Scientific production on the efficacy of osteopathy: a bibliometric analysis from 1980 to 2015

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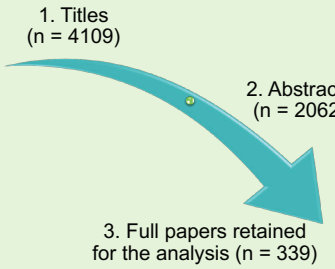
INTRODUCTION

- Over the past 20 years, osteopathy has gained attention both among the general population and in the scientific community.[1] The regulatory status of osteopathy varies worldwide.[2]
- In order to better understand publishing on osteopathy as well as research gaps, a bibliometric analysis was conducted on all empirical trials testing the efficacy of osteopathy (as a primary intervention) since 1980.
- A bibliometric analysis aims to create a cartography of research areas and related trends, and to trace the production dynamics in a given field.

METHODS

- Combinations of relevant indexing keywords were searched for in CINHAL and Medline databases from 1980 and 2015 inclusively. Indexed professional journals were also searched.
- Papers were screened for inclusion by two independent analysts. Disagreements were resolved by consensus.
- The following bibliometric indicators were extracted: country of primary author, year of publication, impact factor of the journal, number of citations (according to Google), research design, participants' age group, system/body part treated, primary outcome, indexing keywords.

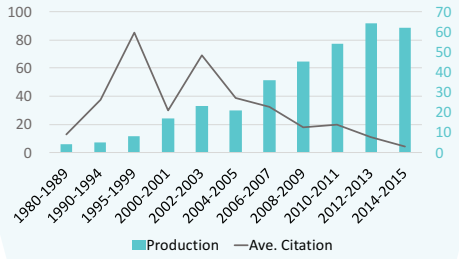
3-step selection process

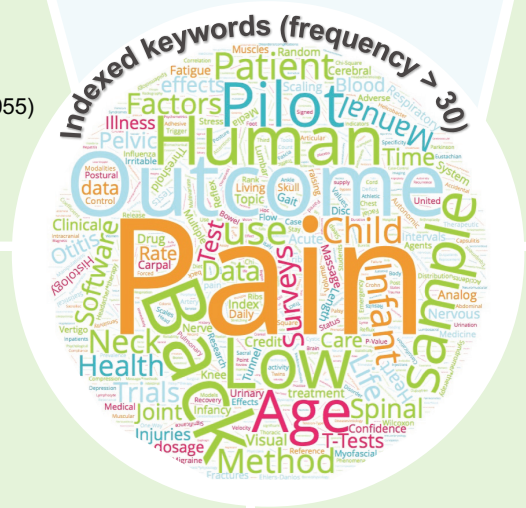


Reasons for exclusion:

- Intervention not osteopathy-focused (2055)
- Covert duplicate publication (7)
- Not in English or French (36)
- Not empirical or efficacy trial (1672)

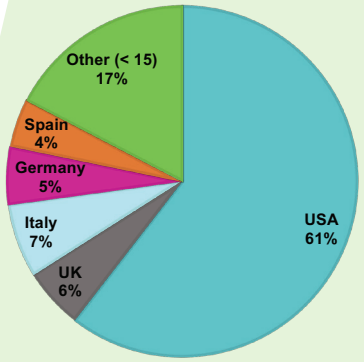
Productivity and impact over years

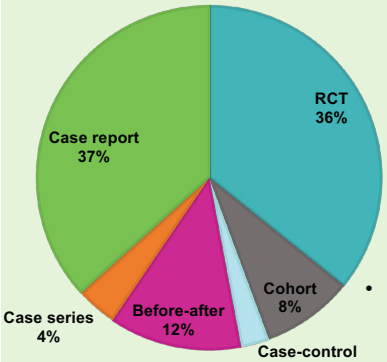




Journals and countries

- 3 of the top 5 journals were specialized in osteopathy (58% of the sample)
- Overall average impact factor: 1.85 (range 0.51, 59.56)

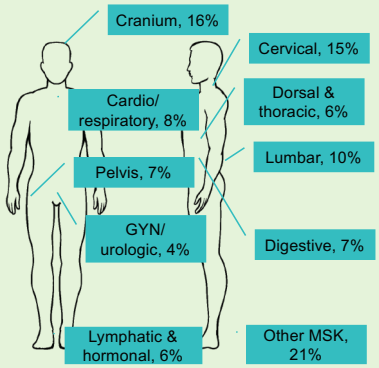




Top 3 outcomes:

- Body and system function
- Pain
- Biomechanical mobility

Research designs and main outcomes



Populations studied:

- 0-18: 11%
- 18+: 72%
- 65+: 9%
- Pregnant women: 3%

Participants and treated conditions

DISCUSSION

- Regulation of osteopathy and context of practice appeared to influence research output positively.
- Empirical osteopathy-related trial publications initially doubled every five years, with citation frequency slowing since the late 2000s. Publications target a discipline-focused readership.
- Research designs are polarized between low and high level of evidence trials (representing more than 2/3 of the publications), with many randomized control trials being pilot studies.
- The age distribution of participants reflects the proportions of the population who seek osteopathic consultations.[3]

TAKE-HOME MESSAGES

- Research gaps include the pediatric and perinatal populations.
- Researchers should be encouraged to network and collaborate with the international community, and to avoid working in silos.
- Osteopathy-related research outputs should be disseminated to a broader audience, in order to ascertain its credibility.

References

1. Esmail, N. for the Fraser Institute (2007). *Complementary and Alternative Medicine in Canada: Trends in Use and Public Attitudes, 1997-2006*. Vancouver, Canada;
2. Osteopathic International Alliance (2012). Osteopathy and Osteopathic Medicine: A Global View of Practice, Patients, Education and the Contribution to Healthcare Delivery;
3. Morin C, Aubin A (2014). Primary reasons for osteopathic consultation: a prospective survey in Quebec. *Plos One*, 9(9): e106259.