

UC Irvine

UC Irvine Previously Published Works

Title

Musculoskeletal Strain in the Operating Room Personnel: A Single Institution Study

Permalink

<https://escholarship.org/uc/item/0tt2r2qs>

Journal

Journal of the American College of Surgeons, 219(3)

ISSN

1072-7515

Authors

Jafari, Fariba
Jafari, Mehraneh D
Hanna, Mark H
[et al.](#)

Publication Date

2014-09-01

DOI

10.1016/j.jamcollsurg.2014.07.261

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

QUALITY, SAFETY AND OUTCOMES IV

Musculoskeletal Strain in the Operating Room Personnel: A Single Institution Study

Jafari, Fariba BS; Jafari, Mehraneh D. MD; Hanna, Mark H. MD; Beltran, Karla M.; Borromeo-Manalo, Noreen; Carmichael, Joseph C. MD, FACS; Mills, Steven D. MD, FACS; Stamos, Michael J. MD, FACS; Pigazzi, Alessio MD, FACS

Author Information

University of California, Irvine, Orange, CA

Journal of the American College of Surgeons: September 2014 - Volume 219 - Issue 3 - p S110-S111

doi: 10.1016/j.jamcollsurg.2014.07.261

INTRODUCTION: Musculoskeletal injuries (MSKI) sustained in the workplace can have significant consequences on long-term health and career plans. We aimed to examine MSKI sustained by operating room (OR) personnel using a validated questionnaire.

METHODS: A survey based on the validated Standardized Nordic Questionnaire was conducted. The core-components were demographics, general, and six specific body-region questionnaires. Physician participants included surgeons and anesthesiologists; staff comprised of nurses, technicians, and service-personnel. Outcome measures included work-associated MSKI an effects on work (WA) and leisure activity (LA).

RESULTS: The survey had a 60% response rate with 66 physicians and 72 staff. Physician worked on average 68 hours-per-week, of which 8 hours were spent standing. Staff worked on average 40 hours-per-week, and stood 9 hours-per-day. Within the last twelve months, 87.5% of physicians and 80.3% of staff reported MSKI injuries ($p=0.70$). 26% of physicians and 50% of staff were prevented from fulfilling their routine work ($p=0.049$). The most common MSKI in physicians were low-back (59%), neck (59%), upper-back (36%) and shoulders (36%). In staff, they were low-back (54%), neck (51%), writ/hands 944%), and shoulders (43%). There was a reduction in WA in 14% of physicians and 34% of staff ($p=0.02$) and a reduction in LA in 30% of physicians and 27% of staff ($p=0.80$). Medical treatment was necessary in 26% of physicians and 47% of staff ($p=0.56$).

CONCLUSIONS: There is a high rate of MSKI in OR workers, leading to a reduction in work productivity. Presentive measurers and further studies need to be conducted to decrease MSKI in OR personnel.