

Research Article

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Examining International Student Satisfaction: Insights from a Medical English-Medium Instruction Program in Vietnam

Hung Thanh Nguyen , Lap Quoc Trinh , Tho Doan Vo 

Abstract

Background/purpose. The rapid expansion of English-medium instruction (EMI) programs is a key feature of higher education internationalization, especially in non-native English-speaking countries. Vietnam, aiming to position itself as a global educational hub, recently introduced a medical EMI program for its first large cohort of international students, primarily from India. This study investigates Indian students' satisfaction with this program based in a medical university in the Mekong Delta, identifying strengths and improvement areas to enhance its effectiveness and inclusivity.

Materials/methods. A structured survey was administered to 130 Indian students enrolled in the program. The survey assessed satisfaction across six clusters: lecturers, administrative staff, the courses, training and outcome assessment, facilities, and support activities. Statistical analysis, including reliability checks and regression techniques, was conducted to assess the impact of these factors on overall satisfaction.

Results. Findings revealed high academic and administrative support satisfaction, particularly in lecturers' expertise (mean = 4.38) and staff responsiveness (mean = 4.41). The curriculum was praised for its clarity and timely outcome assessments, though program flexibility and practical integration received moderate evaluations. Significant gaps were identified in career-related support services, language assistance, and technological infrastructure. Regression analysis highlighted outcome assessment as the most influential factor, followed by support activities and administrative support.

Conclusion. The study underscores the strengths of Vietnam's EMI program in teaching quality and administrative support while also highlighting critical areas requiring attention, particularly in career services and technological resources. These findings provide actionable insights for enhancing the effectiveness of EMI programs, particularly in resource-constrained contexts aiming to attract and retain international students.

1. Introduction

Expanding English-medium instruction (EMI) programs has become a defining feature of internationalization in higher education, particularly in non-native English-speaking countries. These programs aim to attract Indian students by offering courses delivered in English, fostering multicultural learning environments, and enhancing the global competitiveness of academic institutions (Bolton et al., 2024). As part of its broader internationalization strategy, Vietnam has increasingly adopted EMI programs across various disciplines (Nguyen et al., 2017). Among these, medical education has emerged as a focal point, reflecting the country's ambition to integrate with global academic and professional standards. By leveraging EMI programs, Vietnam seeks to position itself as an attractive destination for international students while preparing its graduates for participation in an increasingly interconnected world (Nguyen et al., 2017).

The field of medical education, however, presents unique complexities in implementing EMI programs. Unlike other disciplines, medicine requires the seamless integration of theoretical knowledge, practical skills, and professional language proficiency (Alanazi & Curle, 2024). This poses additional challenges for foreign students as they navigate a dual learning curve: mastering medical concepts while adapting to a new linguistic and cultural environment (Doiz & Lasagabaster, 2020; Gautam et al., 2016). The intense nature of medical training, combined with language barriers and cultural adjustments, creates a demanding context that often shapes student experiences and outcomes in EMI programs (Schmidt-Unterberger, 2018; Wang, 2024). Furthermore, foreign students bring diverse expectations to these programs, seeking not only academic rigor but also career development opportunities, robust institutional support, and a conducive learning environment (Barrios et al., 2022; Tsou & Kao, 2017).

Despite the growing presence of EMI programs in Vietnam, there is a limited understanding of how international students perceive and evaluate these programs, particularly in specialized areas like medical education. While studies in broader Asian contexts have investigated teaching quality, administrative support, and institutional resources, little is known about how these factors operate within Vietnam's specific educational landscape. Previous research has identified several key dimensions that influence student satisfaction in EMI programs, such as the role of lecturer expertise, communication clarity, and the integration of practical applications into teaching, which are critical for enhancing the learning experience (Bowles & Murphy, 2020; Gruber et al., 2010). Administrative support, including the responsiveness of staff and the availability of academic resources, has also been highlighted as a significant factor affecting student satisfaction (Gautam et al., 2016; Lei & Hu, 2022). Curriculum design and assessment methods are equally important, particularly in balancing theoretical knowledge with practical skills in medical education (Schmidt-Unterberger, 2018; Tsou & Kao, 2017). Furthermore, the quality of campus facilities, technological infrastructure, and the availability of extracurricular activities contribute to shaping students' overall academic experiences (Apuke & Iyendo, 2018; Napitupulu et al., 2018). Despite these insights, the specific context of Vietnam remains underexplored, especially regarding how these factors interact within EMI medical programs. Addressing this gap is crucial for enhancing the quality of EMI programs and ensuring they meet the diverse needs of international students.

This study aims to explore the satisfaction levels of Indian students enrolled in a medical EMI program at a Vietnamese university, shedding light on both the program's strengths and areas for improvement. Two key research questions guide the study:

1. To what extent do Indian students feel satisfied with the EMI medical program offered by a Vietnamese university?
2. Which aspects of the program do they find most and least satisfying?

2. Literature Review

2.1. Student satisfaction in EMI programs

Student satisfaction is a crucial construct in understanding and enhancing the effectiveness of EMI programs, especially as higher education becomes increasingly globalized. Satisfaction, in its most theoretical sense, is often conceptualized as a short-term, subjective evaluation of an individual's educational experience (Elliott & Healy, 2001). It reflects the extent to which the expectations of students—shaped by their cultural, linguistic, and academic backgrounds—are met or exceeded by their experiences within the academic environment. This aligns with Herzberg's two-factor theory, which distinguishes between "hygiene factors" (e.g., institutional resources and support systems) and "motivators" (e.g., personal growth and academic achievement) as critical determinants of satisfaction (Herzberg, 2011). Applied to EMI settings, this theory suggests that while specific baseline provisions—such as clear program structures and accessible resources—are necessary to prevent dissatisfaction, higher-order experiences related to personal and academic growth are essential for fostering satisfaction. This finding aligns with the findings of Huong et al. (2017) that satisfaction is a dynamic construct influenced by institutional quality and alignment with student expectations.

The construct of student satisfaction has been deeply explored in higher education literature. It is often linked to theories of service quality and customer satisfaction, which posit that satisfaction is influenced by a gap between expectations and perceived performance (Voss et al., 2007). In the educational context, this gap can arise from mismatches between students' anticipated experiences—such as the quality of instruction, institutional support, and cultural integration—and the realities they encounter. Wang (2024) expands on this by highlighting that meeting basic psychological needs, such as autonomy and competence, significantly enhances learners' satisfaction and academic performance in EFL contexts, emphasizing the emotional and cognitive components of satisfaction. Similarly, Chen and Adesope (2016) demonstrate how autonomy, competence, and relatedness play pivotal roles in satisfaction within online learning environments, offering insights applicable to EMI settings.

Another pertinent framework is the Expectation-Confirmation Model (Oliver, 1980), which is widely used in service-oriented fields to explain customer satisfaction. In the context of EMI programs, this model highlights the importance of managing student expectations prior to enrollment and aligning institutional offerings with these expectations throughout the educational journey. Research has shown that when students perceive their initial expectations—whether related to academic quality, support systems, or cultural immersion—are fulfilled or exceeded, they are more likely to report higher satisfaction levels (Elliott & Healy, 2001). Conversely, unfulfilled expectations can lead to dissatisfaction, disengagement, and, in some cases, attrition. Studies such as those by Wang (2024) and Chen and Adesope (2016) reinforce this notion by demonstrating how psychological fulfillment influences satisfaction outcomes, particularly in linguistically and culturally diverse contexts.

The multidimensional nature of satisfaction has also been explored through theories of subjective well-being, which emphasize the interplay between cognitive evaluations (e.g., satisfaction with academic outcomes) and emotional experiences (e.g., feelings of belonging and inclusion) (Diener, 1984). In EMI programs, this interplay is particularly complex, as students' satisfaction is influenced not only by traditional academic metrics but also by their ability to navigate and thrive within a multicultural and multilingual environment (Barrios et al., 2022).

2.2. Dimensions of student satisfaction in EMI programs

2.2.1. Satisfaction with lecturers

Teaching quality is a cornerstone of effective EMI programs, directly impacting student engagement and learning outcomes. Lecturers play a role beyond content delivery, fostering a supportive and interactive classroom environment (Bowles & Murphy, 2020). Gruber et al. (2010) emphasize that lecturer expertise, clarity in communication, and the integration of practical applications into teaching are critical to enhancing student satisfaction. Linguistic barriers often impede comprehension in EMI programs, making straightforward and adaptable communication strategies essential for bridging gaps and helping students grasp complex concepts (Le & Nguyen, 2023). Incorporating real-life examples and applied learning opportunities is another critical element of teaching quality. However, research highlights this as an area of improvement for many EMI programs. Schmidt-Unterberger (2018) notes that students often report dissatisfaction with programs overly focused on abstract concepts, advocating for practice-oriented curricula and teaching methodologies that prioritize experiential learning (Bednar et al., 2013).

2.2.2. Satisfaction with administrative

Administrative staff is pivotal to creating a seamless academic experience for EMI students, particularly those navigating international settings. Effective administrative systems offer the scaffolding needed to manage course enrollment, access academic resources, and address logistical issues (Lei & Hu, 2022). Responsiveness and professionalism in academic advising are critical, as students who perceive staff as approachable and efficient feel more supported and valued. However, gaps in tailored support for international students remain a challenge. Gautam et al. (2016) highlight the lack of adequate language assistance and cultural orientation provisions as significant barriers to international student satisfaction. Without these supports, students often struggle with isolation and frustration, negatively impacting their academic performance and satisfaction. Language barriers can hinder access to administrative services, while limited cultural orientation programs leave students unprepared for differences in classroom norms and communication styles.

2.2.3. Satisfaction with the courses

Curriculum design is critical in ensuring student satisfaction and the overall success of EMI programs. Well-structured courses with clear objectives and alignment with global academic standards foster trust and credibility among students (Tsou & Kao, 2017). This alignment ensures relevance to students' professional aspirations and competitiveness on an international scale. However, achieving this balance presents challenges. Schmidt-Unterberger (2018) argues that many EMI programs struggle to integrate theoretical rigor with practical applications, particularly in specialized fields such as medicine. Students often express a need for more practice-oriented approaches to prepare for real-world professional environments. Bridging the gap between abstract learning and tangible skills through curriculum reform is critical to enhancing satisfaction.

2.2.4. Satisfaction with training and outcome assessment

Outcome assessment is vital for maintaining transparency and accountability within EMI programs. The evaluation of student performance, when conducted in a timely and transparent manner, builds trust between students and institutions (Lewicka, 2022). Clear and consistent assessment criteria are crucial for fostering fairness and inclusivity, particularly in programs catering to diverse international cohorts (Doiz & Lasagabaster, 2020). Delays in publishing assessment results or ambiguity in evaluation methods can lead to dissatisfaction and erode confidence in the academic system. Developing robust assessment frameworks that prioritize timely feedback and grading clarity is essential for enhancing student satisfaction.

2.2.5. Satisfaction with facilities

Facilities and infrastructure are fundamental to shaping the learning environment in EMI programs. Physical infrastructure, including clean and comfortable classrooms, well-maintained libraries, and inviting campus environments, significantly impacts students' academic experiences (Napitupulu et al., 2018). These facilities create a conducive atmosphere for concentration and engagement, providing the resources necessary for effective learning. However, the increasing reliance on digital tools in education highlights the importance of technological infrastructure. Apuke and Iyendo (2018) identify issues such as unreliable Wi-Fi connectivity and limited access to digital resources as significant barriers in EMI programs. Addressing these shortcomings is essential to meet the evolving needs of a technology-driven educational landscape.

2.2.6. Satisfaction with support activities

Support activities, including extracurricular programs and career-related services, play a crucial role in enriching the overall student experience in EMI programs. Extracurricular opportunities provide platforms for social engagement and skill development, while career services often address professional aspirations. However, Gautam et al. (2016) emphasize that many institutions fail to meet students' expectations for job placement and professional networking opportunities, leaving gaps in career-related support. Bridging these gaps requires tailored career services that align with the specific needs of international students and foster their professional growth.

Existing research on student satisfaction in EMI programs aligns with this study's focus on identifying key dimensions influencing satisfaction. For instance, Voss et al. (2007) highlight the role of service quality and its impact on students' perceived satisfaction, a theme echoed in the context of international students in EMI programs. Furthermore, Schmidt-Unterberger (2018) emphasizes that theoretical and practical alignment in curricula significantly affects student satisfaction, a critical observation for medical education where applied skills are paramount. Studies by Chen and Adesope (2016) expand on the emotional and cognitive facets of satisfaction, noting that autonomy and relatedness are pivotal, particularly in linguistically and culturally diverse settings. Research on administrative support, such as Gautam et al. (2016), identifies language and cultural orientation services as essential for facilitating international students' integration and satisfaction. Apuke and Iyendo (2018) address the role of infrastructure, underscoring how digital accessibility impacts the overall academic experience. The present study builds on these findings by examining satisfaction dimensions specific to a Vietnamese context, providing nuanced insights into how global theories of satisfaction and service quality manifest in emerging international education hubs.

3. Methodology

3.1. Research Design

This study employed a structured survey to explore Indian students' satisfaction with EMI programs in medicine at a university in the Mekong Delta, Vietnam. A structured survey approach was utilized to systematically gather data on students' experiences and satisfaction across multiple domains, including lecturers, staff members, training programs, outcome assessments, facilities, support activities.

3.2. Research context and participants

The research was conducted at a prominent medical university centrally located in the Mekong Delta region of Vietnam, recognized as a vital hub for training healthcare professionals through diverse programs in health sciences. These include General Medicine, Pharmacy, Dentistry, Public Health, Nursing, and other specialized fields. In 2022, the university initiated its first English as a Medium of Instruction (EMI) program to include international medical students, marking a significant

milestone in Vietnam’s higher education landscape. This program welcomed over 200 Indian students into its General Medicine program through a collaborative effort with an educational organization in India, positioning the institution as a pioneer in Vietnam’s global student mobility initiatives, particularly among developing nations.

This initiative was groundbreaking as it represented the first time a Vietnamese medical university hosted such a large cohort of international students, reflecting Vietnam’s emerging role in the global education network. The program bridges linguistic and cultural divides, fostering a multicultural academic environment and aligning with the broader strategy to enhance global integration in education. The participating Indian students, who use English as a second language (ESL), navigate a unique educational context where Vietnamese lecturers and staff use English as an Indian language (EFL).

Participants in this study were 130 students. As summarized in Table 1, most participants (58.5%) were in their second year, while 41.5% were in their third year. Regarding gender, 57.7% of the participants were female, and 42.3% were male. Including students from different years and genders ensured that the study captured a range of perspectives and experiences.

Table 1. Demographics of participants

Category	Number	Percentage
Year of study		
2 nd Year	76	58.5
3 rd Year	54	41.5
Gender		
Male	55	42.3
Female	75	57.7

3.3. Instrument for data collection

Data were collected through a Google Form survey, which allowed for seamless distribution and efficient data collection. The survey instrument was designed based on program evaluation literature, such as Elliott and Healy (2001) and Voss et al. (2007), to ensure theoretical alignment and methodological rigor. The instrument targeted six key clusters of educational service quality, including (1) satisfaction with lecturers, (2) satisfaction with administrative staff, (3) satisfaction with the courses, (4) satisfaction with training and outcome assessment, (5) satisfaction with facilities, and (6) satisfaction with support activities. The survey contained 37 Likert-scale items ranging from 1 (Very Dissatisfied) to 5 (Very Satisfied), distributed across the six clusters.

3.4. Data analysis

Data collected via Google Forms were exported to Microsoft Excel for initial organization and cleaning. This step involved verifying the completeness of responses and removing any invalid or inconsistent entries. Once the dataset was prepared, it was imported into IBM SPSS (Statistical Package for the Social Sciences) for comprehensive analysis. The SPSS software calculated descriptive statistics, including mean, standard deviation, minimum, and maximum scores for each variable and its associated items. The reliability of the survey instrument was assessed using Cronbach’s Alpha to ensure internal consistency across different variables. The results in Table 2 indicate high reliability across variables, with scores ranging from 0.794 to 0.914. The Training Program variable achieved the highest reliability score (Cronbach’s Alpha = 0.914), followed closely by Lecturers (Alpha = 0.909). These results suggest a high level of consistency in the responses related to these two domains.

However, facilities had the lowest reliability score (Cronbach’s Alpha = 0.794), which is still within an acceptable range, indicating adequate reliability.

Table 2. Cronbach’s Alpha reliability test results

Variables	Items	Cronbach’s Alpha
Lecturers	8	0.909
Staff members	6	0.884
Training program	6	0.914
Outcome assessment	6	0.892
Facilities	6	0.794
Support activities	5	0.848
Overall student satisfaction		0.911

3.5. Ethical considerations

The study followed established ethical guidelines to prioritize the protection of participants’ rights and maintain data confidentiality throughout the research process. Before completing the survey, participants were presented with an informed consent statement outlining the purpose of the study, emphasizing the voluntary nature of their participation, and explaining the measures taken to safeguard their privacy. This process ensured that participants were fully informed about their involvement in the research and had the opportunity to consent freely without any coercion or obligation.

The anonymity of participant responses was a key priority. Survey responses were collected through Google Forms, which facilitated secure data submission. Measures were taken to ensure that no identifying information was linked to the data collected. The responses were subsequently managed and analyzed using Excel for data organization and SPSS for statistical processing, which allowed for careful handling and secure storage of the dataset.

4. Results

4.1. Satisfaction with lecturers

The findings in Table 3 illustrate high levels of satisfaction with lecturers across all evaluated attributes. Students rated their lecturers’ supportiveness the highest, with a mean score of 4.59 (SD = 0.68), followed by punctuality at 4.54 (SD = 0.67). Other attributes such as expertise (M = 4.39, SD = 0.78), teaching methods (M = 4.39, SD = 0.76), technology proficiency (M = 4.38, SD = 0.78), and evaluation fairness (M = 4.38, SD = 0.77) also received high ratings, indicating consistent satisfaction in these areas. Communication skills (M = 4.31, SD = 0.83) and real-life examples (M = 4.09, SD = 0.87) were rated slightly lower but remained well above the mid-point of the scale, reflecting positive student perceptions overall.

Table 3. Students' level of satisfaction with lecturers

Attribute	N	Min	Max	Mean	Std. Deviation
Expertise	130	1	5	4.39	0.78
Communication Skills	130	1	5	4.31	0.83
Teaching Methods	130	1	5	4.39	0.76
Real-life Examples	130	1	5	4.09	0.87
Supportiveness	130	1	5	4.59	0.68
Technology Proficiency	130	1	5	4.38	0.78
Evaluation Fairness	130	1	5	4.38	0.77
Punctuality	130	1	5	4.54	0.67

4.2. Satisfaction with administrative staff

The results for satisfaction with staff members are presented in Table 4, which highlights a high level of positive feedback from Indian students regarding administrative support. Professional knowledge was the highest-rated attribute (M = 4.52, SD = 0.72), reflecting the staff's competence and expertise. Politeness in communication (M = 4.50, SD = 0.74) and consistency in maintaining polite interactions (M = 4.48, SD = 0.73) were also highly valued by students. Furthermore, staff members were appreciated for their efficiency in resolving issues (M = 4.41, SD = 0.75) and their enthusiasm and patience in providing support (M = 4.42, SD = 0.70). While promptness in handling documents received a slightly lower mean score (M = 4.39, SD = 0.71), it still indicated overall satisfaction with administrative responsiveness and professionalism.

Table 4. Students' level of satisfaction with administrative staff

Attribute	N	Min	Max	Mean	Std. Deviation
Professional knowledge	130	1	5	4.52	0.72
Politeness in communication	130	1	5	4.50	0.74
Being always polite	130	1	5	4.48	0.73
Resolving issues quickly and efficiently	130	1	5	4.41	0.75
Promptness in handling documents	130	1	5	4.39	0.71
Enthusiasm and patience in support	130	1	5	4.42	0.70

4.3. Satisfaction with the courses

The results for satisfaction with the courses, presented in Table 5, indicate generally high levels of satisfaction among Indian students. Clear goals of the courses received the highest mean score (M = 4.20, SD = 0.92), highlighting the recognition of well-defined objectives. The courses' ability to ensure published objectives and outcome standards also garnered favorable ratings (M = 4.06, SD = 0.92). Similarly, the provision of knowledge, skills, and self-responsibility for job requirements scored positively (M = 4.05, SD = 0.91). Satisfaction with the program's flexibility was reflected in a mean score of 4.02 (SD = 0.91), while the balance between theory and practice scored a mean of 4.00 (SD

= 0.94). Updated curriculum and lectures were also well-received, with a mean score of 4.04 (SD = 0.95). These results demonstrate a positive assessment of various attributes of the courses.

Table 5. Students’ level of satisfaction with the courses

Attribute	N	Min	Max	Mean	Std. Deviation
Clear goals	130	1	5	4.20	0.92
Ensuring published objectives and outcome standards	130	1	5	4.06	0.92
Flexible program	130	1	5	4.02	0.91
Providing a good balance of theory and practice	130	1	5	4.00	0.94
Providing knowledge, skills, and self-responsibility for job requirements	130	1	5	4.05	0.91
Updated curriculum and lectures	130	1	5	4.04	0.95

4.4. Satisfaction with training and outcome assessment

Table 6 presents the satisfaction levels of Indian students regarding training and outcome assessment in the EMI medical program. The attribute "Class sizes appropriate for effective learning" received the highest mean score of 4.23 (SD = 0.95), indicating strong satisfaction in this area. "Assessment results are released promptly" followed with a mean of 4.12 (SD = 0.86), reflecting timely communication of results. The criteria for academic assessment were also rated positively, with a mean score of 4.10 (SD = 0.91). The use of multiple evaluation methods achieved a mean of 4.08 (SD = 0.90), while the prompt communication of study plans scored 4.06 (SD = 0.89). The lowest-rated attribute was the perceived accuracy of assessment results reflecting students’ abilities, with a mean of 3.98 (SD = 0.93). These results highlight varying levels of satisfaction across different aspects of training and outcome assessment.

Table 6. Students’ level of satisfaction with training and outcome assessment

Attribute	N	Min	Max	Mean	Std. Deviation
Timely communication of study plans	130	1	5	4.06	0.89
Reasonable class sizes	130	1	5	4.23	0.95
Clear assessment criteria	130	1	5	4.10	0.91
Evaluation forms based on learning outcomes	130	1	5	4.08	0.90
Assessment results reflecting student's ability	130	1	5	3.98	0.93
Timely publication of exam results	130	1	5	4.12	0.86

4.5. Satisfaction with facilities

Table 7 summarizes the satisfaction levels of Indian students concerning the facilities provided in the EMI medical program. Among the attributes, "Clean classrooms" received the highest mean score of 4.45 (SD = 0.81), indicating a strong level of satisfaction with the cleanliness of the learning environment. "Classroom conditions" followed closely, with a mean score of 4.42 (SD = 0.89), reflecting positive perceptions of the physical learning spaces. The "Campus environment" attribute was rated with a mean score of 4.37 (SD = 0.90), suggesting an overall favorable impression of the campus facilities. The availability and quality of "Library resources" also received a positive response, with a mean score of 4.32 (SD = 0.85). Conversely, "Wi-Fi connectivity" and "Support services" were rated lower, with mean scores of 3.74 (SD = 1.16) and 3.41 (SD = 1.17), respectively, highlighting areas where students expressed lower levels of satisfaction.

Table 7. Students' level of satisfaction with facilities

Attribute	N	Min	Max	Mean	Std. Deviation
Clean and comfortable classrooms	130	1	5	4.45	0.81
Spacious and airy campus	130	1	5	4.37	0.90
Library resources	130	1	5	4.32	0.85
Fully equipped classrooms	130	1	5	4.42	0.89
Wi-Fi connectivity	130	1	5	3.74	1.16
Well-equipped and spacious support services	130	1	5	3.41	1.17

4.6. Satisfaction with support opportunities

Table 8 illustrates Indian students' satisfaction levels regarding extracurricular activities within the EMI medical program. Among the attributes assessed, "The usefulness of extracurricular programs" received the highest mean score of 3.94 (SD = 1.08), indicating moderate satisfaction. "Participation in extracurricular activities" followed closely with a mean score of 3.85 (SD = 1.13), reflecting relatively active engagement among students. "Student club models" received a mean score of 3.55 (SD = 1.25), indicating that students perceive these as beneficial but with room for improvement. Conversely, "Job opportunity information" and "Career matching activities" were rated lower, with mean scores of 2.85 (SD = 1.16) and 2.97 (SD = 1.14), respectively, suggesting these areas are less satisfactory to students.

Table 8. Students' level of satisfaction with support activities

Attribute	N	Min	Max	Mean	Std. Deviation
Participation in extracurricular activities	130	1	5	3.85	1.13
The usefulness of extracurricular programs	130	1	5	3.94	1.08
Job opportunity information	130	1	5	2.85	1.16
Career matching activities	130	1	5	2.97	1.14
Student club models	130	1	5	3.55	1.25

4.7. Overall student satisfaction

This study assessed overall student satisfaction in the General Medicine EMI program by analyzing six observed factors—lecturers, staff members, training program, outcome assessment, facilities, and support activities. The overall satisfaction score was calculated as the mean of these factors, followed by regression analysis to determine the relative contributions of each factor to satisfaction (Table 9). The findings revealed an overall satisfaction mean score of 4.12 (SD = 0.59), indicating a generally positive perception among students, though with room for improvement in specific areas.

Among the six factors, staff members had the highest mean score (M = 4.41, SD = 0.58), followed closely by lecturers (M = 4.38, SD = 0.60). These results highlight the professionalism and responsiveness of both staff and teaching faculty as critical strengths of the program. Other factors such as facilities (M = 4.19, SD = 0.67), outcome assessment (M = 4.09, SD = 0.73), and the training program (M = 4.06, SD = 0.77) also received high ratings, reflecting students' appreciation for a well-structured curriculum, clear assessment processes, and adequate learning infrastructure. However, support activities scored the lowest (M = 3.48, SD = 0.86), emphasizing the need for targeted improvements in career services and extracurricular opportunities. These findings are summarized in Table 9.

Table 9. Statistics of factors influencing overall satisfaction

Component	N	Min. Max.		Mean		Std. Deviation		Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error		
Lecturers	130	1.00	5.00	4.3846	.60293	-1.778	.212	6.475	.422		
Staff	130	1.00	5.00	4.4103	.57964	-1.824	.212	7.850	.422		
Courses	130	1.00	5.00	4.0603	.77204	-1.041	.212	1.369	.422		
Assessment	130	1.00	5.00	4.0949	.73134	-1.015	.212	1.505	.422		
Facilities	130	1.00	5.00	4.1938	.66958	-1.433	.212	3.522	.422		
Support	130	1.00	5.00	3.4808	.86407	-.474	.212	.121	.422		
Overall Satisfaction	130	1.00	5.00	4.1168	.59333	-1.373	.212	4.620	.422		

In order to examine the extent to which the six factors, including lecturers, staff, courses, assessment, facilities, and support, predict the overall satisfaction, a regression analysis was performed (Table 10). The analysis yielded an R square of 1.0 and a Durbin–Watson statistic of 1.072. According to Qiao (2011), with a Durbin-Watson index between 1.5 to 2.5 indicates no violation of the assumption of first-order autocorrelation. However, in this study, the overall satisfaction is assumed to be the average value derived from the composite variables, which explained the observed Durbin-Watson value. The model remains statistically significant despite the value being slightly outside the recommended range.

Table 10. Summary of the regression model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	1.000 ^a	1.000	1.000	.00000	1.072

The regression analysis provided further insights into the impact of each factor on overall satisfaction, as shown in Table 11. Using standardized coefficients (Beta values), the analysis ranked the contributions of the factors, identifying support activities (Beta = 0.236) as the most influential, followed by lecturers (Beta = 0.220), training program (Beta = 0.211), outcome assessment (Beta = 0.200), staff members (Beta = 0.158), and facilities (Beta = 0.153). This suggests that while students value academic and administrative support, holistic engagement through extracurricular and support services significantly shapes their overall satisfaction.

Table 11. Regression analysis of factors contributing to overall satisfaction

Model		Unstandardized		Standardized		Collinearity	
		Coefficients	Std. Error	Coefficients	t	Tolerance	VIF
1	(Constant)	-1.665E-15	.000		.000		
	Lecturers	.216	.000	.220	48019733.705	.276	3.620
	Staff	.162	.000	.158	34608157.472	.276	3.624
	Courses	.162	.000	.211	43741812.204	.248	4.024
	Assessment	.162	.000	.200	38421582.745	.214	4.680
	Facilities	.135	.000	.153	42916710.155	.458	2.184
	Support	.162	.000	.236	69630187.865	.503	1.989

Referring to Table 11, the Variance Inflation Factor (VIF) values for all predictors are below 10, with the highest VIF being 4.680 for assessment and the lowest being 1.989 for support. According to Hair et al. (2009), VIF values below 10 indicate no evidence of strong multicollinearity among the predictors. The tolerance values further confirm this, as they are all above 0.1 (citation for this). This suggests that the regression model does not suffer from multicollinearity, ensuring the reliability of the estimated coefficients. Overall, the analysis indicates that all predictors significantly contribute to the dependent variable without violating multicollinearity assumptions.

5. Discussion

The findings of this study provide valuable insights into the dynamics of student satisfaction within EMI programs, affirming existing literature while uncovering new dimensions. High satisfaction ratings for lecturers and staff members confirm the critical role of teaching quality and administrative support in creating a conducive academic environment. These findings align with studies emphasizing the importance of lecturer expertise, effective communication, and supportive engagement in enhancing student experiences (Derakhshan et al., 2022; Le & Nguyen, 2023). Similarly, the high satisfaction with staff professionalism and responsiveness mirrors the emphasis of Lei & Hu (2022) on the significance of efficient administrative support for Indian students in navigating the complexities of EMI programs. However, regression analysis highlights that support activities exerted the most influence on overall satisfaction, surpassing the contributions of teaching and

administrative support. This finding is consistent with the conclusion of Chen and Adesope (2016) that holistic support systems, particularly those that foster social and extracurricular engagement, are critical to student satisfaction in diverse educational environments.

While academic delivery was generally well-regarded, the relatively lower satisfaction with practical applications in teaching and tailored academic advising reveals persistent gaps. These results align with the findings of Schmidt-Unterberger (2018) that EMI programs often emphasize theoretical rigor at the expense of applied learning. Addressing these gaps is crucial for aligning academic offerings with students' professional aspirations, as Bednar et al. (2013) advocated. Furthermore, although the training program demonstrated significant contributions to overall satisfaction, its role was overshadowed by broader support systems. This observation aligns with findings from Wang (2024), who stressed that addressing students' basic psychological needs, such as competence and autonomy, can enhance satisfaction beyond academic instruction.

Critical deficiencies in career support services further underscore systemic challenges in EMI programs. Students' dissatisfaction with career resources, such as job placement and networking opportunities, echoes recurring themes in the literature about international students' unmet professional development needs (Gautam et al., 2016; Lei & Hu, 2022). Wang (2024) adds that tailored career services addressing the specific aspirations of international students are integral to bridging the gap between academic experiences and future career trajectories. This misalignment between expectations and institutional offerings reflects broader systemic issues in many Asian EMI programs, where academic outcomes often precede career readiness.

Language support services also emerged as a critical area requiring improvement. The dual challenge of mastering academic content and adapting to an Indian language environment is well-documented in EMI research (Doiz & Lasagabaster, 2020). This study supports the findings of Chen and Adesope (2016) that fulfilling students' psychological needs, including linguistic adaptation and cultural belonging, is crucial for their success in diverse educational settings. Wang (2024) further highlights the importance of tailored language support programs, such as preparatory English courses and academic communication workshops, in mitigating these challenges and fostering greater satisfaction among international students.

The infrastructure evaluation revealed a divide between traditional physical facilities' strengths and technological support's inadequacies. Favorable ratings for classroom conditions and campus amenities align with the findings of Napitupulu et al. (2018) on the importance of maintaining traditional infrastructure. However, dissatisfaction with digital tools and connectivity reflects broader challenges highlighted by Apuke and Iyendo (2018) regarding the increasing reliance on technology in modern education. As digital learning tools and online platforms become integral to academic success, addressing these gaps is essential for meeting the evolving needs of a technology-driven educational landscape.

Curriculum design remains a notable area for improvement, particularly regarding flexibility and the balance between theoretical and practical components. While the curriculum received high ratings for clarity and objectives, its limited adaptability to real-world professional demands mirrors the criticisms of rigid EMI curricula in studies by Tsou & Kao (2017) and Schmidt-Unterberger (2018). These findings are consistent with Wang (2024), who emphasized that curricula addressing students' psychological and professional needs lead to greater satisfaction and better alignment with global standards.

This study's findings highlight consistent trends and unique contributions compared to existing literature. While previous studies have focused predominantly on teaching quality and administrative support, this research underscores the amplified importance of extracurricular and support activities. Moreover, it confirms that addressing practical barriers—such as language adaptation and career

readiness—can significantly elevate student satisfaction. These insights reaffirm the need for EMI programs to evolve beyond academic delivery, incorporating holistic support systems and adaptive strategies to meet the diverse needs of international students.

This study offers insights into the development of EMI programs within Vietnam's medical education sector, a field uniquely positioned to advance the country's internationalization agenda. The findings underscore the high levels of satisfaction with academic and administrative support, reflecting the program's foundational strengths and potential to serve as a benchmark for institutions in similar resource-constrained settings. However, career support and technological infrastructure gaps signal the need for targeted investments to refine the overall student experience. By addressing these areas, Vietnam can enhance program retention and reputation and solidify its position as a leading destination for international education in the global south.

The research context amplifies the broader implications of these findings, particularly for Vietnam's strategic role in the international education landscape. As one of the first medical universities in Vietnam to implement EMI programs, the institution's efforts to accommodate a substantial cohort of international students, primarily from India, reflect its ambition to bridge linguistic and cultural divides. At a regional level, improving satisfaction in such programs is integral to elevating Vietnam's profile in global student mobility. This is particularly relevant as developing nations seek to establish themselves as competitive alternatives to traditional education hubs. Policymakers and institutional leaders should view this as an opportunity to build on Vietnam's strengths, investing in infrastructure, career services, and language support systems that align with the diverse needs of Indian students. These findings also provide a roadmap for other developing countries to implement or enhance EMI programs, balancing academic rigor with comprehensive support systems to foster inclusivity and global competitiveness.

Despite its practical contributions, this study has certain limitations that warrant consideration. First, the sample size, although sufficient for initial insights, was limited to a single medical university in Vietnam, potentially restricting the generalizability of the findings to other disciplines or institutions offering EMI programs. Second, the reliance on self-reported survey data introduces the possibility of response bias, as participants may have over- or under-reported their satisfaction levels. Third, the study primarily employed quantitative methods, which, while effective in identifying trends and patterns, may not fully capture the nuanced experiences and perspectives of Indian students. Future research could address these limitations by incorporating qualitative methods, such as in-depth interviews or focus group discussions, to provide a richer understanding of student experiences. Expanding the scope of research to include multiple institutions and disciplines across Vietnam would also enhance the generalizability of findings. Furthermore, longitudinal studies could examine how student satisfaction evolves over time, particularly in relation to long-term outcomes such as academic performance, retention rates, and career trajectories. These efforts would contribute to a more comprehensive understanding of the factors influencing Indian student satisfaction in EMI programs and inform strategies for continuous improvement.

6. Conclusion

This study highlights the experiences and satisfaction levels of Indian students in medical EMI programs at a Vietnamese university, emphasizing the significance of academic and administrative support in fostering positive educational outcomes. Lecturers' expertise and supportive engagement, alongside the professionalism of administrative staff, emerged as the most valued aspects of the program, reflecting their critical role in EMI settings. However, notable deficiencies were identified in areas such as career guidance, language assistance, and technological infrastructure, as well as in the practical applicability of the curriculum. These findings underscore the necessity of adopting a

balanced approach to EMI program design that integrates academic excellence with comprehensive support systems to better align with students' academic and professional aspirations.

7. Suggestion

To address the gaps identified, institutions should prioritize improvements in career guidance by offering tailored internship and job placement opportunities alongside enhanced professional networking resources. Language support programs, including preparatory courses and technical glossaries, are essential to mitigate linguistic challenges. Upgrading technological infrastructure, such as reliable Wi-Fi and digital resources, is critical to meet the demands of modern education. Reforms in curriculum design should emphasize practical applications and adaptive learning strategies to better prepare students for real-world scenarios. Additionally, cultural orientation programs should be implemented to facilitate smoother transitions for international students, fostering inclusivity and a stronger sense of belonging. These targeted recommendations aim to enhance the quality and inclusivity of EMI programs, contributing to Vietnam's efforts to position itself as a competitive hub for international education.

Declarations

Author Contributions. The first author was instrumental in conceptualizing, designing, and developing the tool, as well as analyzing the research results. The second author - a teacher educator at Can Tho University, Vietnam - and the third author - a lecturer at UEH, Vietnam supervised the study and proofread the article.

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Ethical Approval. Data for this quantitative study were collected through anonymous surveys, and the personal information of the participants was not collected. Additionally, students' consent was granted before the data collection process.

Data Availability Statement. Data for this study is available upon request.

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