

## Meeting Report

# Scientific Research in Homeopathic Medicine: Validation, Methodology and Perspectives

Giuseppina Pitari<sup>1</sup>

<sup>1</sup>L'Aquila University, Italy

Verona's School of Homeopathic Medicine ([www.omeopatia.org](http://www.omeopatia.org)) organized a day of full immersion in the field of homeopathy, focusing on the validity of this much-debated discipline. There is widespread consensus in the medical community that evidence-based medicine is the best standard for assessing efficacy and safety of healthcare practices, and systematic reviews with strict protocols are essential to establish proof for various therapies. Students, homeopathic practitioners, academic and business representatives, who are interested in or curious about homeopathic practices attended the conference.

**Keywords:** Evidence – based homeopathy – research methodology – clinical trials

## Introduction

The meeting was introduced by Edwin L. Cooper, a very communicative and scientifically participative Professor, who illustrated the main aims of the journal *eCAM, Evidence-based Complementary and Alternative Medicine*, and roused everyone to contribute publishing scientific-based evidences on homeopathy and other complementary/alternative medical approaches. He described how the journal born in Los Angeles (UCLA) sustained by important collaboration in Kanazawa and Japan, with assistance from Oxford University Press. All tasks of the publications were indicated and scientific rigor about reviewing described. Professor Cooper illustrated the electronic submission of all contribution types and hastened peer reviewing that results in free access to electronic publication before the appearance of a hard copy issue. *eCAM* journal exists in all main scientific databases.

Professor Paolo Bellavite opened the conference by discussing the historical background of homeopathy, and then developed into a session of open-ended questions. What can be concluded through meta-analysis? In which studies can conclusive data on homeopathic medical actions be found? What

are the challenges in the design of clinical trials? Is it possible to design specific methodologies? Is it possible to imagine the future of the homeopathic approach by either exceeding and/or incorporating the different doctrines?

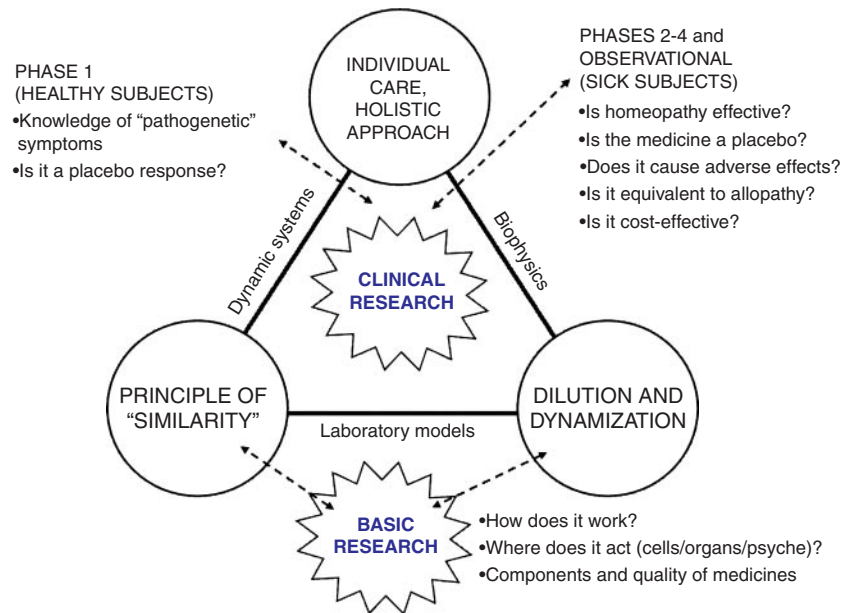
The central concepts of homeopathy were described as a triade (Fig. 1); they shape a triangle whose vertices are (from the top) as follows: complexity and individuality, similarity and dilutions. Daily medical practice and clinical studies lie on the sides of the triangle and within its area, sustained and supported by other scientific trials: from Phase I clinical trials to Phases II–IV trials, from basic research on the 'similia' principle to electromagnetic properties of water passing through the paradox of very high dilution. Taken together, this could increase the area of the triangle, which determines the acceptance of homeopathic medicine. The triangle became the icon of the conference.

## Clinical Research

The published homeopathic clinical trial and meta-analysis review was very detailed (as many as 80 studies were reviewed). Results varied, and the following observations were extensively discussed during the course of the conference: (i) homeopathic research requires more rigorous trials; (ii) clinical studies on asthma, allergies and other

For reprints and all correspondence: Prof. Giuseppina Pitari, L'Aquila University, via Veticio-Coppito, L'Aquila 67010, Italy. Tel: +39-0892433284; Fax: +39-0862433273; E-mail: [giusi.pitari@univaq.it](mailto:giusi.pitari@univaq.it)

## Scientific investigation of the main homeopathic principles



**Figure 1.** The three tenets of homeopathy. Similarity: healing is achieved by taking a drug that proved by healthy individuals have yielded symptoms and signs very similar to those of the patients. Dilution and dynamization: homeopathy uses diluted and ‘dynamized’ drugs: dilution followed by succussion should increase the drug ‘potency’. Individualization: homeopathic approach is personalized, is a ‘holistic’ method of diagnosis and of prescription. These three strictly related aspects of homeopathy can become objects of scientific investigation.

respiratory pathologies yielded the best results; and (iii) classic homeopathy requires more specific trial methodology.

Special attention was given to a recent famed meta-analysis from *The Lancet* (1) which addressed the prejudice toward homeopathy, primarily due to the choice of trials that were analyzed. Homeopathic trials must employ more rigorous methodologies: they frequently lack in randomization criteria, placebo use and laboratory markers. The speaker stressed efficacy in homeopathy, which could be evidenced both referring to complex therapeutic method (the use of individualized therapy) and to specific drug effects on specific pathology.

The discussion about trials continued with ‘provings’, i.e. homeopathic pathogenetic trials (HTPs), contributed by Professor Giuseppina Pitari. Milestones of homeopathic medicine, HTPs suffer about large methodological variability: different aims, different described outcomes, placebo usage, supervising, poor remedy description, multivariategated symptoms collections, lack of data analysis, etc. Therefore, a HTPs meta-analysis has not yet conducted. A possible methodology was described and some indications were discussed on study design (double-blind placebo-controlled trial) (2), doses and potency of the drug, description of the potentized substance detailing its toxicological effects, time of observation.

Carlo M. Rezzani concluded the session by describing a research project (‘CIFLICOL’) on clinical report cases: an electronic case sheet can be drawn up and sent to a worldwide database, continuously updated ([www.hmssrl.com](http://www.hmssrl.com)).

## Basic Research

The intriguing discussion about placebo solution preparation was flowed into the description of the ‘world of high dilutions’. The most characteristic and controversial principle of homeopathy is that the potency of a remedy can be enhanced by dilution, in a procedure known as ‘dynamization’ or ‘potentization’. Paolo Bellavite discussed about basic researches showing limits, successes and possible hypotheses. Life has evolved around water, into water, because of water: special water properties permit hydrophobic interaction, very few water molecules go with biological compounds keeping its ‘imprint’, water clusters ‘activated’ during homeopathic dynamization can reach a cellular receptor and trigger specific responses. Possible, but at the moment not proved. Papers on animal or *in vitro* models showed the effects of very diluted and potentized on human basophils, chicken embryos, rat duodenum, mouse blood, etc.

Experimental evidences on ‘Similia principle’ were discussed. Examples of ‘hormetic effect’ were reviewed: stimulus or molecule different doses trigger opposite effects on the same receiver system. As Paolo Bellavite clearly showed as a system’s (cells, organs and organisms) starting conditions can be crucial to treatment results and as some drug effects can be paradoxical, thus supporting the possible use of ‘similia principle’ as curative efficient approach (3).

At the end of the conference the speaker expounded coherence of homeopathic medicine towards the dynamic complexity of diseases. Recovering in homeopathic theory is a self-reorganization of a complex network. Homeodynamic

conditions make possible the organized complexity of life and a pharmacological complex information mimicking disease via 'similia' principle could help a gradual return to homeodynamic health.

### Key points

- High homeopathic dilutions are reported to be effective both in humans and animal/*in vitro* models.
- Methodological problems in clinical trials can be overcome drawing up a specific approach to clinical homeopathic research with a large approved consensus.
- 'Similarity' is a heuristic (finding) principle.

- Homeopathy is coherent to health-disease homeodynamics.

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