



Review Article

Integration of Homeopathy in One Health

Uma Tripathi¹, Yogesh Bahurupi¹, Aakriti Jasrotia¹

¹Department of Community and Family Medicine, All India Institute of Medical Sciences, Rishikesh, Uttarakhand, India.

***Corresponding author:**

Uma Tripathi,
Department of Community
and Family Medicine, All India
Institute of Medical Sciences,
Rishikesh, Uttarakhand, India.

ut511644@gmail.com

Received: 20 January 2024

Accepted: 01 February 2024

Published: 08 March 2024

DOI

10.25259/JCH_2_2024

Quick Response Code:



ABSTRACT

One Health is a multisectoral approach that has a tripod of human health, animal health, and environmental health. Homeopathy is based on the principle “Similia Similibus Curentur, which means like cure likes.” Samuel Hahnemann was the founder of homeopathy. Evidence has proven the effectiveness of homeopathic medicine in human as well as animal diseases. Homeopathy can be an important tool for resolving challenges in One Health. The study reveals the effects of homeopathic medicine on the environment also.

Keywords: One Health, Homeopathy, Zoonotic diseases, Antimicrobial resistance

INTRODUCTION

The concept of One Health has ancient origins, with its roots traced back to early thinkers. Hippocrates, in his work “Airs, Waters and Places,” recognized the interconnectedness of public health and a clean environment.¹ Aristotle, in his book “Historia Animalium” around 384 BCE-322 BCE, delved into comparative medicine, identifying shared characteristics among diverse species.² Virchow, from 1821 to 1902, introduced the term “zoonosis” to describe diseases transmissible from animals to humans.³ In 1947, Steele established the Division of Veterinary Public Health at the CDC, underscoring the intrinsic link between animal health and public health.⁴ The Conservation Society, in 2004, emphasized the vital role of the environment in both animal and human health.⁵

ONE HEALTH AND HOMEOPATHY

According to the World Health Organization (W.H.O.), areas of work where the One Health approach is particularly relevant include food safety, zoonotic disease control, laboratory services, neglected tropical diseases, environmental health, and antimicrobial resistance (AMR).⁶ Although the dilution law has been questioned as violating Avogadro’s law, it has shown significant improvement in cases involving human, animal, and environmental health.⁷

HOMEOPATHY IN TREATING ZOOONOTIC DISEASES

Zoonotic diseases are diseases that are transmitted by human animal contact.⁸ In India, the major public health zoonotic diseases are rabies, brucellosis, toxoplasmosis, cysticercosis, echinococcosis, Japanese encephalitis (JE), plague, leptospirosis, scrub typhus, and Kyasanur forest disease (KFD).⁹ When it comes to acting on zoonotic diseases, homeopathic medicines act miraculously.

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, transform, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

©2024 Published by Scientific Scholar on behalf of Journal of Comprehensive Health

Table 1: Preliminary insights into the potential use of homeopathic interventions for dengue.

Authors	Study design	Study sample	Results/Conclusion
Rath <i>et al.</i> ¹⁰	The case series encompassed four individuals diagnosed with dengue fever who sought medical care at both the OPD and IPD of “Dr. D.P.R.C.R.I.(H),” Noida, spanning the period from September 2015 to October 2015.	Case series	The symptoms of dengue fever align with the medicinal characteristics of <i>Eupatorium perfoliatum</i> . However, it is not advisable to make specific statements regarding the genus <i>Epidemicus</i> .
Mahesh <i>et al.</i> ¹¹	Ten patients with dengue fever received treatment at the Center for classical homeopathy in Bangalore, India. Initially, some patients were given fever-reducing medications when the fever started. However, once the diagnosis of dengue fever was confirmed, all patients were solely treated with homeopathic remedies.	10	This collection of cases suggests that classical homeopathy might be useful in treating dengue infection. However, we need more extensive studies to make sure how well it can work.
Gadugu <i>et al.</i> ¹²	To prevent illness, children aged 0–15 years were given specific doses of belladonna 200 on days one, two, and three, Calcarea Carb 200 on the tenth day, and Tuberculinum 10 M on the 25 th day every August for three years. The choice of these remedies considered similarities in symptoms, their complementary effects, potency, and the underlying factors contributing to the diseases. This project was called B.C.T.	Case report	Following its initiation in 1999, the incidence of mortality and morbidity associated with J.E. witnessed a significant reduction. In 2000, there were 343 reported cases with 72 fatalities, followed by a notable decline in subsequent years: 30 cases with four deaths in 2001, 18 cases with no deaths in 2002, and no reported cases in both 2003 and 2004. The government officially disseminated these statistics, thereby acknowledging the efficacy of homeopathic interventions.

OPD: Outpatient Department, IPD: Inpatient Department, J.E.: Japanese encephalitis, B.C.T: Belladonna calcarea tuberculinum

From table 1, it can be inferred that the presented studies offer preliminary insights into the potential use of homeopathic interventions for dengue and JE. Rath *et al.*'s case series of four dengue patients at Dr. D.P.R.C.R.I.(H), Noida, suggests a correlation between symptomatology and *Eupatorium perfoliatum*, emphasizing caution in extending observations to the genus *Epidemicus*.¹⁰ Mahesh *et al.*'s study with ten dengue patients in Bengaluru indicates the potential of classical homeopathy in treating dengue, calling for larger-scale investigations to validate its efficacy comprehensively.¹¹ Gadugu *et al.*'s prophylactic project, B.C.T, demonstrates a notable reduction in JE mortality and morbidity rates, supported by government acknowledgment.¹² While these findings are promising, further robust research is imperative to establish the efficacy and broader applicability of homeopathic approaches in the management and prevention of these infectious diseases.

ROLE OF HOMEOPATHY IN AMR

According to the W.H.O., “AMR occurs when bacteria, viruses, fungi, and parasites change over time and no longer respond to drugs, making infections more difficult to treat and increasing the risk of spreading disease, serious illness and death.” There is evidence that homeopathy works well for upper respiratory tract infections by reducing the use of antibiotics for these conditions.¹³

As described in table 2, the diverse studies which are presented shed light on various aspects of homeopathy's potential role in addressing infections and antibiotic resistance. Macri's randomized trial with children suggests that homeopathy may reduce the need for antibiotics, aligning with the broader literature advocating for complementary and alternative medicine in combating antibiotic resistance.¹⁴ Weiermayer *et al.*'s equine case report highlights the potential of homeopathic medicines in treating infections in animals, urging further research and collaboration between veterinary clinics and homeopathic practitioners.¹⁵ Frass *et al.*'s study on severe sepsis patients implies a beneficial effect of homeopathic treatment on long-term survival, emphasizing the need for more research and increased availability of trained homeopaths in medical settings. Rigorous research and collaboration are imperative for a comprehensive evaluation of its efficacy and mechanisms of action.¹⁶

ROLE OF HOMEOPATHY IN ANIMAL DISEASES

Studies that were conducted by Mathie and Clausen, and Zeise and Fritz, contribute valuable insights into the role of homeopathy in animal health, specifically in distinguishing clinical intervention with homeopathic medicines from placebos. Mathie and Clausen's meta-analysis, while highlighting very limited evidence, underscores the challenges posed by the low number and quality of trials, making it difficult to draw decisive conclusions [Table 3].

Table 2: Aspects of homeopathy's potential role in addressing infections and antibiotic resistance.

Authors	Study design	Study sample	Results/Conclusion
Macri ¹⁴	A total of 90 children were enrolled in the study and randomly assigned to either the homeopathic treatment group or the control group, with each group consisting of 45 patients. Antibiotics were administered to 33.3% of children in the treatment group, whereas 62.2% of children in the control group received antibiotics ($P=0.006$).	90	Existing literature provides evidence that the utilization of CAM, including homeopathy, has the potential to decrease reliance on antibiotics. This bears favorable implications for strategies aimed at addressing the challenge of antibiotic resistance.
Weiermayer et al. ¹⁵	On June 17, 2016, a four year-old gelding with an acute injury to the right front leg was brought to an Austrian clinic specializing in equine medicine for treatment.	1	Considering the worldwide concern about AMR, the "one health approach," and the European Commission's call for additional research in areas like CAM, including homeopathy, this case report proposes the need for further investigations into the efficacy of <i>Silicea terra</i> and other homeopathic remedies in instances of multidrug-resistant bacterial infections in horses or animals overall. Collaboration between equine clinics or animal practices and homeopathic veterinarians could facilitate such research endeavors.
Frass et al. ¹⁶	70 patients admitted to the MICU at the "University of Vienna" were evaluated for eligibility, and all eligible individuals were enrolled in the study. Each patient underwent randomization and received treatment; however, three participants had to be excluded due to incomplete data. Importantly, all enrolled patients survived.	67	The use of homeopathic treatment appears to positively impact the extended survival of individuals experiencing severe sepsis. However, conclusive recommendations require additional research. A notable impediment to further research and implementation is the scarcity of trained homeopaths available to guide treatment in the ICU.
Hossen et al. ¹⁷	The research utilized <i>Podophyllum</i> , China, <i>Nux vomica</i> , and Merc. Sol. homeopathic drug samples were gathered from various homeo halls in Bangladesh. The antimicrobial efficacy of these homeopathic substances was assessed through methods such as disk diffusion test, agar well diffusion test, turbidimetric method, and drug inoculation method into the medium.	Case report	Homeopathy demonstrated antimicrobial effectiveness in a highly concentrated state. Yet, the potential of these substances to serve as effective therapeutic agents requires further investigation. To accurately determine the genuine antimicrobial efficacy of these drugs, it is essential to use the mother tincture form obtained directly from the original manufacturer.
Dutta et al. ¹⁸	The study used <i>Enterococcus faecalis</i> to evaluate the antimicrobial effectiveness of three drug groups (benzoic acid, <i>silicea</i> , and calcium hydroxide). Antimicrobial activity was assessed by measuring mean inhibition zone diameters after incubation. Statistical analysis included ANOVA and Tukey's <i>post hoc</i> test ($P<0.05$) for inter-group comparisons.	Case report	In this <i>in vitro</i> study, the antimicrobial activity of benzoic acid extract was the highest, followed by silica extract and then calcium hydroxide.
Pareek et al. ¹⁹	Homeopathic medicines Sulfur, <i>Lobelia inflata</i> , Senega (in various dilutions), and <i>Klebsiella pneumoniae</i> nosode (in different potencies) were obtained from a certified homeopathic pharmacy. Clinical isolates were collected from a hospital, cultured, and stored for experimentation. 30	30	Homeopathic medicines show antibacterial effects against <i>Klebsiella pneumoniae</i> . Senega, Sulfur, and <i>Lobelia Inflata</i> in various potencies could be useful, but additional research, including <i>in vivo</i> and clinical trials, is required to confirm their mode of action.
Viksveen ²⁰	An overview of the existing scenario regarding antibiotic resistance, along with an exploration of homeopathy as a potential substitute for antibiotics.	Case report	Global antibiotic resistance poses a public health challenge. Increased funding for research on homeopathic remedies, supported by positive study outcomes, is crucial for addressing recurring infectious diseases, particularly in children.

Table 2: (Continued)

Authors	Study design	Study sample	Results/Conclusion
Zanasi <i>et al.</i> ²¹	The research, spanning January to December 2012 at a specialized cough management clinic in Bologna, Italy, included 80 consecutive patients with uncomplicated upper respiratory tract infections. Criteria for participation: Age 18+, —three to five days of URTI-induced cough. Exclusion criteria: Pre-existing respiratory issues, recent antibiotic use, or medication impacting cough symptoms.	80	While the study does not fully explain the mechanisms of the tested homeopathic treatment, findings contribute to the increasing evidence supporting the safety and efficacy of homeopathy in managing acute productive cough.

CAM: Complementary and alternative medicine, AMR: Antimicrobial resistance, MICU: Medical intensive care unit, ICU: Intensive care unit, ANOVA: Analysis of variance, URTI: Upper respiratory tract infection

Table 3: Insights into the role of homeopathy in animal health.

Authors	Methods	Results/Conclusion
Mathie and Clausen ²²	A previous paper detailed the review's aspects, such as literature search, eligibility criteria, data extraction, and bias assessment. Reliable evidence was deemed present in trials with low or unclear bias in certain domains. Results, presented as odds ratios, underwent meta-analysis using a random-effects model, with a risk of bias-driven sensitivity analysis.	The available evidence from meta-analyses indicates that distinguishing clinical interventions using homeopathic medicines from placebos in animals is difficult, mainly because of the limited quantity and quality of trials.
Zeise and Fritz (2019). ²³	Homeopathic studies up to February 2018 were gathered through searches in the Carstens Foundation's online library, published meta-analyses, references from mastitis-related doctoral theses, and online databases like "NLM pubmed.de, orgprints.de, and researchgate.com".	In brief, homeopathy was effective in preventing and treating mastitis, especially in clinical cases. Challenges stem from subclinical cases lacking observable signs, complicating remedy selection. No specific medication recommendation is offered for bovine mastitis.

NLM: National library of medicine

Table 4: Insights into homeopathy in environmental contexts.

Authors	Methods	Results/Conclusion
Aparicio <i>et al.</i> ²⁴	Samples of water were collected from different times and locations within the lake system both before and after seeding. Comparative controls involved obtaining water from a nearby lake that had not undergone any treatment, with a volume of 1385 m ³ .	The research suggests that Phos 30c's influence can spread across extensive water volumes, inducing system-wide alterations in a connected lake. Monitoring these changes with solvatochromic dye MV allows the assessment of homeopathic medicines in large-scale applications.
Pinto <i>et al.</i> ²⁵	<i>Artemia salina</i> cysts were exposed to mercury chloride at a concentration of 5.0 µg/mL during the hatching process, with varying potencies of mercury chloride (6cH, 30cH, 200cH) added to seawater. Various control measures were implemented. The study conducted four sets of nine experiments, investigating parameters such as cyst hatching percentage, levels of soluble total mercury, precipitated mercury content, and potential physicochemical indicators of biological activity of mercury chloride using solvatochromic dyes.	MC 30cH is theorized to enhance <i>Artemia salina</i> 's natural resilience, potentially influencing hatching rate and mercury bioavailability, suggesting protective effects.

MV: Methylene violet

ROLE OF HOMEOPATHY IN ENVIRONMENT

In brief, the studies by Aparicio *et al.* and Pinto *et al.* offer intriguing insights into homeopathy in environmental contexts. Aparicio *et al.*'s research on Phos 30c implies its influence spreads through extensive water volumes, with observable changes, suggesting potential applications

in drinking water, agriculture, and ecology through physicochemical monitoring [Table 4].^{24,25}

CONCLUSION

Integration of homeopathy within the One Health paradigm holds promise for addressing challenges in human, animal,

and environmental health. The discussed studies underscore the potential of homeopathic interventions across diverse health domains.

Homeopathy, grounded in the principle of “Similia Similibus Curentur,” contributes uniquely to the One Health paradigm. Noteworthy studies shed light on its potential applications, particularly in infectious diseases, AMR, and environmental health. Investigations by Rath *et al.*, Mahesh *et al.*, and Gadugu *et al.* suggest encouraging outcomes in managing diseases such as dengue and JE through homeopathic interventions, calling for comprehensive validation in large-scale studies.¹⁰⁻¹² In the realm of AMR, studies by Macri, Weiermayer *et al.*, Hossen *et al.*, Dutta and Maria, Pareek and Bhargav, Viksveen, and Zanasi *et al.* collectively propose homeopathy as a potential mitigator, indicating a reduction in antibiotic reliance with positive implications.¹⁴⁻²¹ Exploring homeopathy’s role in animal health, studies by Mathie and Clausen, and Zeise and Fritz, provide evidence distinguishing homeopathic interventions from placebos, albeit urging more robust trials for conclusive determinations.^{22,23} In addition, a research by Aparicio *et al.* and Pinto *et al.* underscores the potential environmental impact of homeopathic medicines, introducing a novel avenue for evaluating repercussions within extensive water volumes.^{24,25}

Call for further research

While the presented studies provide valuable insights, a consistent theme is the call for further research. Rigorous studies, larger sample sizes, and collaboration between homeopathic practitioners and conventional healthcare professionals are essential for establishing the efficacy and mechanisms of action of homeopathy across these diverse domains.

In conclusion, the integration of homeopathy into the One Health approach holds promise for addressing complex health challenges. The presented studies offer preliminary evidence of homeopathy’s potential in infectious diseases, AMR, animal health, and environmental impact. However, ongoing research and collaboration are vital for substantiating these findings and unlocking the full potential of homeopathy within the broader context of One Health.

Ethical approval

Institutional Review Board approval is not required.

Declaration of patient consent

Patient’s consent not required as there are no patients in this study.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

REFERENCES

1. Available from: <https://ia804702.us.archive.org/23/items/b23983139/b23983139.pdf>
2. Dunn PM. Aristotle (384-322 BC): Philosopher and Scientist of Ancient Greece. *Arch Dis Child Fetal Neonatal Ed* 2005;91:F75-7.
3. Schultz M. Rudolf Virchow. *Emerg Infect Dis* 2008;14:1480-1.
4. Legends: The Father of Veterinary Public Health. American Veterinary Medical Association. Available from: <https://www.avma.org/javma-news/2013-04-01/legends-father-veterinary-public-health> [Last accessed on 2023 Oct 14]
5. The Manhattan Principles. Available from: <https://oneworldonehealth.wcs.org/about-us/mission/the-manhattan-principles.aspx> [Last accessed on 2023 Oct 16].
6. One Health. Available from: <https://www.who.int/news-room/questions-and-answers/item/one-health#:~:text=the%20one%20health%20approach%20is> [Last accessed on 2023 Oct 18].
7. Mukerji N, Ernst E. Why Homeopathy is Pseudoscience. *Synthese* 2022;200:394.
8. World Health Organization. Zoonoses. Geneva: World Health Organization; 2020. Available from: <https://www.who.int/news-room/fact-sheets/detail/zoonoses> [Last accessed on 2023 Oct 17].
9. Kumar S, Swain S, Preetha G, Singh B, Aggarwal D. Zoonotic Diseases in India. *Indian J Community Med* 2020;45:1-2.
10. Rath P, Arya BS, Vichitra AK, Singh U. Case Series of Dengue Treated with Homeopathic Intervention. *Homœopath Links* 2019;32:31-5.
11. Mahesh S, Mahesh M, Vithoukaskas G. Could Homeopathy Become An Alternative Therapy In Dengue Fever? An Example of 10 Case Studies. *J Med Life* 2018;11:75-82.
12. Gadugu S, Nyapati SR, Sastry GL. An Open Observational Study on Efficacy of Miasmatic Prescription in the Prevention of Japanese Encephalitis. *Homeopathy* 2014;103:78-9.
13. World Health Organization. Antimicrobial Resistance. Geneva: World Health Organization; 2023. Available from: <https://www.who.int/news-room/fact-sheets/detail/antimicrobial-resistance> [Last accessed on 2023 Oct 18].
14. Macri F. Homeopathy and Antibiotic Resistance. *Rev Homœopath* 2019;10:e37-9.
15. Weiermayer P, Frass M, Peinbauer T, Ellinger L, De Beukelaer E. Evidence-Based Human Homeopathy and Veterinary Homeopathy. Comment on Bergh *et al.* A Systematic Review of Complementary and Alternative Veterinary Medicine:

- “Miscellaneous Therapies”. *Animals* 2021, 11, 3356. *Animals* 2022;12:2097.
16. Frass M, Linkesch M, Banyai S, Resch G, Dielacher C, Löbl T, *et al.* Adjunctive Homeopathic Treatment in Patients with Severe Sepsis: A Randomized, Double-blind, Placebo-controlled Trial in an Intensive Care Unit. *Homeopathy* 2005;94:75-80.
 17. Hossen F, Saha O, Mukharjee SK, Khan H, Amin M, Mehadi M, *et al.* Evaluation of Antimicrobial Activity and Determination of Suitable Method for Antibigram of Some Commercial Homeopathic Drugs. *World J Pharm Res* 2016;5:240-9.
 18. Dutta SD, Maria RD. Homeopathic Consideration for Resistant Endodontic Bacteria *Enterococcus faecalis*: An *in vitro* Comparative Disc Diffusion Study. *J Conserv Dent* 2020;23:528-32.
 19. Pareek S, Bhargav A. *In-vitro* Evaluation of Antibacterial Activity of Homeopathic Preparations on *Klebsiella pneumoniae*. *Int J Health Sci Res* 2020;10:176.
 20. Viksveen P. Antibiotics and the Development of Resistant Microorganisms. Can Homeopathy be an Alternative? *Homeopathy* 2003;92:99-107.
 21. Zanasi A, Mazzolini M, Tursi F, Morselli-Labate AM, Paccapelo A, Lecchi M. Homeopathic Medicine for Acute Cough in Upper Respiratory Tract Infections and Acute Bronchitis: A Randomized, Double-blind, Placebo-controlled Trial. *Pulm Pharmacol Ther* 2014;27:102-8.
 22. Mathie RT, Clausen J. Veterinary Homeopathy: Meta-analysis of Randomised Placebo-controlled Trials. *Homeopathy* 2015;104:3-8.
 23. Zeise J, Fritz J. Use and Efficacy of Homeopathy in Prevention and Treatment of Bovine Mastitis. *Open Agric* 2019;4:203-12.
 24. Aparicio AC, de Oliveira LH, Silva JS, Coelho CP, Pinheiro SR, Souza MF, *et al.* Interaction between Solvatochromic Dyes and Water Sampled from a Natural Source Treated with High Dilutions of Phosphorus. *Homeopathy* 2020;109:126-32.
 25. Pinto AA, Nagai MY, Coimbra EN, Mohammad SN, Silva JS, von Ancken A, *et al.* Bioresilience to Mercury Chloride of the Brine Shrimp *Artemia Salina* after Treatment with Homeopathic Mercurius Corrosivus. *Homeopathy* 2021;110:244-55.

How to cite this article: Tripathi U, Bahurupi Y, Jasrotia A. Integration of Homeopathy in One Health. *J Compr Health*. 2024;12:6-11. doi: 10.25259/JCH_2_2024