Transforming Medical Education to Meet India's Healthcare Demands

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India's rapidly growing population necessitates an urgent overhaul of our

medical education system to strengthen both primary healthcare services and specialized medical care. The latest data shows that India's doctor-population ratio has improved to 1:811,[1] surpassing the World Health Organization (WHO)-recommended standard of 1:1000.[2,3] However, the distribution remains highly uneven, with a severe shortage of general physicians and essential specialists in rural and semi-urban areas. While government initiatives have increased MBBS seats to 1.18 lakh, producing more doctors, the current postgraduate (PG) system remains fragmented and does not adequately cater to the country's healthcare priorities.[1]

A Reformed Postgraduate Medical Education Structure

To address India's healthcare demands effectively, the PG medical education system needs a fundamental restructuring to balance the production of basic doctors and specialist physicians/surgeons. The goal should be to ensure that all doctors receive a strong foundation in general medicine or surgery before advancing to subspecialty training.[4]

Broad-based Specialty Training in Medicine and Surgery

After MBBS, PG training should be streamlined into two broad specializations:

- MD (internal medicine or pediatrics).
- MS (general surgery, gynecology, or orthopedics).

This training should include:

- Two years of intensive clinical training, focusing on the management of common and complex medical and surgical conditions.
- One year of mandatory senior residency, allowing for supervised hands-on experience to develop expertise.
- For those interested in academic careers, an additional 1-year research component (thesis work) should be introduced. Doctors completing this track should be designated as academic MD/MS, making them eligible for teaching roles in MBBS and MD/MS programs.

Revised Superspecialty Training Model

- Only academic MD/MS graduates should be eligible to apply for superspecialty training.
- Selection should be based on a NEET superspecialty (NEET SS) eligibility examination, followed by 2 additional years of structured subspecialty training, including thesis and research work.
- Candidates interested in becoming PG medical teachers should undergo 1 additional year of advanced research training, ensuring expertise in both bedside and benchside medicine.

Superspecialty fields should include:

- Medical specialties: Cardiology, endocrinology, nephrology, oncology, dermatology, gastroenterology, pulmonology, psychiatry, radiology, clinical pharmacology, anesthesia, and critical care, etc.
- Surgical specialties: Cardiothoracic and vascular surgery (CTVS) surgery, plastic surgery, pediatric surgery, etc.
- Diagnostic specialties: Pathology, microbiology (which should require an initial MD in medicine or pediatrics qualification before further specialization).

Restructuring Nonclinical Specialties for Better Integration

Instead of separate MD programs for anatomy, physiology, pharmacology, pathology, microbiology, and forensic medicine, these disciplines should be taught by academic MD/MS graduates with an additional 2-year focused training in their respective fields:

- MD medicine (academic) should cover medical physiology, medical biochemistry, medical pharmacology, and medical microbiology in the MBBS curriculum.
- MS surgery (academic) should cover surgical anatomy and forensic medicine in the MBBS curriculum.

This ensures that only clinically trained doctors lead medical education, strengthening the bedside-to-benchside approach in medical science.[5]

Proposed Pathway for Medical Education in India

- NEET UG → MBBS (with professional examinations).
- NEXT exam → MD or MS (medicine/pediatrics/surgery/gynecology/orthopedics)—2 years.
- Those opting for academic MD/MS complete an additional 1-year research component.
- NEET SS → subspecialty training (2 years) + optional 1-year PG teaching training for those wanting to become medical faculty.
- Pathology/microbiology aspirants must complete an MD in medicine or pediatrics before specialization.

Emphasizing a Skill-driven MBBS Curriculum

- Skill-based training should be the primary focus of MBBS education, ensuring that graduates can effectively manage 90% of common ailments before advancing to PG training.
- The MBBS curriculum should be shortened and streamlined to focus on essential clinical skills, primary healthcare delivery, and emergency medicine.
- Academic MD/MS specialists should teach MBBS students, while subspecialty-trained faculty should oversee advanced PG training.

Call for Holistic Reform in Medical Education

The future of India's healthcare system depends on how effectively we train our doctors—both at the primary care level and in specialized disciplines. The proposed restructuring of medical education and PG training ensures that we produce more skilled general physicians while also maintaining a robust pipeline of specialist and superspecialist doctors.

We urge medical educationists, policymakers, and healthcare leaders to holistically address this pressing issue by implementing a structured, competency-driven framework that aligns medical education with the country's real healthcare needs. By prioritizing clinical skill development, standardizing PG pathways, and ensuring the right balance of generalists and specialists, we can build a more effective and accessible healthcare system. A comprehensive national policy on medical education reform is the need of the hour, and we call upon all stakeholders

to engage in meaningful dialogue and take decisive action toward this transformation.

Declaration of Generative AI and AI-assisted Technologies in the Writing Process

During the preparation of this work, the author used ChatGPT (OpenAI) to assist in refining language and improving readability. After utilizing this tool, the author thoroughly reviewed and edited the content to ensure accuracy, coherence, and alignment with the intended arguments, taking full responsibility for the final version of the publication.

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