

Addressing the Challenges in Medical Training for Occupational Health in India's Rapidly Industrializing Landscape

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I am writing this letter to address the gap in occupational health training among medical professionals in India. Although urbanization and industrialization are advancing at an extraordinary pace in India, the same momentum is not being reflected in the field of occupational health. As India now boasts over 250 million industrial units, the health and safety of millions of employees working in hazardous environments has become a critical issue.

Occupational health, which focuses on ensuring the physical, mental, and social well-being of workers, plays a crucial role in enhancing workforce productivity and promoting economic growth.¹ Workers spend a significant portion of their lives at work, and their work environment directly impacts their health. Poor occupational health practices lead to a variety of health issues such as respiratory diseases, musculoskeletal disorders, mental health conditions, and even fatal injuries. These problems not only impact individual workers but also result in significant

economic losses through reduced productivity, absenteeism, and increased healthcare costs.

The Government of India has established legislation such as the Factories Act² and the Employees' State Insurance (ESI) Act, aimed at protecting employee rights and providing health benefits. Additionally, the Directorate General of Factory Advice Service & Labor Institutes (DGFASLI) also contributes its part by training medical professionals in occupational health through its various training modules. One of them is the Associate Fellow of Industrial Health (AFIH) program, a three-month comprehensive course that is a statutory requirement for doctors working in the industrial sector. This program offers a robust curriculum, covering occupational health practices, environmental health, and statutory provisions, supplemented with research methodology and industrial visits.³

We at ESIC Medical College and Hospital, Faridabad, were the first among our cohort to complete this course following approval from

DGFASLI. However, the preparedness of the medical community to address the complex issues of ergonomics, industrial safety, and hygiene remains a concern, and several challenges hinder its effectiveness.

One of the significant hurdles is the lack of practical training infrastructure in medical colleges. The institutions often lack the necessary labs, museums, or hands-on opportunities that would enable doctors to gain real-world experience in industrial health settings. Most of the present medical professionals are not themselves trained in the specialized and complex topics of industrial safety, industrial hygiene, occupational health, and environmental health. The AFIH program not only demands medical expertise but also requires professionals to work collaboratively with workers, management, and law enforcement agencies.

Another challenge is the complexity of adult learning, where students have to juggle work, family responsibilities, and coursework.⁴ The additional financial burden of pursuing this course, staying in the hostel away from the family, combined with the struggle to stay motivated in acquiring new skills later in their careers, further complicates their ability to engage fully with the training.

Given ESIC's unique position to offer students a firsthand, world-class experience in managing occupational hazard-exposed individuals through its OPDs and industrial camps, we have worked to address these training gaps by providing hands-on, clinically focused instruction to our AFIH students.

Our curriculum was further enriched by incorporating lessons in research methodology and biostatistics from community medicine experts, while integrating our students into ESIC's healthcare system to ensure comprehensive learning.

To increase the momentum in occupational health training, the following measures are worth suggesting:

- 1) **Integrating Occupational Medicine into MBBS Curriculum:** Occupational Medicine

should be recognized as a core subject rather than a peripheral component of medical education. Furthermore, in line with other medical specialties, a dedicated postgraduate (Master's) degree in Occupational Health should be introduced to provide in-depth, specialized training. This would not only enhance the competency of healthcare professionals in managing work-related health issues but also elevate the status and scope of occupational health as a distinct and essential medical discipline.

- 2) **Increasing CME on Occupational Health for Faculty:** Regular Continuing Medical Education (CME) sessions on occupational health should be conducted for faculty members. This will ensure they remain well-equipped with the latest knowledge and practices to train AFIH students effectively.
- 3) **Fostering Interdisciplinary Collaboration:** Medical professionals should work in tandem with interdisciplinary fields, recognizing the diverse skill sets required to address the complexities of occupational health. This promotes a holistic approach to the course.
- 4) **Ethical Considerations and Worker Rights:** The AFIH curriculum should emphasize the ethical responsibilities of occupational health professionals, including the importance of respecting worker rights and maintaining workplace safety standards.
- 5) **Mental and Social Health Sensitization:** Alongside physical health, AFIH students should be sensitized to the mental health and social environment of workers. This holistic approach ensures that all aspects of worker well-being are addressed.

A medical professional trained in occupational health has the power to significantly improve the quality of life for workers, potentially adding

years to their lives by addressing work-related health issues.

In conclusion, while efforts have been made to address occupational health through legislation and training programs, there is a pressing need to enhance the medical education and infrastructure related to occupational health. Collaboration between the medical and engineering fields, investment in training resources, and the development of more comprehensive educational programs are essential to meet the rising demand for occupational health services in India.

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