

Medical English Course Quality: A Study of Student and Instructor Perspectives

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Abstract

This study investigates the prevailing challenges in teaching English for Medical Purposes (EMP) within Chinese higher education institutions in Guangdong Province, intending to propose strategies for improving the quality and efficacy of EMP instruction. Based on comprehensive responses from EMP instructors and students, three primary issues emerged: a dearth of specialized teaching resources, insufficient medical knowledge among instructors, and limited professional development opportunities. In response to these challenges, the study suggests three core strategies: creating a specialized curriculum, implementing extensive instructor training, and establishing professional learning communities. The proposed specialized curriculum is a coordinated effort between medical professionals and English instructors, integrating timely, authentic, and professional medical content. The instructor training aims to enhance teachers' medical knowledge and familiarity with the linguistic characteristics of medical English. Finally, establishing learning communities encourages reflective teaching and continual professional growth. The study underscores the importance of these targeted strategies in augmenting the quality of EMP instruction in higher education. Nonetheless, it is crucial to continually refine these recommendations in line with the evolving needs of the medical profession and advancements in language instruction.

Keywords: course quality, curriculum, instruction, instructor perception, medical English, student perception

1. Introduction

1.1 Background of Study

The realm of language learning in higher education has undergone a remarkable shift, increasingly transitioning from traditional, broad-spectrum language acquisition to a more specialized, needs-based approach. A salient example of this trend is seen in China's reform of college English education, initiated by the Ministry of Education (MOE) in 2020, which emphasized the critical role of college English in facilitating students' personal growth and fulfilling national strategic needs (Steering Committee of University Foreign Language Teaching in Higher Education Institutions, 2020). Within this context, English for medical purposes (EMP) courses have become pivotal in Chinese medical-oriented universities, as they serve to cultivate healthcare professionals capable of engaging with the global medical community (Huang & Lu, 2021; Qin, 2020; Zhou, Nong, & Liang, 2021). Given such courses' complexity and specialist nature, the need to foster high-quality medical English teaching is pressing, particularly in the face of recent global health crises, which underscore the importance of clear and precise communication among medical professionals worldwide.

Despite the clear need and strategic intent to bolster medical English education, certain issues warrant further investigation. Among the most prominent concerns is the question of instructor qualifications. Data from a national survey of medical higher education institutions (HEIs) in China revealed that most instructors teaching medical English courses possess only a background in linguistics, lacking the requisite medical knowledge to adequately teach the specialized content (Chinese Medical English Association, 2020). The lack of proficient instructors is exacerbated by the dual pressures of clinicians struggling to effectively impart medical English concepts and English educators focusing primarily on preparing students for general English proficiency exams rather than specialized medical content (Li & Liu, 2019; Yang, 2017).

This pressing issue has a ripple effect, extending to the quality of learning experiences and outcomes for medical

students. The limitations in the teaching methods and instructors' capabilities can lead to reduced student engagement, undermining the quality of learning and hindering the acquisition of necessary medical English skills (Li, 2019; Li & Liu, 2022). Students' motivational levels, satisfaction, and overall learning achievement are closely tied to the competencies of their instructors (Johnson, 2017). These emerging challenges necessitate an inquiry into the quality of medical English courses, focusing on perspectives from both instructors and students.

Previous research in this area has predominantly focused on curriculum design, teaching principles, and language characteristics of medical English, while studies exploring the lived experiences and perceptions of instructors and students are notably lacking (Huang & Lu, 2021; Li & Liu, 2022). Despite the acknowledged role of student satisfaction as a reliable indicator of educational service quality, no research has yet explored the perceived quality of medical English courses from the perspective of the students (Hu, 2009). Additionally, the current academic discourse lacks an evaluation of the implemented curricula' effectiveness from the instructors' viewpoint. This gap in research is particularly concerning given the national importance of effectively training medical professionals to participate in the global medical community. Hence, there is a critical need to resolve these knowledge gaps and facilitate enhancements in medical English education.

1.2 The Present Study: Aims and Purpose

Given these developments and emerging challenges, this study endeavors to identify and recommend effective institutional strategies to improve the quality of medical English programs. By doing so, it aims to enhance academic success and motivation among medical students, improve instructors' teaching performance, and ultimately meet the broader objectives of the Chinese MOE. Therefore, this research seeks to evaluate the quality of medical English courses within medical universities in Guangdong province, drawing insights from the viewpoints of both instructors and students. A concurrent multiple-population study focusing on four medical universities in Guangdong province will scrutinize critical contributing factors to high-quality medical English courses. The key areas to be explored include curriculum design and instructional methods. This research intends to facilitate the establishment of strategies to enhance the quality of medical English education in China. The following research questions were asked:

- 1) How do students and instructors perceive the quality of the medical English curriculum in the selected medical universities in Guangdong province?
- 2) What are students' and instructors' views on the quality of instruction within the medical English courses?
- 3) Based on the perceptions of students and instructors, what strategies could be formulated to enhance the quality of the medical English programs?

2. Method

2.1 Study Design

The present study leverages a phenomenological research paradigm, a qualitative approach known for its focus on individuals' lived experiences and perceptions. Phenomenology is rooted in the desire to distill universal essence from individual experiences; the paradigm offers a comprehensive framework for exploring the nuances of human social behavior and culture (van Manen, 2016). Applying phenomenological principles, this research aims to cultivate an in-depth understanding of the subjective experiences associated with medical English courses in selected universities within the Guangdong province.

For this study, semi-structured one-on-one guided interviews were employed for both student and instructor participant groups. The semi-structured nature of the interviews allowed for an in-depth exploration of three critical dimensions: the quality of the medical English curriculum, the quality of instruction, and the quality of classroom dynamics. Magaldi and Berler (2020) posit that semi-structured interviews, while guided by pre-determined topics, afford researchers the flexibility to delve deeper into the discovery process. This technique enabled a profound exploration of the participants' perspectives on the studied phenomena using their own words. Furthermore, it offered the opportunity to resolve ambiguities and concentrate on the core subject, facilitating a more nuanced understanding of the phenomenon.

2.2 Population

The research framework for this study involves populations within four (out of five) medical universities in Guangdong province, China. These include Guangdong Medical University, Guangdong Pharmaceutical University, Guangzhou Medical University, and Southern Medical University. The Guangzhou University of Chinese Medicine, although initially considered, declined participation. This study focuses on two key groups

within these universities: instructors responsible for teaching medical English courses and the students enrolled in these courses. These medical English courses, specifically EMP, are mandatory for all non-English major students in these institutions. Generally, these EMP courses occur in the second year, following a year of General English. This EMP instruction is of critical significance, often marking the peak of undergraduate English language education, and can have profound implications on students' future professional competencies (Qin, 2020; Zhou et al., 2021).

During the 2022–2023 academic year, the collective enrolment in second-year medical English courses at these universities was around 5300 students, with 41 instructors engaged in course delivery (Table 1). From this broad pool, 15 students and 17 instructors were selected for inclusion in the research interviews, ensuring diverse and comprehensive perspectives. The number of participants might initially seem small, but it is essential to understand the research's phenomenological approach. Such an approach seeks to understand participants' lived experiences relating to a particular phenomenon and often justifies smaller sample sizes. Morse (1994) substantiates this approach by suggesting as few as six participants for each group in phenomenological studies. The approach adopted by this study is further corroborated by the 'information power' concept (Malterud, Siersma, & Guassora, 2015). This concept posits that in qualitative studies, the required sample size hinges on several factors, including the study's objectives, the specificity of the sample, the application of established theories, the quality of dialogue, and the strategy for analysis.

Table 1. Medical English enrollment and instructor allocation

University	Students Enrolled	Instructors
Guangdong Medical University	2800	22
Guangdong Pharmaceutical University	650	4
Guangzhou Medical University	520	3
Southern Medical University	1350	12

2.3 Data Analysis

The data treatment process in this study was carried out using the content analysis technique. This approach facilitates the reduction of large quantities of information acquired through interviews by coding, organizing, and grouping the content into themes (Hsieh & Shannon, 2005). This approach was employed in two stages, initial and focused coding, in line with the established conventional content analysis approach (Charmaz, 2014). While primary categories such as curriculum and instruction were predetermined at the onset of the study, the analysis process was kept fluid to accommodate the possible emergence of sub-clusters or concept groupings. By refraining from rigid preconceptions about the definitions of each broad concept, the researchers created room for the potential emergence of more nuanced findings (Kondracki, Wellman, & Amundson, 2002). This approach to content analysis relies on participants' unique perspectives and seeks to ground the resulting knowledge in the data itself (Hsieh & Shannon, 2005).

In the initial stages of data analysis, each source was considered independently to account for the distinct nature of each guided interview and the particular timing of data collection. Mandarin Chinese was employed for the interviews; the narratives were translated into English. The interviews were recorded and subsequently transcribed. The resultant content was then organized into categories and subcategories, further enabling effective coding. As the analysis progressed, it incorporated a comparative study element, drawing on previous research findings. This ensured a constant comparison within the interview data and between the emergent codes and categories.

The interviews involving students and instructors were conducted during the first semester of the 2022-2023 academic year. The researchers initiated a second round of questioning at the start of the second semester, seeking to obtain clarifications and elaborations on comments made during the initial interviews. The student interviews, on average, lasted approximately 35 minutes, while the instructor interviews extended to an average of around 48 minutes. The interview locations varied, with Guangdong Medical University hosting in-person interviews. At the same time, the remaining institutions opted for virtual interviews via WeChat, a prominent social media and communication application in China. The preference for virtual interviews was dictated by COVID-19 protocols, which restricted visitor access to campuses across Guangdong universities during the initial interview phase.

2.4 Ethical Considerations

This study adhered strictly to ethical standards and received approval from multiple pertinent authorities. The Institutional Review Board (IRB) of the Foreign Languages College at Guangdong Medical University, in conjunction with the Communist Party leadership at the same institution, granted their approval. In addition to these endorsements, every other university that participated in the study also reviewed and provided their approvals, consolidating the research project's ethical grounding.

Before conducting the interviews, each participant received an overview of the study via email. This preliminary information was comprehensive and transparent, elucidating the primary objective and aim of the study. It clarified the voluntary nature of the participant's involvement and their unreserved right to withdraw at any point. The document also provided assurances of anonymity and confidentiality, guaranteeing that the participants' personal identities would be protected throughout the process and in the final research report.

3. Results

3.1 Respondent Demographics

The research encompassed diverse student respondents, ensuring a broad perspective on the collected data. Fifteen students participated in the study, including ten males and five females. These students fell within the age bracket of 18 to 22 years, with the largest age group being 19 years old, constituting eleven participants. The representation of majors spanned five unique medicine disciplines: biological sciences, biomedical engineering, nursing, pharmacology, and traditional (Chinese) medicine. Regarding the academic prowess of the student respondents, their first-semester grades in the medical English course demonstrated competency. Student grades varied from 61% to 94%, though most fell into the 70%-80% bracket. In this study, most students hailed from Guangdong Province, comprising thirteen of the fifteen participants. The remaining two students originated from neighboring provinces—Guangxi and Hunan.

This study garnered insights from 17 instructors, all currently teaching medical English courses at one of the selected institutions. This group exhibited a balanced gender distribution with ten females and seven males. The age span, ranging from 29 to 56 years old, captured the perspectives of educators at varying stages of their career journey. As for academic credentials, most (70%) of these instructors obtained their degrees from universities within mainland China, while the remaining 30% pursued academic qualifications overseas. Although the group primarily consisted of educators holding a Master's degree, one participant had a doctoral qualification.

The fields of specialization among the instructors encompassed a broad spectrum. Apart from one instructor specializing in medical English, others held degrees in various disciplines, including English language, linguistics, literature, and translation. A closer look at the instructors' professional experience revealed an evenly distributed range. Those with 6 to 10 years of experience in HEIs were slightly more represented. However, when focusing on experience teaching medical English courses specifically, nearly half of the instructors (47%) held between 3 and 6 years of experience, with a significant number (41%) having experience ranging from one semester to 2 years. This nuanced breakdown showcases the varied professional backgrounds of the instructors, thus enriching the range of perspectives in the analysis. For a detailed understanding of the instructors' demographic data, refer to Table 2.

Table 2. Demographic profile of medical English instructors

Demographic profile		Frequency
Sex	Female	10
	Male	7
Age	25–30 years old	1
	30–40 years old	9
	40–50 years old	4
	50–60 years old	3
Study Location	Overseas	5
	Mainland	12
Major	Medical English	1
	Linguistics	4
	English Language Education	4
	English Literature	5
Highest Degree Obtained	Translation Studies	3
	Master's	16
	Ph.D	1
Higher Education Teaching Experience	0–5 years	3
	6–10 years	5
	11–15 years	3
	16–20 years	3
	20+ years	3
EMP Teaching Experience	1 semester to 2 years	7
	3 to 6 years	8
	7+ years	2

3.2 Quality of Medical English Curriculum—Students' Perception

The investigation into student perceptions of the EMP curriculum generated three distinctive sub-themes: perceived EMP purpose/focus, core content, and the quality of supplementary e-learning materials.

3.2.1 The Purpose of EMP Courses

The primary purpose of medical English courses, as perceived by the student respondents, can be classified into four distinct categories. The first category encapsulates the viewpoints of five students who emphasized the role of the EMP program in laying the groundwork for their future career pursuits and further academic study. As one student voiced, the course was important “to make it easier for students to pursue a related profession in the future” (Student 2). Another student shared the sentiment, noting that the course “should help medical students lay the foundation for medical English in higher fields” (Student 3).

The second category comprises the perspectives of five students who underscored the critical importance of vocabulary or terminology in the medical English curriculum. These students agreed on the pivotal role of terminology in facilitating effective communication and understanding of scientific literature. As one student explained, “The focus is on understanding some of the specialist terms in the medical field... because communicating in English to the outside world is also a more critical point nowadays” (Student 9).

In the third category, three students saw the EMP program's focus primarily on imparting medical-related knowledge. One student, for instance, asserted, “The focus of the medical English course was to introduce medical knowledge and to present it to us in English so that we could learn the subject better” (Student 5).

The fourth and final category, consisting of two students, suggested that the EMP curriculum should be designed to foster comprehensive linguistic skills, including listening, speaking, reading, and writing. These students articulated that the course should enable them to communicate effectively with English-speaking patients and medical professionals, read and comprehend medical literature, and write clear and concise reports and papers.

3.2.2 EMP Curriculum's Core Content

The analysis of student perspectives regarding the EMP curriculum's core content underscores several key focus areas, including professional relevance, medical terminology, understanding of medical science, incorporation of contemporary medical topics, and an emphasis on reading and translation.

A group of three students (2, 3, 4) emphasized the curriculum's need to resonate with the specific majors of students, proposing a bespoke approach to curriculum content. This approach should focus on integrating commonly applied English medical knowledge in future workplaces. In the words of student 4, the content should be reformed “according to the characteristics of each major.” Simultaneously, four students (5, 6, 9, 14) advocated

for a reform that underscores specialized medical terms related to disease and its treatments. They posited that mastering these terms would facilitate a better understanding of professional nomenclature. As student 5 conveyed, “If students mastered the vocabulary of medical nouns, such as the rules of root words, it would help them to learn these proper names better.”

Students 7 and 13 represented a minority perspective, emphasizing the need for content reform to center on the development of medical science knowledge. They suggested reducing the number of general topic articles, as they noticed instructors often struggle with highly specialized medical content. In the words of student 13, “Instructors should cover all the material within the teaching time rather than selectively choosing key points to teach.” In contrast, three students offered a less favorable view of the course, expressing skepticism about its utility for their future careers or further studies. Student 3 shared, “I think medical English should be for students who want to pursue higher medical fields. My English foundation is inferior, and I will not be in a field where medicine and English are connected.”

Contrastingly, most students (twelve in total) recognized the importance of the medical English course for their future careers or further education. They argued that proficiency in medical English is indispensable, particularly in light of the growing international community in China. Student 13 poignantly expressed, “These [practical writing parts of the medical English course] are beneficial for medical students to start writing and will lay a better foundation for the future. Even if I encounter problems in the future, I can go back to the book and find answers.”

3.2.3 E-Learning Resources

Students’ experiences using e-learning resources, such as electronic tools and learning software, within the medical English course predominantly suggested a strong proficiency. This competency was largely cultivated through self-guided exploration and peer-to-peer dialogues. Certain students were also aided by their prior exposure to similar English e-learning platforms. When the complexity of tools presented a challenge, instructors furnished tutorials to promote autonomous learning.

Reflecting on their experiences, several students proposed detailed suggestions to optimize the use of these e-learning resources. For instance, Student 5 underscored the need to temper the number of tasks associated with specific e-learning tools, advocating for a less overwhelming learning experience. Student 15 argued for consolidating multiple learning applications into a more efficient e-learning single platform.

A recurring suggestion from the students centered on the instructors’ mastery of these e-learning platforms. Students recounted incidents such as erroneous time settings for attendance and the distribution of incorrect quiz questions, which led to confusion. They asserted the need for improved instructor proficiency in handling these e-platforms. While the usefulness of the e-learning tools was questioned by one student (14), the consensus among the majority leaned towards the affirmative. Students credited the e-learning resources, such as Xuexitong, Pigai writing, and FIF, for their convenience and effectiveness in augmenting learning outcomes.

Notably, Student 6 illuminated their instructor’s systematic use of the Xuexitong platform for monitoring attendance, administering tests, and allocating assignments within a defined timeline. This method enabled the instructor to closely track students’ progress and make timely adjustments to the course content. Student 9 acknowledged the advantages of e-learning platforms like Pigai writing for writing and translation practice but felt a deficit in the attention accorded to listening and speaking skills. They suggested a more inclusive approach, advocating for the design of e-learning tools and materials that evenly cater to all language skills, stating, “more attention needed to be paid to listening and speaking skills... to ensure balanced proficiency across all language skills.”

3.3 *Quality of Medical English Curriculum—Instructors’ Perception*

Examining instructor perceptions regarding the EMP curriculum led to identifying four sub-themes: the purpose and focus of EMP, the core content, the effectiveness of e-learning materials, and instructor training. The first three sub-themes align with the themes voiced by students, indicating a mutual concern for these aspects of the curriculum. Conversely, instructor training emerged uniquely from the instructor feedback, revealing the instructors’ awareness of their role’s intricacies and the personal competencies required to execute the EMP curriculum effectively.

3.3.1 The Purpose of EMP Courses

The findings from the instructors’ perceptions reveal a range of interpretations regarding EMP curriculum’s intended purpose, arranged into five distinct groupings. The first two groupings encapsulate the views of ten instructors in total. Five instructors in the first grouping underscored the importance of medical-based vocabulary and English essay-writing skills. As an example, Instructor 14 emphasized the need for students to

master the “fundamentals of medicine” and articulate medical terms in English fluently. Similarly, the second grouping, comprised of five instructors, believed that the EMP courses’ primary aim should be to augment students’ foundational knowledge in the medical English language, thus aiding their major studies. Instructor 9 echoed this sentiment, indicating that the EMP curriculum should primarily function to help students grasp “basic medical knowledge.”

Three additional groupings highlight more specific or comprehensive perspectives on the EMP curriculum. The third perspective, presented by three instructors, identified the enhancement of medical professional English skills and the development of medical humanities as the primary focus of the EMP course. Instructor 16 elaborated on this by stating that the EMP curriculum should nurture critical thinking skills and awareness of precision medicine. The fourth grouping, consisting of two instructors, emphasized the importance of vocabulary and literature reading. Instructor 4 suggested a comprehensive approach to enhancing medical English knowledge, including “listening, speaking, reading, writing, and translation.” The final grouping, comprised of two instructors, argued for including broader competencies in the curriculum. Instructor 2 noted that the EMP course should extend beyond basic language instruction to foster “critical thinking, cultural awareness, and effective communication skills.”

3.3.2 EMP Curriculum’s Core Content

A total of ten instructors reported participating in the creation of their respective institutions’ medical English textbooks. Nonetheless, there was no uniformity in the perception of the suitability of these materials. Instructor 5, for example, confessed, “The themes and materials in the course I teach are derived from textbooks... the content of the material taught by instructors covers a limited range of topics.” Though useful, there was a suggestion that the book does not fully satisfy the course’s demands within the allotted timeframe. Similarly, Instructor 16 voiced concerns, highlighting, “Some of the material I am teaching needs further revision... So how to teach this course interestingly while integrating these students into the class is a big challenge.” This comment underscores the need for the course materials to be periodically updated and adapted to maintain student engagement and cater to diverse student backgrounds.

Perceptions about the material’s appropriateness varied among the seven instructors who were not involved in creating the textbook. Instructor 7 positively noted, “The EMP textbook is a valuable resource for instructors like myself. It presents the required medical content in a user-friendly manner.” Similarly, Instructor 13 added, “As an instructor, it’s a great asset.”

However, other perspectives highlighted shortcomings. For instance, Instructor 11 critiqued, “The EMP textbook resembles a general English textbook rather than a specialized resource created by medical experts.” Instructor 4 echoed these sentiments stating, “The EMP textbook seems disconnected from the intended goals of our course... It feels as though the textbook was hastily compiled without thoroughly considering our objectives.” Instructor 9 highlighted another challenge: the institutional expectations to adhere to the textbook strictly.

3.3.3 E-Learning Resources

Using online tools and materials in the EMP curriculum drew mixed responses from instructors. While most reported incorporating various online resources, three instructors abstained, citing a lack of departmental support and internet connectivity issues as primary deterrents. Instructors who implemented e-learning resources extolled several benefits. A significant number (1, 2, 3, 4, 8, 9, 16) emphasized that online tools offered complementary exercises to traditional lecture content, thereby enhancing student understanding. Others (5, 12, 14, 15) lauded the time-saving aspect of these tools, notably in grading assignments and facilitating formative assessments. Instructor 5, for example, commended the Xuexitong app for streamlining the grading process.

However, not all experiences were positive. Instructor 7 recounted that despite deploying Xuexitong, the resource was largely deemed burdensome by students, thereby questioning its effectiveness. Despite this, several instructors (10, 17) highlighted the role of online tools in fostering independent learning, underscored by the accessibility and flexibility of digital platforms.

A majority of the 15 instructors championed a blended approach. Instructor 1 articulated, “Blending traditional methods with modern technology can teach more effectively.” Meanwhile, Instructors 2 and 3 argued that a hybrid approach fosters dynamic knowledge presentation and encourages student participation. Instructors (4, 5, 7, 8) further contended that a blended approach aligns with contemporary trends, suggesting that language proficiency disparities and limited time make it challenging to adhere strictly to online or traditional methods. Instructor 17 depicted an ideal scenario as a blend of traditional and technology-centric methods, allowing focused instruction time interspersed with student group work on various platforms.

3.3.4 Instructor Training

The study explored instructors' experiences and preparedness in employing online tools and electronic materials in the EMP curriculum. Of the 17 instructors surveyed, 11 reported receiving limited training or support on using relevant online tools or electronic materials. They noted resources such as electronic user guides, expert training video conferences, and department-specific training on tools like Xuexitong.

However, despite this support, only three instructors (3, 4, 5) felt fully equipped to guide others using these tools and materials. Eight instructors highlighted their hesitations, mentioning continuous technology updates, a lack of familiarity, and the constant need to consult operating documents. Instructor 16 admitted, "My department provides one or two training sessions, but I still have to figure it out myself. I have to read the manuals for each platform repeatedly." Similarly, Instructor 17 added, "The department has conducted training... I should be able to teach other instructors... but I am not very confident." On the other hand, six instructors (2, 6, 7, 10, 11, 12) reported not receiving any training or support on using these e-learning resources, which prevented them from assisting others in this area.

Regarding EMP curriculum-specific training, the study found that instructors had limited support when dealing with new or complex topics in the curriculum. Only four instructors acknowledged receiving minimal assistance, such as shared lesson plans or teaching techniques. The remaining 13 instructors highlighted the lack of institutional support or training, suggesting a reliance on self-teaching or independent study to grapple with novel or intricate course subjects. Instructor 10 noted, "The main reason is that there is relatively little training offered in this area, and I have not received any training for the medical English course... the information in terms of training that I have obtained is less." Echoing this sentiment, Instructor 16 added, "The course content is generally self-learned... the department did not have the resources or time to arrange this training. The department does not know the ways or how to access specifically in these topic-related fields."

3.4 Quality of Medical English Instruction – Students' Perception

The analysis of student interviews identified two distinct themes regarding their perceptions of the quality of EMP course instruction. These themes encompass the instructor's pedagogical approach and their subject-matter competence.

3.4.1 Pedagogical Approach

Focusing on the pedagogical approach, several students (1, 3, 4, 6, 9, 12, 14, 15) voiced their preference for instructional strategies incorporating individual and group reporting. They contended that this method facilitated language practice and fostered peer-to-peer communication, enhancing their motivation. They further emphasized that scriptless presentations honed their speaking skills and provided a medium for deepening their understanding of the course content. The group presentations nurtured their teamwork abilities, allowing the instructor to identify and provide feedback on students' strengths and weaknesses. "Individual and group reporting have been useful in improving our language skills while strengthening collaboration," observed Student 3, "This has motivated me, making the learning experience more engaging and productive."

Four other students (5, 9, 14, 15) highlighted the benefits of their instructor's blended learning approach. They articulated that online learning and video conferencing offered numerous opportunities for student-instructor interaction, facilitating prompt exchanges of thoughts. They further acknowledged that this method resonates with modern educational trends and provides a flexible learning environment, enabling students to access online resources multiple times without being bound by a strict schedule. "We appreciate the blended learning approach adopted in our course," shared Student 9, "It provides us with a platform to express our thoughts and interact promptly with our instructor, which make our learning experience better."

On the other hand, some students voiced their dissatisfaction with the instructional methods. These students felt that overemphasizing textbook exercises and vocabulary memorization was detrimental to their learning, as these tasks could be performed independently without the instructor. They urged for more engagement and creativity in the instructional approach. "More than mere vocabulary memorization, we want an engaging classroom that grabs our interest and pushes us to think," expressed Student 7, "Unfortunately, our classes often feel uninspired and boring." Student 2 offered a sharp critique: "The overall experience feels repetitive and lacks depth, leaving us wanting more than we're currently receiving."

3.4.2 Instructor Competency

The findings revealed mixed perceptions among students regarding the quality of instruction in the EMP course. Some students expressed concerns about the instructors' lack of medical expertise and reliance on textbook content. One student commented, "When my English instructor was teaching this course, they sometimes did not

know or understand the disease and its related conditions and could not answer or explain parts clearly. They only could provide us with the language points in English; they didn't have medical knowledge" (Student 5). Another student added, "The instructor limited themselves to the textbook; they would only talk about one topic based on the reading but couldn't expand from this topic. The teaching focus or explanations were based on the textbook content; the instructor didn't know much about the subject or the field" (Student 9).

However, other students felt the instructors were competent in teaching the course content. They acknowledged their ability to cover the required material within the designated timeframe and appreciated their extensive vocabulary. Some students recognized that the course was an introduction to medical knowledge in English. Nevertheless, the students emphasized the instructors' lack of medical expertise and the need for them to go beyond the textbook. One student expressed, "My English instructor's content knowledge was mostly adequate to teach the medical English course, which should be an introduction to how to present Chinese medicine more professionally. However, in professional aspects, my English instructor's content knowledge was insufficient to cover the course thoroughly" (Student 6). "The metaphysical nature of Traditional Chinese Medicine was seen as a challenge for instructors to explain certain terms clearly" (Student 3).

Additionally, students desired greater topic expansion beyond the textbook. They felt that the instructors sometimes focused on superficial elements from the book, and the explanations did not go beyond what was presented. Some students had prior knowledge of certain topics from their major courses, but the textbook presented them in a generalized or simplified manner. The lack of relevant topic expansion and limited engagement with the material left students uninterested. One student noted, "There were one or two lessons where I felt like I didn't get much out of it; the instructor just explained a bit of textbook content and vocabulary, and answered some grammar questions. Students could figure it out by reading the book themselves. The instructor must expand more" (Student 15).

3.5 Quality of Medical English Instruction – Instructors' Perception

In evaluating the quality of EMP instruction, insights from instructor interviews surfaced two discernible themes: pedagogical approach and instructor competency, notably their self-efficacy with the course material. This analysis presents an intriguing parallel to the themes highlighted by student feedback, demonstrating a shared concern between students and instructors over these aspects of course instruction.

3.5.1 Pedagogical Approach

Regarding EMP instruction quality, instructor perspectives focused on pedagogical methodologies and their alignment with student learning needs. Seven instructors (1, 2, 4, 12, 13, 14, 17) supported a student-centered pedagogical approach, endorsing engaging content, group discussions, and practical exercises. Contrastingly, a trio of instructors (5, 9, 10) found value in a blended teaching approach, merging online and offline elements to enhance classroom participation and learning outcomes. This viewpoint emphasized online interactive knowledge as a tool to improve engagement and make the learning process less monotonous.

Instructor 10 explained, "If the classroom teaching is mainly lecture style, the students will be bored. It would be better if the instructor added online interactive knowledge or fun content as an introduction to getting the students to understand and participate in the class." Two instructors (3, 15) underscored the difficulty in defining an optimal approach, considering the variation in student learning needs and diverse content requirements. Reflecting on this diversity, instructor 15 noted, "Each student's learning needs may differ, and I'm unsure how to answer this question."

A noticeable difference emerged from the responses of the instructors. Despite the consensus favoring student-centered teaching approaches, many respondents maintained a lecture-oriented format in their classes. Most instructors (1, 5, 7, 8, 10, 11, 12, 13, 15) conceded that their teaching style is primarily driven by lectures, which they attributed to time constraints and the desire to minimize lesson preparation.

The study's findings accentuated the instrumental role of the instructor in teaching basic language skills, particularly in offline settings. This crucial responsibility extends to instruction in essential language skills such as vocabulary construction and paragraph progression. Therefore, while instructors express enthusiasm for student-centered methodologies, practical considerations drive continued reliance on lecture-oriented designs. This discrepancy between theory and practice presents an interesting dichotomy.

3.5.2 Instructor Self-Efficacy

The study probed instructors' self-confidence in teaching the EMP curriculum. Only six declared confidence or comfortability with the subject matter they taught. However, none could explain the reasons for their self-assuredness. In contrast, 11 instructors conveyed a sense of uncertainty or discomfort with the content they

were tasked to teach. A common rationale for their apprehension was the lack of foundational knowledge or basic skills in the medical field, necessitating self-study or exploration to comprehend the curriculum.

Instructor 10 shed light on the challenges faced, stating, “In teaching, the unfamiliarity with medical vocabulary doesn’t allow me to be confident or comfortable... However, regarding the vocabulary of certain topics, the pronunciation, and the meaning of some medical terms, I have to relearn them... In this course, what I lack most is adding some interesting content in learning and explanation.” Likewise, Instructor 17 shared a similar perspective: “I lack confidence in teaching. My professional knowledge of medicine is not particularly solid... I can only learn about the medical topics covered in the textbook through self-study, slowly understanding the topics covered.”

Other instructors expressed anxiety over the specialized nature of the EMP curriculum. Instructor 6 noted, “Teaching medical English is a challenge for me because I lack the necessary training and support from the university. I feel ill-equipped to navigate the specialized terminology and effectively deliver the curriculum to my students.” This sentiment was echoed by Instructors 7 and 14, who also voiced concerns about their perceived inadequacies in mastering and teaching medical terminology.

In addition, instructors 10 and 17 pinpointed a distinct challenge: students’ apparent lack of interest in the medical English course. According to the instructors, this apathy significantly hindered students from actively posing questions. The instructors posited that this disengagement stemmed from students’ perception of the limited acquisition of specialized knowledge from the course. As students held superior expertise in their respective medical specialties compared to their instructors, they questioned the value of the course.

The instructors’ perceived lack of self-efficacy also influenced their perception of agency in curriculum modification and delivery. For instance, Instructor 5 stated, “I feel restricted in my role as an instructor. I’m unsure if I have the authority or qualifications to modify the curriculum to address my students’ specific needs, especially regarding medical terminology.” Similarly, Instructor 12 mentioned feeling a lack of control over the curriculum and expressed frustration over their inability to fully address their students’ learning needs.

4. Discussion

4.1 Curriculum

The interviews indicate a lack of balance between the specific medical content and the English language proficiency required in medical English courses. It is crucial to reform the curriculum in a way that provides substantial professional knowledge while enhancing language competence. The instructors demonstrated a clear understanding of the need to reform the textbooks and the overall curriculum. They expressed concern about the students’ lack of interest in the course, attributing it primarily to the disconnect between the course content and the specialized knowledge students are keen to acquire. The instructors recognized that students, often possessing more specialized medical knowledge, saw no substantial benefit from the course. As student 14 succinctly stated, the current textbooks feel like they teach more general English than medical English. This observation aligns with previous research emphasizing that for students to engage effectively, the content must be related to their field of study and future work (Zhao & Li, 2017).

The content of the current textbooks further exacerbates the problem, focusing more on language skills rather than on a well-structured, logically developed, and subject-relevant framework. The material was often used by instructors as counter-examples in teaching English writing due to its inappropriate paragraph patterns, thus diverting from its intended use. To tackle this, the textbook content needs to be tailored according to the unique requirements of each major, taking into account the common English medical knowledge to be used in future workplaces.

Su’s (2017) insights resonate with the findings of this study, highlighting significant limitations of current specialized English textbooks. The textbooks’ primary focus is on developing professional English introductions and vocabulary learning, leaving the task-based activities with minimal authenticity. Consequently, the textbook fails to fully meet students’ needs for their professional studies and future work requirements.

As indicated by previous studies and emphasized by this research, the EMP course content needs to be practical, relevant, and aligned with students’ majors. The disconnection between textbook content and practicality is an urgent issue requiring immediate resolution. Considering the fast pace of societal development, the evolution of teaching materials often falls behind, creating a disconnect between the curriculum and the students’ needs. Moreover, the team responsible for writing the textbook often lacks the specialized knowledge to meet students’ expectations effectively.

4.2 Instruction

Exploring the quality of EMP course instruction through the responses from students and instructors revealed two broad themes: pedagogical approach and instructor competency. When discussing the pedagogical approach, students preferred strategies that incorporated individual and group reporting. They argued for an education format that fostered better language practice, communication skills, and teamwork. The blend of online and offline learning, with a greater emphasis on interactive methodologies, was also valued by students. Despite this, there was dissatisfaction about the overemphasis on textbook-based learning and vocabulary memorization, hinting at a desire for a more creative and engaging classroom environment.

Instructors highlighted their commitment to student-centered methods and a blend of online and offline instruction. They intended these strategies to enhance classroom participation and learning outcomes. However, they noted practical concerns like time constraints and lesson preparation led to a dominant reliance on lecture-oriented formats. This difference in perspectives between the students' desire for engagement and the instructors' practical considerations formed a unique point of contrast.

Concerning instructor competency, students' views varied. Some students raised concerns about instructors lacking medical expertise, as evidenced by their struggle to explain medical conditions or disease-related English terminologies. Others felt the instructors were proficient in teaching the required material. Despite these opposing views, a consensus emerged among students on the need for instructors to move beyond textbook content and bring more depth to the subject matter.

In contrast, instructors exhibited varying levels of self-confidence about their competency in teaching the EMP curriculum. Some expressed comfort and confidence, while others revealed apprehension from their lack of foundational knowledge or skills in the medical field. Several instructors acknowledged the specialized nature of the EMP curriculum as a challenge, further exacerbated by the students' apparent lack of interest in the course. These perceptions among instructors revealed their concerns about their qualifications to modify the curriculum and a perceived lack of control over it, leading to frustration over their inability to adequately meet the students' learning needs.

The findings echo Zhao's (2022) work and Ma's (2022) study. Zhao (2022) emphasized that EMP instructors at the university level often lack time and space for professional development due to increasing teaching responsibilities. Ma (2022), meanwhile, identified a misalignment between the educational background of English instructors and the specific requirements of teaching medical English. Both factors contribute to instructors' challenges, reflecting the students' perceptions of the EMP course quality.

5. Recommendations

Findings have been consolidated into strategic recommendations in three major areas: curriculum development, instructor training, and establishment of learning communities. These strategies provide a comprehensive approach to enhancing the quality of EMP courses in Chinese HEIs.

5.1 Curriculum Development

The strategy for curriculum development is divided into three distinct stages.

- **Interdisciplinary Team Assembly**

The first stage involves assembling an interdisciplinary team to compile the medical English textbook. The higher education foreign language teaching committees and foreign language colleges in medical universities should lead this process. This team should include subject-specialized instructors, professional medical personnel, and English instructors to ensure a balanced and holistic approach to creating the textbook.

- **Research and Content Compilation**

After assembling the team, the second stage is conducting extensive research on domestic and foreign medical fields. The team should collaborate to develop a medical English textbook that is up-to-date, authentic, and professional while also catering to Chinese medical students' learning characteristics and English proficiency levels.

- **Textbook Review and Refinement**

Once the initial draft of the textbook is ready, it should undergo a comprehensive review process to assess its relevance, comprehensibility, and practicality. This review should be carried out by English instructors, medical professionals, and a select group of students. Based on the feedback from this review, the team should refine the textbook to effectively meet university students' practical needs. After the refinement process, the textbook

should be submitted for final approval from the relevant university authorities, readying it for printing and distribution.

5.2 Instructor Training

The strategic plan for instructor training also has two main phases.

- **Assembling the Training Team and Designing the Curriculum**

In the initial phase, medical and foreign language departments should collaborate to assemble a training team and design a comprehensive training curriculum. Ideally, the team should be comprised of doctors and instructors with a strong foundation in medical knowledge and high proficiency in English. The curriculum should not only impart essential medical knowledge but also introduce the specific language characteristics of the medical English framework.

- **Training Execution, Evaluation, Ongoing Support, and Career Progression**

The next phase involves the execution of the training, which can be conducted online or face-to-face. After the training, all instructors should be evaluated through an examination to ensure the quality of instruction. Ongoing support should be provided to the instructors, offering timely feedback and solutions to any difficulties encountered during their teaching. Instructors who demonstrate outstanding academic achievement during the training should be encouraged to further their studies.

5.3. Learning Communities

The final strategic recommendation is the formation of learning communities.

- **The Formation, Structuring, and Activation of Learning Communities**

The first step involves universities establishing professional learning communities for medical English instructors. This would involve determining the community's format, identifying the core team, and setting the community's operational rules or guidelines. As these communities are being established, reflective teaching should be promoted and implemented within them.

- **Establishment of Virtual Learning Communities and Initiation of Reflective Teaching Cycles**

Universities should assist instructors in establishing and participating in virtual learning communities as the communities mature. These platforms should facilitate the exchange of ideas, sharing of resources, and the construction of knowledge. With the physical and virtual communities functioning, the emphasis should shift to promoting the cyclic process of practice-reflection-practice-reflection among instructors. This continuous cycle encourages instructors to improve their teaching and research abilities progressively.

6. Conclusion

The study aimed to address the pressing challenges in teaching EMP in Chinese HEIs. Through an in-depth analysis of responses from both EMP instructors and students, the study provided critical insights into the existing issues, such as the lack of specialized teaching materials, instructors' limited medical knowledge, and lack of professional development opportunities.

Addressing these issues, three main strategic recommendations were proposed: the development of a specialized curriculum, comprehensive instructor training, and establishment of professional learning communities. These strategies aim to bridge the current gaps in EMP teaching, making it more effective and relevant.

While this study offers a foundational direction for improving EMP instruction in higher education, the strategies proposed herein should be iteratively refined and expanded upon, considering the evolving demands of the medical profession and the advancements in language instruction. The success of these recommendations lies in their diligent implementation and constant evaluation, fostering an environment of continuous improvement in teaching EMP.

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