

Physiology at the Crossroads!

Warm greetings!!

As we present the first issue of 2024, it is both relevant and timely to reflect on the changing landscape of physiology in India—Modern physiology is no longer confined to descriptive mechanisms; it is increasingly predictive, integrative, and clinically relevant. Physiological research now contributes directly to critical care protocols, exercise prescription, stress physiology, sleep medicine, and precision therapeutics. Encouraging locally relevant research aligned with global standards must remain a priority.

Medical education, too, stands at a crossroads. The implementation of Competency-based Medical Education (CBME) represents a paradigm shift in undergraduate medical training. The emphasis on competencies, early clinical exposure, integration, and skill-based learning has repositioned physiology from a predominantly theoretical discipline to a clinically contextual and application-oriented science essential for producing clinicians who practice rational, evidence-based medicine.

The articles of this issue underscore the importance of methodological robustness, ethical research practices, and interdisciplinary collaboration. The study on “Association between Metabolic Syndrome and Cognitive Function” expands the understanding of metabolic syndrome beyond its cardiovascular implications, highlighting its association with cognitive function. The paper “Analysis of the Association of Obesity Indicators with Diabetes and Hypertension” further reinforces the importance of anthropometric and physiological markers in predicting noncommunicable diseases.

“Prevalence of Abnormal Visual Acuity and Color Vision among Hotel Industry Personnel” draws attention to sensory physiology in nontraditional risk groups and emphasizes the role of periodic screening and workplace health assessment. The classical principles of respiratory and hematological physiology are revisited in “Evaluation of Hemoglobin Levels and Oxygen Saturation of Hemoglobin in Healthy Male Smokers and Nonsmokers.”

Medical education itself takes centerstage in the article “Effectiveness of Foundation Course in Improving the Mental Health of Indian Medical Graduate.” With CBME placing strong emphasis on professionalism, communication, and self-care, this study is both timely and relevant. Adding a strong diagnostic and clinical dimension to this issue is the review on “Esophageal Manometry”.

The *National Journal of Physiology (NJP)* continues to evolve in response to academic and technological developments. In this regard, we place on record our sincere appreciation to Jaypee Brothers Medical Publishers for their collaboration in journal publishing and for their professional support in website design and digital dissemination. On behalf of the editorial team, I extend my sincere appreciation to our authors, reviewers, and readers for their continued trust and engagement with NJP.

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