

Review Article

Scientific Interpretation of Hahnemann's Theory on Disease Causation and Homeopathy as a Holistic Medical System

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ABSTRACT

Dr. Samuel Hahnemann, the founder of homeopathic medicine, developed a distinctive theory on the causation of diseases. In modern times, homeopathy is recognized as a holistic system of medicine. Examining Hahnemann's theory on the causation of diseases in the context of modern science, this review clarifies the alignment of homeopathy with contemporary medicine and emphasizes its holistic nature. The vital principle as a relativistic phenomenon, offers insights into disease causation. Modern medicine categorizes diseases based on causative factors and pathogenesis. Hahnemann's classifications of diseases, their probable causes, and origins are outlined in his works, "Organon of Medicine" and "The Chronic Diseases." His views on infectious diseases resonate with the modern germ theory, with examples like smallpox and cowpox. Additionally, Hahnemann highlighted lifestyle and habits as potential disease causes, asserting that seven-eighths of chronic maladies originate from psora. Psora has dual aspects, including infectious diseases other than sexually transmitted diseases with chronic characteristics, such as leprosy and tuberculosis are one aspect, and the other aspect is genetic and lifestyle-related metabolic disorders. Hahnemann provided insights into the triggers of allergic conditions, aligning with the modern scientific theory of allergies. Prolonged exposure to causative factors can lead to non-miasmatic and miasmatic chronic diseases through the development of psora from latent psora. The circadian rhythm influences physiology and pathology, explaining how an indisposition can evolve into chronic diseases. Homeopathy adopts a holistic approach, addressing hygiene, sanitation, nutrition, psychology, environment, lifestyle, diet, occupation, and pathology. These ideas on causation and holism are in harmony with the theory of the vital principle as a collective and relativistic concept. Leveraging scientific advancements can enhance treatment protocols and further the field of scientific homeopathy.

Key words: Causation of diseases, Homeopathy, Vital principle, Circadian rhythm, Holistic medicine.

Dr. Samuel Hahnemann, the pioneer behind the Homoeopathic system of medicine, unveiled a unique approach to healing. He constructed a distinctive hypothesis regarding the origins of diseases, drawing from his extensive observations and philosophical insights, which he meticulously documented in his seminal work, the Organon of Medicine [1,2]. In the contemporary era, Homoeopathy has garnered recognition as a holistic system of medicine, rooted in its distinctive causation theory and its practical application in therapeutic interventions [3]. Holistic treatment, also called as holistic medicine or holistic therapy, stands as a comprehensive healthcare approach that takes into

account the entirety of an individual encompassing their mind, body, emotions, spirit, and interaction between the environment and society in the pursuit of optimal health and well-being. This approach places a primary emphasis on uncovering the underlying causes of illnesses and fostering overall wellness, rather than merely addressing isolated symptoms [4,5]. In this article, we explore the scientific validity of Hahnemann's theory on the causation of diseases within the framework of the vital principle as a relativistic phenomenon model. Additionally, we examine how this causation theory contributes to the holistic nature of homeopathy as a system of medicine.

CAUSATION OF DISEASE

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Our understanding of disease causation continues to undergo constant expansion within the realm of modern science. Each day brings forth the discovery of new causative factors, which in turn serve as the bedrock for innovative treatments devised by diligent scientists. The evolution of our comprehension of causation stretches across millennia, bridging the gap from ancient times to our contemporary era. Initially, causation was steeped in ancient beliefs and myths, subsequently transitioning to the philosophical insights of figures like Hippocrates, who explored concepts such as the impact of the four humors and their imbalances as contributors to disease. The watershed moment arrived during the scientific revolution of the 17th and 18th centuries, ushering in a transformative shift from reliance on philosophical conjecture to the adoption of rational observation and systematic experimentation as the means to unravel the mysteries of disease causation [6,7].

In contemporary times, substantial progress has occurred in the field of medicine. Through the utilization of rational observations, statistical methodologies, and various scientific instruments, researchers establish causal relationships between diseases [6-8]. This enables the classification of diseases based on their underlying causes, including infectious diseases (governed by the germ theory), occupational diseases (stemming from exposure to hazardous chemical substances), lifestyle diseases (such as habits like overeating that lead to obesity), genetic diseases, parasitic diseases, autoimmune diseases [8,9].

The vital principle of homeopathy represents a synthesis of five fundamental principles of biology and is regarded as a relativistic phenomenon. In other words, this vital principle encapsulates the five foundational concepts of biology, namely cell theory, gene theory, evolution, homeostasis, and the laws of thermodynamics. These five core biological principles operate synergistically within a closed system, allowing an observer to perceive the presence of life. The causes mentioned above can impact one or more of the fundamental principles of biology, leading to the development of disease. This aligns closely with Hahnemann's philosophical concept of the causation of illness [10].

Comparing Hahnemann's disease causation theory with modern scientific concepts

1. Germ Theory of disease and miasm

Germ Theory of Disease developed by Louis Pasteur (1861-1864). He demonstrated that microorganisms cause fermentation and disease. According to the germ theory, specific microorganisms, known as pathogens, are responsible for causing infectious diseases. These pathogens can invade the human body and multiply, leading to illness. Robert Koch is another key figure in the development of the germ theory. He established a set of postulates (known as Koch's

postulates) that are used to prove the causal relationship between a specific microorganism and a disease. Dmitri Ivanovsky and Martinus Beijerinck independently discovered viruses as infectious agents smaller than bacteria (1892-1898). The acceptance of the germ theory of disease led to significant improvements in medical practices and public health. It emphasized the importance of hygiene, sanitation, sterilization, and vaccination to prevent and control infectious diseases [6,7,8,11].

The germ theory also paved the way for the discovery and development of antibiotics, such as penicillin, which are used to treat bacterial infections. Antibiotics have saved countless lives and are a direct application of the theory [12-14]. Recently COVID vaccination and its success to prevent the further spread and worsening of COVID all around the world is evident for the importance of these theories [15,16]. Earlier The Galenic theory of miasma, often associated with the ancient Greek physician Galen of Pergamon (c. 129-200/216 CE), was an early concept in medicine that attributed diseases to noxious or foul-smelling airs known as "miasma." This theory played a significant role in the understanding of disease transmission for centuries and influenced medical thought and practices well into the Middle Ages [6,8].

Girolamo Fracastoro, *De Contagione et Contagiosis Morbis et Eorum Curatione, or On Contagion, Contagious Disease and Their Cure*, published in 1546. Introduce the idea of contagious or countagious disease in Europe. In his book *De Contagione*, Fracastoro described seminaria, or seeds of contagion, in three ways: (i) those that infect by direct contact; (ii) those that infect by contact and by fomites, which he defined as clothes, linens, etc., which were not themselves corrupt but could foster the essential seeds of contagion and therefore cause contagion; and (iii) those that not only act by direct contact or fomites but also could be transmitted to a distance [6,17]. Fracastoro's concepts seem to accurately depict modes of spread of microorganisms. Likewise Hahnemann explained about the infectious /contagious diseases in his organon of medicine. He explained about the nature and cause of epidemic diseases in aphorism -73, "*.....those diseases in which many persons are attacked with very similar sufferings from the same cause (epidemically); these diseases generally become infectious (contagious) when they prevail among thickly congregated masses of human beings. Thence arise fevers, in each instance of a peculiar nature, and, because the cases of disease have an identical origin, they set up in all those they affect an identical morbid process.....*" [2].

According to Hahnemann, infectious diseases have the capacity to spread from one person to another. Crowded environments and unhygienic conditions facilitate this spread. Furthermore, in his other work called the theory of chronic miasma, he states that a person with infectious psoric itch may

have vesicles containing clear fluid. When this person touches any objects, the fluid may contaminate the object. Any other person who touches these objects may also contract this infectious psoric itch (scabies). Similarly, he clearly stated that syphilis and gonorrhoea are both spread through sexual contact and vertical spread from mother to fetus or infants [18].

Similarly, Hahnemann mentions various types of acute miasms in the Organon of Medicine and in the theory of chronic diseases. He classifies them as recurring and non-recurring miasms or fixed miasms (aphorism 73), half-acute and half-spiritual miasms, and accessory miasms. From aphorism 73 of the Organon, we can learn about recurring acute miasms, which are those types of acute miasms that recur in the same manner more than once in the lifetime of a particular person. Examples include cholera, yellow fever, plague, etc. According to aphorisms 46 and 73, fixed miasms are those that attack a person only once in their lifetime and are called non-recurrent or fixed miasms. Examples include smallpox, whooping cough, etc. He states that these miasms always occur in the same manner, so they have distinct or traditional names [2].

In the theory of chronic diseases, Hahnemann explains the concept of half-acute miasm and half-spiritual miasm. He mentions that the infection of half-acute miasm, such as hydrophobia, occurs due to the bite of a mad dog. Additionally, he discusses half-spiritual miasms in this context. *"half-spiritual miasmas the peculiar characteristic that - after, they have penetrated the vital force in the first moment of the contagion (and each one in its own way has produced disease) and them, like parasites, have quickly grown up within it and have usually developed themselves by their peculiar fever, after producing their fruit (the mature cutaneous eruption which is again capable of producing its miasma) - they again die out and leave the living organism again free to recover?"* From these statements, we can discern that Hahnemann had knowledge of the sources of infections and their course of development within human beings. The statement about half-spiritual miasms clearly indicates the course of self-limiting viral diseases (e.g., smallpox, influenza virus) [18].

Wherein after the viral infection, the virus replicates in the human body and causes illness, such as fever. After a period of suffering, the virus eventually leaves the individual, and they regain their health [19,20]. Furthermore, he mentioned the concept of accessory miasms in aphorism 46 of the 5th edition of the Organon of Medicine and aphorism 56 of the 6th edition of the Organon of Medicine, where he discussed the inoculation of cowpox to prevent smallpox. Particularly in the 46th aphorism, he stated that the inoculation of cowpox prevents the occurrence of smallpox, and this happens homeopathically. Within this aphorism, he mentioned that the "inoculated cowpox lymph," which is the fluid from the

cutaneous eruption of cowpox, contains a contagious substance capable of producing cutaneous eruptions [2]. From these statements, we can infer that Hahnemann understood that there was something present in the secretions that had an infective tendency. In modern times, we know that it is a virus. Although Hahnemann did not know the exact microbial cause, he identified that these diseases were due to some form of infection spread from animals, other people, and from the environment.

Hahnemann's explanations regarding epidemic and infectious diseases (in aphorism 73) reveal his understanding that contaminated air, water, secretions of organisms, and food can contain infectious materials. These substances can create identical or similar symptoms and the same morbid processes in many individuals, and the diseases they cause can either resolve over time (self-limiting) or lead to death. Hahnemann's views on acute infections and chronic infections, such as syphilis and gonorrhoea, as well as chronic infections characterized differently from syphilis and gonorrhoea, (i.e. classified under psora) like tuberculosis, leprosy, and parasitic infections such as scabies [18], exhibit many similarities to modern concepts of infectious diseases. These ideas align well with the theory that the vital principle is a collective concept composed of five fundamental principles of biology. In this context, infectious or contagious agents interact with one or more of the organism's biological principles, disrupting its homeostasis and leading to disease [10].

Although Hahnemann's explanations can be somewhat philosophical, and he adopted Galen's miasma theory, which was prevalent during his era, he was able to identify sources of infection, the course of infection, modes of spread, and he assumed the presence of infectious agents through his philosophical inquiry. He also emphasized the importance of controlling infectious diseases. All of these views of Hahnemann closely resemble the views of modern science on infectious diseases. However, later some authors like JT Kent completely ignored Hahnemann's ideas by asserting that microorganisms are merely scavengers of disease and not the real cause and they observed harmful cures [21-23]. These beliefs hindered the integration of science into homeopathy. A rational understanding of germ theory in the context of Hahnemann's principles can help us develop highly efficient treatment protocols for both acute and chronic infectious diseases.

2. Occupational and lifestyle-related diseases.

In aphorism 77 of the "Organon of Medicine," Hahnemann addresses non-miasmatic chronic diseases, including occupational diseases and those resulting from drug abuse. In this aphorism, he stated: *"...Those diseases are inappropriately named chronic, which persons incur who expose themselves continually to avoidable noxious*

influences, who are in the habit of indulging in injurious liquors or aliments, are addicted to dissipation of many kinds which undermine the health,....." [2]. Here, he provides a detailed explanation of certain causes that lead to chronic diseases such as different kinds of addictions, nutritional deficiency or improper nutrition, unhygienic environment, crowded environment, marshy environment, physical & mental over exertion, mental stress etc.,. These causes are distinct from infections or other dynamic factors like miasmas. He further mentions that continuous exposure to harmful influences (noxious influences) [2], it including chemicals such as NO, arsenic, mercury, dust particles, and other hazardous organic and non-organic chemicals, can give rise to diseases [24].

Similarly, he mentioned that certain habits and lifestyles can also act as causes for diseases. These include various forms of addiction, such as alcohol and substance abuse, as well as prolonged periods of staying awake at night, leading a sedentary lifestyle, excessive exercise, and overeating. Additionally, the statement "*abstinence from things that are necessary for the support of life*" suggests that a deficiency of vitamins, minerals, and other essential nutrients can result in diseases (eg, marasmus and anemia). Furthermore, residing in unhealthy and unsanitary environments, such as areas with significant water stagnation and pollution, can also lead to diseases [2]. He also pointed out that persistent mental stress can contribute to the onset of diseases [2]. From this, we can understand that Hahnemann did not blindly adhere to the notion that every disease is solely caused by dynamic factors. Instead, he rationalized the causes based on their nature and advocated treatments accordingly. For instance, if a disease resulted from a deficiency of essential nutrients, he advocated providing those nutrients to treat the disease. If the disease was caused by exposure to harmful substances, he recommended avoiding such substances and using diet and regimen along with medicine when necessary to cure the disease in aphorism 73 & 74. (e.g., such as avoiding harmful substances, allergic foods, liquors and advise exercises) [2].

Hahnemann's perspectives closely align with modern concepts of occupational health, habits, and lifestyle-related disorders. This includes occupational diseases, which often result from workplace exposure to harmful substances and pose health risks to individuals in specific industries [24]. Diseases caused by environmental pollution stem from the contamination of air, water, and soil, contributing to various health issues [25,26]. Conversely, alcohol and substance abuse can lead to a range of physical and mental health disorders, with societal and economic implications [27-29]. Unhealthy lifestyle habits, such as inadequate physical activity, smoking, and a poor diet, are associated with non-communicable diseases and reduced overall well-being. Finally, inadequate nutrition, characterized by poor dietary choices and malnutrition, can lead to a myriad of health problems [30-34].

3. Diseases with genetic cause

Genetic discoveries have substantially improved our understanding of mechanisms, such as monogenic and polygenic involvement, that underlie both rare and common diseases. Alterations in DNA methylation, histone modifications, and disruptions in non-coding RNA (NC RNA) functions are frequently observed in diseases, as are mutations in epigenetic elements [35]. Barker introduced the hypothesis of fetal or developmental origins of health and disease (DOHaD) [36,37], proposing that exposure to environmental factors, such as chemicals, drugs, stress, or infections, during specific vulnerable phases of intrauterine fetal development or early childhood, could predispose an individual to adult-life diseases [38,39].

Embryonic development and early life represent two significant susceptibility periods during which epigenetic programming is responsive to environmental factors such as diet, temperature, environmental toxins, maternal behavior, or childhood abuse. Behavioral molecular genetics has also identified a third susceptibility phase, adolescence, during which negative life experiences can impact the risk of conditions like anxiety, depression, and aggressive behavior. These conditions are associated with DNA methylation changes in specific genes or alterations in the levels of HDAC1 [35]. Epigenetic modifications can contribute to a range of diseases by disrupting the expression of particular genes, resulting in either their excessive activation or suppression. For instance, hypermethylation of tumor suppressor genes and hypomethylation of oncogenes can foster uncontrolled cell growth in cancer. Likewise, epigenetic alterations in genes related to immune regulation may play a role in autoimmune diseases, whereas changes in genes associated with metabolism can underlie metabolic disorders such as diabetes and obesity. The dynamic and reversible nature of epigenetic modifications renders them a promising target for understanding and potentially treating a wide spectrum of diseases [35,40,41].

In "The Chronic Diseases: Their Peculiar Nature and Their Homoeopathic Cure," Hahnemann introduced the theory of Psora miasma. In this theory, he characterized Psoric miasma by its association with conditions such as leprosy, eruptions, and various types of itch. According to Hahnemann, Psora typically manifested as itch, with only a few pustules appearing after infection, making them relatively inconspicuous and easy to hide. Nevertheless, individuals would scratch these pustules continually due to their unbearable itching. This continuous scratching led to the dispersion of the fluid and facilitated the more certain and easier transmission of the Psoric miasma to many other individuals, especially when it was concealed. Objects contaminated with Psoric fluid could unknowingly infect individuals who touched them, resulting in the contamination of even more people than lepers [18].

Hahnemann asserted that seven-eighths of all chronic maladies had their sole source in psora. He listed various conditions, including swellings, persistent pains, gout, conceptions, tubercular phthisis continuous or spasmodic asthma, blindness, deafness, paralysis, bone caries, ulcers (including cancer), hemorrhages, piles, hemorrhoidal colic, renal gravel, cancer of womb, fevers, tinea, swelling of joints, arthritis, diabetes, worm infestations and mental and emotional disorders, as being attributed to psora [2,18]. In aphorism 80 he stated: *"the psora, the only real fundamental cause and producer of all the other numerous, I may say innumerable, forms of disease1, which, under the names of nervous debility, hysteria, hypochondriasis, mania, melancholia, imbecility, madness, epilepsy and convulsions of all sorts, softening of the bones (rachitis), scoliosis and cyphosis, caries, cancer, fungus nematodes, neoplasms, gout, haemorrhoids, jaundice.....,"*[2].

From Hahnemann's statements, we can draw the conclusion that psora had two distinct aspects. One aspect pertains to infections caused by microorganisms with chronic characteristics, such as (infectious diseases other than STD's) leprosy and tuberculosis. The other aspect of psora relates to various genetic diseases and lifestyle-related metabolic disorders of varying severity. When an organism responds to its environment, it stores information in its genes, including epigenetic changes that can have both beneficial and disease-causing effects. These epigenetic modifications can occur during childhood or adulthood and may even be passed on to the next generation [35,40-42]. This leads us to the conclusion that Hahnemann, through his philosophical inquiry, formulated the theory of psora, which bears similarities to the genetic theory of disease.

4. Allergic and Autoimmune diseases

Allergic diseases, also known as allergies or hypersensitivity reactions, occur when the immune system reacts to harmless substances as if they were harmful invaders. Although allergic diseases often have a genetic background, they can be triggered by various environmental factors. These conditions are initiated by external allergens and involve an exaggerated immune response to generally harmless substances. These substances, referred to as allergens, may encompass pollen, dust mites, pet dander, specific foods, insect venom, and more. In the case of allergic diseases, the immune system generates antibodies known as immunoglobulin E (IgE) when exposed to an allergen. Upon subsequent exposure to the allergen, IgE triggers the release of histamines and other chemicals, resulting in symptoms such as itching, sneezing, wheezing, hives, and, in severe cases, anaphylaxis. Common allergic diseases include hay fever (allergic rhinitis), asthma, allergic dermatitis, food allergies, and allergic conjunctivitis [9,43,44,].

In aphorisms 73 and 117, Hahnemann provides detailed information about the types of causes that can trigger allergic conditions. Particularly in aphorism 117, he described the allergic tendency as *"...peculiar corporeal constitutions which, although otherwise healthy, possess a disposition to be brought into a more or less morbid state by certain things which seem to produce no impression and no change in many other individuals..."* In aphorism 73, he explained that non-contagious diseases occurring exclusively in individuals with an acute character result from exacerbations of latent psora due to exciting causes such as food, temperature, and physical and mental stress [2]. Based on the aforementioned conclusion in this article that is, psora shares similarities with the concept of genetic predispositions to diseases, it is evident that the concepts mentioned by Hahnemann in these aphorisms, such as environmental triggering agents activating latent psora within, bear resemblances to the modern scientific theory of allergies. Specifically, environmental allergens induce the production of IgE, and mutations in genes such as Filaggrin (FLG), Human Leukocyte Antigen (HLA), interleukin-4 (IL-4), interleukin-13 (IL-13), interleukin-17 (IL-17), and Toll-Like Receptor (TLR) genes play crucial roles in the pathogenesis of allergic diseases [9,44]. Both theories suggest that environmental allergens activate genetic predispositions.

5. Drug induced diseases

In aphorism 76 Hahnemann says that *"... innumerable abnormal conditions so often produced by the allopathic non-healing art..."*. The allopathy practiced during Hahnemann's era and contemporary modern medicine is profoundly distinct. Discussing the relevance of that historical allopathy to today's healthcare needs is largely irrelevant. Therefore, we should concentrate on the modern medical practices that are currently employed [2]. Modern medicine identifies drug diseases as adverse effects of drugs and defines them as any noxious or unintended reactions to a drug administered in standard doses by the proper route for the purpose of prophylaxis, diagnosis, or treatment. These adverse reactions can be classified into the following categories: 1. Adverse effects due to drug overdose, which are toxic reactions associated with an excessive dose or impaired excretion, or both. 2. Adverse Drug side effects, referring to undesirable pharmacological effects occurring at recommended doses. 3. Adverse Drug interactions, which involve the action of one drug on the effectiveness or toxicity of another drug. These three categories can affect anyone [45].

In addition to these, there are categories of adverse effects that occur only in susceptible individuals they are 1. Drug intolerance, characterized by a low threshold to the normal pharmacological action of a drug, leading to adverse drug reactions. 2. Drug idiosyncrasy, where a genetically determined, qualitatively abnormal reaction to a drug is related to a metabolic or enzyme deficiency. 3. Drug allergy, which involves an immunologically mediated reaction

characterized by specificity, transferability by antibodies or lymphocytes, and recurrence upon re-exposure. 4. Pseudoallergic reactions, which exhibit the same clinical manifestations as allergic reactions (e.g., histamine release) but lack immunological specificity [45]. These adverse reactions are also regarded as pseudo-chronic diseases or artificial chronic diseases in accordance with homeopathy [2]. Nowadays, a substantial portion of the global elderly population undergoes lifelong treatments under modern medicine for conditions like hypertension, diabetes, and age-related disorders such as osteoarthritis. Furthermore, prolonged use of antibiotics, hormonal therapies, steroids, and chemotherapy can lead to these adverse drug reactions. Consequently, individuals within this population not only contend with their natural ailments but also experience these adverse reactions to varying degrees of intensity [46-48].

Various types of antibiotics can cause nausea, diarrhea, rash, yeast infections, hepatotoxicity, and gastric disturbances. Antidepressant drugs may lead to weight gain, insomnia, and nervousness. Antihistamines and allergy medications may be associated with drowsiness, insomnia, and weakness. Anti-asthmatic medications may cause nervousness, sweating, nausea, and vomiting. Medications for heart and blood pressure issues can produce dizziness, drowsiness, chest pain, loss of appetite, and leg pain. Painkillers may result in stomach upset, tinnitus, and nausea, as well as liver injury and impairment in renal function. Some examples of specific drugs and their associated side effects include: Aceclofenac, which can lead to acute hepatitis. Acetylsalicylic acid, which may cause acute myopia and increased ocular pressure, particularly in elderly individuals, and dyspepsia. Atorvastatin, associated with peripheral neuropathy, acute hepatitis, and pancreatitis. Atenolol, which has been linked to breast pain and swelling. Amoxicillin, which can induce bronchospasm. Amlodipine, known for causing peripheral edema, usually limited to the lower legs, thrombocytopenia, and hepatitis. Metformin, which can result in vitamin B12 deficiency, leading to an anemic state and peripheral neuritis. Sulfonyleureas, which may produce hypoglycemia, weight gain, and gastrointestinal disturbances like nausea, vomiting, heartburn, dyspepsia, a metallic taste, and abdominal pain [47,49].

6. Mechanical injuries

Mechanical injuries, also known as traumatic injuries or physical injuries are injuries that result from external forces applied to the body. These injuries can occur due to accidents, falls, collisions, or other forms of physical trauma. Mechanical injuries can affect various parts of the body, including the bones, muscles, joints, skin, and internal organs. They can range from minor cuts and bruises to severe fractures, dislocations, and internal injuries. Examples of mechanical injuries include, Fractures, Sprains and Strains,

Contusions and Bruises, Lacerations, Dislocations, Crush Injuries, Traumatic Brain Injuries (TBIs), Internal Injuries [50,51]. In modern medicine, various types of injuries are treated through advanced techniques. These techniques encompass providing advanced life support, with surgeons frequently conducting surgical interventions to repair injuries. These procedures may involve open reduction and internal fixation (ORIF) for fractures [52], laparotomy for abdominal injuries, or thoracotomy for chest injuries [53]. Additionally, wound care is a critical aspect, which includes the cleaning and debridement of wounds, suturing or stapling lacerations, and dressing wounds to facilitate healing and prevent infection. Orthopedic methods such as casting, splinting, and traction are employed to address fractures, dislocations, and other musculoskeletal injuries. Techniques such as direct pressure, tourniquet application, and the use of hemostatic agents can be utilized to control bleeding. Furthermore, rehabilitation techniques are instrumental in promoting recovery and achieving favorable long-term outcomes [50,51].

Numerous similarities exist between the concepts of modern medicine and Hahnemann's perspective on traumatic injuries. In aphorism 186, he recognizes external causes that lead to mechanical injuries, treating them as local diseases. He also recommends specific treatment methods, as he states, *"...Those so-called local maladies which have been produced a short time previously, solely by an external lesion" and "surgery; but this is right only in so far as the affected parts require mechanical aid, whereby the external obstacles to the cure, which can only be expected to take place by the agency of the vital force, may be removed by mechanical means....."* e.g., reduction of dislocations, needles and bandages to bring together the lips of wounds, mechanical pressure to still the flow of blood from open arteries, extraction of foreign bodies that have penetrated in the body, opening cavity to evacuate the collected fluids, bringing into apposition the broken extremities of a fractured bone and retaining them in exact contact by an appropriate bondage [2]. In the same aphorism he said *"when the violent fever resulting from extensive contusions, lacerated muscles, tendons and blood-vessels requires to be removed by medicine given internally..."*. From this statement, we can comprehend that, Similar to modern scientific concepts, Hahnemann also advises that in cases where it is necessary, along with external treatments or surgical measures, internal medicine should be considered to facilitate the healing of the patient [2].

7. Indisposition

In modern medicine, "indisposition" is not a specific medical condition or category. It is a general term used to describe a mild illness or a state of feeling unwell without being seriously sick. Indisposition doesn't refer to a specific disease or medical diagnosis; rather, it indicates a temporary condition of discomfort or slight illness [54,55].

In organon of medicine Hahnemann describe as (aphorism 150) "... patient complain of one or more trivial symptoms, that have been only observed a short time previously..." and "...a slight alteration in the diet and regimen will usually suffice to dispel such an indisposition...". Based on the statements above, we can conclude that the treatment of indisposition is determined by its underlying cause. According to Hahnemann, modifying one's diet and regimen (lifestyle) can be sufficient to alleviate indisposition, indicating that improper diet and lifestyle may be the causes of indisposition. Examples are over eating, night watching, continues stressful job, sedentary habits, continues use of air coolers, heavy physical work, over study, over mental work, etc., In extreme cases, such causes can lead to individual acute diseases that require internal medicine. Hahnemann explains this as an individual disease [2].

8. From Indisposition to chronic disease

Indisposition refers to a mild disturbance in one's health or a slight feeling of unwellness caused by abnormalities in diet and lifestyle. When individuals are consistently exposed to harmful agents and following harmful habits, improper diet and regime, as noted by Hahnemann in aphorism 73, it can trigger the activation of latent psora, resulting in the onset of acute diseases. According to aphorism 77, prolonged exposure to these things can further lead to non-miasmatic chronic diseases and miasmatic chronic diseases due to the development of psora from latent psora [2]. With the aid of the circadian rhythm and its influence on physiology and pathology, we can comprehend how a Indisposition or a minor ailment can evolve into a chronic disease. The circadian rhythm is a natural, internal biological clock that regulates various physiological processes and behaviors in living organisms, including humans. This circadian rhythm is genetically encoded by a molecular clock present in nearly every cell, which generates an internal timing cycle of approximately 24 hours when external cues are absent. Molecular clocks, located in peripheral tissues throughout the body, form a coherent hierarchical system orchestrated by a 'master' clock situated in the suprachiasmatic nucleus (SCN) of the hypothalamus. This master clock receives light input from the retina, aligning the internal clock's timing with the external solar day. It then conveys this synchronized timing to peripheral clocks through endocrine and systemic signals. While the master clock maintains an intrinsic 24-hour rhythm to coordinate with the external solar and sleep-wake cycles, peripheral clocks adapt to reflect the local metabolic status of their respective tissues [56].

Aside from light, other signals such as food intake and temperature can independently set the clock in peripheral tissues, causing phase shifts in the peripheral clocks relative to the master or central clock [57]. Within each cell, the circadian clock functions as a biochemical oscillator formed

by interlocked transcription-translation feedback loops, including primary and secondary feedback loops. Several genes contribute to the formation of this biological clock, including Circadian Locomotor Output Cycles Kaput (Clock), Brain and Muscle ARNT-Like 1 (BMAL1), Period (Per1, Per2, Per3), Cryptochrome (Cry1, Cry2), REV-ERB α and REV-ERB β , Retinoic acid-related orphan receptors (ROR α and ROR γ), D-Box Binding PAR BZIP Transcription Factor (DBP), and NPAS2 (Neuronal PAS Domain Protein 2) genes [58,56].

Circadian clocks play a role in regulating metabolism, and conversely, metabolic pathways can exert feedback effects on the functioning of the circadian clock [59]. Disruptions to the circadian rhythm can arise from extreme misalignment with the external light-dark cycle, irregularities in food intake, fluctuations in temperature, disturbances in the sleep-wake cycle, seasonal variations, infections, and changes in physical activity levels and life style changes. These disruptions in the circadian rhythm may contribute to a range of diseases, including insomnia, sleep disorders, metabolic syndrome, obesity, cardiovascular diseases, mood disorders, gastrointestinal conditions such as irritable bowel syndrome (IBS) and inflammatory bowel disease (IBD), neurological disorders like Alzheimer's disease and Parkinson's disease, immune system dysfunction, including conditions like psoriasis, allergic dermatitis, asthma, multiple sclerosis, rheumatoid arthritis, type 1 diabetes mellitus, and various forms of cancer [60,61]. Synchronizing factors such as light, hormones, and meal timing can become desynchronizers when they are perceived or administered at the wrong time within the daily cycle. For instance, exposure to light at night or food intake during the typical resting phase can disrupt the natural synchronization. The misalignment of these synchronizing factors can result in circadian disturbances, which, in turn, can contribute to or exacerbate adverse effects on metabolic health [62].

Differing from circadian rhythms, which are extensively regulated by clock genes and follow a 24-hour cycle, seasonality refers to the cyclical increase in the occurrence of diseases corresponding to specific seasons or other calendar periods. This seasonality is observable not only in infectious diseases but also in autoimmune diseases such as dermatomyositis, systemic lupus erythematosus (SLE), multiple sclerosis (MS), anti-neutrophil cytoplasm antibody-associated vasculitis, and rheumatoid arthritis (RA). Environmental factors, including ultraviolet radiation, vitamin D, and hormones, primarily influence the seasonality of autoimmune diseases [63]. The level of vitamin D varies across seasons due to the differing effects of ultraviolet radiation at different times of the year and in various geographic locations. Accumulating evidence suggests that vitamin D plays a role in the pathogenesis of autoimmune diseases. Low exposure to ultraviolet radiation and reduced

vitamin D levels may help explain the seasonal relapse of autoimmune diseases. Furthermore, seasonal patterns of pathogens, including Epstein-Barr virus (EBV), enterovirus, and Escherichia coli, are linked to the initiation and progression of autoimmune diseases [63,64].

There is a seasonal fluctuation in Bmal1 expression, with lower levels observed during the winter months. It is noteworthy that herpesviruses and influenza A viruses tend to replicate more efficiently in the absence of BMAL1, which may partly explain the increased incidence of viral dissemination during winter. Furthermore, individuals diagnosed with the debilitating lung condition chronic obstructive pulmonary disease (COPD) are more susceptible to exacerbations during the winter months. This susceptibility is believed to be due to a combination of factors, including a higher prevalence of respiratory viral infections, lifestyle changes during colder months, and reduced levels of vitamin D [65]. Conversely, disease activity in patients with multiple sclerosis follows a peak in early spring and a trough in autumn. This pattern may be attributed, at least in part, to seasonal variations in the nocturnal secretion pattern of pineal melatonin, with longer durations of secretion during the autumn and winter months [65]. In sync with the fluctuations in pro-inflammatory cytokine levels, the symptoms of Rheumatoid Arthritis (RA) exhibit significant circadian oscillations, and the conditions of RA patients tend to worsen in the morning [63,66].

Short-term circadian misalignment induced by forced desynchrony or acute shift in the light-dark cycle impairs glucose tolerance and reduces insulin sensitivity. Circadian disruption induced by long-term shiftwork is correlated with an increased risk of developing obesity and type 2 diabetes mellitus. Skipping breakfast is associated with an increase in metabolic risk factors, including obesity and weak glycemic control. In addition, repeated late dinner in the evening or at night is significantly correlated with increased adiposity and elevated BMI [62]. Functional circadian oscillations are most notably evident in the kidneys, where a marked reduction in the volume of urine excreted during the night occurs when compared to the volume excreted during the day. Kidney stones, one of the most common urinary tract diseases associated with significant morbidity, form when urine becomes supersaturated with salts, leading to the generation of microcrystals. If these crystals aggregate and adhere to the urothelium, they can cause the stones to grow, potentially detaching when they reach a critical size and blocking the ureter, resulting in renal colic [67].

The degree of super saturation depends on the concentration of solutes in urine, which undergoes diurnal changes, being highest during the day and lowest at night. The concentration of ions in the urine is influenced by both the rate of their excretion and urinary volume. Furthermore,

urinary pH also strongly affects the risk of stone formation by modulating salt super saturation and follows a circadian rhythm. In summary, the risk of developing kidney stones is higher during the early morning when urine is more concentrated and acidic. Furthermore, decreased water intake during the daytime increases the risk of renal stone formation, while increased consumption of fresh water during the day reduces this risk [67,68]. Circadian oscillations in blood pressure experience significant disruption in individuals with nephrotic syndrome. The clinical significance of this observation is underscored by reports indicating that the outcomes of immunoglobulin A (IgA) nephropathy in both adults and children are influenced by the circadian rhythm of blood pressure. Additionally, plasma sodium levels are associated with the average 24-hour ambulatory blood pressure in patients with nephrotic syndrome [67].

Shift work and sleep deprivation are recognized for their ability to disrupt the natural rhythms of growth hormone and melatonin, decrease insulin sensitivity, and raise cortisol levels in the bloodstream. These alterations create conditions conducive to weight gain, obesity, and the onset of metabolic syndrome. In humans, metabolic disorders, eating disorders, and obesity are frequently linked to mood disorders. Similarly, chronic shift work may promote the development of mood disorders, likely due to a disruption in the synchronization of body temperature, melatonin, and sleep rhythms. People with mood disorders can benefit from adhering to strict daily routines, including consistent bedtimes and mealtimes [69]. Human shift work, which inevitably results in the disconnection of the body's internal clock from the natural day-night cycles, has several adverse impacts on nutrient metabolism. It induces alterations in the lipid profile, characterized by increased levels of cholesterol and low-density lipoprotein, and results in more substantial post-meal spikes in insulin, glucose, and lipid levels. Consequently, individuals engaged in shift work face a significantly elevated risk of developing type 2 diabetes and cardiovascular diseases such as hypertension, myocardial infarction [70].

Moreover, the circadian clock exerts extensive control over all segments of the gastrointestinal tract, and disruptions in circadian rhythmicity due to factors like jet lag or shift work often manifest as acute gastrointestinal discomfort. Persistent disturbances of the circadian clock in these tissues can potentially lead to severe conditions such as colorectal cancer or metabolic syndrome. Both insufficient and excessive sleep duration, as well as poor sleep quality, disrupt the endocrine system and are closely associated with insulin resistance, type 2 diabetes, and obesity. Additionally, various studies have illustrated a correlation between short sleep duration, that is less than five hours or being a late sleeper such as midpoint of sleep after 5:30 AM and the habit of eating late dinners or consuming more calories in the evening, significantly increasing the risk of developing obesity and

diabetes [71]. And Persistent disruption of sleep, caused by activities like night shifts or night duties, is linked to changes in menstrual function [72]. A bidirectional relationship exists between mood disorders and circadian rhythms. Mood disorders are frequently linked to disturbances in circadian clock-controlled responses, including sleep patterns and cortisol secretion. Conversely, disruptions in circadian rhythms, caused by factors such as jet lag, night-shift work, or exposure to artificial light at night, can trigger or worsen affective symptoms in individuals who are susceptible [73].

Major depressive disorder (MDD) is characterized by mood changes, typically involving heightened sadness and irritability, often accompanied by at least one of the following psychophysiological symptoms: changes in sleep patterns, alterations in sexual desire or appetite, an inability to experience pleasure, slowed speech or actions, episodes of crying, and thoughts of self-harm or suicide. It is noteworthy that the occurrence of MDD is associated with the modernization of society, which may be attributable to increased circadian disruption such as exposure to artificial light at night, shift work, and jet lag. Or the interaction between circadian disruption and other environmental factors encountered in modernized countries [73,74]. Circadian disruption in humans refers to the misalignment between external stimuli, such as the day-night cycle, and the intrinsic circadian clock. The use of artificial light and technology, including television, computer screens, and smartphones, exposes individuals to light in the evening, which opposes and disrupts their internal clocks. Researches indicates that short-wavelength light, including blue light and light-emitting diode (LED) light, is particularly potent in causing desynchronization and is linked to conditions such as metabolic syndrome, psychiatric disorders, increased sleepiness, and reduced quality of life [75]. Chronic sleep disruption or dark night cycle may also associated with the increased risk of breast cancer due to deregulation of all three Per genes [76,77]. In aphorism 150 & 259 to 263 of his Organon of Medicine, Hahnemann discusses the role of diet and regimen in disease treatment. Synchronizing factors capable of resetting circadian clocks include light, hormones, and meal timing. Through accumulated research, it has become evident that metabolic disruptions observed in night shift workers can be reversed by adopting a healthy sleep pattern. Furthermore, adhering to a balanced diet, getting proper sleep, and engaging in regular exercise can effectively reduce the occurrence and severity of the aforementioned diseases [2].

Minor disruptions in sleep, dietary habits, exercise, or lifestyle can result in mild discomfort for individuals. In contrast, extended disturbances in sleep, dietary habits, temperature regulation, physical activity, and lifestyle may trigger the activation of latent psora in to psora, leading to the development of various types of chronic diseases, such as

hypertension, diabetes mellitus, autoimmune disorders, and mood disorders. These observations lead to the conclusion that latent psora is not an isolated or separate entity from the organism; rather, it represents an abnormality within the organism. Essentially, latent psora is nothing more than susceptible genes and unfavorable epigenetic modifications of genes.

Causation of disease and Vital principle

In the Organon of Medicine, Dr. Hahnemann introduced the concept of the vital force in the 9th–17th aphorisms. However, in the sixth edition of the Organon of Medicine, he substituted the term "vital force" with "vital principle" as evident in the 10th aphorism of the sixth edition. It is crucial to note that the terms "vital force" and "vital principle" carry distinct meanings. Specifically, "force" denotes energy, while "principle" refers to a fundamental truth or proposition that forms the basis for a system of belief, behavior, or a chain of reasoning [10]. Vital principle is a collective concept of five fundamental principles of biology and a relativistic phenomenon. These five fundamental principles of biology are the cell theory, gene theory, evolution, homeostasis, and the laws of thermodynamics. When energy flows through a loop or network based on these five basic biological principles, it transforms non-living material into a living organism. Hence, an observer perceives the existence of life in an organism when these five fundamental biological principles interact with each other in a specific order or network. If one or more of these fundamental principles fail, the observer witnesses the death of the organism or its transition into a nonliving state. Therefore, we can say that Hahnemann's vital principle is a collective concept of five fundamental principles of biology and a relativistic phenomenon [10].

The mentioned causes, such as environmental factors, infectious agents, habits, and lifestyle-related factors, can disrupt any of the five fundamental principles of biology. These disruptions can lead to disturbances in the coordinated functioning of fundamental principles of biology, resulting in abnormal sensations in the organism, a condition referred to as disease [9,10]. For example, a viral infection affects cellular functions, while bacterial infections and bacterial toxins disrupt homeostasis and cellular functions [19,20]. Habits and lifestyle-related factors affect metabolism, thereby influencing general homeostasis.[27-34,60-62] Lastly, environmental factors like UV rays and carcinogenic chemicals or elements damage DNA, [24-26] leading to the development of diseases. Additionally, hereditary and epigenetic influences on genes can also be causative factors in diseases [35-39].

Homoeopathy as a Holistic medicine

Various definitions of holism and holistic, are utilized in the health and healthcare literature, creating ambiguity when

individuals employ these terms [78,79]. There exist multiple interpretations of holism, including its involvement in complementary or alternative medicine, spirituality within the realm of health, nursing practice, and the broader approach to allopathic care as proposed by George Engle's biopsychosocial model [45,79]. The term "holism" was coined in the 1920s by Jan Christian Smuts. According to the Oxford dictionary, holism is defined as "the tendency in nature to form wholes that are greater than the sum of their parts through creative evolution." Medical holism can focus on individuals, the environment, or populations, either independently or in various combinations. Charles Rosenberg identifies four conceptual styles of holism, one of which is ecological holism [78,79].

In the context of the discipline of general practice/family medicine, the biopsychosocial model incorporates cultural and existential dimensions when addressing health issues. This model recognizes health problems in their physical, psychological, social, and existential aspects. The degree to which holism is applied can vary depending on one's perspective or standpoint. Engel outlined a hierarchical system in which he identified "a person" and then delved inward to the microscopic level of subatomic particles. Simultaneously, he extended his perspective outward to encompass the macroscopic level of the biosphere [79]. For a cell biologist, holism might involve considering the entire liver. In different contexts, it could encompass the whole individual, the entire community, the entirety of society, or the entire planet. The environmental events to which you respond depend on the scale at which you choose to observe [79].

In summary, holistic medicine or holistic therapy is an approach to healthcare that takes into account the entire individual – encompassing the mind, body, emotions, environment, and society – in the quest for optimal health and well-being. This approach concentrates on addressing the root causes of illness and their impacts, emphasizing the promotion of overall wellness rather than the mere treatment of isolated symptoms. Holistic treatment acknowledges that individuals are intricate entities with interconnected systems, recognizing that imbalances in one area can affect the entire person. Its goal is to restore balance and harmony by considering various factors, including lifestyle, nutrition, emotional well-being, social support, and environmental influences [4,5,80]. Hahnemann elucidated the causes of disease in the *Organon of Medicine*. In aphorism 77, he discussed how diseases can result from environmental influences, lifestyle choices, and nutrition. In aphorism 221 to 224, he delved into the role of emotions and social support in health. Furthermore, in aphorism 73&74, he highlighted various factors such as war, famine, seasonal variations, exposure to chemicals and poisonous substances, contaminated water, infections, as well as excessive physical and mental exertion, all of which can contribute to the development of diseases [2]. The multi-

dimensional approach of homoeopathy serves as a perfect example of the holistic system of medicine.

Holism is not a singular concept; rather, it comprises various layers of reality organized in a specific hierarchy. It can be seen as a multiscale competency architecture, beginning with subatomic particles at the foundational layer. Moving up the hierarchy, we encounter atoms, followed by molecules, which then combine to create cells. Different types of cells come together to form tissues, and these tissues assemble to create organs. The collection of organs constitutes a body or an individual, and individuals collectively form societies. Similarly, in the context of the environment, subatomic particles combine to form atoms, which in turn create molecules and elements. These elements contribute to the formation of complex geographical structures, living species, and, collectively, they compose the biosphere of the Earth [81-84]. Different layers of holism are interconnected, and each layer presents its own set of problems and corresponding solutions [81-84]. For instance, within the biological hierarchy, various problems arise. At the molecular level, issues like prion protein infections and genetic damage in cancer may occur [9]. Transitioning to the cellular level, infections caused by microorganisms such as viruses, bacteria, and fungi become relevant concerns [85]. Moving up to the tissue level, issues like necrosis may emerge, followed by organ-level problems like hypertrophy, atrophy, and functional impairments. Beyond these, multi-organ diseases like diabetes and its associated complications, as well as hypertension and its related issues, become significant [9]. Additionally, at the psychological level, mood disorders [73] can manifest as a part of this interconnected web of health considerations.

All these levels of holism continually interact with the environment, including society. Therefore, changes in one layer of holism can affect the other layers, or changes in one layer can become the cause of issues in another layer [4,5,81-84]. For example, individuals working night shifts may experience prolonged sleep disturbances, leading to metabolic imbalances and diabetes mellitus. This can progress into multi-organ diseases or even cancer. Similarly, a sedentary lifestyle combined with a high-caloric diet can result in obesity and increased cholesterol levels, which can lead to hypertension and metabolic disorders. Prolonged mental stress can disrupt sleep patterns and hormonal balance, resulting in metabolic imbalances and various metabolic diseases [69,70-73]. Living in unsanitary or crowded areas can lead to the easy spread of infectious diseases [7,85]. In the case of chronic diseases, there is typically a primary cause followed by several secondary causes. These secondary causes exacerbate the chronic disease. For instance, in bronchial asthma, the initial cause is often a hereditary genetic tendency, such as mutations in the filaggrin gene. This genetic factor is followed by hypersensitivity of mast cells in the respiratory tract,

ultimately leading to asthma. Allergic factors in the environment, such as dust, pollen, and cold temperatures, become secondary causes that exacerbate the disease [43,86].

Similarly, chronic sleep disruption or alteration in dark night cycle may increase the risk of breast cancer due to deregulation of all three PER genes. In this case, sleep disruption serves as the initial cause, while gene deregulation is a secondary cause contributing to breast cancer. Among these secondary causes, some may act as obstacles to a cure, including dust, cold environments, and even genetic deregulations, which are considered as aspects of psora [2,18]. To cure these diseases, some of them require internal or external medicine, while others necessitate counseling and lifestyle and diet modifications. In aphorism 150, Hahnemann explains acute conditions caused by various factors and advises dietary and regimen changes for reversing the disease. Aphorisms 259-263 of the Organ on of Medicine provide measures for addressing issues induced by different causes at different levels of holism, leading to chronic diseases. In aphorism 260, Hahnemann recognizes various causes, and Similarly, in aphorism 221, Hahnemann recognizes causes for mental diseases, such as alcohol, fright, and vexation. In aphorism 224, he acknowledges mental diseases caused by bodily illnesses. In the same aphorism, he points out other causes for mental diseases, including faults in education, bad practices, corrupt morals, neglect of the mind, superstition, or ignorance. He also provides measures for addressing mental diseases resulting from these causes, such as improvement through sensible friendly exhortations, consolatory arguments, serious representations, and sensible advice. In aphorism 223, he lists emotional causes for mental diseases, such as continuous anxiety, worry, vexation, wrongs, and the frequent occurrence of great fear and fright. He also mentions that these emotional stressors may have the capacity to produce physical diseases [2].

In aphorism 261, he states, "...*The most appropriate regimen during the employment of medicine in chronic diseases consists in the removal of such obstacles to recovery, and in supplying where necessary the reverse: innocent moral and intellectual recreation, active exercise in the open air in almost all kinds of weather (daily walks, slight manual labor), suitable, nutritious, unmedicinal food and drink, etc...*" [2]. Therefore, his prescription encompasses not only the similimum or internal medicine but also includes moral and intellectual training or counselling, exercises, nutritious food, and supplements provided in cases of deficiencies, among other aspects. Through the facts discussed throughout this article, it becomes evident that Hahnemann's focus extends beyond the mental and physical levels of the organism. He broadens his perspective to encompass the organism's reactions to the surrounding environment, considering both the physical and micro-environments. Furthermore, he takes into account all artificial or man-made causes, such as war,

pollution, accidents, habits, etc. Hahnemann's thoughts were notably ahead of his time, and his disease causation theory addresses all layers and levels of holism. This characteristic renders homeopathy a distinctive system and a perfect exemplar of a holistic approach to medicine.

CONCLUSION

Dr. Samuel Hahnemann articulated his theories on causation in his works "Organ on of Medicine" and "The Chronic Diseases: Their Peculiar Nature and Their Homoeopathic Cure." Despite the absence of much basic scientific advancement during his era, he developed his theory of causation through rational observations and philosophical inquiry. Hahnemann's concepts of causation and the corresponding approach to treatment encompass all aspects of health, including pathology, hygiene, sanitation, occupation, lifestyle, diet, nutrition, mental well-being, and the environment. These ideas closely align with modern scientific and holistic principles. Furthermore, these notions of causation and holism are in harmony with the theory of the vital principle as a collective and relativistic concept. Various causative factors for diseases interact with one or more of the five fundamental principles of biology, resulting in disturbances in the interaction of these principles and leading to ill health in the organism. The removal of these causes or the reversal of the effects they produce may lead to the restoration of health. In modern times, equipped with numerous scientific advancements, incorporating and utilizing these advancements in homeopathy can aid in formulating improved treatment protocols and advancing the field of scientific homeopathy.

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