

A 21-Year analysis of the Publication Patterns and level of scientific evidence in three major Oral and Maxillofacial Surgery Journals

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Introduction

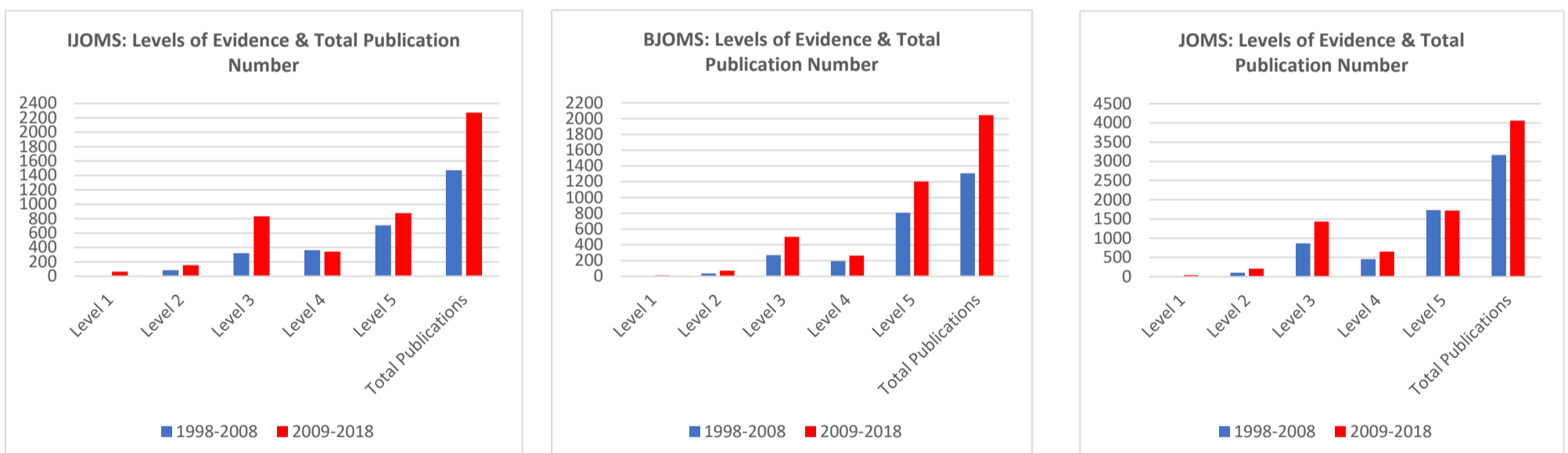
There are numerous impediments to conducting high quality research in the field of surgery with the consequence that surgeons often accept lower levels of scientific evidence as sufficient.(1) Across four major Oral and Maxillofacial Surgery journals over a two year period (2002-2003), there were no published articles with level I evidence.(2) Half of the articles published in this time frame were considered non-evidence, and only 10% were level III evidence or above.(2) The paucity of high levels of evidence was also noted across a decade in IJOMS and BJOMS where 28 RCT's and 1 meta-analysis were published between the two journals.(3)

Objective

This research considered the levels of scientific evidence in three majors OMS journals, over a 21-year period. A retrospective analysis of all full-length articles published in the *International Journal of Oral and Maxillofacial Surgery* (IJOMS), *British Journal of Oral and Maxillofacial Surgery* (BJOMS), and *Journal of Oral and Maxillofacial Surgery* (JOMS) from 1998-2018. Comparisons were made between two time periods, from 1998-2008 and 2009-2018. The levels of scientific evidence were assigned according to the National Health and Medical Research Council (NHMRC) guidelines for assessing levels of scientific evidence.

Results

A total of 14,324 articles were analysed. Of these, 3350 articles were from BJOMS, 3745 articles from IJOMS, and 7229 from JOMS. There was a statistically significant increase in the total number of articles published across all 3 journals. The quality of publications also improved over this period with greater numbers of level I and II studies being published in the most recent years.. Between 1998-2008 there were 5, 4, and 9 level I publications and 32, 83, and 108 level II publications in BJOMS, IJOMS, and JOMS respectively. This increased to 31, 169, and 85 level I and 71, 153, 212 level II articles in the subsequent decade.. A comparison of the 11 years up to 2008 and the most recent decade 2009-2018 found a significant increase in the proportion of high level publications in 2 out of the 3 journals, IJOMS and JOMS ($p < 0.001$). BJOMS did not have a statistically significant increase in the proportion of level I and II publication as a percentage of overall publications ($p = 0.082$). The number of RCTs were 79 in BJOMS, 171 in IJOMS, and 215 in JOMS over the 21-year period. This accounted for 2.36%, 4.57%, and 2.97% of the total number of publications.(4)



Conclusion

Across three major OMS journals (IJOMS, BJOMS and JOMS) there is an increase in the total volume of papers published each year and a corresponding increase in level of scientific evidence for studies accepted for publication. The findings from the study show that the level of scientific evidence is increasing in OMS. It has been said that “our scope of practice as a specialty is largely defined by the knowledge and experience that is gained through research efforts and subsequent publications”.(1) The increasing quality and quantity of research in OMS will allow us, as a speciality, to widen our sphere as the primary surgical team in head and neck surgery.

Acknowledgments and Conflicts of Interest

The results from this research have been published in the IJOMS(4)

The authors have no conflict of interest

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