

The European Academies' Science Advisory Council statement 'Homeopathic products and practices'

EASAC, the European Academies' Science Advisory Council, which includes 27 European national academies of science, published a statement on homeopathy, entitled '*Homeopathic products and practices: assessing the evidence and ensuring consistency in regulating medical claims in the EU*' in September 2017.¹ Its purpose was to 'to reinforce criticism of the health and scientific claims made for homeopathic products', and to call for the implementation of 'a standardised, knowledge-based regulatory framework'. The EASAC statement purports to have examined mechanisms of action, alleging that homeopathy is implausible and inconsistent with established scientific concepts; that there is no evidence of its effectiveness beyond placebo and that it may cause delay in patients, including veterinary patients, receiving evidence-based treatment.

Selective citation

The EASAC statement 'cherry picks' the evidence, systematically selecting negative publications and citing almost exclusively hostile commentary and opinion pieces. To take a few examples: in 2007 the journal *Homeopathy* published a special issue on 'Memory of Water', this included 13 scientific papers.² Of these, the EASAC statement references the only one which took a sceptical view.

In claiming that there is no evidence beyond placebo the statement ignores the 43 published systematic reviews of homeopathy as a whole, individualized, or for specific conditions or groups of conditions. Of these 21 were clearly or tentatively positive and 9 inconclusive.³ It discusses only the Shang meta-analysis, ignoring the fact that it failed to meet elementary standards of quality and transparency⁴. It did not reference the publications on which it was based, on the contrary all clues to their identity were removed. In another fundamental flaw the data were 'dredged': during the review process the inclusion criteria for study inclusion were changed from 'high quality' to 'larger high quality'. It has since been shown that, had the goalposts not been moved and the meta-analysis conducted as originally intended, the result would have been positive.⁵ Its negative result was almost entirely due to a single large trial on prevention of muscle soreness in long-distance runners.

Biased reports

Homeopathic products and practices cites other publications by authoritative bodies which were also fundamentally flawed. These include the 2010 UK House of Commons Science and Technology Committee report '*Evidence Check 2: Homeopathy*', which was highly critical of homeopathy.⁶ The committee took evidence from witnesses but did not itself review or analyse the scientific evidence. Examination of the methods by which this report was prepared reveals unacceptable practices. Of the 14 MPs who were members of the Science and Technology committee, only 4 signed the report, one of them dissenting. Of the 3 MPs who supported it, only one attended any hearing of the committee on this report. Immediately after its publication a House of Commons Early Day Motion highly critical of the report, including its selection of witnesses, was signed by 70 MPs before being curtailed by the UK general election of May 2010.⁷ In that election the solitary MP who attended hearings of the committee and supported the report, Dr Evan Harris, lost his parliamentary

seat. This had the unfortunate consequence that he was never held to account for his role in this report.

Homeopathic products and practices also cites the 2015 Australian National Health and Medical Research Council (NHMRC) report on homeopathy which concluded that there is no reliable evidence that homeopathy is effective for any condition.⁸ Here again, there is shocking evidence of bias. Most important are the unprecedented criteria for 'reliability'. To be considered 'reliable' by the NHMRC committee, trials had to have at least 150 participants and very high quality score. The NHMRC found 58 systematic reviews which included 176 individual studies, but excluded all but 5 studies. (The number of systematic reviews differs from that quoted above³ because the NHMRC included studies which included homeopathy alongside other therapies. In fact it appears to have missed some systematic reviews of homeopathy).

This criterion of reliability appears to have been introduced by the committee specifically for homeopathy. No other study conducted by the NHMRC has set such a high bar. Other NHMRC reviews do not have a minimum trial size: for example, the NHMRC Information Paper on The Effects of Lead on Human Health included all trials regardless of size with numbers of participants ranging from 52 to 780.⁹ The NHMRC's Clinical Practice Guideline for the Management of Borderline Personality Disorder (BPD) includes studies with as few as 16 subjects.¹⁰ Other highly-respected review bodies have no such criteria: the Cochrane Collaboration does not exclude randomized controlled trials (RCTs) on the basis of numbers of participants alone¹¹; BMJ Clinical Evidence's default criteria for inclusion of RCTs are that they included at least 20 people and at least 10 per arm.¹²

There is also evidence of malpractice: the NHMRC concealed the fact that it reviewed the evidence twice. The published report was the second version, the first report has never been published and the NHMRC has refused Freedom of Information requests to release it. The original chair of the committee, Prof Peter Brooks was a member of Friends of Science in Medicine, a sceptical group, a fact which his signed disclaimer omitted to mention. Again without precedent, the committee did not include a homeopathy expert. This report is currently the subject of a complaint to the Ombudsman.

Abuse of authority

Homeopathic products and practices make no attempt at a transparent, objective or scientific view of homeopathy. It is an abuse of authority by the European Academies of Science. The UK Royal Society, a member of EASAC, proudly claims to be the world's oldest independent scientific academy. Its motto, 'Nullius in verba' means 'Take nobody's word for it'. Readers of the statement should heed that advice.

¹ European Academies' Science Advisory Council. Homeopathic products and practices: assessing the evidence and ensuring consistency in regulating medical claims in the EU.

http://www.easac.eu/fileadmin/PDF_s/reports_statements/EASAC_Homeopathy_statement_web_final.pdf

² Ed Chaplin C. Special issue: The Memory of Water. *Homeopathy* (2007):96;141-230

³ Mathie RT. Controlled clinical studies of homeopathy. *Homeopathy* 2015;104:328-332

⁴ Shang A, Huwiler-Muntener K, Nartey L, et al. (2005). [Are the clinical effects of homeopathy placebo effects? Comparative study of placebo-controlled trials of homeopathy and allopathy.](#) *Lancet*, 366:726–732.

⁵ Lüdtke R, Rutten L, The conclusions on the effectiveness of homeopathy highly depend on the set of analyzed trials. *J Clin Epidemiol.* 2008;61:1197-204.

⁶ House of Commons (2010). Evidence check 2. Homeopathy. UK Parliamentary Science and Technology Committee. <https://publications.parliament.uk/pa/cm200910/cmselect/cmsctech/45/45.pdf>

⁷ House of Commons Early Day Motion 908 2009-2010 session <http://www.parliament.uk/edm/2009-10/908>

⁸ NHMRC. Evidence on the effectiveness of homeopathy for treating health conditions (2015).

https://www.nhmrc.gov.au/files/nhmrc/publications/attachments/cam02a_information_paper.pdf

⁹ NHMRC (2015) Section 3. Evaluation of evidence related to exposure to lead : p94–98

<https://www.nhmrc.gov.au/guidelines-publications/eh58>

¹⁰ NHMRC (2012) Appendix H: Clinical Practice Guideline for the Management of Borderline Personality Disorder : Clinical Qs 6, 7 and 9 <https://www.nhmrc.gov.au/guidelines-publications/mh25>

¹¹ [http://skin.cochrane.org/sites/skin.cochrane.org/files/public/uploads/CSG-](http://skin.cochrane.org/sites/skin.cochrane.org/files/public/uploads/CSG-COUSIN_March%202015_M%20Grainge.pdf)

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¹² BMJ Clinical Evidence: nuts and bolts. <http://clinicalevidence.bmj.com/x/set/static/cms/nuts-and-bolts.html>

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