

Scientific Basis of Homeopathic Medicine: A Hypothesis to Establish the Scientific Basis of Homeopathy

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Abstract

This paper seeks to develop a hypothesis on the scientific basis of homoeopathic medicine, and the research opportunities that this field of medicine presents, by primarily stating the cardinal laws on which homoeopathy is based, and secondly reviewing literature on the basic sciences in an attempt to find out as to whether the latter has any explanation of the said laws. This has been achieved by focusing on the assumptions and theories of the founder of homoeopathy Dr. Samuel Hahnemann, precisely homoeopathy's cardinal law which states that a substance which when administered to a healthy person produces sick symptoms in that person, will cure disease with symptoms similar to those that it produces on one hand, while on the other hand the concept of serial dilutions (potencies) and the notion that the higher the dilution, the more stronger the therapeutic effect of the drug on the other.

Outcomes based evidence in support of the efficacy of homoeopathic medicines is visited, which proves the authenticity of both the law of similar and the effectiveness of potentised homeopathic drugs. Thereafter both theories are then explained in terms of established scientific laws, principles and theories. Consequently, it is established that Homoeopathic medicine holds with science in general and modern day science in particular, with the vaccination and nanoparticle theories coming up as the most conspicuous scientific explanations for the two said homoeopathic laws. Lastly, this field of medicine presents broad research opportunities, for example the determination of the number of above Avogadro number nanoparticles of a substance in a given serial dilution, so as to establish as to whether each serial dilution possess evenly distributed nanoparticles at any given time.

Keywords: Similar; Nanoparticle; Potency; Vaccination; Immunization; Cinchona; Organon; Pathogenesis

Problem Background

Homoeopathy is a system of medicine that dwells on the concept that a drug, the pathogenesis of which resembles the pathological symptoms of a particular disease will cure that disease, when the former is administered in diluted minute doses.

These laws have however been disputed by orthodox practitioners for almost three hundred years. It is in view of this dispute that the idea to present this paper was conceived, precisely to look at the basic laws of homoeopathy on one hand and then conduct an extensive review of literature on basic sciences in an attempt to establish as to whether various sources on the field of science augment the claims that homoeopathic laws lacked scientific validity, or vice versa.

Literature Review

Homoeopathy is a system of medicine that was founded by Dr Christian Friedrich Samuel Hahnemann, born in Meissen, Germany, on April 10, 1755, a German physician, pharmacist and author. The system according to Hahnemann (2006: Aphor 26) dwells on the notion of *similia similibus curentur* (like cures like), known as the Law of Similars [1]. This school of thought argues that a drug, the pathogenesis of which resembles the pathology of a particular disease will cure that disease, when the former is administered in minute

doses. Hahnemann (2006: Aphor 7) founded this system after being tired and distorted by the classical mess caused by frequent failure of conventional methods of treatment, about which he argued, "In all times, the old school physicians, not knowing how else to give relief, have sought to combat and if possible to suppress by medicines, here and there, a single symptom from among a number in diseases—a one-sided procedure, which, under the name of symptomatic treatment, has justly excited universal contempt, because by it, not only was nothing gained, but much harm was inflicted. A single one of the symptoms present is no more the disease itself than a foot is the man himself. This procedure was so much the more reprehensible, that such a single symptom was only treated by an antagonistic remedy (therefore only in an enantiopathic and palliative manner), whereby, after a slight alleviation, it was subsequently only rendered all the worse" [2]. He made this discovery while he was translating a book on poisons, noticing that the pathogenesis of Cinchona bark poisoning was similar to the pathology of Malaria, while at the same time the former was used to treat Malaria.

This concept is not different from the universally accepted scientific notion of vaccination, which raises the immune system of an organism against an infectious disease or cures such disease in an already infected organism by the introduction of the causative morbid organism, and about which the World Health Organization (2015) had this to say, "A vaccine typically contains an agent that resembles a disease causing microorganism, and is often made from weakened or killed forms of the microbe, its toxins or one of its surface proteins" [3]. The latter was according to Famous Scientists (2015) postulated by

Dr. Edward Jenner born on May 17, 1749, in Berkeley, Gloucestershire, England, who is also known as the father of vaccination [4]. On the other hand, the father of immunization Dr. Emil Adolf von Behring born Adolf Emil Behring 1854–1917 and cited in Malik (2012) citing Coulter (1994), a **German** physiologist who received the 1901 **Nobel Prize in Physiology or Medicine**, after discovering that, "... homeopathic medicine enhances immunogenic activity" [5], concurred with Hahnemann in that like cures like, and according to the same author, praised him when he claimed that, "Samuel Hahnemann was right when he took his starting point in the symptoms of patients", alluding to a point that Hahnemann (2006: Aphor 7) had raised when he argued that "... it must (regard being had to the possibility of a miasm, and attention paid to the accessory circumstances), be the symptoms alone by which the disease demands and points to the remedy suited to relieve it - and, moreover, the totality of these symptoms,...". This meant that, for a remedy to be declared a simillimum in any given case, its pathogenesis should match the patient's total symptom picture.

As stated the concept of vaccination employs modified and or dead microbes or toxins from such microbes, and that explains why the vaccine will not cause illness to the vaccinated organism, nor will it, if used therapeutically to an already infected organism assist the disease by adding to the latter's toxicity levels. Furthermore, it also manifests that the organism's immune system is actually stimulated against a morbid substance, when such morbid substance is introduced into the said organism.

It can therefore be concluded, that if the introduction of a modified pathogenic microbe (to eliminate its toxicity) into an organism can raise the organism's immune defences (innate immune system) against the same microbe should that organism at a later stage contract infection by that same microbe (vaccination), then a poisonous substance which is unlike a microbe non-living, and thus not capable of multiplying itself once introduced into an organism's body, will definitely raise the body's capabilities to curb the action of a disease that produces symptoms similar to those that the poison produces when administered in crude doses (Law of similar).

This logical scientific statement is also backed by overwhelming outcomes based scientific evidence, as can be seen in various instances by provings and studies conducted globally since Hahnemann's time. For example Dr Hahnemann treated cases of psora (miasm) which had a reflective manifestation of itching, while Dr Cooper cured a number of intermittent fever cases, symptomology of which resembled Sulphur pathogenesis with pillules of Sulphur, both cited in Clarke (1994: 1300-1302) [6]. Recently, various researchers and authorities in both science in general and medicine in particular have also attested to the validity of the simillimum principle. These include Brigo B, Serpelloni G, (1991) who in a randomised controlled study of 60 patients confirmed obtaining a positive treatment of migraine using constitutional homeopathy [7]. This author recorded an 82% reduction in the number of attacks in the treatment group, while only 0.20% occurred in the placebo group. From this study it can be concluded that the law of similars stands, as all the remedies were selected based on it.

This is further concurred to by Reilly D, et al. (2000) who obtained very much positive results in the treatment of Perennial Allergic Rhinitis using homeopathic medicines, all selected according to the simillimum principle [8].

Finally in a study conducted for the Swiss government Office of Public Health, Bornhoft G, Wolf U Ammon K, et al (2006) found that, "... the trend was in favour of a therapeutic benefit from homeopathic intervention" and went on to say that, "...effectiveness of homeopathy can be supported by clinical evidence and professional and adequate application be regarded as safe" [9]. In that way, the Law of similars is strongly upheld and confirmed primarily by the concepts of vaccination and immunisation, and secondarily by evidence of homeopathically treated cases.

Hahnemann (2006: 128) further realised that, as the drug underwent serial dilutions, which he termed potencies, its therapeutic power increased [10]. These serial dilutions were done by mixing one drop of the active substance and 9 drops of a solvent usually water or alcohol to create potency one denoted by 1x. Potency 1x would then be mixed with 9 drops of the solvent to create potency 2 x. This process would be repeated again and again until high potencies like 200 x were created. Hahnemann did this in three scales, with the one discussed above termed the decimal scale, then the centesimal scale using 1 drop to 99 drops and finally the millimal scale using 1 drop to 50 000 drops.

However, the idea that the therapeutic strength of a homeopathic remedy increases with the serial dilutions did, and has until now not gone well with the orthodox school, as can be noted when in 1917 Elwis cited in Oammen, C cited in Grace Medical Mission (2015) put it that, "Homoeopathy is not a science but a sham worthless system and the dose offered contained nothing more than a make believe just to satisfy the patients whims and fancies" [11], and almost a century later, Emeritus Professor at the University of Exeter, Edzard Ernst cited in British Medical Journal (2015) claimed that the assumptions underlying homeopathy "fly in the face of science" and warned that it could be, "deadly if replacing an effective therapy" [12].

However these fears and denials have, and are repeatedly refuted by science itself.

Homeopathic remedies consist of an active substance (of animal, mineral or plant origin) and a solvent (water or alcohol). Animal, mineral, and plant originating substances on one hand and solvents on the other hand both of which occupy space and have weight, thus concurring with physics' description of matter as anything that occupies space and has weight. It can therefore be deduced that homeopathic medicines are nothing but matter, and this conclusion has been adopted as a point of departure in the review of literature on the observation, examination and explanation of the nature and behaviour of homeopathic drugs that follows.

On the serial dilution of drugs, Hahnemann (2004: Aphor 128) argued that such dilutions were "... dilutions potentised by proper trituration and succussion" [13]. This meant that the process involved vigorous shaking of the container containing the mixture each time the latter was diluted. Such vigorous shaking of the container, according to the collision theory introduced by Trautz, M (1916) and Lewis, W (1918) both cited in Chemwiki (2015) introduces energy into the mixture, which these authors termed activation energy [14].

The activation energy induced collision of particles in the mixture result in a gradual disappearance of the below Avogadro number particles of the drug, while simultaneously creating the same drug in nanoparticle form, an aspect that is claimed by Prasad R (2014) when this author argued that, "Temperature is the basic physical factor that affects the formation of nanoparticles" [15].

These universally accepted scientific laws and theories, which have stood the test of time, lead me to a conclusion, that the concussion in the manufacturing of homeopathic remedies which causes solvent and remedy particles to collide, lead to the reduction in the surface area of the involved particles thus creating nanoparticles. The existence of these nanoparticles, particularly in homeopathic medicines in dilutions as high as 200C was recently confirmed experimentally in a recent study by Chikramane et al. (2010) who discovered under a high powered electron microscope, that active substance nanoparticles in homeopathic medicines in dilutions as high as 200C do exist [16].

On the nature and behaviour of nanoparticles Sinah A (2015) argued that nanoparticles can be synthesised through, “ physical, chemical and biological methods” [17], while Duffy, J (2015) has this to say, “They can possess physical properties such as uniformity, conductance or special optical properties that make them desirable in materials science and biology” [18]. Guo et al (2015) further put it that when alkaloids extracted from *Aconitum sinomontanum* in nanoparticulate form were used instead of the normal molecules, their therapeutic capability was unaffected, whilst toxicity was lessened [19]. It can therefore be inferred that nanoparticles can in general possess physical properties, and that *Aconitum sinomontanum* alkaloid nanoparticles in particular possess the same therapeutic power as the alkaloid in its normal form, but its toxicity is lesser than that of the mother alkaloid. It can therefore be concluded that Nanoparticles can possess physical properties such as uniformity, conductance or special optical powers, and to be precise that homeopathic remedies’ therapeutic abilities are unaffected at nanoparticle size while morbidity gradually disappears.

This implies that homeopathic remedies will retain their therapeutic effect at such high dilutions, while the toxicity of the drug gradually disappears, and this explains why low potencies are toxic or cause aggravations, while high dilutions show greater therapeutic power, thus the higher the homeopathic dilution, the higher the therapeutic effect of the remedy.

Inference

It is crystal clear from the review of literature authored by different authors and authorities in the fields of Physics, Chemistry, and Mathematics which appear consistent in their observation, analysis, comprehension and interpretation of the laws of science, that the laws, namely the Law of similars and the Law of potentiation, both posing as the pillars of Homeopathic Medicine as postulated and proved by Dr Samuel Christian Frederich Hahnemann uphold the laws of nature.

Literature review revealed that the law of similars both practically applied and theoretically explained is valid. It also showed that as the dilution of homeopathic remedy increases, its therapeutic power increases, while unintended aggravation of the patient’s symptoms decreases, owing to the nanoparticle nature of the drug’s particles in serial dilutions above the Avogadro constant.

Therefore, assumptions on which homeopathy is founded do not, (in the words of Professor Edzard) “fly in the face of science”, but actually conform to well proven scientific laws and theories. Furthermore it can be concluded that Dr Samuel Hahnemann made a discovery well far ahead of his times, as the science of the 1800s could not explain the activity of homeopathy, only to be explained in the 20th century by the vaccination, immunisation and nanoparticle theories. It is a subject of future research to develop a constant for the determination of nano particles numbers at any given serial dilution.

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