

Language Challenges in Medical Education: How Indian Students Adapt to the Vietnamese Clinical Environment at Can Tho University of Medicine and Pharmacy

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ABSTRACT

Background: International medical students in foreign country experience a 'triple burden' of learning from a complicated content, adopting to new language environment and a new culture. At CTUMP, Indian students, learning in English in a clinical setting where Vietnamese language prevails, are trying to overcome a triple burden challenge, but there is no structured data available documenting such a language barrier and its influence on clinical competence and patient safety.

Objectives: 1. To systematically assess the prevalence, types, and severity of language-related challenges faced by Indian international students during clinical rotations at Can Tho University of Medicine and Pharmacy 2.To identify and characterize coping strategies and adaptive mechanisms students employ to manage language barriers in clinical learning environments 3.To evaluate students' perceived impact of language barriers on clinical competence development, learning satisfaction, and professional confidence.

Materials and Methods: A mixed-methods sequential explanatory design was utilized. Quantitative data were collected through an online Likert-type survey from 111 Year 1-4 Indian students who had completed at least 1 clinical rotation; qualitative data were collected from a subset of 93 students with open-ended questions and were analysed thematically. Quantitative data were analysed in SPSS 25.0 with the use of descriptive statistics, Chi-square test, and Spearman correlations.

Results: Language barriers were reported as very often/often by 63.9% of students. The main coping strategy was translation apps (73.3%) which were more frequently utilized by female (80.0%) than male (60.0%) students ($\chi^2=4.77$, $p=0.029$), with male students reporting higher use of simplified English structures as a strategy (48.6% v 22.9% $\chi^2=7.16$, $p=0.007$). Barrier frequency was positively related to cognitive load, confidence impact and patient safety concern ($p=0.003$). Qualitatively, 89.2% students reported feeling worse off than their Vietnamese peers, with 78.5% reporting language barriers as an additional cultural adjustment barrier.

Conclusion: Language barriers among Indian students at CTUMP were prevalent, complex, and linked to increased cognitive load and self-reported patient safety concern. Institution-specific, focused approaches including formal medical Vietnamese education and dual language clinical mentoring may alleviate this triple burden as international enrollment expands.

Keywords: medical education; international students; language barrier; clinical competence; Vietnamese medical education.

INTRODUCTION

Medical education in the era of internationalization requires students not only to develop clinical competence but also to navigate complex linguistic and cultural environments. Effective communication is a fundamental

component of patient safety, clinical competence, and professional identity; however, international students studying in non-Anglophone countries often experience language barriers that hinder their ability to apply theoretical knowledge in clinical practice. At Can Tho University of Medicine and Pharmacy (CTUMP), which hosts over 400 international students, predominantly from India, academic instruction is largely conducted through English, while clinical practice takes place within a predominantly Vietnamese-speaking and hierarchical healthcare environment. Since most patients in Vietnamese public hospitals do not speak English, Indian medical students may encounter considerable difficulties during history-taking, physical examination, and patient interaction, potentially contributing to increased stress, reduced academic performance, and a gap between perceived competence and confidence. Despite the growing number of Indian students entering clinical rotations at CTUMP, limited research has examined how they navigate these linguistic challenges and adapt to the Vietnamese clinical setting. Therefore, this study aims to identify the major language barriers faced by 1st- to 4th-year Indian medical students at CTUMP and examine the adaptive strategies they employ, including code-switching, peer support, and digital translation tools, with the ultimate goal of providing evidence-based recommendations to strengthen clinical integration and professional development within international medical education.

Language difficulty is understood in this study as verbal and non-verbal communication problems related to lack of Vietnamese language skills in the contexts of student- patient communication, understanding of medical terms, history taking, following clinical directions, and communication with the multidisciplinary health care team. Clinical adaptation is conceptualised separately as the broader process by which students adjust their participation, confidence, and integration within the clinical environment, of which language proficiency is one contributing domain alongside cultural adjustment and prior clinical exposure. This framework guided the design of the survey instrument and the interpretation of findings below.

MATERIALS AND METHODS

Study population: Indian international students enrolled in clinical years (1-4) at Can Tho University of Medicine and Pharmacy (CTUMP) in 2025-2026 academic year are recruited.

Inclusion criteria: Indian international students who are studying in the 1st, 2nd, 3rd, or 4th year in the MBBS program, have finished one clinical rotation, and provide written informed consent voluntarily.

Exclusion criteria: Students with prolonged leave/suspension, students who had not started clinical rotations, and individuals who refused to join or withdrew from this study.

Methods

Research design: a sequential explanatory mixed-methods approach involving quantitative surveys and qualitative surveys was used.

Sampling size: The quantitative sample size was determined to be $N=72$ ($Z=1.96$, $p=0.75$, $d=0.10$) with a target $N=80$. Recruitment was not limited and all consenting eligible Indian international students were invited to participate. This resulted in a final sample of $N=111$ (39% over the minimum that was proposed), thus maximizing coverage across the year groups. For the qualitative phase, 93 students attended the follow-up open-ended questionnaire. This exceeded the target of 50–80 students and was considered to have reached data saturation.

Sampling technique: Purposive sampling was applied for both methods to achieve variations in terms of student year, gender, previous clinical experience, and language proficiency.

Data collection tool: Questionnaires involving socio-demographics, Vietnamese proficiency, clinical training, language barriers in Vietnamese clinical contexts, coping strategies, effects on learning/confidence, student recommendations for the institution. Pilot testing was conducted with 10 students in order to establish clarity.

Data collection procedure: Both questionnaires were distributed online via WhatsApp with an information page and consent section, with weekly reminders. Estimated completion time was 20–25 minutes (quantitative) and 12–15 minutes (open-ended).

Data analysis: Quantitative data were analysed in SPSS 25.0 using descriptive statistics and chi-square . Qualitative data were subjected to descriptive thematic analysis, without formal coding. Ideas that emerged repeatedly during repeated readings were compared, clustered into categories, and synthesised into overarching themes of language difficulties, language learning, coping strategies, impact on learning and supportive institutions. Findings are illustrated with narrative descriptions and quotes.

RESULTS

For this study, two datasets were used: a quantitative Likert-scale questionnaire completed by the entire sample (N=111), and open-ended qualitative responses from a subsection of the cohort (93 invited).

In the overall sample, 63.1% (n=70) were female, 31.5% (n=35) male, and 5.4% (n=6) 'other'. Slightly more than half of the sample (57.7% n=64) had undertaken some Vietnamese language learning previously. In the qualitative sample, most were YAD3 (63.4%, n=59) followed by YAD1(15.1%) and YAD2(14.0%).

The majority of the sample ranked themselves in the low-to-mid range of self-evaluated Vietnamese skills, with 5 students indicating 'most proficient' on the scale. Language barriers were reported frequently/very frequently by 63.9% of the sample. Cognitive load was in the moderate-to-high range for over half the sample (56.8% at category 3; 22.5% at categories 4-5). Transition stress was in the moderate-to-high range for 63.0% of the sample (see Table 1).

Table 1. Distribution of Key Likert-Scaled Survey Items (N = 111)

Item	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)
Perceived language proficiency	18 (16.2)	38 (34.2)	50 (45.0)	5 (4.5)	—
Frequency of language barriers	3 (2.7)	10 (9.0)	27 (24.3)	45 (40.5)	26 (23.4)
Cognitive load	5 (4.5)	18 (16.2)	63 (56.8)	10 (9.0)	15 (13.5)
Transition stress ¹	6 (5.4)	35 (31.5)	37 (33.3)	33 (29.7)	—
Professional identity impact	3 (2.7)	15 (13.5)	46 (41.4)	31 (27.9)	16 (14.4)
Patient safety concern	4 (3.6)	9 (8.1)	50 (45.0)	20 (18.0)	28 (25.2)
Double-checking behaviour	3 (2.7)	4 (3.6)	40 (36.0)	28 (25.2)	36 (32.4)
Ward-round participation	4 (3.6)	12 (10.8)	48 (43.2)	28 (25.2)	19 (17.1)
Hidden curriculum awareness	3 (2.7)	13 (11.7)	50 (45.0)	27 (24.3)	18 (16.2)
Confidence impact	6 (5.4)	15 (13.5)	61 (55.0)	15 (13.5)	14 (12.6)

¹ Measured on a 4-point rather than 5-point scale.

43.2% (n=48) rated patient safety concern as 'severe' or 'extreme', 57.6% (n=64) experienced frequent double-checking due to lack of confidence with the language, 40.5% (n=45) perceived a 'hidden curriculum' and 42.3% (n=47) perceived impact on professional identity. Most frequent perceived moderate impact were on ward-round participation (43.2%) and confidence (55.0%).

Online translation methods (73.3%; 77 of 105) were utilized the most, followed by self-initiated Vietnamese acquisition (53.3%), simplified English (31.4%), and peer assistance (28.6%); no utilization of translation was uncommon (8.6%). The nonnative speaker perceived the demand of themselves alone (mean 0.61) to process the language to be much higher than content (0.48) or cultural information (0.24), indicating the language barrier was less likely to be viewed as a content or acculturation problem (Figure 1).

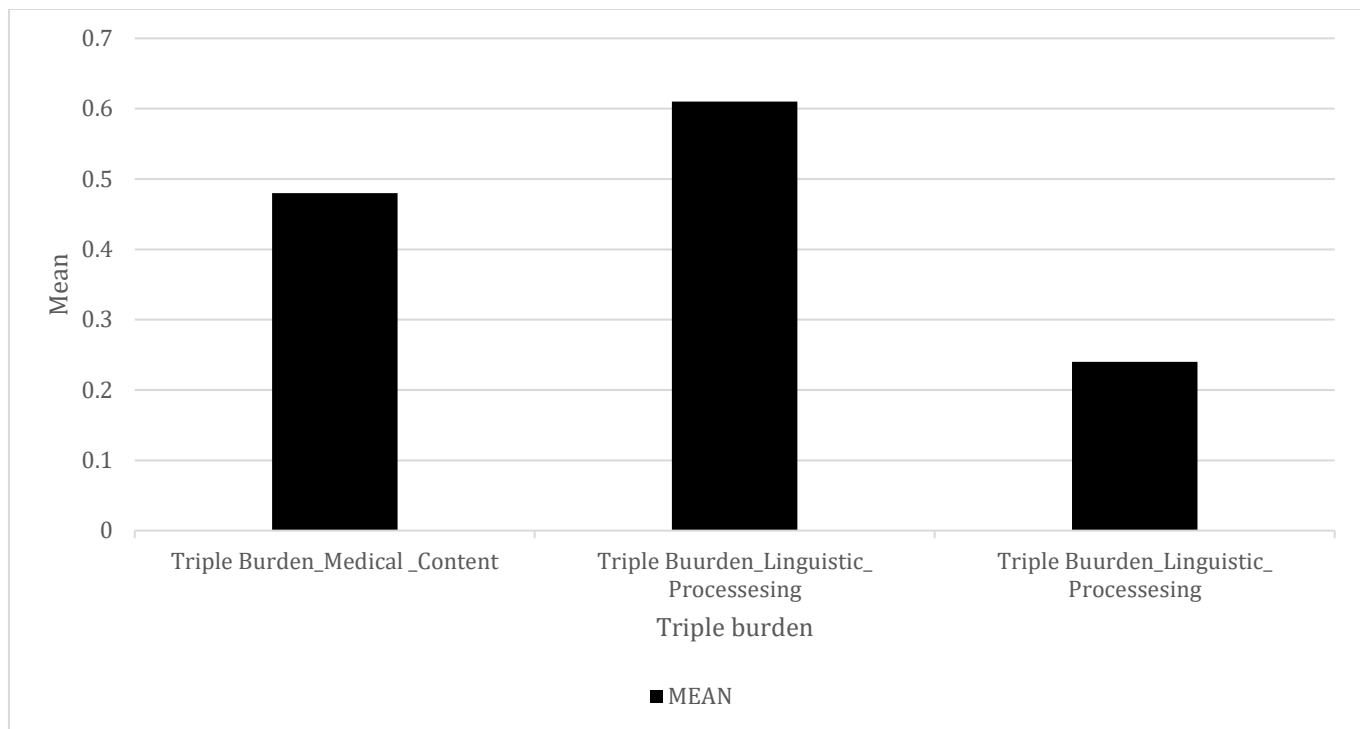


Figure1: Mean values of the triple burden experienced by students

Female students utilized translation apps more than male students (80.0% vs. 60.0%, $\chi^2=4.77$, $p=0.029$) while male students used more simplified English than female students (48.6% vs. 22.9%, $\chi^2=7.16$, $p=0.007$). Significant differences were not found for peer interpretation, learning Vietnamese, or avoidance (Table 2).

Table 2. Coping Strategy Use by Gender (N = 105)

Strategy	Male n (%)	Female n (%)	Total n (%)	χ^2	p	ϕ
Translation apps	21 (60.0)	56 (80.0)	77 (73.3)	4.77	0.029*	0.213
Peer interpretation	13 (37.1)	17 (24.3)	30 (28.6)	1.89	0.169	-0.134
Learning basic Vietnamese	17 (48.6)	39 (55.7)	56 (53.3)	0.48	0.489	0.067
Simplifying English	17 (48.6)	16 (22.9)	33 (31.4)	7.16	0.007*	-0.261
Avoiding interaction	3 (8.6)	6 (8.6)	9 (8.6)	0.00	1.000	0.000

* $p < 0.05$.

Spearman correlations (N = 111) showed that self-rated Vietnamese proficiency was negatively associated with barrier frequency ($\rho=-0.366$), time/comfort needed ($\rho=-0.542$), and double-checking ($\rho=-0.245$), and positively with learning efficiency ($\rho=0.259$). Barrier frequency correlated positively with cognitive load, confidence impact, patient safety concern, and supervisor anxiety ($\rho=0.28-0.31$). Patient safety concern correlated most strongly with double-checking ($\rho=0.607$, $p<0.001$) and supervisor anxiety ($\rho=0.492$, $p<0.001$), and confidence impact was also linked to supervisor anxiety ($\rho=0.399$, $p<0.001$).

Qualitative Findings

The open-ended CTUMP survey (93 invited) collected in-depth, experience near data on language barriers that were inductively coded into themes.

Most students (89.2%, n=83) reported feeling behind their Vietnamese peers at least sometimes (57.0% often, 32.3% sometimes); 10.8% (n=10) never felt this way. All YAD2 students (100%) reported feeling behind, versus 11.9% of YAD3 students who did not. The most used strategies were translation apps (40.9%, n=38) and help from Vietnamese peers (38.7%, n=36), followed by non-verbal communication such as gestures or writing (33.3%, n=31), bilingual interpreters (25.8%, n=24), slower/simpler speech (18.3%, n=17), and basic Vietnamese medical phrases (14.0%, n=13). Most students (70.9%, n=66) rated their strategies as very or quite effective; 24.7% (n=23) found them only partly effective due to busy wards, phone restrictions, untranslatable terminology, and shift exhaustion. Language barriers affected confidence for 92.5% of respondents: moderately for 86.0% (n=80) and significantly for 6.5% (n=6); most often during history-taking, case presentation, and rapid ward decisions. Most students (87.1%, n=81) noticed differences in doctor patient communication style between Vietnam (more hierarchical) and India (more verbal and family-centric), and 78.5% (n=73) felt language barriers compounded these cultural differences.

Summary of Findings

Together quantitative and qualitative results demonstrate that frequently occurring language barriers increased students' perceived workload, double checking, anxiety, self-doubt throughout the ward round; use of translation apps and peer help was commonly used, but students still felt they lagged behind their Vietnamese peers.

DISCUSSION

These results support previous global reports that language challenges in medical education are complex, affecting instruction, clinical experience, interpersonal relationships and psychological strain. Systematic reviews have confirmed that language barriers are one of the underestimated threats that compromise safe, patient-centred care and undermine educational achievement and patient conversations [3]. In EMI contexts, Saudi med students have strongly expressed issues with English literacy, especially at the beginning of medical training [1], while bilingual (i.e. Not purely English) teaching media displayed increased communicative load over English-only as measured by expected difficulty of speaking and writing in class discussions and oral exams [4]. The majority of final-year students at a Gulf university did not feel there was a language barrier at all although those with lower language skills found it more difficult than they expected [10]. All qualitative findings, as ever, are less optimistic, reporting problems with culturally-specific non-verbal communication, although the enthusiasm of the teachers mitigates this [7,8].

Within clinical teaching, it was showed that factors such as informal clinician language, speed of speech, absence of translators and student inclusion represented barriers and was suggested that students opted solutions such as optional classes in the local language [2]. Similarly, patient history-taking difficulties in Arabic was highlighted [9]. Informal language use by clinicians, fast pace of speech, and lack of interpreters have been identified as classroom barriers [2], and similar patient interview challenges have been described for Arabic-medium classrooms [9]. Psychologically, the "language gap" has been associated with anxiety, depression, and fewer mental health resources [6], and poor host-language ability has been related to poor social integration and academic success [5]. It was also argued for ongoing interpreter use training and clinical simulations and described strategies at the teacher level, such as clearer pronunciation and fluency of the language [1]. This study aligns with the integration of these strategies through proficiency assessment and standardization, support through dual language clinical setting and accreditation with native language proficiency as a standard.

Limitation

The main limitation was that the study was single-institutional and cross-sectional qualitative study using self-assessed perception which might have affected the generalizability. Variation among participants in prior

Vietnamese and English proficiency, year of study, duration of residence in Vietnam, and previous international or clinical exposure may also have influenced individual experiences and was not fully controlled for; future work should examine these variables directly and distinguish challenges attributable specifically to language from those arising from broader cultural or educational differences. This study suggests incorporating contextualized first-language training and institution-supported bilingual mental health intervention. In conclusion, the language gap in medical education was critical and should be addressed along with clinical skill acquisition and professionalism.

CONCLUSION

This study highlights the significant clinical and psychological challenges faced by Indian medical students at Can Tho University of Medicine and Pharmacy due to language barriers in Vietnamese-speaking clinical settings. Despite an English-medium curriculum, these barriers increase cognitive load, elevate patient safety risks, contribute to anxiety, and undermine clinical confidence and academic progression. Students therefore experience a “triple burden” of acquiring medical knowledge, learning a foreign language, and adapting to an unfamiliar healthcare culture. Although translation applications and peer support provide some assistance, they offer only partial solutions. Targeted institutional interventions, including structured medical Vietnamese courses, bilingual clinical support, and standardized communication training, are essential to ensure equitable education. Such measures can strengthen patient-centred care, improve clinical integration, and safeguard patient safety as international enrolment continues to grow.

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Ethical Approval:

Ethical approval for this study was granted by the Institutional Ethics Committee for Biomedical Research of Can Tho University of Medicine and Pharmacy (established under Decision No. 421/QD-DHYD, dated 4 May 2020), under project code 25.CB.010. Approval was granted via the expedited review procedure on 26 November 2025. All participants provided voluntary written informed consent prior to enrolment, and data were stored anonymously on a secure, password-protected file accessible only to the research team. Participants were assured that their responses were confidential and would not be shared with course instructors which could affect their academic evaluation, in order to encourage candid reporting of language-related difficulties.

Conflict Of Interest:

The authors declare that they have no conflicts of interest to disclose

Data Availability

The data generated and analyzed for the current study are not available for public access, as the study population used was small, and identifiable: these were only Indian international medical students comprising four cohorts from a single institution. Thus, even the de-identified survey data, along with study year, sex, and qualitative comments, could be considered individually identifiable by participants within this environment, to a reasonable degree. Also, individual participants have provided their informed consent for use of their data for this specific research only and did not extend to public deposition or third-party redistribution, and public release was therefore outside the scope of what the Institutional Ethics Committee have approved. For these reasons, the raw data are retained securely by the research team rather than being made openly available.

REFERENCES

1. Alanazi, K., & Curle, S. (2025). Overcoming linguistic hurdles: Challenges and strategies for English-

- medium instruction in Saudi Arabian medical education. *Social Sciences & Humanities Open*. <https://doi.org/10.1016/j.ssaho.2025.101334>
2. Bommeri, N., Ismail, I. M., & Azeez, K. (2024). Barriers to communication in undergraduate medical education: Perspectives of students from Karnataka, India. *Cureus*, 16(9), Article e70364. <https://doi.org/10.7759/cureus.70364>
3. Hamad, A. A., Mustaffa, D. B., Alnajjar, A. Z., Amro, R., Deameh, M. G., Amin, B., & Alkhawaldeh, I. M. (2025). Decolonizing medical education: A systematic review of educational language barriers in countries using foreign languages for instruction. *BMC Medical Education*, 25(1), Article 701. <https://doi.org/10.1186/s12909-025-07251-2>
4. Hao, R., Shim, J., & Lee, H. (2025). Bilingual instruction increases linguistic challenges in EMI: Evidence from Chinese graduate students in South Korea. *International Journal of Learning, Teaching and Educational Research*, 24(7), 301–318. <https://doi.org/10.26803/ijlter.24.7.15>
5. Jiang, Q., Horta, H., & Yuen, M. (2022). International medical students' perspectives on factors affecting their academic success in China: A qualitative study. *BMC Medical Education*, 22(1), Article 574. <https://doi.org/10.1186/s12909-022-03597-z>
6. Li, W. (2022). Mental problems of "language gap" for the international students. In *Proceedings of the 2021 International Conference on Social Development and Media Communication (SDMC 2021)* (pp. 1178–1183). Atlantis Press. <https://doi.org/10.2991/assehr.k.220105.217>
7. Malau-Aduli, B. S. (2011). Exploring the experiences and coping strategies of international medical students. *BMC Medical Education*, 11, Article 40. <https://doi.org/10.1186/1472-6920-11-40>
8. Rashid, M. A., Xu, L., Nicholson, J. G., & Gill, D. (2020). "Doctor, teacher, translator:" International medical students' experiences of clinical teaching on an English language undergraduate medical course in China. *Education for Health*, 33(1), 20–23. https://doi.org/10.4103/efh.EfH_212_19
9. Sheikh, A. M., Sajid, M. R., Bakshi, E. N., Khan, A. U., Wahed, M. M., Sohail, F., & Sethi, A. (2022). The perceptions of non-native medical students towards language barrier on clinical teaching and learning: A qualitative study from Saudi Arabia. *Medical Science Educator*, 32(4), 865–872. <https://doi.org/10.1007/s40670-022-01579-w>
10. Tayem, Y., AlShammari, A., Albalawi, N., & Shareef, M. (2020). Language barriers to studying medicine in English: Perceptions of final-year medical students at the Arabian Gulf University. *Eastern Mediterranean Health Journal*, 26(2), 233–238. <https://doi.org/10.26719/2020.26.2.233>