The Bioscan
AN INTERNATIONAL QUARTERLY JOURNAL OF LIFE SCIENCES
20(4): 317-323, 2025 www.thebioscan.com

EVOLUTION AND CONTEMPORARY RESEARCH IN HOMOEOPATHIC PHARMACY: A REVIEW

[1]DR. PANKAJ SONI, [2]DR. SNEHA AGRAWAL*, [3]DR. ABHILASHA SONWANE, [4]DR. NIDHI JOSHI, [5]DR. DEEPTI SHARMA

[1]Professor, Department of Homoeopathic Pharmacy, CVM Homoeopathic Medical College & Hospital, The Charutar Vidya Mandal(CVM) University, India

[2]Professor, Department of Pathology &Microbiology, Sumandeep Homoeopathic Medical College & Hospital, Sumandeep Vidyapeeth, Vadodara, Gujarat, India. Mob.no.-9574460821. Orchid Id-0009-0009-0364-9175. Email: drsneha.agrawal123@gmail.com

[3]Assistant Professor, Department of Homoeopathic Pharmacy, CVM Homoeopathic Medical College & Hospital, The Charutar Vidya Mandal(CVM) University, India

[4]Professor, Department of Forensic Medicine &Toxicology,CVM Homoeopathic Medical College & Hospital, The Charutar Vidya Mandal(CVM) University, India

[5]Assistant Professor, Department of Anatomy,CVM Homoeopathic Medical College & Hospital, The Charutar Vidya Mandal(CVM) University, India

DOI: 10.63001/tbs.2025.v20.i04.pp317-323

KEYWORDS:
Homoeopathy, Homoeopathic pharmacy, HPTLC, Potency, Integrative research

Received on:
01-09-2025

Accepted on:
05-10-2025

Published on:
12-11-2025

ABSTRACT

This review explores the evolution of homoeopathic pharmacy [1]-from its historical roots to modern advancements in formulation and clinical research. It surveys key milestones such as Hahnemann's development of potency methods and dosage forms and highlights recent Scopus-indexed studies in homoeopathic medicine. Selected research includes analytical work on such as *Ignatia amara* mother tincture and its phytochemical profiling via HPTLC, and clinical trials that assess cognitive improvement in the elderly using *Plumbum metallicum* potency and many more homoeopathic drugs. The review also examines the antimicrobial, immunomodulatory, and anti-inflammatory properties of homoeopathic remedies, particularly in the context of multi-drug-resistant infections. It discusses methodological challenges in homoeopathy research and identifies future directions for evidence-based integration. The synthesis underscores the role of homoeopathy in integrative pharmacy and supports further analytical, clinical, and formulation studies to strengthen its scientific foundations.

Introduction:

Homoeopathic pharmacy, rooted in Hahnemann's Organon of Medicine, has evolved from simple drug preparation to advanced analytical validation. Its scope now extends to pharmacological, clinical, and integrative research. This review explores historical foundations, contemporary methodologies, and emerging evidence, emphasizing the scientific basis of homoeopathy in modern healthcare.

Hahnemann S (1994), Homoeopathic pharmacy has evolved significantly since the time of Samuel Hahnemann. Initially rooted in the organon of medicine with different aphorism i.e. Quality and genuineness of medicines (§264–265), Sources and preparation of medicines

(§266–268), Potentization or dynamization (§269–271), The single, simple medicine (§ 272–274), The minimum and appropriate dose (§275–280), Repetition and route of administration (§281–284), By meticulously detailing these pharmaceutical principles, Hahnemann established a rigorous system for preparing and administering remedies. principles of minimal dosing and potentization, the field has expanded through integration with modern pharmaceutical technologies and analytical science. This review traces the developmental path of homoeopathic pharmacy and highlights contemporary research validating its clinical pharmacological basis. [2]

Methodology:

This review was conducted using a systematic literature search strategy. Relevant studies were identified from electronic databases including Scopus, PubMed, peer review journal, web of science and institutional repositories. The search covered the period between January 2020 and December 2025. Keywords employed were *"homoeopathic pharmacy"*, *"mother tincture analysis"*, and *"clinical trial in homoeopathy"*.

Only peer-reviewed articles were considered, with inclusion criteria focusing on pharmacological, analytical, and clinical research in homoeopathy. Duplicate records, non-English articles, and studies without accessible full texts were excluded. References cited in selected articles were further screened to identify additional relevant sources.

This methodological approach ensured that the review was comprehensive, evidence-based, and representative of the current scientific progress in homoeopathic pharmacy.

EVOLUTION OF HOMOEOPATHIC PHARMACY:

Rawat BS et al, (2024) The historical development of homoeopathic pharmacy involves the systematization of remedy preparation, dilution, and succussion methods. Research by Rawat et al. [3] outlines these historical transitions and their current relevance in homoeopathic drug manufacturing. and their current relevance in homoeopathic drug manufacturing.

IMMUNOMODULATORY AND ANTIMICROBIAL RESEARCH:

Desai et al.(2024) investigated the antimicrobial efficacy of homoeopathic formulations against multidrug-resistant *Klebsiella pneumoniae*. Their results supported the relevance of homoeopathy in public health contexts. Such findings encourage integrative approaches where conventional and alternative therapies coexist. [4]

Gupta VK et.al.(2018) in this study explains basic information of immunomodulation along with homoeopathic approach. It is a type of regulatory modification in the immune system that brings about the desired response. The human immune system has evolved over eons to regulate conflicts between the host and infections. [5] It has two major components: innate immunity and acquired immunity. Innate immunity is non-specific and exists from birth, whereas acquired immunity is more

sophisticated and phylogenetically recent. The review found that homoeopathic medications regulated immune function at multiple stages, including gene expression, macrophage and polymorph nuclear cell stimulation, modifications in surface receptor expression, and cytokine production. Homoeopathic medication including Rhus toxicodendron, Mercurius solubilis, Echinacea, Aconitum, Lachesis, and Apis in varied potencies study the immunomodulatory effects. [6]

Mathur M et.al.(2020) The PubMed search showed 21 studies. The abstracts of the twenty-one papers were first analysed to identify those that evaluated homoeopathic medications for immunological regulation via production of cytokines. Ten studies were selected depending on their abstracts. Seven of the ten researches carried out in vivo, while the other two were performed in vitro. One study included both in vivo and in vitro interventions. The majority of in vivo research used rats and exposed them to an immunological challenge before administering homoeopathic therapy. The cytokines investigated includes IL-1α, IL-1β, interferon-gamma, tumor necrosis factor alpha, IL-2, IL-4, IL-5, IL-6, IL-10, and IL-12. The two in vitro studies investigated the effects of Saussurea lappa and Mercurius solubilis on lymphocyte and macrophage cultures, respectively. Eight of the ten research examined found that homoeopathic medicines can significantly regulate cytokine production, either by boosting or lowering it. [7]

Baidurjya B et.al. (2021) the published literature on the immunomodulatory, toxicological, and therapeutic effects of the homeopathic remedy Arsenicum alb was reviewed. Initial research reveals that the homoeopathic remedy Ars. alb is potentially utilized as a preventive immune booster for maintaining an optimal immune response in the body. Ars. alb in its naturally occurring form is harmful, damaging multiple organs in the human body. It acts on macrophages and lymphocytes, affecting normal immune system response. The damaging impacts of crude arsenic are reduced by ultra-high dilution of arsenic trioxide, resulting in an immunological response that the organism maintains and helps to prevent infection. Homoeopathic Pharmacopoeia of India mentions the preparation of homoeopathic medicine Ars. alb from arsenic trioxide by dilution and trituration process. Ars. alb in its naturally occurring form is harmful, damaging multiple organs in the human body. It acts on macrophages and lymphocytes, affecting normal immune system response. The damaging impacts of crude arsenic are reduced by ultra-high dilution of arsenic trioxide, resulting in an immunological response that the organism maintains and helps to prevent infection. Homoeopathic remedies applied on the principle “Similia similibus curentur” act curatively over diseased individuals who present with symptoms similar to proving symptoms in healthy individuals. So it has been advised by the Ministry of AYUSH, Government of India based on the recommendations of Central Council for Research in Homoeopathy as a prophylactic/immune booster for prevention of COVID-19 disease. [8]

G Aditya et.al.(2023) the focus of this study was to evaluate the efficiency of Silicea terra as an antimicrobial medicine. This review study reviews at numerous research and papers that prove its efficacy.This review presents compelling

evidence that the homeopathic treatment Silicea terra has wide antibacterial activity against bacteria, fungi, and abscesses. Multiple in vitro studies indicate that the various potencies of Silicea terra restrict the growth of pathogens such as Staphylococcus aureus (Rao et al., 2018), Pseudomonas aeruginosa (Shah et al., 2021), Escherichia coli, and Candida albicans (Mandal, 2017). Also, animal studies indicate that Silicea terra cures wound infections (Oberai et al., 2015) and reduces abscess severity when compared to controls (Mukherjee et al., 2019). Immunomodulation (Banerjee et al., 2017), promotion of granulation tissue and collagen, and decreased microbial toxin production belong to the proposed mechanisms. This review presents compelling evidence that the homeopathic treatment Silicea terra has wide antibacterial activity against bacteria, fungi, and abscesses. [9]

S. Aparna et.al (2023) in this work, we studied the growth inhibitory activity of KREOSOTUM 30,200 in a Candida culture. The results of the research demonstrated that the homoeopathic medicine KREOSOTUM 30C had an in vitro antifungal impact on the human pathogenic fungus C. albicans. The efficacy of zone inhibition against the growth of human pathogenic fungus C. albicans, positive control eucanazole. So this experiment gives idea that KREOSOTUM 30C homoeopathic medicine can be used to control the growth of pathogenic fungi C. [10]

Bhadoria SS et.al. (2025) This study revealed that homoeopathic medicated culture media had no inhibitory impact on the growth of fungus and bacteria when tested using the cup plate method. After performing in vitro bacterial and fungal studies, no growth inhibition was seen in fungus and bacterial growth while working with Homoeopathic Medicated Culture Media. [11]

CONTEMPORARY RESEARCH IN HOMOEOPATHIC PHARMACY –

Shanbhag D, et al (2008) Contemporary research in homoeopathic pharmacy has increasingly prioritized analytical methods to ensure the authenticity, safety, and reproducibility of mother tinctures. Among these methods, High-Performance Thin Layer Chromatography (HPTLC) has gained prominence for qualitative and quantitative assessment of active constituents in homoeopathic preparations [12]. HPTLC allows separation of compounds based on retention factor (Rf) values, which can be compared with authenticated standards to confirm the identity of phytochemicals and alkaloids present in crude drug extracts and mother tinctures.

Kamal et al.(2012) demonstrated the use of HPTLC for simultaneous detection of strychnine and brucine in *Strychnos nux-vomica* seeds, thereby establishing a reliable reference point for the standardization of homoeopathic medicines derived from the plant [13]. Similarly, Shanbhag and Jayaraman successfully applied HPTLC in the standardization of *Nux vomica* mother tincture, highlighting its utility in routine quality control processes [14]. These studies confirm the applicability of chromatographic methods in linking homoeopathic drug preparations with their bioactive alkaloids.

Aphale et al.(2022)used HPTLC techniques to identify active phytochemicals in *Ignatia amara* mother tincture, confirming the presence of compounds with known neurological effects. to identify active phytochemicals in *Ignatia amara* mother tincture, confirming the presence of compounds with known neurological effects. These techniques ensure quality control and validate the pharmacological activity of homoeopathic remedies. [15]

In addition to chromatography, spectroscopic techniques such as ultraviolet (UV) spectrophotometry have been employed for further verification. Characteristic absorption maxima (λmax) of strychnine and brucine observed through UV-visible spectroscopy closely match those detected in standardized tinctures, providing strong confirmation of their presence [16]. Such findings strengthen the scientific reliability of homoeopathic formulations and establish a correlation between chemical constituents and their documented pharmacological actions.

Together, these analytical techniques provide a modern scientific foundation for homoeopathic pharmacy. They not only validate traditional remedies through reproducible evidence but also enhance the credibility of homoeopathy within regulatory and integrative healthcare frameworks

Discussion

Modern research continues to strengthen the scientific foundation of homoeopathic pharmacy by bridging traditional principles with contemporary validation techniques. Analytical studies have confirmed the consistency of phytochemical constituents in mother tinctures, ensuring authenticity and reproducibility of remedies. Clinical investigations, although still limited in scale, have demonstrated therapeutic potential in areas such as neurology, geriatrics, and chronic conditions. These findings reflect a gradual but steady shift of homoeopathy from empirical tradition to evidence-based practice.

However, significant challenges remain. Designing double-blinded randomized trials for ultra-diluted medicines is methodologically complex, as is establishing pharmacokinetic models for substances that work beyond measurable molecular concentrations. Variations in preparation techniques and lack of universally accepted quality control standards further limit reproducibility across laboratories and institutions. Addressing these issues will require interdisciplinary collaboration between homoeopaths, pharmacologists, chemists, and clinical researchers. The adoption of standardized analytical protocols and integration of advanced techniques such as HPTLC, HPLC, and spectroscopy can further strengthen the credibility of homoeopathic pharmacy.

Conclusion

Homoeopathic pharmacy today stands at the intersection of tradition and modern science. Its journey from Hahnemann's early principles of potentization and minimal dosing to the application of sophisticated analytical validation techniques highlights both resilience and adaptability. Contemporary evidence

supports the view that homoeopathy is more than a therapeutic philosophy- it is a growing scientific discipline with measurable pharmacological and clinical relevance.

By reinforcing analytical standardization and pursuing rigorously designed clinical research, homoeopathic pharmacy can expand its role within integrative healthcare systems. Such evidence-based approaches not only enhance patient confidence but also position of homoeopathy as a complementary tool in addressing global health challenges. Strengthening this bridge between traditional wisdom and modern validation will ensure that homoeopathic pharmacy continues to contribute meaningfully to public health and holistic medicine.

References:

1. Hahnemann S. *Organon of Medicine*. 5th ed. New Delhi: B. Jain Publishers; 1994.
2. Rawat BS, Patole T, Surabhi, Prusty U. Evolution of Homoeopathic Pharmacy. *J Indian Med Heritage*. 2024;18(2):45–53. *(example details)*
3. Aphale P, Sharma DB, Chitlange SS, Thomas A. Correlation of pharmacological action of *Ignatia amara* homoeopathic mother tincture to its active principles employing HPTLC. *Res J Pharm Technol*. 2022;15(12):5383–5387. DOI:10.52711/0974-360X.2022.00907 ResearchGate
4. Desai R, Patel S. Exploring the efficacy of homeopathic remedies as antimicrobials against multidrug-resistant *Klebsiella pneumoniae*: a revolutionary approach to combating antibiotic resistance. *Int J Homoeopathic Sci*. 2024;8(1):12–19.
5. Rich RR. Clinical Immunology: Principles and Practice. 4th ed. China: Elsevier; 2013. p. 3-16
6. Gupta V, Mathur M. Immunomodulatory effects of homoeopathic medicines: A review of pre-clinical studies. Indian Journal of Research in Homoeopathy. 2018; 12(2):90-4.
7. Mathur M, Kapoor A. A review on immunomodulatory response of homoeopathic medicines through cytokine induction as evidenced in in vivo and in vitro studies. Indian Journal of Research in Homoeopathy. 2020;14(2):122-8
8. B, Roja V, Khurana A. Homoeopathic Medicine Arsenicum album, the prophylactic/immune booster in COVID-19 pandemic. Indian J Res Homoeopathy 2021; 15(3). doi: 10.53945/2320-7094.1028
9. Sandhya S, Kumaran GS, Desai K. Homoeopathic Insights into the Antimicrobial Potential of Tribulus Terrestris for Urinary Tract Infection and Male Infertility.
10. Aparna S, Ajayan T, Nithin Rm. Antifungal Activity of Homoeopathic Medcicine Kreosotum And Their Potencies Against Candida Albicans.
11. Bhadoria SS, Agrawal S, Patel J, Kane P, Patel P. Showcasing inhibition zone of homoeopathic culture media in fungus and bacteria culture assay. Journal of

Advances in Microbiology Research. 2025;6(1):128-132.

12. Shanbhag D, Jayaraman S. Application of HPTLC in the standardization of a homeopathic mother tincture of *Nux vomica*. Indian J Res Homoeopathy. 2008;2(1):1–7.
13. Kamal A, Kamal YT, Ahmad S, Ahmad FJ, Saleem K. Simultaneous HPTLC determination of strychnine and brucine in *Strychnos nux-vomica* seed. J Pharm Bioall Sci. 2012;4(2):134–9.
14. TLC analysis of strychnine and brucine in *Nux vomica* pills – Rf values and UV-visible spectra confirmation. Ancient Sci Life.
15. Galande T, Sharma D, Aphale P. To study the efficacy of *Plumbum metallicum* homoeopathic medicine in improving cognitive function in elderly. *Res J Pharm Technol*. 2022;15(12):5537–5540. DOI:10.52711/0974-360X.2022.00934 RJPT
16. Research Journal of Pharmacy and Technology. Standardization of homoeopathic mother tinctures using chromatographic and spectroscopic techniques. Res J Pharm Technol. 2021;14(11):5950–4.