

Perspective

# Medical education in vernacular language in India: Potential advantages, challenges, and a way forward

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## INTRODUCTION

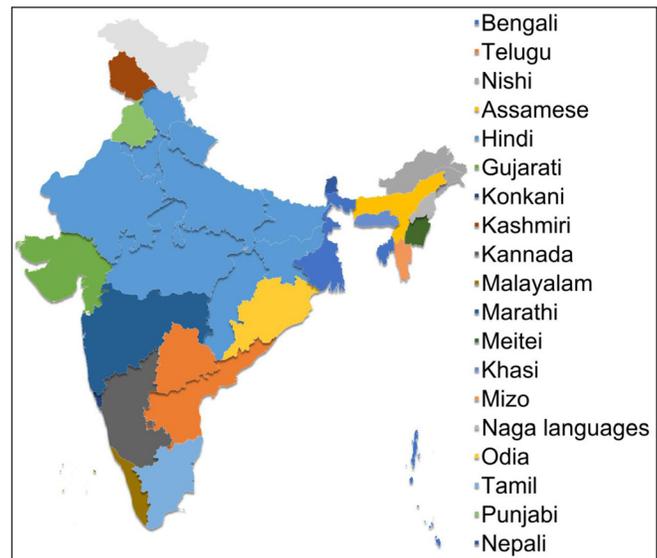
The landscape of medical education is evolving, with a growing recognition of the need for inclusivity and accessibility. One significant aspect gaining attention is the prospect of delivering medical courses in vernacular languages.<sup>1</sup> This shift may hold the promise of addressing barriers to education and have the potential to produce a more culturally competent healthcare workforce.<sup>2</sup> Many developed countries like Germany, Japan, Korea, Norway, and Sweden are having their medical courses in the vernacular language.<sup>3</sup> However, Indian medical education is in English. Although teachers may deliver the lectures and instruction in a combination of English with local languages, the written expression is always in English.<sup>4</sup>

India does not have a national language, but the official language are Hindi and English. There are a total of 22 scheduled languages, including Hindi.<sup>5</sup> Hence, adding English to it makes the list 23. Indian states and union territories, along with the most spoken scheduled languages, are shown in Figure 1. Currently, many states are taking steps to implement medical education in vernacular language; the first step being taken is publishing books in the regional language. As this method is in a nascent phase, we, in this article, enlist potential advantages and challenges in its implementation.

## ADVANTAGES

Implementing medical education in vernacular languages in India can offer several advantages. Potential advantages are enlisted in Table 1 and described briefly below.<sup>6,7</sup>

Delivering medical education in vernacular languages enhances accessibility for a wider segment of students.



**Figure 1:** Indian states and union territories along with the most spoken scheduled languages. States are arranged alphabetically and the most spoken language is shown. Source: <https://censusindia.gov.in/nada/index.php/catalog/42561> (based on 2011 census)

Coming from a vernacular language background, many students face challenges when exposed to the English medical curriculum. For them, medical education in their vernacular language could break down linguistic barriers.<sup>8</sup>

Medical subjects can be highly complex, and language proficiency plays a vital role in comprehension. When the courses are offered in vernacular languages, students may grasp complex concepts more easily. This would lead to a stronger foundation in medical knowledge among students.<sup>9</sup>

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**Table 1:** Potential advantages and challenges in implementation of medical education in vernacular language in India

Advantages	Challenges
Increased accessibility	Standardization issues
Enhanced comprehension	Global recognition
Retention and academic performance	Limited educational resources
Improved communication skills	Faculty shortage
Community engagement	Technological challenges
National language preservation	Professional communication barriers
	Examination and licensing challenges
	Career mobility constraints

Students may experience improved retention and academic performance when studying in their mother tongue.<sup>10</sup> This can lead to a higher success rate in medical examinations and better prepared healthcare professionals entering the workforce.

Medical graduates educated in their native language may exhibit stronger communication skills, both in interacting with patients and collaborating with fellow healthcare professionals.<sup>11</sup> This can result in more effective doctor-patient relationships and interdisciplinary teamwork. This will also help in engaging with the community and reduce the gap between the health professionals and the society.

Encouraging medical education in vernacular languages also plays a role in preserving and promoting linguistic diversity. It acknowledges the importance of regional languages in the broader context of the country's cultural heritage.

While these advantages are significant, it's essential to address the associated challenges to ensure that the implementation of vernacular language medical education is well rounded and meets the standards required for producing competent healthcare professionals.

## DISADVANTAGES

Potential disadvantages at this moment are described briefly below.<sup>12,13</sup>

Translating complex medical terminology into vernacular languages may lead to inconsistencies and challenges in maintaining standardized content.<sup>14</sup> Ensuring that the curriculum aligns with national and international standards becomes more complex.

Medical professionals often need to communicate and collaborate on a global scale. Graduates of vernacular language

medical programs may face challenges in international contexts where English is the predominant language. This can potentially affect global recognition of their qualifications.<sup>15</sup>

Developing high-quality educational resources, including textbooks, research materials, and reference materials, in vernacular languages can be resource-intensive. This may result in a shortage of comprehensive and up-to-date materials, affecting the overall quality of education.<sup>16</sup>

Finding qualified faculty proficient in both medical knowledge and vernacular languages can be challenging as their training was in English and they have been in the profession for a long time. This shortage, along with the current shortage of medical teachers, may compromise the quality of education.<sup>17</sup>

Medical education often relies on advanced technology, digital platforms, and multimedia resources. The majority of the digital resources are not available in the Indian language. Adapting and translating these resources into vernacular languages may pose technological challenges and require additional investments in infrastructure.<sup>18</sup>

Medical graduates of vernacular language medical programs may face challenges in professional communication. At any international conferences, they may face challenges in presenting their work. Publications in journals in English may be another problem that may limit knowledge dissemination.<sup>19</sup> Hence, this could impact the Indian presence in the global healthcare community.

Designing examinations and licensing procedures in vernacular languages that meet national and international standards can be complex. When India is preparing for a common exit test for graduation, it would be challenging to design those in regional languages.

Graduates from vernacular language medical programs may face limitations in career mobility, especially if they choose to practice in regions where a different language is predominant [Figure 2]. This could affect their ability to seamlessly integrate into healthcare systems outside their linguistic region.

Addressing these disadvantages requires a thoughtful and comprehensive approach to curriculum development, faculty training, resource allocation, and recognition of qualifications at a national and international level. Balancing linguistic inclusivity with global standards is crucial for the success of vernacular language medical education in India.

## A WAY FORWARD

Mitigating the challenges associated with implementing medical education in vernacular languages in India requires a multifaceted and strategic approach. One key aspect is the standardization and development of curricula. National guidelines should be established to guide the translation



**Figure 2:** A girl's confusion about utility of vernacular medical education in India. Source: Part of the image was generated by artificial intelligence—Microsoft Image Creator from Designer on January 22, 2024, with authors' text input.

and standardization of medical terminology in vernacular languages. Collaborations between medical experts, linguists, and educators are essential for the creation of comprehensive and standardized vernacular language medical curricula. Additionally, regular updates to educational materials should be prioritized to ensure alignment with the latest advancements in medical knowledge.

Investing in educational resources is paramount for the success of vernacular language medical education. Adequate resources should be allocated for the development of high-quality textbooks,<sup>20</sup> reference materials, and multimedia resources in vernacular languages. Establishing partnerships with publishers, educational technology companies, and research institutions can provide valuable support for the creation of vernacular language medical resources.

Addressing the challenge of faculty proficiency involves the implementation of training programs. Faculty members should undergo training to enhance their proficiency in both medical knowledge and vernacular languages. Collaborative efforts between medical professionals and linguists can ensure the effective design of course content.

Addressing language-related challenges in examinations and licensing requires thoughtful adaptations. Examination and licensing procedures should assess competency in medical knowledge rather than relying solely on language proficiency. Collaboration with licensing bodies is necessary to ensure the recognition of vernacular language medical degrees at

both national and international levels, thereby facilitating smoother career transitions for graduates.

Promoting career development and mobility for healthcare professionals educated in vernacular languages involves offering language-specific continuing education opportunities. Policies should be developed to recognize the qualifications and skills of healthcare professionals across linguistic regions. They should have the opportunity to continue education in post graduation and higher level.

Finally, global collaboration and recognition are imperative for the success of vernacular language medical education on a broader scale. Advocacy efforts should be directed toward gaining international recognition of vernacular language medical degrees through collaborations with global accreditation bodies.

## CONCLUSION

The implementation of medical education in vernacular languages in India presents a transformative opportunity with significant advantages and challenges. The journey toward vernacular language medical education requires a comprehensive and collaborative approach. Standardizing curricula, enhancing faculty proficiency, investing in educational resources, and integrating technology are vital components of success. Global recognition and adaptation in examination and licensing procedures are key considerations to ensure graduates' competitiveness on an international stage.

## Authors' contributions

HM: Concept and design, literature search, drafting manuscript; SM: concept, literature search, editing manuscript.

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## REFERENCES

1. Supe A. Evolution of medical education in India: The impact of colonialism. *J Postgrad Med* 2016;62:255-9.
2. Rukadikar C, Mali S, Bajpai R, Rukadikar A, Singh AK. A review on cultural competency in medical education. *J Family Med Prim Care* 2022;11:4319-29.
3. Hamad AA. Decolonization of medical education: A global screening of instructional languages and mother tongue dependence. *J Med Sur Public Health* 2023;1:100007.

4. Batta A. Importance of english in medical education. *J Med Acad* 2019;2:58–60.
5. Narayan L. Addressing language barriers to healthcare in India. *Natl Med J India* 2013;26:236-8.
6. Pramod PN, Kad M. Understanding the importance of vernacular medium schools in India today. *Int J Adv Sys Social Eng Res* 2013;3:12–7.
7. Agarwal PK, Khan IA, Agarwal P, Gupta SK. Dilemmas and perceptions regarding medical education in Hindi medium among medical community of Northern India: A cross sectional study. *Healthline* 2023;14:79–84.
8. Abdelwahab OA. Embracing bilingualism in medical education: Integrating Arabic for enhanced understanding in the Arab world. *Qatar Med J* 2024;2024:5.
9. Khallof RO, Doumani M, Farid FAS, Mostafa D, Alhafian RAA. Dental education in the arabic language vs english language: A survey among Arab dentists. *J Family Med Prim Care* 2019;8:3908-3914.
10. Vogelzang M, Tsimpli IM, Balasubramanian A, Panda M, Alladi S, Reddy A, *et al.* Effects of mother tongue education and multilingualism on reading skills in the regional language and english in India. *TESOL Quarterly*. 2024.
11. Al Shamsi H, Almutairi AG, Al Mashrafi S, Al Kalbani T. Implications of language barriers for healthcare: A systematic review. *Oman Med J* 2020;35:e122.
12. Sechel TD. Medical knowledge and the improvement of vernacular languages in the Habsburg Monarchy: A case study from Transylvania (1770-1830). *Stud Hist Philos Biol Biomed Sci* 2012;43:720-9.
13. Sharma DC. Language changes for Indian medical education. *Lancet* 2022;400:1575.
14. Sabbour SM, Dewedar SA, Kandil SK. Language barriers in medical education and attitudes towards Arabization of medicine: Student and staff perspectives. *East Mediterr Health J* 2012;16:1263-71.
15. Chan SMH, Mamat NH, Nadarajah VD. Mind your language: The importance of english language skills in an International Medical Programme (IMP). *BMC Med Educ* 2022;22:405.
16. Pelicioni PHS, Michell A, Santos PCRD, Schulz JS. Facilitating access to current, evidence-based health information for non-english speakers. *Healthcare (Basel)* 2023;11:1932.
17. Ananthkrishnan N. Acute shortage of teachers in medical colleges: Existing problems and possible solutions. *Natl Med J India* 2007;20:25-9.
18. Bankar MN, Bankar NJ, Singh BR, Bandre GR, Shelke YP. The role of e-content development in medical teaching: how far have we come? *Cureus* 2023;15:e43208.
19. Valkimadi PE, Karageorgopoulos DE, Vliagoftis H, Falagas ME. Increasing dominance of english in publications archived by PubMed. *Scientometrics* 2009;81:219–23.
20. Kendirci M. How to write a medical book chapter? *Turk J Urol* 2013;39:37-40.

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