Swasthya Kalyan
Homoeopathic Medical College
& Research Centre
सर्वे भवन्तु सुखिनः

HOMOEOPATHY ARENA
OCTOBER - 25

Role of Physiology in Homeopathic Medical Education and Research

Department of Physiology & Biochemistry

Dr. Charu Agrawal MD, BHMS (HOMOEO.) [Asso.Professor]

Dr. Neha Kayath MD, BHMS (HOMOEO.), N.D.D.Y [Asst. Professor]

Introduction

Physiology is a scientific field of biology in which the functions of the human body are examined on several levels. It includes the studies the various activities that ensure that we stay alive in order to maintain a balanced system within our body and also work of molecules and cells that are integrated into the work of tissues, organs and other systems of the body. Physiology is the science that the mechanism through which the body responds to the external and internal stimuli. The topic presents an understanding that can help in enhancing the protocols and control of the disease in homeopathic medicinal system. It help to learn about the normal and abnormal physiological conditions of the body, which expands the areas of homeopathic medicine to provide cure and preventions for these conditions.

Physiology is the core teaching subject of homeopathic medical courses, and also links anatomy with clinical practice. Students, who relate physiology, learn about the functioning of the systems of the human body, appearance of the symptoms and application of scientific theories in the diagnostics and homeopathic treatment. Students not only memorize facts and ideas but also promote critical reasoning and problem solving skills, which is important in effective practice homeopathically.

Homeopathic Medical education and research are incredibly important as the discipline of physiology is the basis of the every medical research on new diagnostic techniques, healthcare technologies and even alternative homeopathic therapeutic techniques. There is also an improvement of technological advancement in the neurophysiology, cardiovascular physiology and exercise physiology in this region, which has led to improvements in current homeopathic medical science. The goal of physiology in medical research is to improve preventative measures, provides experimental evidence and models, which reinforces evidence-based practices in innovative and homeopathic clinical decisions.

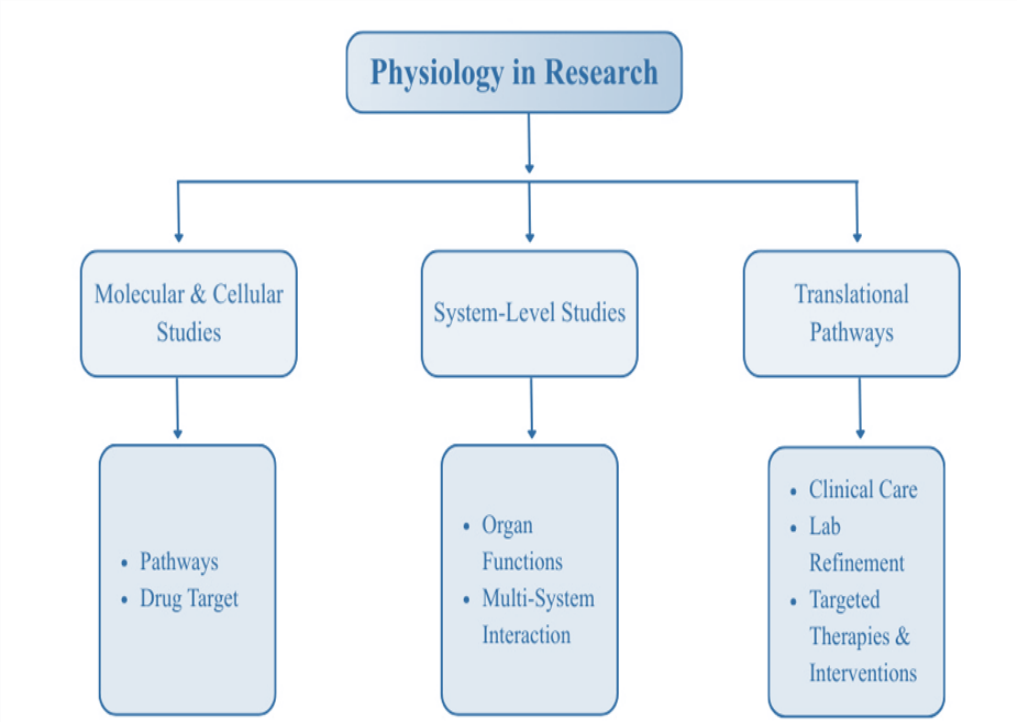
Physiology is not just a discipline, but also a field of study which has boosted the homeopathic medical curriculum, research and innovations as well as clinical decision-making. However, its implementation and instructional methods are being challenged, namely when rapid innovation is being adopted in the homeopathic healthcare system and enhancement of technological support in the field of homeopathic medical education and patient care.

Foundational Role of Physiology in homeopathic Medical Education

Effective clinical reasoning skills could be developed only through efficient training in physiology. It assists students to learn of physical functions, natural history of diseases and processes of therapeutic activities. The majority of clinical branches are based on most of the fundamental principles, including homeostasis, cardio-vascular regulatory, respiratory control, and transmission via nerves. Moreover, physiology facilitates analytical thinking (analytical reasoning) by training the outcomes of the Cause-And-Effect relationships to provide cure in homeopathy. Mastery in the above concepts provides the learner with the required knowledge, skills and confidence to provide accurate and effective care to the patients with homeopathic medicines.

Foundational Role of Physiology in homeopathic Medical Research

Physiology plays an extremely essential role in homeopathic medical studies since it enables us to understand the responses of the body at a wide variety of scales, including individual cells and the entire systems of organs. It enables us to study normal and abnormal physiological processes by means of systematic observation, hypothesis generation and experimental research.



Integrations of various body systems are explained by the modern physiology with the help of molecular research and holistic approach in different medicinal systems such as allopathic, homeopathy, unani, etc. Translational physiology sheds some light on the importance of transfer of research findings made in laboratory observations to real clinical practice, showing us how laboratory observations are used to inform the development of homeopathic therapeutic projects. This method will guarantee effectiveness of the interventions and that they are built in such a way that the outcome of health is enhanced by direct relation of the research project to the bedside care.

Integration and Curriculum Design: Linking Physiology with homeopathic Clinical Sciences

Medical schools also appreciate the blending of basic science with homeopathic clinical practice. Horizontal integration implies the teaching of Physiology, Anatomy, Biochemistry, and first clinical skills simultaneously. Vertical integration maintains basic physiological principles within ward-based teaching and case studies. Spiral curriculum demands the attainment of general principles first, making recall and use subsequently easy. Problem-based learning, interprofessional education, and virtual simulation labs may be introduced directly into practice. Homeopathic medical education curriculum may be improved based on changing demands within this field of healthcare.

Integration among basic and homeopathic-clinical faculty is important while creating a curriculum. Tests must not only prove knowledge, but also the ability to apply the principles of physiology in homeopathic practice. Updating the important concepts routinely over time strengthens the intellect as well as practice. Use of simulation-based tests and scenario-based theory questions closes the gap between theory and practice. This mechanism strengthens the core of physiology and primes the graduates to be proficient problem-solvers as well as patient-oriented caregivers.

Multi-disciplinary Nature of Physiology and Its Relation to Translational Research

Physiology is an essential connector between scientific research and multiple clinical practice. It offers an understanding of the working body at many levels by bringing together scientific expertise from many fields, such as molecular biology, pharmacology, homeopathy and biomedical engineering. This knowledge gives scientists as well as clinicians the capability to describe the mechanisms behind normal as well as pathological body functions, something that is valuable for the development of pharmaceuticals, devices, and diagnostic equipment designed to improve patient care. Translational research becomes instrumental in bringing research results from the laboratory environment into the homeopathic clinic, essentially converting theoretical constructs into empirical results. Though further advances such as computational systems, wearable sensors, and organoid systems enhance physiological methods to a large extent, they can only be appreciated when they are founded on solid fundamentals. This complementation of the fundamentals and the technological developments provides homeopathic clinicians and the scientific workforce with the ability to respond logically to the health concerns of the community and to envision a new improvements of homeopathic, clinical use with great utility.

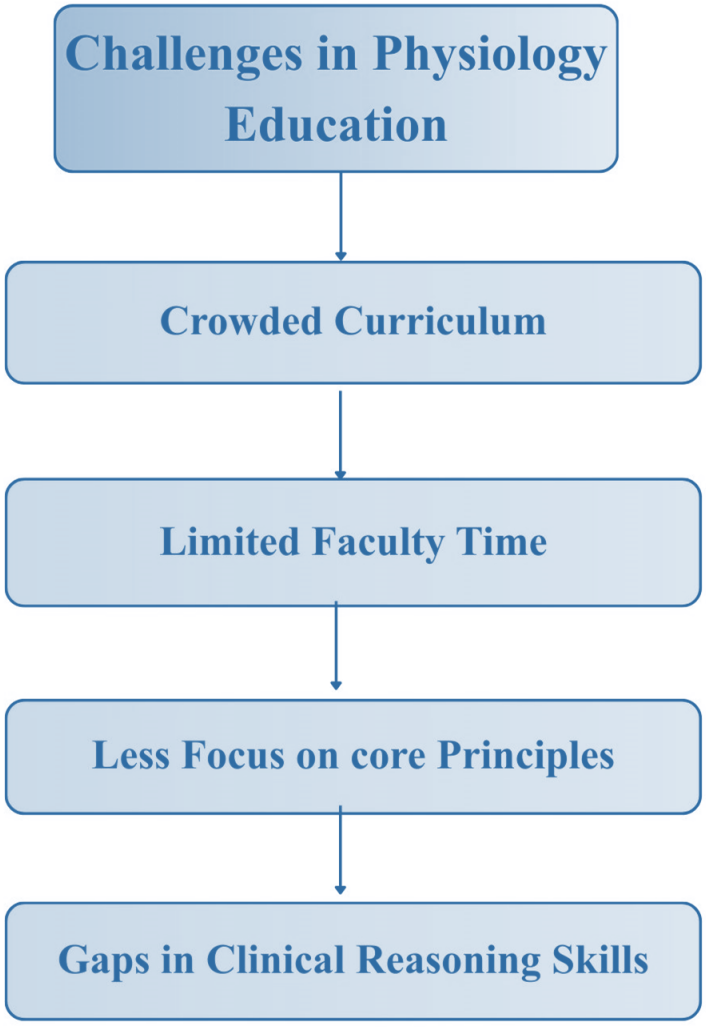
The concept of physiology is a multi- disciplinary science that brings together different fields and the possibility of the investigation of complex health issues where no single field can work alone. Genetics, bioinformatics and homeopathic clinical medicine are conducting a multifaceted research in physiology and thus, taking the health care into the individual realm. Laboratory research (Laboratory Level) is highly relevant that clinical practice is directly applied on the findings of the research, thus homeopathic medical therapies are informed by the knowledge of physiological concepts. The system also makes the treatment systems safe and effective through this approach. The communication of scientific investigation and homeopathic clinical performance is reinforced since versatile coordination in physiological laboratories is ongoing, and hence, the advances are immediate to improve the care of the

patient. Study of living organisms improves the process of health delivery by establishing fundamental competencies of science as well as the application of general research techniques. This process establishes a strong foundation for future professionals trained in introducing new treatments and technologies, engaging in critical evaluation, solving problems effectively, and delivering high-quality care.

Challenges, Possible Futures, and the Evolving Role of Physiology

It is challenging to instruct the homeopathic medical students about physiology because the curricula are short and time is limited. Points of emphasis on the need to learn mechanistically help to sidestep flaws in the reasoning that would undermine the decision-making clinically.

It is difficult to teach physiology to the medical students as the curriculum is condensed and time is short. Focus on the importance to learn mechanistically avoid flaws in the reasoning that would compromise the decision-making clinically.



To address this response, instruction in physiology needs to shift. Approaches such as scenario teaching and computerized simulations will improve understanding. Incorporation of measures in public health will keep the instruction pertinent to wider health care needs.

Physiology advocates translational research, interdisciplinary practice, and individualized patient care. Schools of homeopathic medicine should pay attention to training designs, adequately preparing instructors, and evaluation that promotes applications as well as rational reasoning during homeopathic clinical practice.

Physiology is critical in homeopathic medical research and education, helping students and researchers understand body functions, diseases, and treatments. Including it in curriculum and emphasizing its interdisciplinary importance ensures that future physicians and scientists have the necessary skills for high-quality medical care as medicine advances.

References

1. Adi AH, Hall J. *Physiologically lucky: the role of medical physiology in modern medical education.* PMC. 2013.
2. Bassey RB, et al. *Integration of physiology in a curriculum on human structure.* PMC. 2023.
3. Seals DR. *Translational physiology: from molecules to public health.* PMC. 2013.
4. Reynolds A. *The art of teaching physiology: its place in the integrated curriculum.* Frontiers in Physiology. 2023.
5. The Physiological Society. *Physiological objectives for medical students (curriculum guidance PDF).* 2021.

Pharmacovigilance in Homoeopathy: A Review of Current Trends

Department of Pharmacy

Dr.Vandana Sharma,DHMS,.(HOMOEO.) [Asso.Professor]

Introduction

The word "pharmacovigilance" is derived from the Greek word "pharmakon," meaning "medicinal substances, “and the Latin word "vigilare,"meaning “to keep watch ."It means to monitor how medications are working.[1] The World Health Organization(WHO) defines pharmacovigilance as "the science and activities relating to the detection, assessment, understanding, and prevention of adverse effects or any other medicine/vaccine- related problem."[2]

Evolution

A system to observe the effects of pharmaceuticals after they are cleared form assusage was established due to several negative drug incidents in the past. Records indicate that the history of ADR began on January 29, 1848, when Hannah Greener, a young girl from northern England, passed away following the use of chloroform anesthesia before the removal of an infected toenail.[3]

Over time, the entire world began to work to develop a pharmacovigilance system. As the WHO collaborating centre for international drug monitoring, the Uppsala Monitoring Centre (UMC) was established in Sweden in1978.It runs the WHO's global pharmacovigilance network's scientific and technological components.[4]

In India, the India Pharmacovigilance Society began raising awareness of ADRs in October 1983 at Maulana Azad Medical College in New Delhi. In 1989, the ICMR sponsored the first ADR project in the pharmacology department of Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh. In 1999,the Society of Pharmacovigilance India(SoPI) was established and registered as a dedicated forum for future discussions. In 2010, the National Pharmacovigilance Programme (NPP) was introduced under the Central Drug Standard Control Organization (CDSCO), Ministry of Health & Family Welfare, Government of India, New Delhi. In 2011, the National Coordinating Centre transferred from the All-India Institute of Medical Sciences (AIIMS) in New Delhi to the Indian Pharmacopoeia Commission (IPC) in Ghaziabad, Uttar Pradesh.[5]

Pharmacovigilance in homoeopathy

Worldwide, the use of homoeopathy as a therapeutic approach is becoming more and more popular every day. Pharmacovigilance is crucial in homoeopathy since it aids in determining the efficacy and safety of homoeopathic medications. Although homoeopathic medications are usually seen to be harmless, there have been some cases when they have had side effects. Thus, it is important to assess the effectiveness and safety of homoeopathic medications. The World Health Organization (WHO) has created guidelines for pharmacovigilance in homoeopathy that address risk management, regulatory requirements, and Pharmacovigilance concepts.[6]. The first work related to adverse drug reactions in the AYUSH sector occurred in 2005, when the Ibn Sina Academy of Medieval Medicine & Science (Aligarh) established the "Centre for Safety & Rational Use of Indian Systems of Medicine," in collaboration with WHO. In 2008,the Department of AYUSH, Ministry of Health and FW, Govt. of India, New Delhi, organised the first National Consultative Meet of the National Pharmacovigilance Programme. In March 2018, the Ministry of AYUSH signed an MoU with NCC-IPC; subsequently, the National Pharmacovigilance Program for Ayurveda, Siddha, Unani & Homoeopathy was launched as a Central sector scheme.[7].

Ayush Pharmacovigilance Network[8,9]

To monitor the safety of AYUSH medications, the Ministry of AYUSH established a three-tiered network of pharmacovigilance centres, including Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homoeopathy. The goal of this system is to identify, evaluate, comprehend, and stop adverse drug events (ADEs) and other drug-related issues that are connected to various medical systems. The 3-tiered networks are:

1. **A National Pharmacovigilance Coordination Centre (NPvCC)**: All India Institute of Ayurveda (AIIA), New Delhi, has been designated as NPvCC by the Ministry of AYUSH.
2. **Intermediary Pharmacovigilance Centers (IPvCs)**: All the national institutes (AYUSH) are included. For homoeopathy, it is the National Institute of Homoeopathy, Kolkata, West Bengal.
3. **Peripheral Pharmacovigilance Centers (PPvCs):** There are 15PPvCs in India.
   i) National Homoeopathy Research Institute in Mental Health under CCRH Kottayam, Kerala.
   ii) D.P.Rastogi Central Research Institute for Homoeopathy, under CCRH, Noida, UP.
   iii) Regional Research Institute for Homoeopathy, under CCRH Gudivada

iv) Regional Research Institute for Homoeopathy, under CCRH, Guwahati.

v) Regional Research Institute for Homoeopathy (Dr.Anjali Chatarjee RRI for Homoeopathy), under CCRH, Kolkata.

vi) Regional Research Institute for Homoeopathy, under CCRH, Mumbai.

vii) Regional Research Institute for Homoeopathy, under CCRH, Imphal.

viii) Regional Research Institute for Homoeopathy, under CCRH, Agartala.

ix) Government Homoeopathic Medical College and Hospital, Bhopal.

x) Mahesh Bhattacharya Homoeopathic Medical College & Hospital, Howrah, West Bengal.

xi) Sarada Krishna Homoeopathic Medical College, Kulasekharam, Kanyakumari, Tamil Nadu.

xii) Father Muller Homoeopathic Medical College & Hospital, University Road, Deralakatte, Mangaluru.

xiii) Department of Homoeopathy, AIIMS, Raipur.

xiv) Dr.M.P.K. Homoeopathic Medical College, Jaipur.

xv) Clinical Research Unit(H), Port Blair.

Recently,on30th May,2025,theMinistryofAyushhaslaunchedanonlineportal,the"**AyushSurakshа**" Portal, to Address Issues of Misleading Advertisements and Adverse Drug reactions.

Reporting[8]

Reporting of ADE (Adverse Drug Events)/ADR (Adverse Drug Reaction). There are a few criteria:

- Only a health care professional may report the ADR. If a patient develops ADR, heorshe may report it through the physician under whom they have taken treatment.
- When reporting, the Adverse Drug Reaction Reporting Form, which is designed for AYUSH systems, must be used.
- Further, the compilation of data on ADRs and the safety profile of each drug is done.

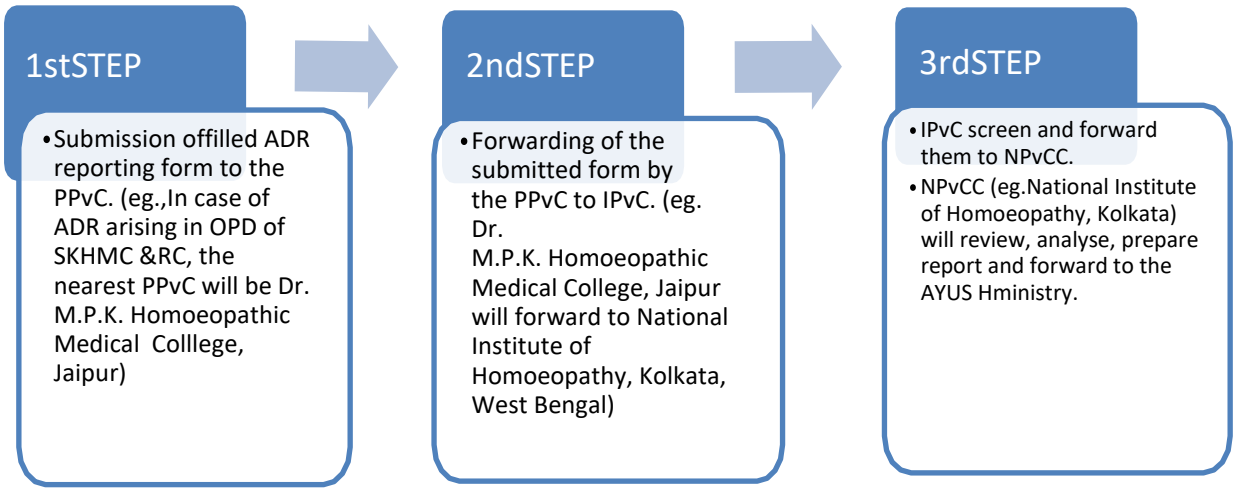


Figure1: Sequence of report of ADR/ADE with example.

Conclusion

Pharmacovigilance in homoeopathy plays an essential role in ensuring patient safety, maintaining public trust and gaining scientific research but it faces several challenges and limitations Some of the include the underreporting of adverse drug reactions (ADRs) due to misconceptions about the complete safety of homoeopathic remedies, a lack of training for practitioners on how to recognise ADRs, the absence of dedicated pharmacovigilance centres, poor integration with national reporting systems, and gaps inquality control. To create a reliable safety monitoring system in homoeopathy, we need to tackle these issues by enhancing reporting processes, launching comprehensive awareness campaigns, and strengthening the necessary infrastructure.

References:

1. Sattigeri, Bhagya and Desai, SV, Pharmacovigilance (December 2015). The Journal of Integrated Health Sciences|VolIII|IssueII|Dec2015, Available at SSRN: https://ssrn.com/abstract=3377981
2. World Health Organization. Regulation and Prequalification. Geneva: World Health Organization; 2022.Available from :https://www.who.int/teams/regulation-prequalification/regulation-and-safety/pharmacovigilance
3. Fornasier.G,Francescon.S, LeoneR, Baldo P, historical overview over Pharmacovigilance, International Journal of Clinical Pharmacy (2018) 40:744–747.
4. MuraliK, KaurS, PrakashA, MedhiB. Artificial intelligence in

pharmacovigilance: Practical utility. Indian Journal of Pharmacology. 2019 Nov;51(6):373.

5. SinghalK.C. Historical perspective of pharmacovigilance programme in India, Compendium of Invited Articles on Pharmacovigilance, 2019, IPGT&R in Ayurveda, P 1-6
6. Arun SM. Pharmacovigilance and its importance in homoeopathy. International Journal of Homoeopathic Sciences. 2023;7(2):438-439.
7. RanjitS(2020) Pharmacovigilance and Homoeopathy:AReview.J.Pharamacovigil.8:284.doi- 10.35248/2329-6887.20.8.284.
8. Pharmacovigilance protocol for Ayurveda, Siddha, Unani & Homoeopathy drugs, New Delhi, All India Institute of Ayurveda.
9. Ayush Suraksha. https://www.ayushsuraksha.com