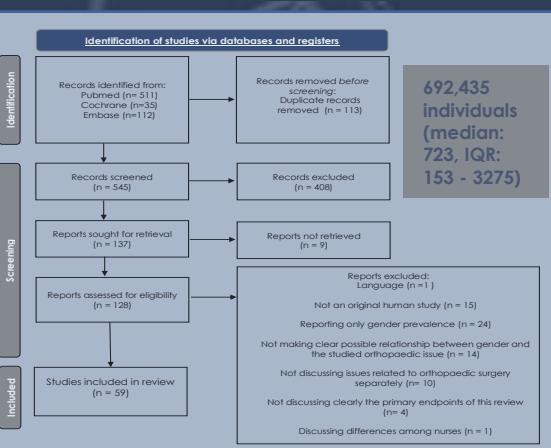
Inclusion criteria

- written in English, German or French language
- investigating gender as barrier in orthopaedic surgery as primary or secondary outcome
- prospective, or retrospective cohort studies or cross-sectional studies or clinical trials
- final results presented
- gender gap is not a random occurrence.

Exclusion criteria

- comorbidities in which gender is considered a proven risk factor or
- gender ratio (i.e., female/male) ≠ 1 is commonly acknowledged
- pregnant women
- experts' opinion

Results (1)



Sex ratio: 4 (ratio: 0.003; rmax: 1.52)

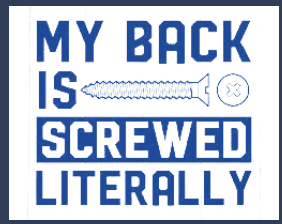
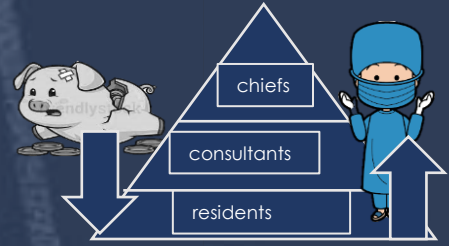
Patients: 1.02 (IQR: 0.70 - 1.37)

Physicians: 0.3 (IQR: 0.15 - 0.66)

Sub-specialty	N (%)
Sports medicine	12 (20.3)
Reconstructive orthopaedics	5 (8.5)
Trauma	5 (8.5)
Spine surgery	5 (8.5)
Paediatric orthopaedics	4 (6.8)
Musculoskeletal oncology	1 (1.7)
Foot & Ankle	1 (1.7)
Hand surgery	1 (1.7)
Academic field	6 (10.2)

Patients

Targeted issue	N (%)
possible obstacle to safe treatment	8 (13.56%)
risk factor for the studied pathology	13 (22.1%)
a prognostic factor influencing the progression of the pathology or the success of treatment	14 (23.7%)



Discussion

JAMA Surg. 2022 Feb 1;157(2):146-156. doi: 10.1001/jamasurg.2021.6339.

Association of Surgeon-Patient Sex Concordance With Postoperative Outcomes

Leverage and Torque For the Win

Just because they don't bench as much doesn't mean they can't surprise you with their strength.

Conclusions

Gender differences affect orthopaedic patient-physician-healthcare system interactions. Recognizing biases and their patterns is useful to improve the actual situation. By preventing those an unbiased, tolerant, and egalitarian workplace for physicians and a healthcare system that provides the best treatment to patients could be created.

