

## Neck/Shoulder Problems & Headaches among Surgeons Performing Minimally Invasive Surgeries in Australia & New Zealand

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### AIM

- To determine the 7-day prevalence of neck/shoulder problems and headaches (separately and combined) among Australian and New Zealand surgeons performing MIS;
- To determine the severity of neck/shoulder problems and headaches;
- To examine the association of individual, work-related, work environment and self-reported postures adopted during surgery with neck/shoulder problems, headaches and combined symptoms.

### INTRODUCTION

Musculoskeletal problems are common among surgeons performing Minimally Invasive Surgery (MIS). Another commonly reported symptom is headaches. The surgeon's awkward head/neck posture adopted during MIS may be associated with neck/shoulder problems and headaches.

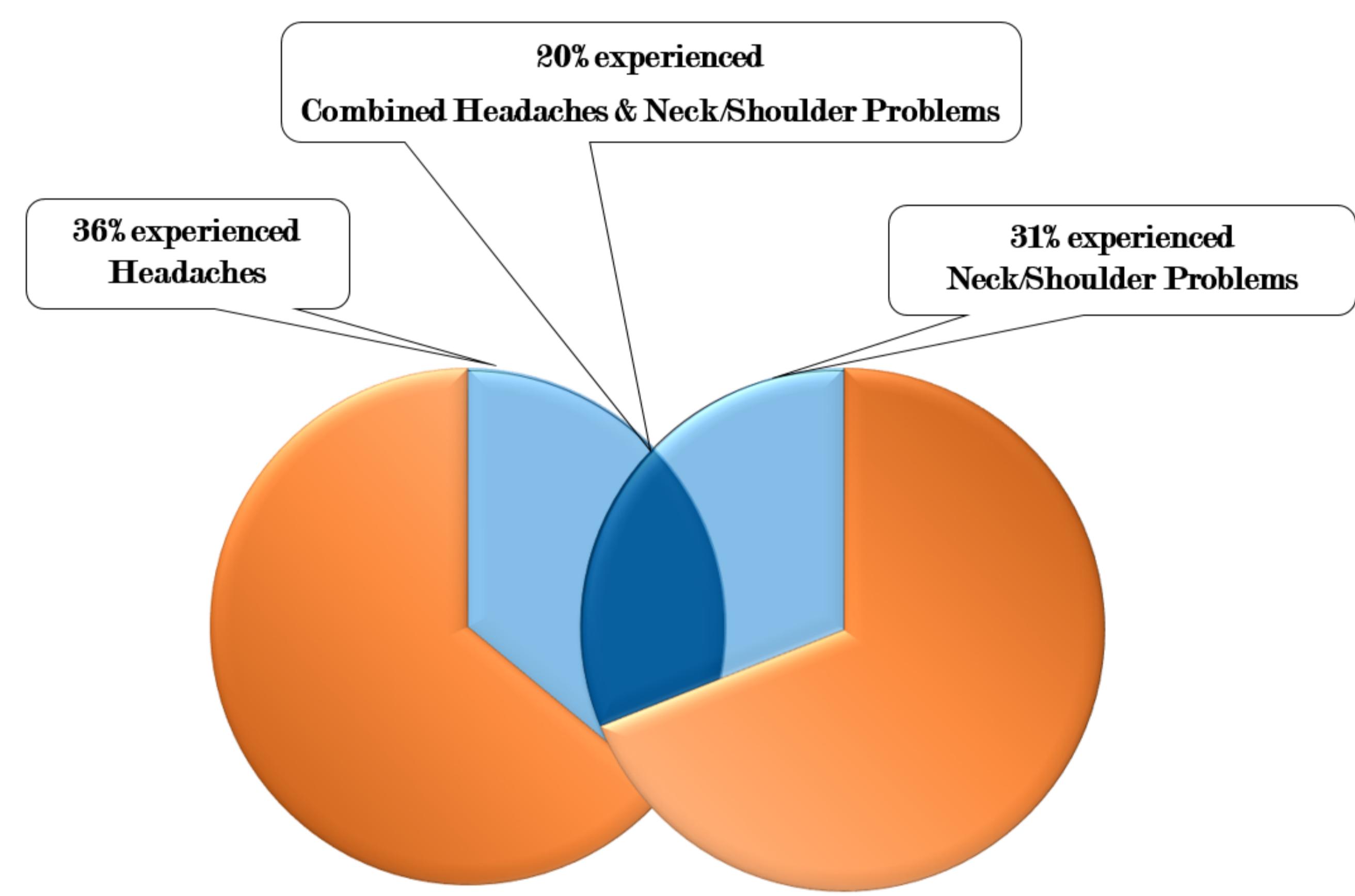
### METHOD

Surgical colleges, societies and health facilities in Australia and New Zealand were invited to complete a 59-item online survey.

Neck/shoulder problems were assessed with the Nordic Q<sup>1</sup>, Headaches were assessed with the New Patient Headache Questionnaire<sup>2</sup>.

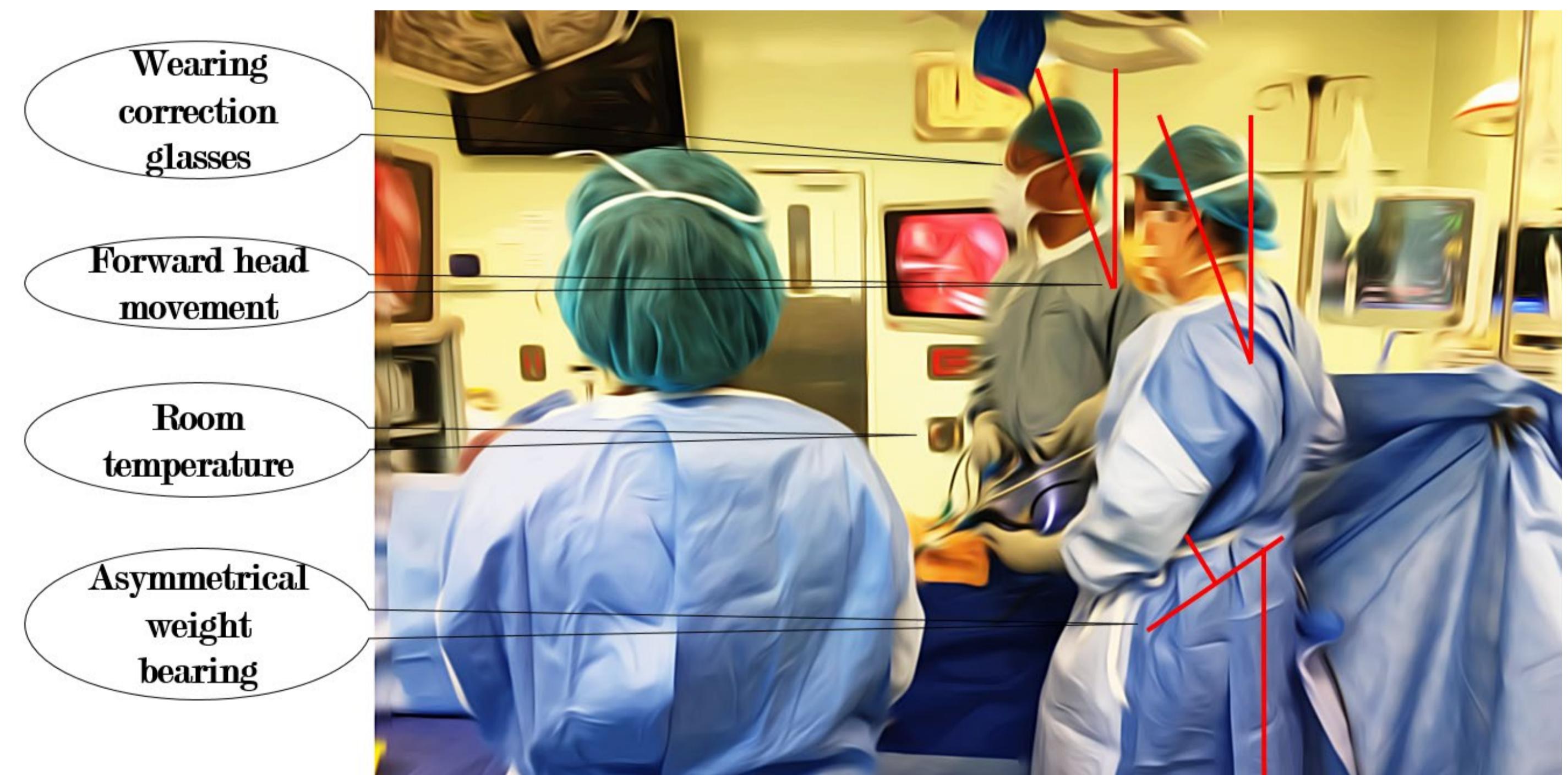
Items evaluating individual (demographics), work-related (surgical specialty, surgical experience), work environment (lighting and temperature of the operating theatre, adjusting the monitor) and the adopted habitual postures (forward head movement, shoulder elevation and asymmetrical weight bearing) factors were included.

Binary logistic regressions were conducted to determine the association between the various factors with the presence of neck/shoulder problems, headaches and combined symptoms.



### RESULTS

- 290 MIS surgeons completed the survey. Neck/shoulder problems, headaches and combined symptoms were reported by 31.0%, 36.2% and 20.0% of surgeons, respectively.
- >One-Third (34.4% and 37.1%) of surgeons reported moderate or severe neck/shoulder problems and headaches, respectively.
- Reporting neck/shoulder problems, headaches and combined symptoms was significantly associated with frequently adopting awkward postures (forward head movement and asymmetrical weight bearing), adjusting the work environment (temperature), using vision correction glasses and sex ( $p \leq 0.05$ ).



### CONCLUSION

Just over a third of surgeons performing MIS reported neck/shoulder problems or headaches in the last 7 days. Forward head movement, asymmetrical weight bearing, frequent adjusting of work temperature, being female and wearing vision correction glasses were significantly associated with the presence of neck/shoulder problems and headaches. There are several modifiable factors that could be addressed to relieve neck/shoulder problems and headaches in surgeons performing MIS.

### REFERENCES

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