
| RESEARCH ARTICLE

Overcoming Barriers to the Proper Usage of Medical Terminology in English Language Communication at Almoosa College, Saudi Arabia: Instructors' Perspectives

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| ABSTRACT

To adequately prepare nursing students to learn medical topics, perform clinical work, and succeed in higher-education programs taught in English in countries where English is a second language, English Medical Terminology (EMT) teachers at medical schools continuously face challenges in educating students with low English proficiency. This qualitative study investigates barriers to English medical terminology at the Department of English, Almoosa College of Health Sciences, Al Ahsa, Saudi Arabia, from the perspectives of English and medical instructors. This paper uses semi-structured interview data and is informed by recent scientific findings. Four broad obstacles that affect the ability of nursing students to improve their command of EMT include: (1) low levels of English language proficiency and a correspondingly heavy reliance on translation, (2) limited access to authentic medical language, (3) a lack of institutional development in English for Medical Purposes (EMP), and (4) insufficient identification and assessment of constraints in the learning design. The findings align with those from around the world and across the region, demonstrating that linguistic barriers lead to inadequate understanding and preparedness among nursing and medical students. A review of the literature indicates that certain teaching methods, including the use of EMP vocabulary, the creation of technology-facilitated exercises, the implementation of game-based language activities, a structured mentorship program, and access to medical interpreters during educational processes, reduce cognitive load and improve comprehension of medical terminology. This study will add original findings from a Saudi background. It presents a framework, guided by instructors, to help them strengthen their approach to teaching medical words in either preparatory or first-year basic health sciences courses. Understanding English terminology is fundamental to learning, preparing for clinical work, and achieving academic success in any health sciences education setting, especially for students in non-English-speaking countries. This study of nursing students, based on semi-structured interviews and a review of the latest scientific literature, identifies four barriers to the development of nursing students' English medical terminology proficiency: (1) low proficiency in English and excessive dependence on translations, (2) restricted access to and engagement with medical discourse, (3) lack of systematic English for Medical Purposes (EMP) development in health sciences education institutions, and (4) unawareness and assessment gaps in the impediments of instructional designs. These findings reinforce similar work published in other countries, including in the region, indicating that language difficulties lead to inadequate knowledge and preparation among nursing and other medical professionals. Recent research in EMP education shows that pedagogies such as vocabulary construction related to EMP, computer- and Web-based technologies, games, mentorship, and interpreter assistance can effectively reduce students' learning burden, resulting in better comprehension of medical terminology. From this perspective, this study contributes findings in the Saudi context, along with an instructor-perspective-based framework for improvement and future implementation of English medical terminology teaching in preparatory and foundational programs of health sciences education institutes.

| KEYWORDS

(VR) Virtual Reality; (AR) Augmented Reality; rote learning: repeating and memorizing without thinking; digital 3D environments: where students can see organs, body systems, or medical procedures

| ARTICLE INFORMATION

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Background

Nursing has unique challenges for its nursing students, and one of the worst aspects of nursing education isn't knowing the language of medicine well enough. If nursing students can't use medical terms accurately in school or while on the job, their patients may be at risk and may not receive the quality care they need. Unfortunately, this isn't simple for nurses. In addition to medical vocabulary being an obstacle that undermines a nursing student's trust in himself/herself, trust in fellow students, and

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trust in his/her abilities within the clinical environment, nursing is also a career in which students often simultaneously study and apply many skills in the clinical area. McCoy and Theis (2016) observed that many nursing students don't know enough to grasp the language used, and that the volume of terminology could create difficulties for nurses. When nursing students find themselves overwhelmed by cognitive load, their anxiety levels can climb, hindering their capacity to deliver optimal patient - centred care, both presently and down the line. Additionally, a research project found that students frequently resort to memorization rather than genuinely grasping medical terms. This leads to a shallow level of learning that doesn't transfer effectively to real-world application (Houghton & Smith, 2018). These findings underscore a pressing need for pedagogical approaches that genuinely foster a deep understanding of medical terminology among nursing students. Mastering the challenges of medical terminology is important for several compelling reasons. To begin with, skillful use of medical language is absolutely fundamental to clear communication in healthcare settings. Nurses, positioned directly at the frontline of patient interaction, depend on their ability to interpret and convey medical data accurately - this is paramount for patient safety and ensuring high - quality medical services. Furthermore, a solid grasp of medical terminology facilitates collaboration across health disciplines, thereby enhancing teamwork within the clinical environment.

As Simmons pointed out in 2020, nursing students who can communicate securely and use appropriate medical language are better prepared to assist patients, participate in critical decision-making, and make valuable contributions to healthcare teams. Even with the existing body of research, significant gaps persist in our understanding of how nursing students can most effectively develop a solid grasp of medical terminology. For instance, studies typically focus on individual journeys rather than on systematic strategies to enhance medical terminology education in nursing programs. A deeper dive into teaching methods and learning evaluations is essential for developing evidence-based approaches that can be implemented across diverse educational settings. Moreover, the majority of research highlights the difficulties faced in conventional learning settings, while alternative educational strategies and designs, like leveraging technology or simulation - based learning, which could potentially boost students' understanding of medical terminology, receive insufficient attention.

As a result, these findings have implications for how nursing students' learning challenges with medical vocabulary may affect their ability to attain the highest levels of education and work as health practitioners in their careers. In addition, by analysing what the literature has concluded in terms of how best to educate nursing students about medical vocabulary, an awareness of the immediate need to improve medical terminology among students becomes obvious. An emphasis should shift from teaching nursing students merely how to memorize medical vocabulary to teaching students effective methods to enhance learning, so students can improve their medical vocabulary. By openly identifying a lack of knowledge and effective teaching methods for nursing students in this discipline, nursing schools may advance their curriculum more effectively, in turn improving patients' outcomes in addition to the health care delivery process.

Methods

The objective of this research was to determine the learning and difficulties with the application of English medical terminology as perceived by instructors at Almoosa College in the Kingdom of Saudi Arabia. The research examined instructors' perceptions of the challenges students face in learning and using medical terms in English, and the effects of these challenges on students' understanding, participation, interaction, and overall scholarship. The research also examined the current strategies used by instructors to help students overcome such challenges.

Research was limited to Almoosa College staff who were teaching during the 2025/2026 academic year. The research design was qualitative. In this case, a qualitative research design was used because, in contrast to a quantitative design, it provides detailed, in-depth descriptions of participants' thoughts, beliefs, and experiences, allowing consideration of the effects of contextual factors.

In addition, Chalhoub-Deville and Deville (2008) stated that it is a natural choice for Deville-Chalhoub and Deville to employ qualitative methods in investigations where the aim is to gain greater insights regarding concerns pertaining to giving and understanding words and to determining the quality of communication. Consequently, qualitative research methodology is eminently suitable for the present investigation.

The principal technique for data collection was Interviews that are semi-structured. The data were gathered from a purposive sample of 10 staff members teaching in the medical and related nursing disciplines.

The study also utilized a descriptive-analytical research design. The interview template was structured along five main themes: (1) challenges faced by students in medical terminology, (2) the impact of the barriers to medical terminology acquisition on English communication and learning achievements, (3) the strategies adopted by instructors in overcoming such barriers, (4) the value of organizational and technical support in promoting learning, and (5) recommendations for improving students' knowledge in

medical terminology and English communication. The interview schedule was refined and validated by applied linguistics and medical education experts to ensure clarity, reliability, and alignment with the research objective

3.Methodology

Figure 1. Evidence was strengthened by the major theme identified during thematic analysis.

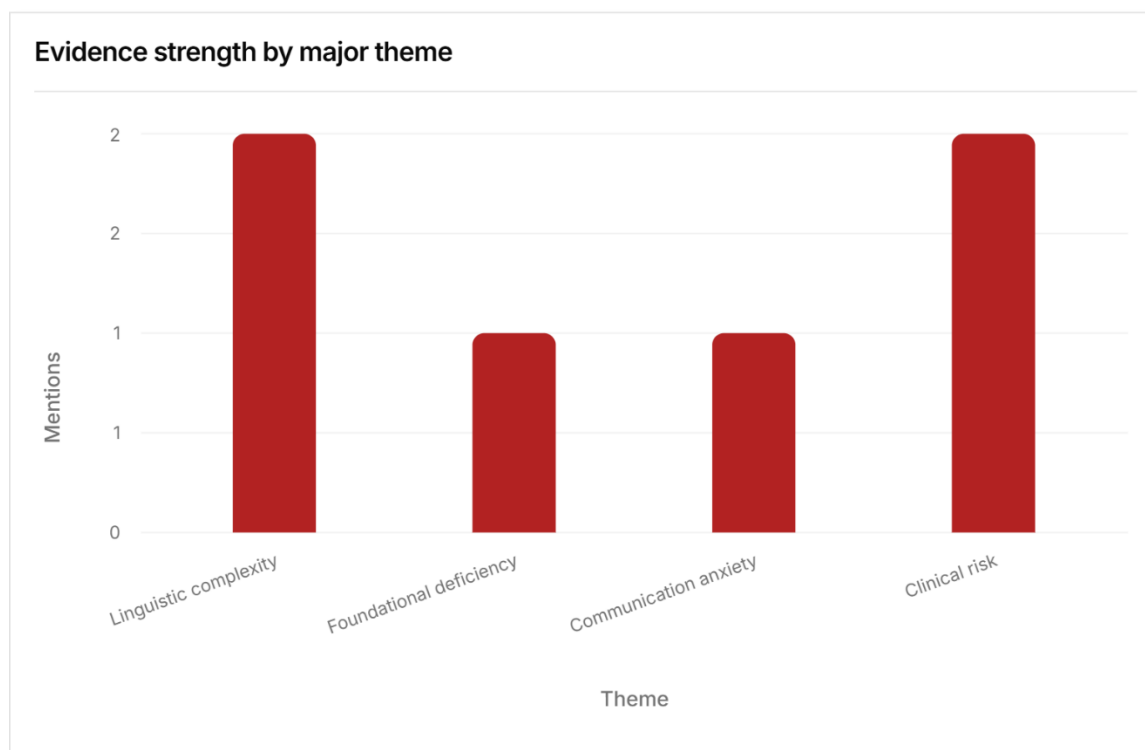


Figure 1. Evidence was reinforced by the major theme identified during thematic analysis.

The most often mentioned issues in instructor interviews were linguistic complexity and clinical danger, as shown in Figure 1. Communication anxiety and a lack of basic English proficiency also surfaced as major obstacles to students' adoption of medical language.

This research employed a qualitative descriptive design to examine instructors' perceptions of barriers to the appropriate use of medical terminology in English at Almoosa College in Saudi Arabia. A qualitative approach was adopted as the study was designed to seek and explore a thorough comprehension of the experiences of individuals, perceptions, and professional understandings rather than to measure parameters numerically, while the study's descriptive aspect allowed the researcher to record the linguistic, pedagogical, and communicative problems learners and instructors encounter in medically oriented teaching and learning contexts.

During the 2025–2026 academic year, the study was carried out at Almoosa College, a private university in the Kingdom of Saudi Arabia. The research context concentrated on English-language instruction in nursing and medical education, where students are required to learn and apply specialized medical terminology correctly in both clinical and academic settings.

3.1 Participants and Sampling

The researcher used purposive sampling to recruit 12 full-time English-language instructors. These instructors had first-hand experience teaching EMP courses and providing communication skills and medical communication modules. The participants highlighted linguistic and communicative barriers that nursing students encounter when learning medical communication skills for professional purposes. In addition, the instructors provided insights into Saudi students' pronunciation difficulties, challenges in obtaining the terminology required for clinical use, and shortcomings in medical communication in real-world clinics. Participants came from different instructional backgrounds, such as ESP communication, teaching phonological training skills, conducting scenario-based classes, teaching integrated language skills, and tutoring nursing students in real clinics through

nursing English instruction. Teachers used myriad teaching strategies, such as scaffolding, syllable breaks (syllabification), role-play practice, case-based learning, use of audio, and communication with real patients.

A. Data Collection Procedures

Ten open-ended questions from a semi-structured interview methodology were used to gather data. The purpose of the interview questions was to investigate the main obstacles influencing students' comprehension and use of medical terminology in English. Particularly, the inquiries centered on:

main issues that students encounter when studying medical terminology.

- How clinical competency is affected by poor English proficiency.
- Communication problems when interacting with patients and professionals.
- Technological and pedagogical approaches for resolving terminology issues.
- Institutional suggestions for enhancing training in medical terminology.

Experts in applied linguistics and medical education refined and evaluated the interview tool to ensure it was clear, relevant, and aligned with the study's goals. Interviews took place in a formal academic environment, were audio recorded with participants' permission, verbatim transcribed, and translated into English where needed. Throughout the analysis process, the researcher maintained the authenticity and significance of participants' replies through verbatim transcription.

3.3 Data Analysis

The information gathered was examined using the six-stage framework for theme analysis defined by Braun and Clarke's definition (2006). Because it enables researchers to identify, organize, and interpret recurring themes and interpretations in qualitative datasets, this analytical method was chosen.

The analysis process involved six stages:

1. Reading transcripts multiple times to become familiarized with the facts.
2. Open coding is used to produce initial codes.
3. Looking for more general categories and recurrent trends.
4. Examining and improving the themes that have emerged.
5. Identifying and characterizing the final themes.
6. Completing the analysis report.

Language and phonological complexity, communication anxiety, basic curriculum mismatch, mother tongue interference, clinical safety issues, and pedagogical innovation are some of the main themes that emerged from the thematic analysis. These topics represented the shift from language difficulties in the classroom to possible risks in clinical communication.

3.4 Trustworthiness

This study employed various measures to ensure its trustworthiness and rigor. With regard to credibility, I tried my best to reread the different answers to ensure a true representation. Regarding dependability, I also went through the exercise, ensuring that word coding was based on a table specifically constructed for this purpose and religiously followed. To enhance transparency, I ensured there were quotes for each relevant category. This helps the reader visualize the relationship between the actual wording and my interpretation.

In addition, I ensure thematic consistency by checking them at the different levels of coding. Hence, bias at this level can be reduced, thereby ensuring coherence.

3.6 Participant Demographic Summary

Twelve English language instructors with expertise in communication skills, nursing-focused English training, and English for Medical Purposes were among the participants. Phonological training, role-playing, scenario-based instruction, integrated

language skills, and clinical communication practice were among the several pedagogical techniques that the teachers represented. They were able to offer in-depth insights into the linguistic, educational, and communicative obstacles that influence students' acquisition of medical terminology in English-language healthcare education, drawing on their professional expertise.

LITERATURE REVIEW

For health science students, language difficulties are significant since medical terminology (MT) underpins efficient and responsible service delivery. (Al Dilaimy, 2024, p. 142) Al Dilaimy (2024) observed that students were struggling to understand and engage with what was said during lectures and conversations within clinics, hindering their clinical learning (p. 142). It led to mental overload and affected decision-making during classroom activities. The findings reported code-switching to Arabic, as used by students and supported by many instructors in Saudi Arabia. (Al Dilaimy, 2024, p. 143)

Studies in Iran similarly emphasize student-related barriers such as weak foundational English skills, pronunciation difficulties, and limited exposure to authentic medical vocabulary (Zolfaghari et al., 2025)

These factors impair students' comprehension of textbooks, lectures, and clinical guidelines.

In parallel with those found in other countries, international studies find evidence of the same challenges. For example, non-native English-speaking (NNES) medical students worldwide report struggles with specialized vocabulary, long, complicated sentences, and dense scientific texts, which decrease engagement with collaborative learning activities and hinder rapid clinical decision-making (Shadan et al., 2025). Some instructors encounter difficulties related to the lack of specialized training in EMP pedagogical methods, unfamiliarity with specific clinical vocabulary terms, and an inability to alter their teaching approaches to the varying proficiency levels of NNES students (Zolfaghari et al., 2025). Instructors also experience limited institutional support, ill-defined expectations from policy requirements, and insufficient instructional time to adequately assist students in acquiring complex vocabulary words.

In medical-college settings, instructors must translate highly technical concepts into accessible language without sacrificing scientific accuracy. This dual burden—pedagogical and linguistic—often leads to overreliance on rote memorization rather than conceptual understanding.

Although the present study focuses on students, literature from healthcare settings provides critical parallels. Squires (2018) demonstrates that language barriers in clinical communication correlate with longer hospital stays, higher rates of infections and readmissions, medication misunderstandings, and lower patient satisfaction.

These consequences illustrate the importance of mastering medical terminology for future healthcare providers. Communication tools, interpreter programs, and structured language-support services significantly reduce these risks.

Similarly, studies from the U.S. and Europe highlight cases where misinterpreting a single medical term caused severe clinical harm (Wu et al., 2016; Ybarra, 2021)

A body of research advocates for tech-assisted language learning methodologies to boost engagement and enhance students' command of English terminology within English for Medical Purposes (EMP) courses. Zolfaghari et al. (2025) champion the use of interactive platforms, gamified exercises, and the implementation of blended learning approaches. Their study's qualitative findings indicate a favorable student reception of digital instruments that create authentic clinical scenarios and provide immediate responses to their inputs.

Other studies emphasize AI-driven adaptive learning systems, which personalize vocabulary practice, reduce cognitive load, and support self-paced learning (Shadan et al., 2025)

VR and AR simulations further enhance comprehension of anatomical and clinical terminology by providing immersive, contextualized exposure.

Earlier technology-based solutions, including translation apps such as MediBabble—offered initial steps toward addressing communication barriers, though with limitations regarding accuracy and medical specificity (Sheik-Ali et al., 2016)

Peer-assisted learning supports vocabulary development by enabling students to clarify terms together and teaching them to articulate medical concepts in English. International studies show that structured mentorship improves not only linguistic proficiency but also students' confidence and professional identity (O'Brien & Fagan, 2009; Shadan et al., 2025).

Although extensive research examines EMP challenges globally, few studies focus on instructors' perspectives in Saudi Arabia, particularly in private medical colleges such as Almoosa College. Moreover, no existing research specifically addresses the

integration of preparatory-semester English curricula with the requirements of nursing and medical pathways in Saudi private-sector institutions.

Declaration

Ethics Approval and Consent to Participate

Prior to data collection, the Research Center at Almoosa College (ASH Institutional Review Board) granted ethical approval for the study No (ARC-26.2.06). All participants gave their informed consent prior to the interviews, and participation in the study was entirely voluntary.

Participants received guarantees that their identities would be kept private and anonymous during the study. Neither the final report nor the transcripts contained any identifying information. Only the research team had secure access to all recorded data and transcripts.

Consent For Publication

Not applicable

Availability Of Data and Materials

Upon reasonable request, the corresponding author will provide the datasets generated and/or analyzed in the current work.

Competing Interests

There are no conflicts of interest, according to the author.

Funding

There was no outside support for this study.

Author Contributor

The study was created and designed by HK, who also performed the interviews, analyzed the data, evaluated the results, and wrote and corrected the report.

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