Status of Homeopathy Research: from Experimental Research to Clinical Evidence

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Introduction

Homeopathy is a form of Traditional Complementary and Integrative Medicine (TCIM) based on the core principle of 'like treats like', whereby a substance which causes symptoms when given to a healthy person, can be used in small doses to treat a patient with similar symptoms.

Worldwide over 200 million people use homeopathy on a regular basis,[1] including 100 million EU citizens (29% of the EU population) who use homeopathic medicines in their day-to-day healthcare.[2] Although India leads in terms of population use of homeopathy (83%)[2] homeopathy originated in Germany and is defined in EU law as, "Any medicinal product prepared from products, substances or compositions called homeopathic stocks in accordance with a homeopathic manufacturing procedure described by the European Pharmacopoeia or [...], by the pharmacopoeias currently used officially in the Member States[3]."

Homeopathy research is conducted at Universities, expert institutes and in clinical settings around the world (see Fig. 1), using the same methodological approaches used to assess conventional medical treatments and applying the latest laboratory techniques. The field has advanced significantly in recent decades: in experimental research, systematic reviews show that **72% of physicochemical experiments are able to demonstrate specific properties of homeopathic medicines** (see p.2) **while 77% of biological experiments report measurable effects under controlled conditions** (p.2-3).

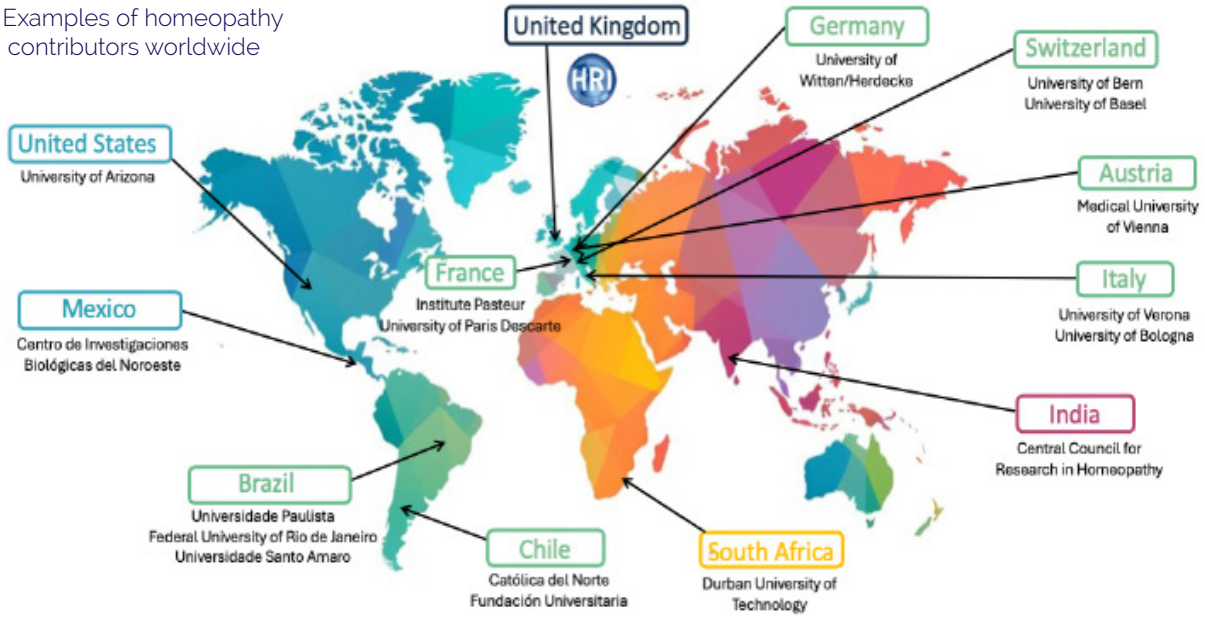
The clinical evidence, when viewed in its entirety, is similarly compelling: a recent review of meta-analyses (2023) found that **five out of six meta-analyses** – analysing 182 randomised clinical trials evaluating medications used for both prevention and treatment of various medical conditions – **demonstrated significant efficacy of homeopathic treatment compared to placebo** (p. 3-5).

This included a 2014 meta-analysis of individualised homeopathic treatment, which found that **homeopathy was 1.5- to 2-times more likely to have a beneficial effect than placebo** (OR=1.53, CI[1.22-1.91]), **with the largest clinical effects seen in the highest-quality trials** (OR=1.98. CI [1.16-3.38])(p. 4).

The current body of clinical research comprises **286 randomised studies, of which 166 are double-blind trials** evaluating homeopathic treatment of various medical conditions, providing detailed insights into homeopathy's efficacy in specific conditions (p.4). In addition, **large-scale observational studies across Europe provide data on homeopathy's impact in real-world settings** (p.5). This includes significant reductions in conventional medication use while maintaining similar patient outcomes (e.g. -57% antibiotics for respiratory infections; -71% psychotropic drugs for anxiety/depression and -46% NSAIDs for musculoskeletal conditions); reduced healthcare costs (-35%)(p.5) and negligible adverse events (<0.0001%)(p.6).

The scientific advancement of homeopathy coincides with growing public interest in complementary therapies, demonstrated by 25.9% of Europeans utilising Complementary and Alternative Medicine[25] and highlighted at the WHO Global Summit on Traditional Medicine in 2023[26].

Figure 1. Examples of homeopathy research contributors worldwide



Experimental Research: Foundations of Homeopathy

The mechanisms of action of homeopathic medicines are studied through experimental research, employing a multi-disciplinary approach that gives diversity and depth to the ongoing investigations in this field. Fundamental research in homeopathy is structured around two main areas:

- **Physicochemical research focuses on understanding the properties of homeopathic preparations**[4-6]. Learning more about the specific properties of 'dynamised' or 'potentised' preparations such as homeopathic medicines (i.e. manufactured using the unique multi-step process of alternating serial dilution and succussion) is essential to understanding exactly how they have the ability to exert effects in living systems.

- **Biological research explores the measurable effects of homeopathic medicines on living systems**[7-10]. This field comprises *in vitro* studies (using isolated elements e.g. cell cultures) and *in vivo* studies (involving complete living organisms e.g. animals and plants).

Recent advances in fundamental research are opening up new avenues through which researchers can gain a greater understanding of the mechanisms by which homeopathic medicines exert their effects, as well as identifying new targets for clinical applications.

Physicochemical Research in Homeopathy

Physicochemical research in homeopathy has undergone significant evolution in recent years, as demonstrated by recent systematic reviews by Tournier et al.[4-6] **Analysis of more than 200 studies reveals that 72% demonstrated measurable and specific physicochemical properties in homoeopathic medicines,** captured by modern technology[5].

Sophisticated spectroscopic techniques, such as Raman,[27] UV-visible spectroscopy[28], and Nuclear Magnetic Resonance,[29-31,34] have revealed unique molecular structures and water organisation patterns[28,35] in homeopathic medicines,[25–28] while differential scanning calorimetry provides insights into their specific thermodynamic properties[36,37]. These "signatures" are not only reproducible but also depend on the original substance, even at very high dilutions[5].

The results of these analyses have led to several emerging hypotheses about the mechanisms of action of homeopathic medicines[4]. The first centres around the formation of nanostructures during the manufacturing process, capable of carrying specific "information" from the initial substance[29-34]. A second major hypothesis proposes that coherence domains created during dynamisation/potentisation result in liquid preparations with electromagnetic properties capable of interacting with biological systems[38,39]. These discoveries, validated by independent laboratories in multiple countries, are underpinned by a rigorous scientific framework, including incorporation of systematic controls, double-blind methodologies and diverse measurement conditions[5]. Such emerging data not only guides future research, but also has direct applications for industry, informing improvements in manufacturing standards, enhanced quality control methods and optimised preparation techniques.

Research investigating the physicochemical characteristics of homeopathic medicines is ongoing, providing novel insights which take researchers in this field ever-closer to the point of answering the key question – how do homeopathic medicines exert biological effects in living systems, as already observed in various experimental models?

PHYSICOCHEMICAL EXPERIMENTS

- **72% of studies demonstrate that homeopathic medicines have specific properties,** using advanced technologies (e.g. spectroscopy, NMR)[5]

- **Research exploring multiple theories of mechanism of action** of homeopathic medicines continues[4]

Biological Research in Homeopathy

Homeopathic medicines have shown measurable biological effects across a diverse range of experimental models, from cell cultures to plants[7-10]. These laboratory studies provide particularly useful insights into homeopathic medicines by eliminating placebo effects.

In Vitro Studies

Systematic reviews of fundamental biological research provide strong evidence for the efficacy of homeopathic medicines, finding that **77% of 58 publications demonstrate measurable biological effects under controlled conditions**[7]. Furthermore, analyses by Bellavite et al. (2014, 2015) revealed complex pharmacodynamic mechanisms, highlighting non-linear responses and system-specific effects[40,41].

For example, several studies have demonstrated biological effects of *Gelsemium sempervirens* – a homeopathic medicine traditionally used for anxiety and neurological disorders – in multiple cell-based studies, conducted by separate laboratories[42-44]. ***Gelsemium* 3C and 5C have been shown to enhance energy metabolism in human nerve cells**, with increases in ATP production ($p<0.01$), mitochondrial respiration ($p=0.0031$) and glycolysis ($p=0.0001$).[43] Experiments have also found that ***Gelsemium* increased the number and length of immature nerve cells** ($p<0.0001$), suggesting an ability to enhance neural connectivity and stimulate regeneration[43]. Finally, **the most recent studies (2024) found *Gelsemium* to have protective effects against cellular stress**[44] i.e. changes in cell structure or function linked to increased susceptibility to cancer and aging-related diseases.

These findings are validated by use of rigorous methodological protocols including standardised cell culture conditions, validated cell lines and systematic contamination controls.

In Vivo Studies

Animal model research provides confirmation of the measurable effects of homeopathic medicines in complex biological systems. Systematic reviews by Bonamin and Endler (2010) and Bonamin et al. (2015) provide an in-depth analysis of these studies, highlighting **significant improvement in methodological quality**, with 82% of research including randomisation and 43% conducted double-blind[8,9]. Bonamin et al. (2015) found that **nearly three-quarters of the studies reviewed demonstrated positive biological effects of homeopathic medicines**[9]. Continuing with the example of *Gelsemium*, effects can be demonstrated using *in vivo* behavioural and neurological models[45-47] e.g. ***Gelsemium* 5C to 30C was found to reduce anxiety in mice, achieving results comparable to diazepam without sedative effects**[46].

One of the most robust and reproducible models comes from amphibian studies[48]. **Endler et al.'s work (2015) on the effect of homeopathic ultra-high dilutions of thyroxine in *Rana temporaria* tadpoles produced remarkable results, reproduced by 7 laboratories in 4 countries**[48]. **Researchers observed a significant alteration in the speed of metamorphosis**, with an 11.4% reduction in the progression rate in researcher A's studies, 9.5% for researcher B at the same laboratory, and 7% for independent researchers at other locations ($p < 0.001$)[48]. This consistent slowing effect from homeopathically-prepared *Thyroxine* T30x is particularly interesting, given that the hormone thyroxine in its usual molecular form has the opposite effect – accelerating metamorphosis.

Although all results were statistically significant, the variation in results seen between teams reflects the impact of experimental conditions (seasonality, habitat temperature and experimental duration) and highlights the need for rigorous protocol standardisation to improve reproducibility across laboratories.

Plant model studies

Systematic reviews by Betti et al.[49] and Majewsky et al.[50] established a framework for evaluating plant-based bioassays (experiments using plants to measure the functional activity of various substances). Studies were categorised into four main areas: assays with unimpaired plants[50], assays using abiotically stressed plants (stressed by non-living factors like light or temperature)[51], phytopathological models (plant diseases caused by pathogens)[52] and agricultural field trials[53,54].

A thorough update of this research field by Ücker et al. (2018) evaluated 192 publications containing 202 experiments[10]. Among these, 74 experiments (37%) met high-quality standards (Manuscript Information Score>5), with 42 using rigorous controls. Significantly, **95% of these controlled studies showed positive effects compared to placebo, even at ultra-high dilutions beyond Avogadro's limit**[10] (the point at which no molecules of the original substance are expected to remain in the solution).

A notable example is research on duckweed (*Lemna gibba*) stressed by mild arsenic poisoning, then treated with homeopathic *Arsenicum album* or placebo (2010)[55]. These randomised, blinded experiments showed that **duckweed treated with high dilutions of homeopathic *Arsenicum* displayed a significant increase in growth rate compared to control groups** ($p<0.001$). Successful replication of these experiments by Ücker et al. in 2022, makes these results particularly robust[56].

Plant model studies demonstrate promising results, with the particular advantage of providing objective and quantifiable measurements without ethical concerns. However, harmonising protocols and growth conditions would further enhance progression in this area.

Biological research – both *in vivo* and *in vitro* – plays a key role in the scientific advancement of homeopathy: by demonstrating quantifiable biological actions of homeopathic medicines, this work paves the way for new potential clinical applications and provides key insights to support and validate the plausibility of existing clinical studies.

BIOLOGICAL EXPERIMENTS

- **77% of experiments report reproducible effects of homeopathic medicines** across various models (cells, animals, plants)[7]
- **95% of well-controlled plant experiments show significant effects** of homeopathic medicines compared to placebo[10]
- **Research quality has improved over time,** with modern analytical technologies, rigorous controls and multi-laboratory validation of results[4]

Clinical Research: Evidence-Based Homeopathy

The evaluation of homeopathy's clinical effectiveness has significantly advanced, with **treatment now backed by substantial scientific evidence**. The clinical evidence for homeopathy's effectiveness today comprises three pillars:

1. **Systematic reviews and meta-analyses**[11,12,57-62], **play a central role in synthesising results from multiple individual studies**, enabling the most robust conclusions to be drawn about a treatment's efficacy/effectiveness.
2. **Randomised controlled trials (RCTs)**[13,14,63,64] **represent the gold standard for directly assessing a treatment's efficacy under artificially-controlled conditions**. Through rigorous methodology (including randomisation, double-blinding and comparison with either placebo or standard treatment) they establish a causal relationship between a treatment and clinical results, but do not necessarily reflect real-world effectiveness.
3. **Observational studies**[15-22] **contribute the essential dimension of evaluating effectiveness under real-world practice conditions**. They also enable the observation of long-term effects, cost-effectiveness, treatment safety, and impact on patients' quality of life.

Together, these approaches provide a comprehensive evaluation of homeopathy.

Scientific reviews & meta-analyses: An overview of clinical evidence

As far back as 1991, Kleijnen et al. conducted a groundbreaking meta-analysis that reported positive results for homeopathy which could not be entirely explained by a placebo effect[6]. The evaluation of homeopathy's clinical efficacy has since evolved significantly through advanced meta-analyses in recent years.

The field's evolution began with Linde et al.'s 1997 meta-analysis finding positive results for homeopathy (OR: 2.45, CI: 2.05-2.93)[61]. This was followed by debate due to Shang et al.'s 2005 study concluding that homeopathy's effects are similar to placebo[62]. However, this result was subsequently found to be based on a subset of only 8 out of 110 included trials and failed sensitivity analysis i.e. it was only possible to get a negative result by using this exact set of 8 trials; if a different set of trials was used, the overall result changed to being positive for homeopathy.[65].

Mathie and colleagues conducted particularly robust analyses (2014-2019)[12,57–59]: **the Mathie et al. 2014 study** (22 trials) **found individualised homeopathy to be 1.5-2.0 times more likely to be beneficial than placebo** (OR=1.53, CI [1.22-1.91]), with stronger results in high-quality trials (OR=1.98, CI [1.16-3.38]),[12] whilst a 2017 analysis of non-individualised treatments (54 trials) indicated moderate positive effects[57]. However, further analyses comparing homeopathy to groups other than placebo (e.g. usual care or no treatment) faced limitations due to methodological issues and small trial numbers[58,59].

A recent overview (2023), capturing data from 182 randomised clinical trials on prevention or treatment for any medical condition, found that **five out of six meta-analyses demonstrated that homeopathy has a significant effect beyond placebo**[11]. Using adapted GRADE criteria, the study concluded that **the evidence supporting efficacy is "high" for individualised homeopathy and "moderate" for non-individualised homeopathy.**

Specific conditions showed varying results. For example, **positive outcomes were noted in fibromyalgia** with significant improvements in pain (SMD = -0.54, p=0.02) and tender points (SMD = −0.42; p=0.03)[66], **childhood diarrhoea**[67] **and postoperative ileus**[68]. However, areas like **dentistry**[69] **and psychiatric disorders**[70] **remained inconclusive**, highlighting the need for further research with improved methodological rigor and standardisation

One systematic review without meta-analysis (NHMRC, 2015) assessed the evidence on homeopathy per medical condition, finding 'no reliable evidence' homeopathy was effective for any of 61 conditions[71]. This study **attracted controversy for its unprecedented definition of reliable evidence** i.e. studies had to have a minimum of 150 participants and a quality rating of 5/5 on the Jadad scale (Overview Report, Appendices p.275). This resulted in only 5 of 176 included studies being categorised as 'reliable'[71]. Following widespread media attention, **NHMRC Chief Executive Prof Anne Kelso made a public statement that,** ***"Contrary to some claims, the review did not conclude that homeopathy was ineffective."***[72]

SYSTEMATIC REVIEWS & META-ANALYSES

- **5 of 6 meta-analyses find homeopathic treatment is more effective than placebo**[11]
- **Most rigorous study demonstrates individualised homeopathic treatment is 1.5-2.0 times more likely to be beneficial than placebo**. with strongest results seen in best quality clinical trials[12]
- **Specific conditions show varying results** e.g. positive results for fibromyalgia, childhood diarrhoea and postoperative ileus, but inconclusive for dentistry and psychiatric disorders[63-67]
- **Homeopathic treatment shown to have a strong safety profile** when compared to comparable conventional treatments[23,24]

Randomised controlled trials: Exploring targeted clinical efficacy of homeopathic treatment

Clinical research has seen substantial growth, with **329 controlled clinical studies now published in peer-reviewed journals**[13], including **286 RCTs** providing detailed insights into homeopathy's effectiveness in specific conditions. Of these, **166 double-blind RCTs compare homeopathic treatment against placebo for 100 medical conditions**[14].

Clinically relevant, **high quality examples include Taylor et al.'s (2000) study on perennial allergic rhinitis**, using a rigorous multicentre, double-blind, placebo-controlled design[63]. The study revealed significant improvements in nasal airflow (mean difference 19.8 L/min; 95% CI: 10.4-29.1; p=0.0001)[63]. Similarly, **Yakir et al.'s (2019) trial on premenstrual syndrome demonstrated significant improvement in PMS scores** (reduction from 0.443 to 0.287 in the homeopathy group vs 0.426 to 0.340 in placebo group; p=0.043)[64]. The study's prospective design, power calculation and intention-to-treat analysis underscore its methodological strength.

Despite these promising results, challenges remain. The dispersion of studies across numerous medical conditions necessitates more focused research to strengthen the body of evidence per condition and demonstrate reproducibility. Additionally, adapting standard RCT methodology to individualised homeopathic treatment presents ongoing challenges – an issue faced by researchers attempting to evaluate any form of personalised medicine, particularly complex interventions involving in-depth consultations as well as prescriptions tailored to each patient.

RANDOMISED CONTROLLED CLINICAL TRIALS

- **329 clinical studies (randomised and non-randomised) published** in peer-reviewed journals comparing patients using homeopathy to placebo, other treatment or no treatment[13]
- **286 randomised controlled trials (RCTs)** covering treatment of 152 medical conditions[14]
- **166 double-blind placebo-controlled RCTs**, covering treatment of 100 conditions[14]

Observational studies: A European perspectice on real-world effectiveness of homeopathy

Observational studies complement RCTs by providing valuable insights into the real-world effectiveness of a treatment. In the instance of homeopathy, they have the further benefit of enabling individualised treatment to be delivered in the usual way, without compromising delivery of care as may occur within the artificial confines of an RCT. As a result, **observational studies reflect actual clinical practice, measure impact on quality of life, and capture patient-reported outcomes, aligning with modern healthcare's increasing recognition of the importance of such real-world data**. Several large-scale European studies[15-22] demonstrate the value of this treatment evaluation approach:

The French EPI3 study[16-18] (8,559 patients) found that patients treated by GPs qualified in homeopathy used significantly fewer conventional medications: 57% fewer antibiotics for respiratory infections[16], 71% fewer psychotropic medications for anxiety/depression[17] and 46% fewer NSAIDs for musculoskeletal conditions[18], while maintaining equivalent clinical results. Moride's (2021) in-depth methodological analysis strengthened the credibility of these results by highlighting the robustness of the EPI3 study design and confirming that its findings were generalisable to the French population[73].

A German long-term study (3,677 patients) conducted over 24 months in 103 primary care practices, documented sustained symptom improvement over 8 years in patients with chronic conditions such as headaches (migraine, tension-type), allergic rhinitis and atopic eczema in adults, as well as atopic dermatitis and recurrent infections in children. **Severity scores decreased significantly from 6.2 to 2.7 in adults and from 6.1 to 1.7 in children (p<0.001)**[19].

The Italian Tuscan study[21] (5,877 patients) illustrates an example of successful homeopathy integration into a public health system[12]. **The study initially focused on general clinic patients, revealing that 88.8% experienced symptom improvement, with 68.1% reporting major improvement or complete resolution of symptoms**[21]. Within this broad patient population, a specific focus on oncology highlighted statistically significant improvements (p<0.01) in symptoms associated with anti-cancer treatments, including hot flushes, fatigue and anxiety[21].

REAL WORLD DATA

- **Large-scale observational studies in multiple European countries demonstrate real-world impact** of homeopathy[15-19,21-22]
- **Homeopathic treatment is associated with reduction in use of conventional medications** e.g. 57% fewer antibiotics for respiratory infections[16]
- **14 of 21 economic evaluation studies show positive economic impact** of homeopathy's integration into healthcare systems[20]

In the United Kingdom, a hospital-based study[22] (6,544 patients) followed patients for six years using a rigorous methodology. The study included a wide range of chronic conditions, such as eczema, asthma, migraines, irritable bowel syndrome (IBS), menopausal symptoms, chronic fatigue syndrome (CFS), inflammatory bowel diseases (Crohn's disease, ulcerative colitis), arthritis and cancer. Results showed that **70.7% of patients reported improvement in their condition, with 50.7% noting significant improvement** (better or much better)[22].

The high quality, large scale and geographical diversity of this set of studies provides clear evidence of homeopathy's potential role in modern healthcare systems, particularly in optimising resource use and providing personalised care. Furthermore, in these examples, the inherent methodological limitations of observational studies (lack of randomisation, selection bias from patients actively choosing homeopathy and assessment bias from subjective outcomes) are addressed through use of robust protocols, validated assessment criteria, and sophisticated statistical analyses[16,73], ensuring valuable insights into real-world effectiveness.

Health systems implications: Economic and organisational impact

A recent systematic review by Ostermann et al. (2024) analysing 21 economic evaluation studies provides a comprehensive overview of homeopathy's integration into modern healthcare systems, with 14 studies demonstrating favourable economic impact[20]. While a German study by Leemhuis & Seifert (2024) claimed higher retail prices for homeopathic medicines (30% more expensive than conventional alternatives), this analysis was criticised for methodological weaknesses including non-replicable methods and inappropriate drug comparisons[74].

Evidence from European observational studies demonstrate significant economic benefits[20,75-77]. In France, **data suggests an average 35% reduction in overall healthcare expenditures when incorporating homeopathy into care pathways**[20]. Specific cost analyses are also compelling: Trichard's (2005) study on childhood rhinopharyngitis showed significant reductions in both direct medical costs (88€ vs 99€, p<0.05) and indirect costs, with 69.9% fewer parental sick leave days[75,76]. **The German integrated care study by Kass (2020) demonstrated favourable cost-effectiveness**, particularly for depression, with an incremental cost-effectiveness ratio of €11,879 per QALY - well below the standard €50,000 threshold[77].

A key factor in these economic benefits is the reduced use of specific conventional medications[15-18], as documented in the EPI3 study[16-18] which showed a reduction in a range of drugs commonly prescribed in primary care such as antibiotics[16] and NSAIDs[18]. This finding is further supported by Medioni's research in oncology[15] where '**add-on' homeopathic treatment was associated with a 12% reduction in conventional supportive care medications for physical side-effects of cancer treatment (p<0.01), while patients maintained their cancer treatment protocol**. This reduction presents a dual economic advantage: decreasing direct costs of expensive medications and reducing expenditures related to managing adverse drug reactions.

Safety analyses further enhance the economic profile of homeopathy. Meta-analyses by Stub et al. demonstrated comparable adverse effect rates to placebo (OR: 0.99, 95% CI: 0.86-1.14) and extremely low serious adverse event rates (< 0.0001%)[23]. In another meta-analysis by Stub et al. (2022) focusing on observational studies, findings revealed an **extremely low rate of serious adverse events** ($p < 0.0001\%$), **significantly lower than that of comparable conventional treatments**[24]. This favourable safety profile translates into reduced costs associated with side-effect management, additional consultations and unplanned hospitalisations.

Conclusions: Scientific framework of homeopathy and strategic perspectives

Homeopathy research has shown significant progress over recent decades, with a substantive, coherent evidence base now in place across multiple subfields of both fundamental and clinical research. **Fundamental research has successfully identified specific physicochemical properties of homeopathic medicines**[4-6] **and demonstrated measurable biological effects in experimental models**[7-10]. Clinical research has evolved substantially[13], with an **increasing number of high-quality randomised controlled trials and growing international collaborations** strengthening the evidence base[14]. Notably, while individualisation in homeopathy presents challenges for conventional trial designs, several RCTs of individualised homeopathy have demonstrated effects superior to placebo in specific medical conditions[12,63,64].

A significant advancement in the overall status of the homeopathy evidence base in recent years comes from a shift in the general approach to evidence-based decision-making by health authorities, with an increasing recognition of the importance of health authorities considering findings from Real-World Evidence (RWE) alongside insights from traditional randomised controlled trials (RCTs)[78,79]. This acknowledgment of the value of observational data enhances the validity of findings from the **multiple large-scale observational studies which demonstrate clinical benefits of homeopathic treatment**. The economic impact of homeopathy is also particularly noteworthy[20], with **studies demonstrating reduced healthcare costs and optimisation of medical resources**[20,75,76], while contributing to major public health challenges such as antibiotic resistance[16] or improving the quality of life of patients[15].

For full context, it is also worth noting that **homeopathy's effectiveness extends beyond human medicine, with promising developments in veterinary**[80,82] **and agricultural applications**[48,49]. Success in these areas, where placebo effects are minimal, provides additional evidence supporting the plausibility of homeopathy's biological activity. For example, homeopathic interventions have demonstrated measurable positive effects on plant health, suggesting a role in contributing to development of novel sustainable and eco-friendly agricultural processes[52,83].

However, homeopathy research does have limitations which need to be addressed. In particular, the current clinical data is scatterered, with 286 randomised controlled trials covering 152 different medical conditions[14]. Although this diversity highlights the broad applications of homeopathy, **more focused research is needed concentrating on key areas where homeopathy has shown the most clinical promise**. This strategic approach to future research is essential to strengthen and consolidate the evidence, enabling more robust conclusions to be drawn regarding efficacy of homeopathy for specific medical conditions.

In conclusion, **when the existing evidence base for homeopathy is considered in its entirety, a clear positive direction is apparent**: considering the full mosaic of findings from fundamental and clinical research, **the data indicates that homeopathy has the potential to play a valuable role in future healthcare provision, helping to meet the growing need for effective, affordable, patient-centred care**.

As such, homeopathy is a treatment option worthy of serious consideration by academics and decision-makers alike, as well as allocation of the research resources needed to fully investigate this widely used form of Traditional Complementary and Integrated Medicine (TCIM).

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