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LANGUAGE BARRIERS IN MEDICAL EDUCATION: AN ASSESSMENT OF ENGLISH PROFICIENCY IN AFGHAN MEDICAL STUDENTS

Nazeefullah Ibrahimi[*1], Waheed Ullah Hafiz[2], Hidayatullah Stanikzai[3]

[*1]*Lecturer, Faculty of Medicine, Bayazid Rokhan Institute of Higher Education, Kabul, Afghanistan*
[2]*Lecturer, Lecturer Para-Clinic Department, Faculty of Medicine, Bayazid Rokhan Institute of Higher Education, Kabul, Afghanistan*
[3]*Student at Faculty of Medicine, Bayazid Rokhan Institute of Higher Education, Kabul, Afghanistan*

[*1]nazeefullahibrahimi@gmail.com, [2]hafizwaheedullah@gmail.com, [3]stanikzaihidayatullah93@gmail.com

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Corresponding Author: *
Nazeefullah Ibrahimi

Abstract

English language proficiency is significant in medical education, mainly in non-native English-speaking countries like Afghanistan. Proficiency in Medical English enables students to access international literature, communicate effectively in clinical settings, and prepare for global licensure examinations. However, there is not much real information about how well Afghan medical students speak English and what problems they have with learning and using the language, thus this study aimed to assess the English language proficiency, practice patterns, learning methods, and challenges among Afghan medical students who are part of Rokhan Group medical collages in Afghanistan. A descriptive cross-sectional study was conducted using a structured questionnaire created in Google form was shared with students via social apps. We surveyed a total of 200 students. Data were analyzed using SPSS software (version 25) to produce descriptive statistics on key variables. Among the 200 respondents, 94.5% were male and the majority (59.0%) were aged 21–24 years. While 80.0% had received formal English education related to medicine, only 6.0% considered themselves fluent. Most students (63.5%) reported difficulty understanding medical documentaries without subtitles, and only 4.5% felt very confident discussing medical topics in English. Speaking fluency and understanding complex terminology were the most commonly reported challenges. Despite this, the majority used English occasionally or frequently in their academic activities, and 44.5% cited studying medical literature as their primary motivation for using English. The findings reveal a significant gap between English exposure and practical proficiency among Afghan medical students. Although students recognize the importance of English in their academic and professional development, they face significant difficulties, particularly in oral communication. Integrating task-based Medical English training into the curriculum and supporting faculty development are recommended to improve language competence and student outcomes.

INTRODUCTION

English has become the leading global language of science, medicine, and higher education [1,2]. In medical education, English proficiency is important not only for reading and understanding scientific

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literature but also for clinical communication, academic achievement, and participation in international forums [3,4]. For non-native English-speaking countries, including Afghanistan, the increasing dependence on English-medium instruction (EMI) in medical schools presents both opportunities and challenges [5,6].

Several studies have shown that proficiency in English is a predictor of academic success in medical education [7,8]. Medical students need to interpret textbooks, follow lectures, write research papers, and communicate effectively with peers and patients [9,10]. In clinical settings, poor English skills can hinder patient care, especially where communication with foreign-trained colleagues or access to international guidelines is required [11,12]. Listening and speaking, in particular, have been found to be the most challenging skills for medical students learning English as foreign language [13,14].

In countries like Afghanistan, where educational resources are restricted and English is not a commonly spoken language, these challenges are often magnified [15]. Many Afghan medical students report significant obstacles to using English in both academic and clinical contexts, despite formal exposure through coursework [16]. Factors such as lack of trained English-speaking faculty, limited access to English materials, and poor instructional design contribute to these difficulties [17,33]. Moreover, speaking anxiety and fear of making mistakes often prevent students from practicing spoken English, even when they understand written content [18,19].

Internationally, research has recognized several common obstacles to EMI success among medical students. These include insufficient vocabulary, difficulty understanding medical terminology, challenges in writing clinical reports, and poor confidence in verbal discussions [20–22]. Medical English, being highly technical and specialized, requires targeted instruction that is often absent from general English courses [23,24].

While extensive research has been conducted on EMI in countries like Malaysia [25], Turkey [26], there is a lack of empirical data on the English language proficiency of medical students in Afghanistan. Understanding how students participate Medical English—how often they use it, how they rate their own abilities, what methods they use to improve, and what challenges they face—is essential for developing responsive and effective educational interventions

This study intends to bridge the gap through an assessment of English proficiency, usage patterns, learning strategies, and perceived obstacles among 200 medical students who were part of Rokhan Group medical collages in Afghanistan. Using structured questionnaires and SPSS-based analysis, the study explores how these learners interact with English in academic and clinical settings. The findings will notify language support programs, curriculum development, and institutional policies aimed at improving academic performance and clinical communication skills among Afghan medical students.

Methodology:

This study employed a **descriptive cross-sectional survey design** to assess the English language proficiency, usage patterns, and perceived challenges related to Medical English among medical students affiliated with the Rokhan Group. A quantitative approach was adopted to obtain a clear statistical understanding of language use in medical education and practice contexts.

A total of **200 medical students** participated in the study. Inclusion criteria consisted of current enrollment or recent graduation from medical programs within the Rokhan Group. Participants represented both para-clinical and clinical phases of their education. Convenience sampling was employed due to ease of access and the study's exploratory nature [31].

Data were collected through a **self-administered structured questionnaire** designed in **Google Forms** and distributed electronically via messaging applications and academic networks within the Rokhan Group. The questionnaire was developed in English and included both closed-ended and multiple-choice questions. It comprised four major sections:

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1. **Demographic and educational background**
2. **Self-assessed general and medical English proficiency**
3. **Frequency and context of English use in academic and clinical settings**
4. **Learning methods, challenges, and attitudes toward Medical English**

The questionnaire was pre-tested on a small group (n=10) of students for clarity and relevance before final distribution. Feedback was incorporated to improve the language and structure of the items.

Responses were automatically collected through Google Forms and exported to **IBM SPSS Statistics version 25** for analysis. Descriptive statistics, including frequencies and percentages, were calculated to summarize participants' demographic characteristics, English proficiency levels, usage patterns, and reported challenges. The data were then presented in tabular format to allow for clear visualization and interpretation.

Participants were informed about the **voluntary nature** of the study and were assured of the **anonymity and confidentiality** of their responses. Submission of the form was considered as **informed consent**. No identifying personal data were collected. The study was conducted in accordance with the ethical guidelines of educational research [34].

Results

Table 1 provides an overview of the participants' demographic and educational profiles. The sample (n = 200) was principally male (94.5%) and composed mainly of young adults aged 21–24 years (59.0%), consistent with the typical age range of medical students. A significant majority (79.5%) identified Pashto as their native language, suggesting linguistic homogeneity that may influence learning and communication in a medical context. Academically, most participants were in the para-clinical phase (75.5%), with a smaller percentage in the clinical phase or already graduated. Notably, 80.0% reported formal English education related to medicine, indicating a high level of exposure to English-language medical instruction, which is key to understanding academic content and participating in global medical discourse.

Table 1: Demographic Characteristics and Educational Background of Participants

Variables		n	n%
What is Your Age?	17-20	70	35.0%
	21-24	118	59.0%
	25-27	4	2.0%
	28-30	5	2.5%
	30+	3	1.5%
What is your Gender?	Male	189	94.5%
	Female	11	5.5%
what is your native language?	Pashto	159	79.5%
	Dari	27	13.5%
	Other	14	7.0%
what is your education level?	Medical student(para-clinical)	151	75.5%
	Medical student(clinical)	40	20.0%
	Medical Graduate	9	4.5%
Have you received formal English education related to medicine?	yes	160	80.0%
	no	40	20.0%

Table 2: Represents a detailed analysis of English language usage and proficiency among medical students or practitioners across various domains of their academic and clinical engagement. The variables assessed frequency of English use in medical settings, self-rated general English proficiency, understanding of spoken English in medical lectures, ability to follow English medical

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documentaries without subtitles, understanding of English medical podcasts or discussions, confidence in discussing medical topics in English, and fluency in patient communication in English. The responses are categorized with both numerical frequency (n) and percentage distribution (n %), showing the degrees of English language competence and challenges among the participants. The data highlights that while a large percentage of respondents demonstrate intermediate to advanced proficiency and partial comprehension in medical English contexts, only a minority report full fluency or high confidence in practical application.

Table 2: English Proficiency and Usage in Medical Education and Practice

Variables		n	n %
How often do you use English in your medical studies or practice?	Never	25	12.5%
	Occasionally	70	35.0%
	Frequently	44	22.0%
	Always	61	30.5%
How would you rate your general English proficiency (non-medical)?	Beginner	44	22.0%
	Intermediate	99	49.5%
	Advanced	45	22.5%
	Fluent	12	6.0%
How well do you understand spoken English in medical lectures or conferences?	poor	41	20.5%
	fair	34	17.0%
	good	92	46.0%
	excellent	33	16.5%
Can you follow a medical documentary or case presentation in English without subtitles?	yes, easily	46	23.0%
	yes, but with some difficulty	127	63.5%
	no	27	13.5%
Do you understand English medical podcasts or clinical discussions without difficulty	yes, completely	52	26.0%
	partially	119	59.5%
	no	29	14.5%
How confident are you in discussing medical topics in English?	not confident	28	14.0%
	somewhat confident	102	51.0%
	confident	61	30.5%
	very confident	9	4.5%
Can you take patient history and explain diagnoses in English fluently?	yes, easily	47	23.5%
	yes, but with some difficulty	120	60.0%
	no	33	16.5%

Table 3 represents a comprehensive assessment of English language proficiency and its application in academic and clinical settings among medical students and practitioners. Key variables include frequency of English use in medical contexts, self-rated general English proficiency, understanding of spoken medical English, ability to understand medical content without subtitles, comprehension of medical podcasts, confidence in discussing medical topics, and fluency in patient communication. Data are reported as absolute numbers and percentages. Findings indicate that while a majority of participants possess intermediate to advanced English skills and partial comprehension of medical content, a smaller percentage report full fluency or high confidence in practical communication, highlighting gaps in applied medical English proficiency.

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Table 3: Assessment of English Language Proficiency and Its Practical Use Among Medical Students and Practitioners

Variables		n	n %
How often do you use English in your medical studies or practice?	Never	25	12.5%
	Occasionally	70	35.0%
	Frequently	44	22.0%
	Always	61	30.5%
How would you rate your general English proficiency (non-medical)?	Beginner	44	22.0%
	Intermediate	99	49.5%
	Advanced	45	22.5%
	Fluent	12	6.0%
How well do you understand spoken English in medical lectures or conferences?	poor	41	20.5%
	fair	34	17.0%
	good	92	46.0%
	excellent	33	16.5%
Can you follow a medical documentary or case presentation in English without subtitles?	yes, easily	46	23.0%
	yes, but with some difficulty	127	63.5%
	no	27	13.5%
Do you understand English medical podcasts or clinical discussions without difficulty	yes, completely	52	26.0%
	partially	119	59.5%
	no	29	14.5%
How confident are you in discussing medical topics in English?	not confident	28	14.0%
	somewhat confident	102	51.0%
	confident	61	30.5%
	very confident	9	4.5%
Can you take patient history and explain diagnoses in English fluently?	yes, easily	47	23.5%
	yes, but with some difficulty	120	60.0%
	no	33	16.5%

Table 4 explores the main purposes, learning methods, and challenges related to Medical English among medical students and professionals. Key areas assessed include motivations such as studying literature, exam preparation, and communication; learning strategies like attending courses, watching lectures, and reading journals; and challenges faced, particularly in listening, speaking, reading, and writing. Results, presented as frequencies and percentages, expose that the most common use of Medical English is for studying, with video lectures being the most popular learning tool. Speaking fluently and understanding medical accents and terms are reported as the most challenging aspects.

Table 4: Purposes, Methods, and Challenges in Learning Medical English Among Healthcare Learners

Variables		n	n %
What is your primary purpose for using Medical English?	Studying medical textbooks and research papers	89	44.5%
	Communicating with international colleagues or patients	47	23.5%
	Attending medical conferences and seminars	23	11.5%
	Preparing for medical exams (e.g., USMLE, IELTS, OET)	41	20.5%

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What methods do you use to improve your Medical English skills?	Attending Medical English courses	54	27.0%
	Watching English medical lectures/videos	75	37.5%
	Reading medical journals and textbooks	46	23.0%
	Practicing patient interactions in English	17	8.5%
	Using medical language learning apps	8	4.0%
What areas of Medical English learning do you find most challenging?	Listening to medical terms and accents	51	25.5%
	Speaking fluently in clinical settings	61	30.5%
	Reading complex medical literature	39	19.5%
	Writing case reports and research papers	14	7.0%
	Understanding medical abbreviations and terminology	35	17.5%

Discussion:

This study helps us understand the level of English language skills among medical students at the Rokhan Group medical collages in Afghanistan. Although 80% of students had formal English education, only 6% said they were fluent. This shows a big gap between learning English in class and being able to use it easily in real medical situations. These results are similar to findings from other developing countries where students study in English but do not always feel confident using it [21].

Our study found that many students had difficulties listening to medical documentaries (63.5%) and only 4.5% felt very confident when speaking about medical topics. These problems are common in other countries too, such as Hong Kong [32], Turkey [35], and Vietnam [21]. One reason students may avoid speaking is because they fear making mistakes or being embarrassed [19]. Afghan students, like others in similar settings, often feel more comfortable reading and writing than speaking or listening in English

In this study, **speaking and listening** were the hardest English skills for students. This follows research from Sweden and other countries where students say understanding and writing are easier than talking [36]. Some students switch back to their native language during class discussions to feel more comfortable [13], but this can slow down their progress in learning Medical English [27].

To assist students, we recommend including more **Medical English practice in the medical curriculum**. Lessons should not only focus on grammar and reading but also on speaking and listening for real clinical situations [24]. Using methods like group discussions, role-plays, and patient interviews in English can improve students' communication skills [28]. Lecturers should also speak more clearly, use simple English, and provide word lists during lectures [6]

One strength of this study is that it used a large number of participants. But there are also some **limitations**. First, the participants were chosen by convenience, so the sample may not fully represent all Afghan medical students. Second, students rated their own English skills, which might not always match their actual ability [29]. Future studies could use English exams or recorded speaking tests to measure real proficiency.

For future research, it would be useful to follow students across several years to see how their English skills improve over time [30]. Also, since most of our participants were male (94.5%), we recommend studying gender differences in English learning. Finally, interviews or focus groups could help us better understand students' personal struggles with English [16]

Conclusion:

This study shows critical insights into the English language proficiency, usage patterns, and challenges faced by medical students within the Rokhan Group medical collages in Afghanistan. Despite a high rate of formal exposure to English, the majority of participants demonstrated only intermediate levels of general and medical English proficiency, with limited confidence in spoken communication and practical clinical application. These findings reflect a significant gap between passive language exposure and active language competence, particularly in tasks requiring listening and speaking in medical contexts.

Findings suggest that the current approach to language teaching falls short of addressing the specific needs of English-medium instruction in

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medical and clinical settings. Addressing this gap requires a shift from general English instruction toward structured, context-specific training that integrates Medical English into core academic and clinical experiences. Interventions such as task-based oral training, early involvement in English-language medical settings, and faculty support for bilingual instruction could enhance learner confidence and competence.

In conclusion, improving English language skills among Afghan medical students is not only a linguistic goal but a critical component of professional development and patient care. Systematic, curriculum-integrated strategies are needed to ensure that future physicians can engage fully with worldwide medical knowledge and communicate effectively in various healthcare environments.

Recommendation:

Based on the results of this study, several targeted recommendations are proposed to enhance the English language proficiency and communication skills of medical students in Afghanistan, particularly those affiliated with the Rokhan Group medical collages and similar institutions:

1. **Integrate Medical English into the Core Curriculum**

English language instruction should be embedded within the medical curriculum from the early years of study, particularly in para-clinical phases. Course content should focus on medical vocabulary, clinical communication, and reading comprehension of scientific literature to enhance both academic performance and clinical readiness.

2. **Develop Task-Based Communication Training**

Interactive and practical learning strategies—such as patient interviews, role-playing, case-based discussions, and simulations—should be incorporated to help students develop confidence and fluency in speaking and listening. These methods can reduce communication anxiety and improve practical clinical competence.

3. **Use Bilingual or Scaffolded Approaches**

Instructors should consider a bilingual teaching approach, particularly in complex medical subjects. Gradual scaffolding from native language explanations to English usage can bridge the gap for learners transitioning into English-medium instruction, without compromising content understanding.

4. **Enhance Faculty Training and Support**

Medical educators should be provided with training workshops to help them deliver content effectively in English. Techniques such as slowed speech, use of medical glossaries, and summarizing key points can considerably improve student comprehension during lectures and clinical instruction.

5. **Create Extracurricular English Support Programs**

Establishing English clubs, discussion groups, or peer-learning workshops focused on Medical English could provide additional low-pressure opportunities for students to practice and improve their language skills outside the classroom.

6. **Conduct Regular Language Proficiency Assessments**

Institutions should implement standardized assessments of English proficiency at multiple points in the medical program. This would allow educators to track student progress and design targeted interventions according to individual differences.

7. **Promote a Language-Supportive Environment**

A culture that values and encourages the use of English in academic, clinical, and extracurricular settings should be nurtured. Peer encouragement, access to English-language materials, and visible institutional commitment can all contribute to constant language development.

By adopting these strategies, medical institutions in Afghanistan can improve the English proficiency of their students, ultimately contributing to improved educational outcomes, greater academic mobility, and more effective communication in clinical practice.

Conflict of Interest statement:

The authors declare no conflict of interests related to the publication of this paper.

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