

Review

Scientific Evidence in Homeopathy: A Dynamic Database

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doi:10.21926/obm.icm.2103032**Received:** April 27, 2021**Accepted:** September 17, 2021**Published:** September 28, 2021**Abstract**

Homeopathy, a system of Traditional and Complementary Medicine (T&CM, according to WHO definition), is under frequent attack by skeptics because of its supposed “lack of evidence.” To overcome the distrust of skeptics and the public, many databases have been created, which focused on collecting all the published and indexed studies; however, none of these seem to be “comprehensive” and systematic enough. Therefore, this study aimed to evaluate the most reliable and available homeopathic studies in order to systematize the best evidence at all levels of research (studies based on humans, animals, and plants, randomized controlled trials [RCTs], observational studies, fundamental studies, etc.). A dynamic database was created containing 1,146 reliable pieces of evidence. It is being updated every three months and is available both for the whole homeopathic community and for the patients, Institutions, stakeholders, and skeptics. In the last 50 years, evidence in homeopathy has been increasing both at a quantitative and qualitative level. Unfortunately, it is not well known by the homeopaths themselves and also by the medical and scientific community. Therefore, a comprehensive database will not only support homeopaths but also assist in the better promotion and worldwide recognition of homeopathy as a significant field of medicine.

Keywords

Homeopathy; database; evidence; EBM; protocols; study design



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1. Scientific Research in the Era of EBM

Since the early 1990s, EBM (evidence-based medicine) has redefined the parameters for scientific research, especially in biomedicine and professional practice. In this context, the quality of clinical study has become crucial both in patient management and health policy choices. The quality of a clinical study must generally take account of ten aspects:

- 1. Description of the characteristics of enrolled patients*
- 2. Study design*
- 3. The sample size of patients*
- 4. Description of the randomization*
- 5. Blindness*
- 6. Treatment description*
- 7. Description of measurement modes*
- 8. Patients who completed the study*
- 9. Statistical suitability*
- 10. Type of medical team*

The study must also be published in a peer-reviewed journal, i.e., it must be assessed by a committee of referees. The journal must be indexed in biomedical databases (PubMed, Scopus, BVS, etc.), and it may have an Impact Factor (I.F.)

2. Scientific Research in Homeopathic Medicine: Peculiarities and Criticalities

One of the objections that has always been raised against homeopathy is the “lack of clinical evidence”, which is the fruit of deficient or poor scientific research. Based on this, its therapeutic effect is credited to the placebo effect [1, 2]. However, history indicates that homeopathy was developed under the sign of research and experimentation: Hahnemann was, in fact, the first physician to ever test and rigorously catalog the symptomatology produced by the pure action of substances on a healthy subject so that it could be used therapeutically on a patient. Following his teachings, long before the development of clinical trials, other homeopaths tested the actions of medicinal products with double-blind [3, 4] and multi-center study techniques. In terms of methodology, the leap in quality research in homeopathy dates to the 1970s–80s, when a series of studies with more stringent criteria started to be carried out. With the advent of the EBM culture (1991–92), scientific production has substantially increased both quantitatively and qualitatively, especially over the past decade. However, for correct evidence evaluation, it is necessary to take account of the peculiarities and criticalities central to homeopathy, such as:

- The personalization of the treatment and modulation of posology (the science of dosage) with respect to the practice of protocols usually adopted by “conventional” research, which is known to disregard individual differences.
- The dilutions used, where the remedies are often so diluted that they become undetectable in the pharmacokinetic analysis unless extremely sophisticated equipment is used.

3. A Dynamic Database: Rationale

To verify the existence and value of scientific research in homeopathy, a “DYNAMIC DATABASE”, which is a constantly updated database, was created (<http://database.fiamo.org>). Below are the inclusion/exclusion criteria considered for the creation of this database (Table 1).

Table 1 Inclusion/Exclusion Criteria.

Inclusion Criteria:	Exclusion Criteria:
Published and indexed studies based on homeopathic medicinal products (since 1949)	Studies based on complementary or alternative medicine (CAM) in general and/or mixed studies (with homeopathic medicinal products and CAM)
Both positive and negative studies	Books and conference proceedings
References drawn from: Pubmed, Embase, SCOPUS, Core-Hom, Google Scholar, and BVS	Journals not accessible via the Internet
A relevant link to the abstract was included for each reference (sufficient and necessary condition)	Posters
	Educational magazines
	Publications with editorial discretion
	Publish and perish
	Currently being reviewed (comments and brief notes)

Homeopathy-based research is being conducted in various fields; therefore, the database was organized accordingly based on the relevant areas of interest:

- Agro-homeopathy: It uses homeopathic medicinal products to treat plants, including plants grown in the greenhouse and open fields. It is based on standardized, quickly applicable, relatively inexpensive experiments, without ethical implication or placebo effect.
- Chemical-physical research: It studies the chemical-physical properties of extremely diluted solutions (EDS), where the diluted homeopathic medicine is dissolved into the solvent.
- Preclinical research (lab): It utilizes “in vitro” or “in vivo” models to study possible mechanisms of action of homeopathic medicinal products.
- Case reports: Individual clinical cases of patients treated with homeopathic medicinal products.
- Clinical research (observational or non-interventional studies): It explores the clinical effect of homeopathic medicinal products by observing the evolution of the disease/medical condition in response to the pharmacological therapy prescribed.
- Clinical research (RCT or interventional studies): It explores the clinical efficacy of homeopathic medicinal products compared with placebo or with a control drug.
- Qualitative or narrative systematic reviews: They are a collection of clinical studies, describing them with a qualitative and/or narrative approach.
- Systematic reviews with meta-analysis: They analyze the results of a series of clinical studies answering a specific clinical question, thereby statistically establishing the efficacy of the pharmacological therapy under study.

- Veterinary: It assesses the clinical and experimental efficacy of homeopathic medicinal products in the treatment of farm and/or pet animals.

4. Study Quality

To assess the quality of the studies, evaluation scales are generally used where scores are collected and assigned to the parameters analyzed, such as study design, optimal conduct of the research under scrutiny, reporting quality, and completeness of the description of the study for publishing purposes (Table 2).

Table 2 Evaluation Scales.

STUDY DESIGN GUIDELINES	QUALITY CHECKLIST GRADE	REPORTING CHECKLIST
Systematic Review With Meta-Analysis	Amstar	Prisma
Rct Controlled/Non-Randomized Study	Jadad Scale	Consort Trend
Cohort Study	Newcastle-Ottawa Scale	Strobe
Case-Control Study	Newcastle-Ottawa Scale	Strobe
Longitudinal Study		Strobe

[Www.Equator-Network.Org](http://www.equator-network.org)

5. Database: Instructions for Use

All the studies included have been provided with “masks” to search for the main reference parameters of the study (Table 3 and Figure 1):

Table 3 Masks related to study parameters.

Year of publication	First author	Journal	Page/Volume
Title	Type	Keywords	Link to abstract/full text

For RCTs, other masks were added, referring to:

- Pathological condition studied
- Therapy with homeopathic medicinal products, individualized or not
- Published in a peer-reviewed journal, or not
- Comparison with placebo or OTP (Other Than Placebo)



Figure 1 Masks related to study parameters.

Filters were added (Add filter) to make it easier to launch “historical” queries (e.g., Year, Author, Journal, Design, and Keywords) (Figure 2).

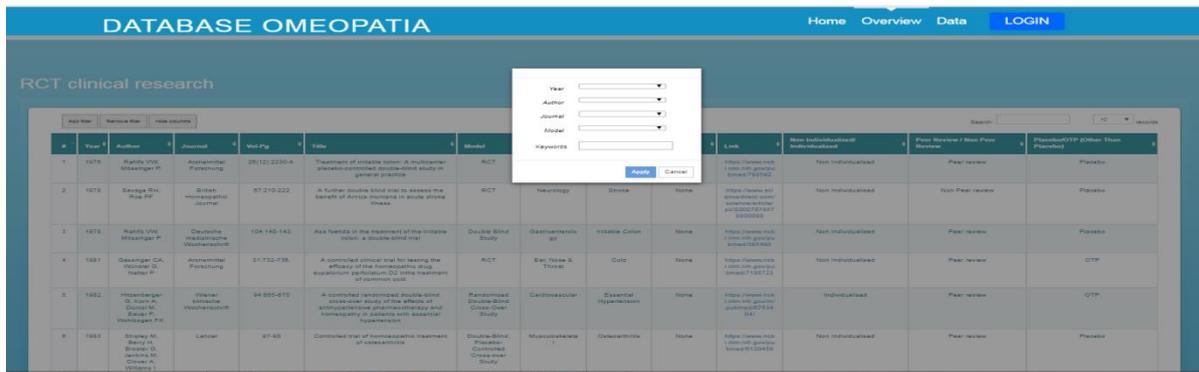


Figure 2 Filters: how to launch queries.

You can also sort by:

- Medicinal product, in the different sections, by clicking on the top right box (Search), e.g., Mercurius (Figure 3).

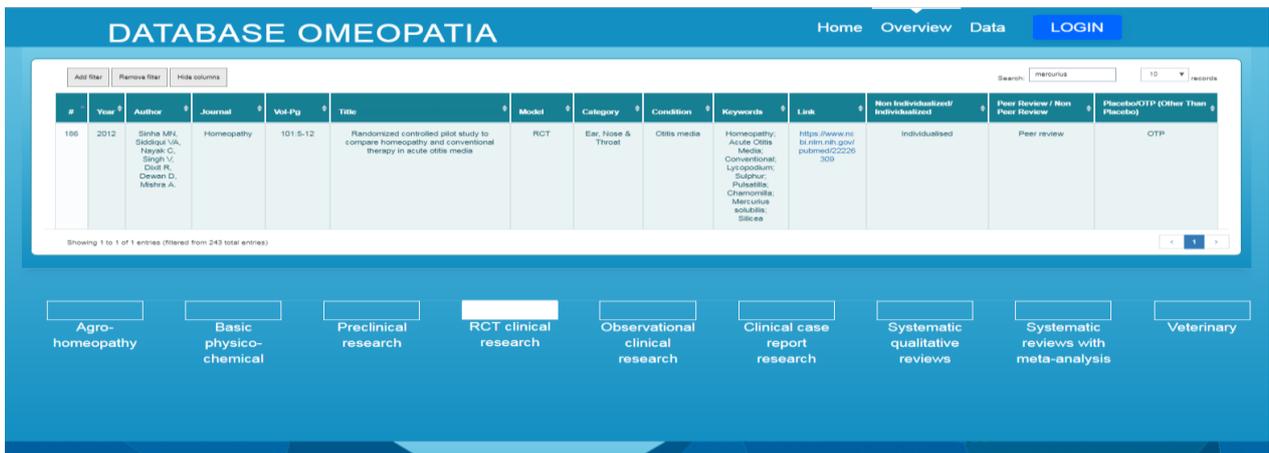


Figure 3 Filters: how to find medicines used in the studies.

7. Conclusions

In the last 50 years, clinical studies on homeopathic medicines have been increasing both at a quantitative and qualitative level. Unfortunately, they are not well known by the homeopaths and also by the medical and scientific community. A comprehensive database is fundamental for the better outreach of easy-to-find high-quality research to all members of society, including the homeopathic community, scientists interested in the subject, and students.

Author Contributions

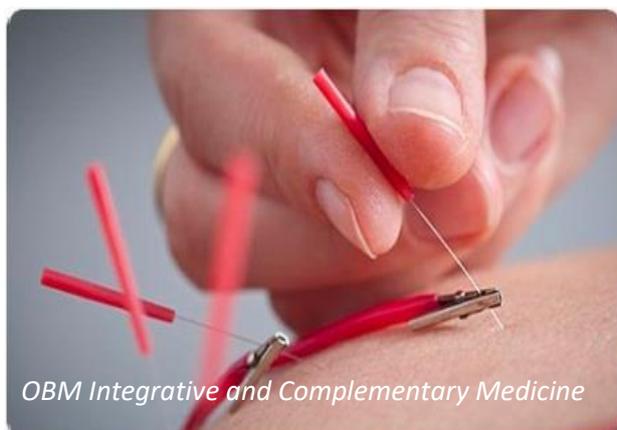
The author did all the research work of this study.

Competing Interests

The author has declared that no competing interests exist.

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