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English for Medical Communication in Allied Health Science Programmes: Students' Perceptions of Course Effectiveness

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Abstract

Effective medical communication is essential for safe, patient-centred, and collaborative allied health practice, highlighting the need for English courses that address discipline-specific communication demands. This study investigates the effectiveness of an English course in meeting the medical communication needs of allied health students, focusing on course content relevance, speaking skills, medical vocabulary, classroom practices, and communication confidence. Adopting a quantitative descriptive research design, data were collected from 56 first-year allied health students using a structured, self-developed questionnaire measured on a five-point Likert scale. The questionnaire demonstrated acceptable validity and reliability and the data were analysed using SPSS. Findings reveal

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that while students perceived moderate relevance of course content to real-world allied health communication, the course had a notably positive impact on speaking skills, medical vocabulary development, and oral communication confidence. Classroom activities, particularly role-plays, discussions, and simulations, were identified as the most effective components in preparing students for real-life healthcare communication. However, some students reported uncertainty regarding the alignment of learning materials with authentic clinical contexts. The study concludes that although the English course contributes meaningfully to medical communication competence, greater contextualization through profession-specific content and authentic clinical scenarios is necessary. The findings underscore the importance of needs-driven, ESP-oriented course design combined with interactive pedagogy to enhance medical communication training for allied health students.

Keywords: allied health students, medical communication, english for specific purposes, speaking skills, classroom practice

Introduction:

In allied health, effective communication is essential for providing safe, team-based, and patient-centred care. Three primary areas of research are interprofessional communication, patient communication, and the most effective ways to instruct allied health and other health students (De Lange and Watermeyer; Sturgiss et al. 1; Thang et al. 4). In healthcare settings, medical communication is an essential and complex process for sharing information, forming connections, and determining treatments (Laidsaar-Powell et al.; Rettinger et al.). One of the key factors influencing patient safety, care quality, and team performance is medical communication among allied health providers. According to the findings, medical communication serves three main goals: (1) establishing rapport with others, (2) sharing information, and (3) deciding on treatment (Ong et al.). Critically, suboptimal communication represents the largest source of preventable medical errors (Brindley et al.). Active listening, using clear non-technical language, exhibiting empathy, and including patients in decision-making are all essential communication skills (Boga et al. 5).

Good communication can raise patient happiness, improve treatment results, and raise the standard of healthcare as a whole. Clinical outcomes are strongly influenced by the ability of multidisciplinary teams comprising nurses, pharmacists, therapists, laboratory personnel, and doctors to communicate information, negotiate responsibilities, and make collaborative decisions. (Qama et al. 6; Nie et al. 2). In complicated settings including intensive care, internal medicine wards, and primary care clinics, communication breakdowns are frequently associated with adverse outcomes, ineffective decision-making, and low patient satisfaction (Zaga et al. 3). Research indicates that improved coordination, shared decision-making, and safer care are linked to interprofessional communication (IPC) that is transparent, accurate, timely, and well-understood (Surendran et al. 6; LaRochelle and Karpinski 3). Despite this, communication is often reduced to unidirectional information transfer from more powerful professions, with nurses, allied health

practitioners, and patients having limited input into deliberation and care planning(Rao et al. 2; Mahmood et al. 7). To address these gaps, health systems and education programs have begun to emphasise structured communication tools, competency frameworks, and interprofessional education, including simulation-based and technology-enhanced training, to develop collaborative skills from the undergraduate level onward. Understanding how communication is practiced, where it breaks down, and which strategies are most effective is therefore essential for advancing integrated, patient-centred allied health care. Based on the research questions, the study aims to achieve the following objectives:

1. To examine the relevance of the English course content in addressing the medical communication needs of allied health students.
2. To assess the effectiveness of the English course in improving allied health students' speaking skills, medical vocabulary, and oral communication confidence in healthcare contexts.
3. To evaluate the effectiveness of classroom activities and teaching methods in preparing allied health students for real-life healthcare communication.

Literature Review:

Allied health science students require specialized English communication skills to succeed academically and professionally in increasingly globalized healthcare environments. Research consistently highlights that while general English proficiency is important, the most critical needs are in speaking and listening for clinical interactions, medical terminology, and empathic, patient-centered communication (Aarvidurai et al. 9). Needs analyses across diverse contexts reveal persistent gaps between current English for Medical Purposes (EMP) or English for Specific Purposes (ESP) courses and the real-world communicative demands faced by students in clinical and interprofessional settings Addressing these challenges through reforms, such Decolonizing medical education (Huang and Yu 11; Choi 6; Gayessa and Mohammed 8; Haroen et al. 2). These findings underscore the necessity for needs-driven, task-based, and contextually relevant English curricula that prioritize authentic clinical communication, documentation, and cultural competence (Yuriatson 4; Handayani et al. 2; Hamad et al. 7, Q. Huang et al. 11).

2.1. Core Communication Needs

Studies consistently report that speaking and listening skills, especially for patient history taking, giving instructions, and interprofessional communication, are the most crucial for allied health students (Hamad et al. 5; Mohamed et al. 1; Guan and Scott 12; Q. Huang et al. 5). Medical terminology and the ability to document and explain procedures are also highly prioritized. Empathic and culturally sensitive communication is increasingly recognised as essential, yet often underrepresented in current curricula (Yuriatson 5)

2.2. Gaps in Current English Courses

Despite the recognized importance of communication, many EMP/ESP courses still overemphasize grammar, reading, and translation, with insufficient focus on oral clinical communication and authentic, context-specific tasks(Xu et al. 5; Stötzer et al. 2; Muthukumar et al. 2). Students and educators report a lack of preparedness for real-world clinical interactions, especially in high-stakes or intercultural settings (Muthukumar et al. 5; Chen 8).

2.3. Implications for Course Design

Effective English courses for allied health students should be needs-driven, task -based, and contextually relevant. This includes:

- Role-plays and simulations of clinical scenarios (Chen; Bahattab et al. 3; Lee and Yang 12).
- Integration of medical documentation and terminology (Kodama et al. 8; Falcetta et al. 7).
- Training in empathic, intercultural, and patient-centred communication (Kerr et al. 11; Nikitakis et al. 9; Amin et al. 11).
- Use of technology and flexible, self-paced learning platforms (Englmeier 6; Dai et al. 8).

How effective is the English course in meeting the medical communication needs of allied health students in terms of course content relevance, speaking skills, medical vocabulary, classroom practices, and communication confidence?

Methodology

Research Design

The study adopted a quantitative descriptive research design to examine allied health students' perceptions of the effectiveness of an English course in developing medical communication skills. A survey method was employed to collect data using a structured questionnaire. Convenience sampling was employed in this study due to practical and contextual constraints, as the participants were allied health students who were readily accessible and enrolled in the English course during the period of data collection. This approach is commonly adopted in ESP and educational perception studies, particularly when the research aims to explore learners' attitudes and perceptions within a specific instructional context rather than to generalize findings to a broader population. Relevant to that ESP and Medical English studies have effectively used convenience sampling to examine students' perceptions of course relevance and effectiveness (Chang et al. 6; Muthukumar et al. 8). Since the primary objective of the present study was to gain context-specific insights into the effectiveness of an English course for medical communication, convenience sampling was considered appropriate.

Participants

The participants of the study were first-year allied health medical students. A total of 56 students were selected using convenience sampling, as they were enrolled in the English course at the time of the study. The sample included both male and female students, ensuring basic demographic representation. Regarding sample size, the study included 56 participants, which is comparable to and consistent with sample sizes used in previous ESP perception-based research. Several studies in ESP and English for Medical Purposes have reported meaningful findings with sample sizes ranging from 30 to 100 participants, particularly when employing descriptive statistical analysis (Nation and Hunston; Donesch-Jezo; Frost et al.; Amante). Therefore, the sample size in the present study is considered adequate for a descriptive quantitative analysis of students' perceptions.

Research Instrument

Data were collected using a self-developed questionnaire designed to evaluate the effectiveness of the English course for medical communication. The questionnaire consisted of five sections:

- Course Content Relevance
- Speaking and Oral Communication Skills
- Medical Vocabulary and Language Use
- Classroom Activities and Teaching Methods
- Communication Confidence and Outcome

All items were measured using a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5).

Validity and Reliability

Independent variables	Cronbach's Alpha
Course Relevance to Medical Communication	.717
Speaking and Oral Communication Skills	.723
Medical Vocabulary and Language Use	.751
Classroom Activities and Teaching Methods	.823
Communication Confidence and Outcomes	.713

Table 1 Reliability Analysis of Independent Variables (Cronbach's Alpha)

The questionnaire was reviewed by subject experts in English language teaching and medical education to ensure content validity. Minor modifications were made based on expert feedback. The internal consistency of the questionnaire was assessed using Cronbach's alpha, which indicated acceptable reliability. All subscales showed acceptable to good reliability, with alpha values ranging from

0.713 to 0.823, exceeding the recommended threshold of 0.70. This indicates that the items within each subscale were internally consistent and reliably measured students' perceptions of the English course for medical communication.

Data Collection Procedure

The questionnaire was administered to the participants after they had completed the English course. Students were informed about the purpose of the study, and participation was voluntary. Confidentiality and anonymity of responses were assured. The collected data were analysed using SPSS software. The results were presented section-wise to address the research question.

Results:

Gender	Frequency	Percent	Valid Percent	Culmulative Percent
Female	36	64.3	64.4	64.3
Male	20	35.7	35.7	100.0
Total	56	100.0	100.0	

Table 2 Gender-wise Distribution of the Participants

The gender distribution of the participants indicates a higher representation of female students in the study. Out of the 56 respondents, 36 students (64.3%) were female, while 20 students (35.7%) were male. This distribution reflects the predominance of female students in the allied health programmes represented in the sample.

Gender	Frequency	Percent	Valid Percent	Culmulative Percent
Clinical Psychology	10	17.9	17.9	17.9
Medical laboratories technology	8	14.3	14.3	14.3
Operation theatre & anesthesia technology	12	21.4	21.4	53.6
Physician Assistants	16	28.6	28.6	82.1
Physiotherapy	10	17.9	17.9	100.0
Total	56	100.0	100.0	

Table 3 Distribution of Participants by Allied Health Specialization

The participants represented a range of allied health specializations, ensuring disciplinary diversity within the sample. Physician Assistants formed the largest group, comprising 16 students (28.6%). This was followed by Operation Theatre and Anesthesia Technology with 12 students (21.4%). Clinical Psychology and

Physiotherapy were equally represented, with 10 students each (17.9%). Medical Laboratories Technology accounted for 8 students (14.3%), representing the smallest proportion of the sample. The distribution reflects balanced representation across major allied health disciplines.

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q1	37.5 %	17.9%	14.3%	12.5%	17.9%
Q2	7.1%	7.1%	41.1%	26.8%	17.9%
Q3	21.4%	28.6%	5.4%	21.4%	16.1%
Q4	28.6%	28.6%	5.4%	21.4%	16.1%
Q5	3.6%	0%	19.6%	50%	26.8%
Q6	14.3%	0%	39.3%	30.4%	16.1%
Q7	7.1%	7.1%	16.1%	39.3%	30.4%
Q8	8.9%	39.3%	10.7%	30.4%	10.7%
Q9	37.5%	3.6%	5.4%	41.1%	12.5%
Q10	8.9%	41.1%	16.1%	25%	8.9%
Q11	7.1%	17.9%	32.1%	19.6%	23.2%
Q12	16.1%	46.4%	3.6%	16.1%	17.9%
Q13	0%	3.6%	32.1%	42.9%	21.4%
Q14	3.6%	7.1%	14.3%	44.6%	30.4%
Q15	0%	3.6%	21.4%	50%	25%
Q16	14.3%	33.9%	17.9%	23.2%	10.7%
Q17	8.9%	3.6%	57.1%	10.7%	19.6%
Q18	12.5%	26.8%	19.6%	12.5%	28.6%
Q19	14.3%	23.2%	19.6%	23.2%	19.6%
Q20	30.4%	12.5%	33.9%	10.7%	12.5%

Table 4 Students' Perceptions of the Effectiveness of the English Course for Medical Communication

Table 4 presents allied health students' perceptions of the effectiveness of the English course in developing medical communication skills. Responses to items on course content relevance (Q1–Q4) indicate mixed perceptions, with a substantial proportion of students expressing disagreement or neutrality, suggesting partial alignment with professional communication needs. In contrast, items related to speaking skills and oral practice (Q5–Q8) show generally positive responses, with most students agreeing that the course improved their speaking ability and provided sufficient opportunities for spoken English practice. Perceptions of medical vocabulary development (Q9 - Q12) were moderate, indicating improvement in vocabulary knowledge but less confidence in using medical terminology fluently. Classroom activities and teaching methods (Q13- Q16) received the most favorable responses, particularly role-plays and interactive practices, which were seen as effective in supporting communication skill development. Overall, confidence-related items (Q17- Q20) suggest gradual improvement, though many students reported neutrality, indicating the need for greater contextualization and authentic clinical communication practice.

RQ1: How relevant is the English course content to the medical communication needs of allied health students?

The findings related to Q1–Q4 indicate a mixed but generally moderate perception of course content relevance. While a proportion of students agreed that the course content was relevant to allied health medical communication (Q1: 30.4% Agree/Strongly Agree), a considerable percentage expressed disagreement (55.4% Strongly Disagree/Disagree), suggesting variability in perceived relevance. Similarly, for communication situations commonly faced in healthcare settings (Q2), 44.7% of students agreed or strongly agreed, whereas 41.1% remained neutral, indicating uncertainty among students about real-world applicability. Responses to Q3 and Q4 further revealed that although some students felt the course helped them understand English in medical contexts and relate to their future profession (37.5% Agree/Strongly Agree), a notable proportion disagreed (over 50% in both items). The results suggest that while the course content demonstrates partial alignment with allied health medical communication needs, there is scope for improvement in contextual relevance and profession-specific integration.

RQ2: To what extent does the English course improve allied health students' speaking skills, medical vocabulary, and oral communication confidence?

Students' responses to Q5–Q12 and Q17–Q19 show a generally positive impact of the course on speaking skills and vocabulary development. A majority of students reported improvement in speaking skills for medical purposes (Q5: 76.8% Agree/Strongly Agree) and increased confidence in healthcare-related communication (Q6: 46.5% Agree/Strongly Agree, with many neutral responses). Opportunities for spoken English practice were viewed favorably (Q7: 69.7% Agree/Strongly Agree), and students felt better able to communicate medical information clearly (Q8: 41.1% Agree/Strongly Agree). In terms of medical

vocabulary, 53.6% of students agreed or strongly agreed that the course improved their knowledge (Q9), while confidence in using medical terminology showed moderate improvement (Q10–Q12), with a noticeable proportion remaining neutral. Regarding communication confidence, Q17 revealed that although anxiety reduction was moderate (30.3% Agree/Strongly Agree), many students reported neutrality, suggesting gradual confidence development. Preparedness to communicate with patients and professionals (Q18 and Q19) showed balanced responses, indicating developing but not fully established confidence. Collectively, the findings demonstrate that the course positively contributes to speaking skills, vocabulary acquisition, and oral confidence, though sustained practice and targeted interventions may further enhance outcomes.

RQ3: How effective are the classroom activities and teaching methods in preparing allied health students for real-life healthcare communication?

Responses to Q13-Q16 reflect a strongly positive evaluation of classroom activities and teaching methods. A substantial majority agreed that classroom activities supported medical communication skill development (Q13: 64.3% Agree/Strongly Agree). Role-plays, discussions, and simulations were perceived as particularly effective, with 75% of students agreeing or strongly agreeing (Q14). Teaching methods were also found to encourage active participation (Q15: 75% Agree/Strongly Agree). Although perceptions of learning materials reflecting real-life healthcare situations (Q16) were more balanced, the overall trend suggests that interactive and participatory teaching approaches significantly contributed to students' readiness for real-world healthcare communication.

Discussion

The present study examined allied health students' perceptions of the effectiveness of an English course in meeting their medical communication needs, with particular emphasis on course relevance, speaking skills and vocabulary development, and classroom practices.

Course Content Relevance (RQ1)

The findings related to course content relevance indicate mixed perceptions among students, suggesting that while the English course partially addresses allied health medical communication needs, it may not be fully aligned with students' professional expectations. A notable proportion of students either disagreed or remained neutral regarding the relevance of course content to real healthcare communication contexts. This finding is consistent with earlier ESP research, which emphasizes that general English courses often fail to adequately address discipline-specific communication needs in medical and allied health education (Hutchinson and Waters 12).

Previous studies on Medical English and ESP highlight the importance of contextualized, profession-specific materials to ensure learners perceive the course as meaningful and relevant to their future roles(Zolfaghari et al. 5). The present

results suggest that while some foundational exposure is provided, greater integration of authentic allied health scenarios could strengthen perceived relevance.

Speaking Skills, Vocabulary, and Communication Confidence (RQ2)

The results demonstrate that the English course had a positive impact on students' speaking skills and medical vocabulary development, with a majority of respondents agreeing that their ability to speak for medical purposes improved. This aligns with previous studies indicating that ESP-focused instruction enhances learners' functional language use in professional contexts (Khojasteh et al. 7; O'Flynn 8).

Students also reported improved confidence in speaking English in healthcare-related situations, although anxiety reduction was moderate and many respondents remained neutral. Similar patterns have been reported in earlier research, where learners show gradual confidence development rather than immediate anxiety reduction, particularly in medical communication contexts that involve high-stakes interactions (Khojasteh et al. 6; Noro et al. 9). The findings further indicate that while students gained familiarity with medical vocabulary, confidence in using terminology fluently requires continued exposure and practice. This supports earlier literature emphasizing that vocabulary acquisition in medical English is most effective when reinforced through repeated communicative use rather than isolated instruction (Ward et al. 2).

Classroom Activities and Teaching Methods (RQ3)

The strongest positive responses were observed in relation to classroom activities and teaching methods. Students overwhelmingly agreed that role-plays, discussions, and simulations supported their medical communication skill development. This finding strongly corroborates previous research that highlights the effectiveness of interactive, task-based, and simulation-based learning in ESP and medical English contexts (Y. Huang et al. 6; Lu 8). Role-plays and simulations, in particular, have been shown to bridge the gap between classroom learning and real-life professional communication (Bassett et al. 9). The present study confirms that learner-centered and participatory teaching approaches significantly enhance students' readiness for real-world healthcare communication, even when course content relevance is perceived as moderate.

Conclusion

The study concludes that the English course plays a valuable role in developing allied health students' medical communication skills, particularly in terms of speaking ability, medical vocabulary awareness, and communicative confidence. Classroom activities and interactive teaching methods emerged as the most effective components of the course, strongly supporting students' preparation for real-life healthcare communication. However, the findings also reveal that course content relevance requires further strengthening, especially through greater

contextualization and alignment with allied health professional practices. Incorporating more authentic clinical scenarios, profession-specific tasks, and discipline-focused materials may enhance students' perception of relevance and overall course effectiveness. Overall, the study underscores the importance of ESP-oriented course design in allied health education and suggests that a balanced integration of relevant content and interactive pedagogy is essential for effective medical communication training.

Limitations and Generalizability

Despite the contributions of the present study, certain limitations must be acknowledged. The study employed convenience sampling, as the participants were drawn from a single institution and were readily accessible during the data collection period. While this approach is commonly used in ESP and educational perception studies, it may limit the generalizability of the findings beyond the specific institutional and instructional context in which the study was conducted. Variations in institutional environments, curriculum structures, and learner backgrounds may significantly influence students' perceptions of English courses designed for medical communication. Additionally, while the sample size was sufficient for descriptive analysis, future research could improve the reliability and generalizability of findings by incorporating larger sample sizes, probability sampling methods, or multi-institutional research designs. Such approaches would enable broader comparisons and enhance the external validity of future studies. Another limitation of the present study relates to the reliance on self-reported data.

Since the data were collected through questionnaires, participants' responses may have been influenced by personal bias, social desirability, or individual interpretation of questions. Self-reported perceptions may not always accurately reflect actual language proficiency or classroom performance. Future studies may benefit from incorporating mixed-method approaches, such as interviews, classroom observations, or performance-based assessments, to gain a more comprehensive understanding of students' needs and experiences, the study focused primarily on students' perceptions without incorporating the perspectives of instructors, curriculum designers, or healthcare professionals. Including these stakeholders in future research could provide a more holistic view of the effectiveness and relevance of English courses for medical communication. Such multi-stakeholder perspectives would help identify gaps between curriculum objectives and real-world communication requirements in healthcare settings, it also was conducted within a limited timeframe, which may not fully capture changes in students' perceptions over time. Language learning and professional communication skills develop gradually, and students' needs may evolve as they progress through their academic programs and clinical training. Longitudinal studies could therefore offer deeper insights into how students' perceptions and language needs change throughout their educational journey.

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Appendix A: Participant Consent Form

Participation consent Respected Mr/Ms. Respondent, We appreciate your willingness to access this questionnaire. This research is performed by Department of English, Kalasalingam Academy of Research and Education. This questionnaire requests personal data and research variable questions(quality of learning environment, learning support, technical knowledge, learning pedagogy factors, students technical skills, self support and career development). Your responses to this questionnaire will be used solely for data analysis in this study, which will be published in international publications. The results of the research will be be

interpreted in a manner that ensures your anonymity. Researchers utilize and publish only anonymized data. The respondents have the right to view the outcomes of the data interpretation once the research has been finished. Your participation in this research is entirely voluntary. This indicates that you have the option to continue filling out this form. If you opt to withdraw during the application process, there will be no consequences. By checking the box below, you will be redirected to the questionnaire page. I consent to participate in this study by completing this questionnaire in its entirety. I now declare, without pressure, that the answer I typed is the correct one.

I agree with statement above and participate in this survey

- Agree

Appendix B: Demographic information

1. Enter Your Email Address
2. Gender

- Male
- Female

3.Specialization

- Operation theatre and anesthesia technology
- Medical laboratories technology
- Physiotherapy
- Physician Assistants
- Clinical Psychology

Appendix C: Questionnaire

Question Item No	Items
Q1	The English course content is relevant to allied health medical communication.
Q2	The course addresses communication situations commonly faced in healthcare settings.
Q3	The course helps me understand English used in medical contexts.
Q4	The course content relates well to my future profession in allied health.
Q5	The course has helped me improve my speaking skills for medical purposes.

Q6	I feel more confident speaking English in healthcare-related situations.
Q7	The course provides sufficient opportunities to practice spoken English.
Q8	I can communicate medical information more clearly after completing the course.
Q9	The course has improved my knowledge of medical vocabulary.
Q10	I can use appropriate medical terms when speaking in English.
Q11	Q11. The course helps me explain medical procedures using simple English.
Q12	I feel confident using English medical terminology in class activities.
Q13	Classroom activities support the development of medical communication skills.
Q14	Role-plays, discussions, or simulations are useful for practicing medical English.
Q15	Teaching methods used in the course encourage active participation.
Q16	Learning materials reflect real-life healthcare communication situations
Q17	The course has reduced my anxiety when speaking English in medical contexts.
Q18	I feel prepared to communicate with patients in English.
Q19	The course has improved my ability to communicate with healthcare professionals.
Q20	Overall, the English course effectively prepares me for medical communication.