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Response to Letter to the Editor

The importance of epistemological consideration in the reporting of evidence for osteopathic care in Covid-19 papers



Apart from the health crisis, the COVID-19 pandemic has also led to an unprecedented amount of communications and controversial opinions in several fields, even amongst esteemed physicians, scientists and journals. Osteopathic medicine is a somewhat young discipline and even though osteopathic research takes place in several countries, evidence-based protocols are often difficult to apply to this alternative holistic manual therapy. This factual situation can explain a tendency of mistrust from scientists and medical practitioners, and emphasizes necessary caution for osteopathic communication. It is within this context of reservation that we published a review entitled “Evidence-based assessment of potential therapeutic effects of adjunct osteopathic medicine for multidisciplinary care of acute and convalescent COVID-19 patients”.¹ On completion of this review, the available evidence led us to limit our conclusions to the two very careful following statements: i) there are multiple arguments supporting potential therapeutic benefits from adjunct osteopathic care, and ii) “more clinical evidence - through rigorous controlled trials - is necessary, especially regarding a new and highly-infectious disease such as COVID-19”.¹

As expected, the initial reception of this work was divided – especially on social media – and we were pleased to see that Draper-Rodi et al. deemed our work of sufficient interest to interact through the proper scientific methods of communication.² They made it clear that they share our concern for cautious osteopathic approaches and communication. However, they consider that our work “contains many scientific errors and overinterpretation”,² in a rhetorical form that leaves very little room for dispute. Since they are familiar with the rigorous exercise of peer reviewing,^{3,4} we value their input and will gladly examine their suggestions of reading materials and methodological improvements. Nevertheless, as encouraged by the editor – whom we wish to thank for this opportunity to respond – we believe it necessary to address their comments below and will try to clarify all misunderstandings and inaccuracies.

On several occasions, Draper-Rodi et al. state that our review contains “many misrepresentations and overstatements” and “big claims with small or no data”.² Since (only) three references were specifically challenged, we will briefly address each of them:

i) Bordoni et al.⁵ is indeed a “clinical commentary/unsystematic review”; we opted for this reference to introduce the principles of mechanotransduction, a biological field still relatively new and complex to experiment with *in vivo* human subjects. This explains scarce literature thus far, even though its theoretical implications

are substantial for manual therapy such as osteopathic manipulative treatment (OMT) (Chaitow et al.⁶).

- ii) Engel et al. is a robust randomized controlled trial with valid methodology; they identified a significant increase of the forced vital capacity in the manual therapy group (+0.40L, 98.33% CI: 0.02, 0.79; $p = 0.03$).⁷ To discard their consequential findings solely because of it being a “pilot study”² is hardly tenable.
- iii) A few “animal studies”² were used - and introduced as such - amongst which Hodge et al.’s considerable work regarding *in vivo* immune processes and OMT. Through multiple publications including the one singled-out by Draper-Rodi et al.,⁸ they have laid the necessary foundations for the implementation of human clinical research – such as Walkowski et al.’s pilot RCT, also utilized in our review.^{1,9}

Moreover, the subsection of our review which is the main focus of their concerns actually lead to a very cautious and conditional conclusion: “All of the above suggests that mastered specific OMT could contribute to modulate immunity, inflammatory processes and fibroblast proliferation that result from an infection such as SARS”.¹ In the end, Draper-Rodi et al.’s assertions are bolstered by erroneous generalization and exemplification of our work, whilst resulting in strongly detrimental appreciations.

Draper-Rodi et al. rightly recommended to “follow the lead taken by the chiropractic profession in rejecting pseudoscientific claims of benefits of manual therapy care”.² This statement was referring to a dubious unreviewed online report published by the International Chiropractors Association¹⁰ which led to a strong collective rebuttal.¹¹ We agree in the peer-review process and as such have gone through the proper avenues to make this work available for the scientific community following peer evaluation. We are appreciative that Draper-Rodi et al. pointed out the absence of primary data preventing us to conduct a systematic review. Their suggestion for a scoping review is relevant and could constitute a step forward; it does not however detract from the value of the work already done and the hypotheses that emerged from it.

Moreover, sharing Draper-Rodi et al.’s legitimate concerns for “misleading messages, poor practice, public mistrust and harm”,² we were careful not to put forward any guidelines to individual osteopathic practitioners nor did we encourage in any way COVID patients to seek osteopathic care, as this was never the objective of this review. Our original intent – to which we are committed – was to gather sufficient theoretical evidence to support the development of a clinical trial including OMT as an adjunct therapy to conventional

hospital care, this process being the standard promoted by the World Health Organization for clinical research implementation.¹²

As stated by Draper-Rodi *et al.* in their concluding paragraph, “*the-
rising about potential mechanisms, and formulating hypotheses are the
foundations of scientific enquiry*”.² As all of the concerned authors are
both clinicians and researchers, it seems opportune to recall the
assertions of Archibald Cochrane, one of the fathers of modern evi-
dence-based medicine¹³:

‘Rational scientific and methodological principles are not suffi-
cient for securing rational and humane health care. A philosophy
reminding us of both our limited scientific possibilities—limited in
principle—and our personal responsibility is needed. It is one of
Cochrane’s great merits to have provided just that. It is to be
regretted that many more people seem to have adopted his more
technical advice concerning effectiveness and efficiency than
have grasped the philosophical framework within which these
standards are situated’.

The guidelines of the Osteopathic International Alliance are con-
sistent with this rationale; our review was carried out accordingly.
Clinical researchers have a bridging responsibility between the
requirements of systematic and rigorous laboratory processes and
the practical and human realities of patient care. Both fields are com-
plementary and should lead to mutually beneficial progress. Albeit
challenging, this dual role is essential for enabling both innovative
research and advancing healthcare.

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