

### Press release STUDY HIGHLIGHTS No. 9/2023

# Systematic review shows socio-economic relevance of homeopathy

**Cost-effectiveness of homeopathy** - several scientific studies have investigated this subject. In this ninth issue of our "Study Highlights series", we present a recently published systematic review which provides an up-to-date overview of the cost-effectiveness of homeopathy. This review found that homeopathy showed similar or better clinal effectiveness compared to the control groups in 21 included studies, with a positive trend for cost-effectiveness. Further high quality research on this topic is therefore warranted: building on these encouraging findings will determine more definitively whether homeopathy can play a role in managing healthcare costs in future, whilst maintaining levels of clinical effectiveness comparable to existing treatments.

#### **Topic and lead author**

An updated systematic review on health economic evaluations for homeopathic therapy by Prof. Dr. Thomas Ostermann, Department of Psychology and Psychotherapy, Witten/Herdecke University, Germany

#### What is the study about and what is the added value of homeopathic treatment?

Health economic research aims to establish a scientific basis for efficient distribution of limited healthcare and financial resources, whilst also ensuring a consistent delivery of high-quality care to patients. The health economic methods used to assess cost-effectiveness of conventional medical treatments can also be applied to homeopathy. A review by Viksveen et al. on health economic evaluations of homeopathy was published in 2014<sup>1</sup>. The authors evaluated multiple studies on costs and potential benefits of homeopathy, but concluded that the overall evidence on cost-effectiveness was uncertain due to methodological issues of the studies and their varied results. This updated review added all new studies since 2012 and a quality assessment of all included studies.

#### How was the study conducted?

- A systematic literature search was conducted in electronic databases using the terms "cost" and "homeopathy" for the period January 2012 to July 2022.
- Two independent researchers reviewed the search results, compiled the relevant data and assessed the quality of the studies using the CHEC<sup>2</sup> list. This quality

<sup>&</sup>lt;sup>1</sup> Viksveen P, Dymitr Z, Simoens S. Economic evaluations of homeopathy: a review. Eur J Health Econ. 2014 Mar;15(2):157-74

<sup>&</sup>lt;sup>2</sup> CHEC list: Consensus on Health Economic Criteria list

assessment tool – specifically designed for economic evaluation studies – includes 19 criteria and gives a maximum score of 19.

#### What are the scientific results?

- The review included 15 studies examined in the previous 2014 review, plus 6 additional studies.
- Remarkably, in terms of clinical results, all 21 studies showed homeopathy to be either as effective, or more effective, than control treatments.
- Among the 21 studies analysed,
  - 11 studies showed that homeopathic treatment was more effective than treatments in the comparator groups, at lower or similar cost.
  - 7 studies indicated homeopathy was as effective as treatments in the comparator groups, at varying costs.
  - 3 studies found homeopathy to be more effective but with higher associated costs. 2 of these studies were shown to be cost-effective through incremental cost-effectiveness analysis<sup>3</sup>.
- An increase in study quality over the years has been statistically confirmed. CHEC scores ranged from 2 to 16. Studies published before 2009 had a lower mean score (6.7 ± 3.4) than those published in or after 2009 (9.4 ± 4.3).

## Why are the results of this study important and what does this study add to the scientific evidence?

Socio-economic issues are of central importance to modern public health systems. Costeffectiveness analyses play an important role in arguing for or against the inclusion of complementary therapies such as homeopathy in the catalogue of recognised treatments. This updated review presents encouraging results in favour of homeopathy: homeopathy showed similar or better treatment effects compared to the control groups in all included studies, with a positive trend for cost-effectiveness.

As is often the case in systematic reviews<sup>4</sup>, a relatively high proportion of the included studies were found to be low-quality, in this instance, with older studies being lower quality and quality improving over the years. It is promising that the two most recently published studies included in the review are among those with the highest quality rating. In addition to a well-chosen study design, both used state-of-the-art economic evaluations. The authors of the updated review stress the importance of maintaining this level of excellence in future economic evaluations

<sup>&</sup>lt;sup>3</sup> The 'incremental cost-effectiveness ratio' is an essential measure in health economic research to assess cost-effectiveness. It compares the costs of two or more treatment alternatives in relation to defined effectiveness parameters.

<sup>&</sup>lt;sup>4</sup> Jørgensen L, Paludan-Müller AS, Laursen DRT et al. Evaluation of the Cochrane tool for assessing risk of bias in randomized clinical trials: overview of published comments and analysis of user practice in Cochrane and non-Cochrane reviews. Systematic Reviews 2016;5:80.

#### Where were the results published?

Ostermann T, Burkart J, De Jaegere S, Raak C, Simoens S. Overview and quality assessment of health economic evaluations for homeopathic therapy: an updated systematic review. Expert Rev Pharmacoecon Outcomes Res. 2023 Oct 5:1-26. doi: 10.1080/14737167.2023.2266136.

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#### About HRI

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