CHAPTER SIX:

Research: Past, Present, and Future Support

RESEARCH: PAST, PRESENT, AND FUTURE SUPPORT

The Beginning of Homeopathic Research: Provings

The first recognized clinical trial is attributed to James Lind in 1747.[1] Reflecting the thinking of the age, the first homeopathic pathogenetic trial, or "proving," was published by Samuel Hahnemann in 1796.[2] Using the empirical model, Hahnemann began studying the effects of active homeopathic ingredients by experimenting on himself and others at the founding of homeopathy in the late 18th century. He and his successors at the time were innovators. They were the first scientists to widely embrace experimental blinding, placebo controls, and even testing of medicines before their clinical use — which are all critical aspects of modern randomized controlled trials (RCTs). Few today realize provings were based upon such rigorous scientific practice.[3]

These trials historically used for homeopathy are called "provings," from the German word "prüfung" meaning "test" or "examine."[4] This drug discovery tool is one of the most compelling aspects of homeopathic medicine. Substances are administered to healthy human volunteers ("provers") in concentrations aimed at provoking a symptom picture while minimizing the risk of acute toxicity from the study material. Symptoms experienced by volunteers are rigorously recorded and collated. Analysis of the symptoms aims to reveal the constellation of symptoms associated with a given homeopathic active ingredient. The "symptom picture" is used to indicate possible therapeutic uses for the substances. To a homeopath, if a substance causes a particular symptom, individuals experiencing that symptom would be treated with a diluted solution made from that substance.

After Hahnemann's first ground-breaking proving in 1790 established the uses of Cinchona, he faced the daunting task of conducting as many provings as possible. By 1805, Hahnemann published 27 provings in his *Fragmenta* and 65 provings in his *Materia Medica Pura* (1811–1831).[5] Today's digital *Materia Medicas,* with hundreds of records of substances and the symptoms they produce, are an abundant resource to help practitioners choose appropriate medicines for their patients.

In the modern era, homeopathic pathogenic trials or provings continue to be conducted. Methods have been updated based on contemporary benchmarks and are standardized by principal investigators in concert with organizations including the Homeopathic Pharmacopoeia Convention of the United States (HPCUS), European Committee for Homeopathy (ECH), and LMHI (translated as the International League of Homeopathic Physicians). Blinding and placebo controls are required to control for observer bias. Clinicians must be trained so that they observe and record in a precise method consistent with established protocols. Trial participants (provers) need to understand how to report symptoms to establish precision in cause and effect of symptoms. For the final analysis of the data, an experienced homeopathic prescriber is essential. Problems for prescribers are caused by speculation about causes is recorded rather than a precise observation of what occurred. This mistake invalidates an otherwise good proving.[6]

Despite past and current efforts, there is a gap between demonstrated experiences reported by patients and practitioners for this 200-year-old therapy and what can be proven scientifically to 21st century reviewers. Three types of research are needed to support homeopathy: fundamental (or basic), applied, and clinical. This article explores today's leading-edge research techniques paving the way for future discoveries, and benefits to consumers, practitioners, and manufacturers.

Current Fundamental (or Basic) Research

Fundamental (or basic) research in general explores a law of nature. Specifically for homeopathy, fundamental research is necessary to fully understand the potential mechanism(s) of action. To develop meaningful hypotheses, research teams worldwide review 1) the effect of potentization, 2) the physicochemical properties of homeopathic medicines, and 3) and demonstrate the biological action of homeopathic solutions.

RESEARCH: PAST, PRESENT, AND FUTURE SUPPORT

Historically, fundamental research for homeopathy has been challenging. Now, however, there is a range of experimental models being applied to homeopathic attenuations to demonstrate their biological action.

Additionally, a systematic review of physicochemical study methodologies and outcomes has given direction to the broader basic research agenda to the homeopathic research community.[7] This systematic analysis of the existing research database was conducted by the Homeopathic Research Institute, a London-based non-profit dedicated to promoting high-quality research in homeopathy at an international level. It establishes a methodological approach that can be applied to both basic and clinical research. The goal of the three-part study was to update and expand the current state of knowledge of physicochemical properties of homeopathic preparations.[8]

Although the physicochemical research is in early stages, the homeopathic industry and practitioners should start to consider implications of theories under examination and results from completed preclinical studies. Pharmacologically, any specific treatment effects associated with theorized mechanisms of action such as "quantum coherence domain" hypothesis, the "dynamic water cluster" hypothesis, and the "weak quantum" theory must be assessed experimentally.

In vitro and other preclinical work has yielded important results. Experimental models have demonstrated with specificity objective measurable outcomes in simple biological systems.[9] Learnings from preclinical research must now be applied to complex organisms and humans.

A well-reasoned and demonstrated mechanism of action will also provide a response to the narrative of critics of homeopathy.

Applied Research

While basic research focuses on curiosity and the pursuit of knowledge for its own sake, applied research takes a different approach by examining how real-world phenomena or outcomes can be altered. At its core, applied research is oriented towards identifying practical solutions to specific problems. Its primary objective is not just to add to the existing knowledge base but to leverage that knowledge to develop solutions, innovations, or interventions that can be directly applied in the real world.[10]

For homeopathy, applied research includes in vitro studies; bioassays; agriculture studies; and population effects. Leading researchers in this area include Stephan Baumgartner at the University of Bern, Switzerland; Leoni Bonamin at the University of Paulista, Brazil; and P. Christian Endler at the Interuniversity College for Health and Development, Austria.

Current Clinical Research

Clinical research demonstrates 1) the efficacy of homeopathic medicines, 2) the relevance of the homeopathic approach in real-life situations, and 3) the safety and tolerability of homeopathic medicines.

One challenge in clinical research for homeopathy is maintaining the individualized approach to treatment while enhancing possibilities in trial replication. Researchers in Israel used the Symptom Cluster Approach to facilitate subject identification and medication assigned in individualized homeopathic treatment. This study approach addresses some of the criticisms of homeopathic research methodology and promises to improve study outcomes.[11]

RESEARCH: PAST, PRESENT, AND FUTURE SUPPORT

Another model that presents opportunities in homeopathic clinical research is "Real-World Data" and "Real-World Evidence." For example, an analysis of a large health care database has yielded interesting insights into the use[12] and outcomes of homeopathic medicines at large scale.[13]

Currently there are more than 7,000 published research studies on homeopathy listed in PubMed's database. Clinical research is increasing in quality and better informs patients, prescribers, and decision-makers about homeopathy.[14]

The Homeopathy Research Institute states there is high-quality evidence showing homeopathy works. In a December 2023 press conference, HRI showed there are currently 255 randomized controlled trials (148 of which are double-blind clinical trials) that show homeopathy is more effective than a placebo for 136 clinical conditions.

In that press conference, HRI showed clinical research outcomes in homeopathy are similar to those for conventional medication. For homeopathy, 43 percent of double-blind randomized control trials are positive. In comparison, systematic reviews of conventional medication show 45 percent of double-blind randomized controlled trials are positive.

For manufacturers, clinical research of individualized homeopathic prescriptions is a rich database of information that can be used as a foundational point for formulation of new products for commercial application. Manufacturers may consider results from published research as a basis of developing new product formulas.

Supporting Vital Work of the Research Community

Vital to the growth of the homeopathic market in the U.S. is the development of efficacy review standards appropriate to homeopathy. Industry must unite and support the scientific community to develop review standards that are practical for manufacturers and applicable to homeopathic drug products. The alternative is that regulators will continue to misapply the standards developed to regulate allopathic drugs to homeopathic products.

HRI HOMEOPATHY RESEARCH INSTITUTE

While homeopathic practitioners and manufacturers accept the underlying paradigm of homeopathy, homeopathy today exists in a world which values a different approach to medical evidence. Producing that evidence is time-consuming, very difficult, and expensive. Since most homeopathic companies have limited resources, AAHP urges manufacturers and labelers to amplify their research budget by contributing to the vital work being done by homeopathic research institutions and foundations on their behalf.

RESEARCH: PAST, PRESENT, AND FUTURE SUPPORT

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