

Dilemmas and Perceptions regarding Medical Education in Hindi medium among Medical Community of Northern India: A Cross Sectional study

Pankaj Kumar Agarwal¹, Imran Ahmed Khan², Pragya Agarwal³, Satish Kumar Gupta⁴

¹Assistant Professor, Department of Human Metabolism and Endocrinology, LLRM Medical College, Meerut, UP, India

²Senior Resident, Department of Community Medicine, BRD Medical College, Gorakhpur, UP, India.

³Assistant Professor, Department of Physiology, Rama Medical College Hospital and Research Centre, Hapur, UP, India.

⁴Assistant Professor, Department of Medicine, Seth GS Medical College Hapur, UP, India

Correspondence: Dr Imran Ahmed Khan, Email: ikhan0046@gmail.com

Abstract:

Introduction: The medical curriculum, the medium of instruction and evaluation in India, is primarily English. While it has the advantage of preparing Indian medical graduates to represent and interact globally, it also translates into learning difficulties for a substantial population of Indian medical students. Hindi is the common language of communication among majority of the population in Uttar Pradesh. Madhya Pradesh Government in India has already started the option of pursuing the allopathic graduate medical course in Hindi. There is paucity of data regarding opinion of medical professionals about implementation of Medical Education in Hindi in Uttar Pradesh and nearby states. **Objective:** To assess the attitude and opinion of medical students and medical professionals towards using Hindi in Medical Education. **Method:** A cross-sectional web-based online survey was conducted between 1st December 2022 and 31st January 2023. Undergraduate medical students, interns, residents and faculty from medical colleges, hospitals of Uttar Pradesh and neighbouring states (Uttarakhand and Bihar) were contacted to participate in this survey using pretested structured questionnaire. **Results:** A total of 1606 participants responded and answered the questionnaire and 1575 responses were found complete and used in analysis. Most participants (52.8%) believed that Medical Education in Hindi would attract more students from Hindi backgrounds to join the medical field. Similarly, 58.9% of participants were of the opinion that Medical Education in Hindi would improve communication with patients. However, about half of the participants (49.5%) perceived teaching in Hindi as a hurdle in acquiring higher education. **Conclusion:** More than half of the participants thought that medical education in Hindi will attract more students from Hindi backgrounds to join the medical field. Similarly, Medical Education in Hindi was perceived to improve communication skills with patients, at least where Hindi is a vernacular language by majority of the participants.


Keywords: Curriculum, Hindi, Language, Medical Education, Opinion, Policy

Introduction:

The medical education system in India is one of the largest in the world. ^[1] Although the vernacular language in India is not English, medical education is mainly imparted in English. The medical curriculum, the medium of instruction and evaluation in India, is primarily English. While it has the advantage of preparing Indian medical graduates to represent and

interact globally, it also translates into learning difficulties for a substantial population of Indian medical students. Modern medical literature is not available in Hindi.

Moreover, the medical terminology in Hindi is limited. Nagari Pracharini Sabha (established on 16th July 1893, Kashi) published the first Hindi Scientific Glossary (HSG) in 1906. Since then, the same has

Quick Response Code	Access this article online	How to cite this article :
	Website : www.healthlinejournal.org	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(1): 79-84
	DOI : 10.51957/Healthline_489_2023	

hardly been updated. The HSG was intended to provide Hindi equivalents for English technical terms used in scientific communications.^[2] Some e-journals are also devoted to promoting Hindi in Medical Education (Medical Concepts in Hindi).^[3] Recommendations to improve medical education in India have been given by different scholars at regular intervals. Some have been put into practice. Madhya Pradesh Government in India has already started the option of pursuing the allopathic graduate medical course, MBBS, in Hindi. Those trained in the Indian vernacular language may find it challenging to interact abroad, but they may serve better in their native rural areas.^[4] Uttar Pradesh and neighbouring states Delhi, Bihar, Haryana, Himachal Pradesh, Uttarakhand, Madhya Pradesh, and Rajasthan constitute India's Hindi-speaking heartland. Hindi is the Lingua Franca (a shared language of communication) of this state.^[5] So, this study was planned to obtain the opinion of medical professionals about implementation of Medical Education in Hindi in Uttar Pradesh and nearby states.

Objectives:

To assess the attitude and opinion of medical students and medical professionals towards using Hindi in Medical Education

Method:

A cross-sectional web-based online survey was conducted using Google Form. The survey was conducted to collect responses between 1st December 2022 to 31st January 2023. Undergraduate medical students, interns, residents and faculty from medical colleges, hospitals of Uttar Pradesh and neighbouring states were contacted to participate in this survey. A pretested, structured questionnaire was designed by the authors after discussion and consultation with senior faculty of the department to fulfil the objective. The target population was approached via various social media platforms, including WhatsApp, e-mail, Facebook etc.

Results:

A total of 1606 participants responded and answered the questionnaire. Incomplete data found during data cleaning were excluded. One thousand five hundred seventy-five responses were found complete and used in further analysis.

Five hundred and seventy-one (36.3%) participants used the Hindi language to provide their responses. Majority (44.8%) of the participants were below 25 years of age. Male participants were 1065 (67.6%), whereas females were 510 (32.4%). Demographic variables are compiled in Table 1.

About one-third (35.5%) of participants felt that, entire medical curriculum wrapped in English language is challenging for majority of students to understand. When asked about the impact of providing medical education in the Hindi language, 616 (39.1%) participants agreed that it would help students further. Most participants (52.8%) believed that Medical Education in Hindi would attract more students from Hindi backgrounds to join the medical field. Similarly, 58.9% of participants were of the opinion that Medical Education in Hindi would improve communication with patient. However, about half of the participants (49.5%) perceived teaching in Hindi as a hurdle in acquiring higher education.(Table 2)

Participants also opined about initiating medical literature in Hindi. (Table 3) Two-thirds of participants (66.7%) thought that keeping medical terms in English, but the explanation in Hindi will be a more reasonable method of introducing medical literature in Hindi. Most participants (58.8%) also felt that the Government should introduce medical education in Hindi in all medical colleges but as a parallel system.

When asked about ways of incorporating Hindi into Medical Education (Multiple options were possible), 421 participants (26.7%) opined that medical books in Hindi would help incorporate Hindi in to the medical curriculum. Most participants (64.4%) favoured Class/ Ward teachings in Hindi as part of the inclusion of Hindi in to the medical curriculum. While 60.1% participants favoured granting permission to answer theory and practical examinations in Hindi.

Table 1 : Socio-Demographic Characteristics of Participants (N=1575)

Variables		Number (%)
The language chosen by the responders for the response	Hindi	571 (36.3)
	English	1004 (63.7)
Age group (Year)	<25	706 (44.8)
	25-30	178 (11.3)
	31-40	150 (9.5)
	>40	541 (34.4)
Gender	Male	1065 (67.6)
	Female	510 (32.4)
Medium of schooling	Completely English	582 (37)
	Mixed English and Hindi	769 (48.8)
	Completely Hindi	224 (14.2)
Current role in the medical field	MBBS student/Intern	842 (53.5)
	Junior/Senior Resident	97 (6.2)
	Faculty	216 (13.7)
	PHMS (Provincial Medical and Health Services)	115 (7.3)
	Private practitioner	305 (19.4)

Table 2 : Perception of Participants about the Use of Hindi in Medical Education (N=1575)

Questions		Number (%)		
		Yes	No	Can't say
1	Medical curriculum in total English makes it difficult to understand for most students	374 (23.7)	559 (35.5)	642 (40.8)
2	If medical education is taught in Hindi, it will help students further	616 (39.1)	530 (33.7)	429 (27.2)
3	Medical Education in Hindi will attract more students from Hindi background to join the medical field	832 (52.8)	426 (27)	317 (20.1)
4	Medical Education in Hindi will improve communication with patients	927 (58.9)	376 (23.9)	272 (17.3)
5	Medical Education in Hindi will become a hurdle in higher studies	779 (49.5)	416 (26.4)	380 (24.1)

Table 3 : Opinion of Participants about Ways of Introducing Medical Literature in Hindi and its Inclusion in the Medical Curriculum (N=1575)

	Opinion of participants	Number (%)
How should medical books be written in Hindi?	It should be in pure Hindi	25 (1.6)
	Medical terms are in English, but the explanation be given in Hindi	1051 (66.7)
	Without any change, it should be left in English itself	499 (31.7)
How should the Government introduce Medical Education in Hindi	From now on, in all medical colleges	142 (9.0)
	From now on, in some limited medical colleges	257 (16.3)
	In all medical colleges, but as a parallel system	926 (58.8)
	It should be started after a few years	250 (15.9)

Discussion:

English has been the official international language for globally sharing technical, academic and scientific information.^[6] The field of medicine is not an exception. However, some countries favoured teaching medicine in their vernacular language.^[7] Many students in India complete schooling in their local language. On entering medical school, they get exposed to an entirely new curriculum in a different language - English. This sudden change in the language of instruction sometimes makes it difficult to grasp the intricacies of medical subjects, especially for those with little exposure to English, resulting in poor understanding and comprehension of basic medical concepts. Moreover, during patient interaction in medical wards, many such students find it difficult to correlate and convey their theoretical and clinical knowledge.^[8]

In the present study, only 35.5% (559) participants did not find the medical curriculum in complete English challenging to understand. However, in their study, Gupta MM et al. found that the majority (69.8%) of the first-year MBBS students did not find English as a medium of instruction challenging. In their study, Gupta MM et al. concluded that English as a medium of instruction should be

retained for medical education.^[9] More than three-quarters of participants in our study believed that Medical Education in Hindi would improve patient communication skills. Similarly, 1051 (66.7%) participants in this study opined to keep medical terms in English but with explanations in Hindi. It may have a crucial impact, at least in places where the vernacular language is Hindi. Because better communication with patients will help better understand patients' complaints and the disease.^[10] There is definite shortage of doctors at government health care centres in rural areas as compared to urban areas. There are 13.3 allopathic doctors in urban areas whereas only 3.9 are available in rural areas on 10,000 population.^[11] Medical education in Hindi may also help produce more rural physicians, resulting in filling the Urban-Rural health care need gap.^[12] Though 49.5% of participants perceive that Medical Education in Hindi will become a hurdle in higher studies, grasping basic Medical Education in mixed language or Hinglish will better prepare the students to take up the challenges of advanced medical studies. The same has been the case in several other nations like China, Germany, Spain and others where the primary medical education has been in their native language.

The Government of India is continuously trying to align medical services to its diverse population. The new competency-based curriculum for medical graduates represents a paradigm shift. It aims to produce "Indian Medical Graduates" with requisite knowledge, skills, attitudes, values, and responsiveness so that they may function appropriately and effectively as physicians of first contact in the community.^[13] In an attempt to prepare and serve more effectively Government of Madhya Pradesh has become the first state in the country to start the MBBS (Bachelor of Medicine and Bachelor of Surgery) course in Hindi. The pilot project of the MBBS course in Hindi has started at Gandhi Medical College in Bhopal.^[14] Uttarakhand Government has also announced to launch MBBS course in Hindi soon.^[15] The Madhya Pradesh Directorate of Medical Education has developed Hindi textbooks for subjects taught to first-year anatomy, biochemistry, and physiology students. Both Hindi and English are planned to be used in classroom lectures, and students can choose to write their exams in either language in line with the findings of this study wherein 946 (60.1%) participants seek permission to answer theory and practical examinations in Hindi.

Since 2017, the National Eligibility cum Entrance Test for medical courses has been done in Hindi and other Indian languages. The new education policy introduced in 2020 emphasised imparting technical education in the mother tongue. In its October 2022 report, the Parliamentary Committee on Official Language recommended Hindi as the language of instruction in higher education in Hindi-speaking states.^[4]

The Medical Council of India (MCI) examined the matter of imparting medical education in the Hindi language in 2018 and provided feedback regarding the issue. One of the biggest attractions to imparting medical education in English in India is the easy availability of medical literature in English. It also opens the floodgates of international avenues for

higher studies, emigration and employment, as many developed world countries have English as a medium of instruction for medical education. Students perceive that instruction in English helps them stay updated with international standards. Therefore, in the national medical entrance examination (NEET), which is conducted in Hindi, English, and many regional languages, the candidates mostly opt for English. As per the NEET 2018, about 10,60,923 candidates registered for English and 1,46,542 for Hindi.^[16] The Government initiative has also attracted some concerns from doctors. President of the Federation of All India Medical Association, which represents medical students and resident doctors across the country, said, "It is a retrograde step that will jeopardise the careers of young medics and hit the quality of health care. Graduates trained in native languages will find it difficult to apply for international fellowships or appear for foreign licensing exams, and within India, they may be least preferred for jobs". Communicating the results to policymakers is crucial to benefit the community.^[17]

Conclusion:

More than half of the participants thought that medical education in Hindi will attract more students from Hindi backgrounds to join the medical field. Similarly, Medical Education in Hindi was perceived to improve communication skills with patients, at least where Hindi is a vernacular language by majority of the participants. It may also promote competency-based Medical Education (CBME). Class/ Ward teaching in Hindi will help use of Hindi in Medical Education. Half of the participants thought that medical education in Hindi will become hurdle in higher studies. Rather than an abrupt change, Hindi can be included as a parallel language for easy acceptability and success. It will not only generate a feeling of nationalism but ultimately help to fulfil the goal of providing higher Universal Health Coverage to its Hindi-speaking population.

Recommendations:

Medical terminologies in English along with discussion and teaching in Hindi may be adopted to impart Medical Education. This may be helpful to understand and practice of medical knowledge among medical community in a better way. It may improve the quality of primary health care.

Acknowledgment:

Authors are thankful to the kind assistance and guidance of Dr DK Shrivastava and Dr HC Tiwari for their help in completing this study.

Declaration:

Funding: Nil

Conflict of Interest: Nil

References:

1. Supe A, Burdick WP. Challenges and issues in medical education in India. *Academic Medicine*. 2006 Dec 1;81(12):1076-80.
2. Singh C. Science in the vernacular? Translation, terminology and lexicography in the Hindi Scientific Glossary (1906). *South Asian History and Culture*. 2022 Jan 2;13(1):63-86.
3. Medical concepts in Hindi. Available from: <http://medicalconceptsinhindi.in/> Last accessed January 25, 2023
4. Sharma DC. Language changes for Indian medical education. *The Lancet*. 2022 Nov 5;400(10363):1575.
5. Languages Spoken in Uttar Pradesh. Available from: <http://www.bharatonline.com/uttar-pradesh/travel-tips/language-spoken.html> Last accessed November 23, 2022.
6. Maher J. The development of English as an international language of medicine. *Applied linguistics*. 1986 Jul 1;7(2):206-18.
7. Al Kateb B. Review of the history of the teaching of medicine in Arabic. *EMHJ-Eastern Mediterranean Health Journal*, 5 (3), 597-603, 1999.
8. Mirza DM, Hashim MJ. Communication skills training in English alone can leave Arab medical students unconfident with patient communication in their native language. *Education for Health*. 2010 Aug 1;23(2):450.
9. Gupta MM, Deshmukh M, Chari S. Is English language as a medium of instruction a hurdle for first year MBBS teaching learning? Perceptions of students and teachers. *International Journal of Research in Medical Sciences*. 2017;5(9):4195.
10. Panchbhai A. Importance of language skill learning of dental undergraduates: need assessment and remediation in India. *Korean Journal of Medical Education*. 2016 Mar;28(1):111.
11. Kumar A, Karotia D, Singh R, Kishore J. National Institute of Rural Health for India: Need of the Hour. *Epidemiology International (E-ISSN: 2455-7048)*. 2020;5(4):12-5.
12. Brahmapurkar KP, Zodpey SP, Sabde YD, Brahmapurkar VK. The need to focus on medical education in rural districts of India. *The National Medical Journal of India*. 2018 May 1;31(3).
13. Jacob KS. Medical Council of India's New Competency-Based Curriculum for Medical Graduates: A Critical Appraisal. *Indian Journal of Psychological Medicine*. 2019;41(3):203-209. doi:10.4103/IJPSYM.IJPSYM_166_19
14. Madhya Pradesh launches Hindi medium for MBBS. Available from: <https://government.economictimes.indiatimes.com/news/education/in-a-first-in-india-madhya-pradesh-launches-hindi-medium-for-mbbs-pm-modi-hails-the-move/94904383> Last accessed January 3, 2023.
15. Medical education in Hindi: Doctors raise concern, calls move 'irrelevant', 'disadvantageous' for students. Available from: <https://www.financialexpress.com/education-2/medical-education-in-hindi-doctors-raise-concern-calls-move-irrelevant-disadvantageous-for-students/2534949/> Last accessed January 3, 2023.
16. Medical Education In Hindi Language: Why It Cannot Be Implemented In India. Available from: <https://news.aglasem.com/medical-education-in-hindi-language/> Last accessed January 3, 2023.
17. World Health Organization. A practical guide for health researchers. 2004. Available from: [https:// apps.who.int/iris/handle/10665/119703](https://apps.who.int/iris/handle/10665/119703). Last accessed January 3, 2023.