The Canadian Contribution to the Global Plastic Surgery Literature: A 10-Year Bibliometric Analysis

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INTRODUCTION: Research is an integral part of plastic surgery residency training and practice, and provides a foundation for knowledge advancement in our field. Furthermore, it improves patient care by facilitating the delivery of evidence-based therapies. As research is dynamic, and is often contingent on funding sources, it is important to continuously assess output. To our knowledge, this is the first study to describe Canadian plastic surgery research trends.

MATERIALS AND METHODS: Data was obtained from the Scopus Database and articles published in the top general and specialty plastic surgery journals were included. All articles written in English and related to document-types 'articles', 'reviews', and 'letters' published over a 10-year period (2006-2015) were tracked. Articles were then individually analyzed, and only those who had a first and/or corresponding author with an appointment at a Canadian institution were included in the final analysis.

RESULTS: Between 2006 and 2015, a total of 29,950 original articles were identified, with Canada being the 10^{th} highest contributing country. A total of 753 Canadian articles, reviews, and letters met our inclusion criteria and were included in the final analysis. Publications followed a bimodal distribution, peaking in 2008 (n=82) and again in 2013 (n=101). There was an average of 3.53 (SD = 1.95) authors per publication. There was a 2.58:1 predominance of male to female first authors and a 5.62:1 predominance of male to female corresponding authors. The journals most frequently published in were Plastic and Reconstructive Surgery (35%), Canadian Journal of Plastic Surgery (23%), and Journal of Plastic, Reconstructive and Aesthetic Surgery (11%). The top producing institutions were the University of Toronto/University Heath Network, Dalhousie University, and McMaster University, respectively. The most frequently studied domains of plastic surgery were craniofacial (20%), hand and upper extremity (18%), and breast (12%).

CONCLUSION: Canada continues to be a leading contributor of high impact research in plastic and reconstructive surgery. This study provides novel insight into a number of pertinent trends, which may be used to determine funding patterns, understudied domains of plastic surgery, domains most likely to be funded, and changes in publication practices.