



Original Article

Investigating English Language Skills among the Medical Students at Jinnah Sindh Medical University Karachi

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Abstract

The present study aimed to investigate the English language skills of medical students who are currently pursuing their graduate degrees from Jinnah Sindh Medical University Karachi. Researchers used a quantitative approach using a five-point Likert scale survey method. A total of 60 students from the third and final year were selected by applying a purposive sampling technique. The questionnaire was adapted as a tool for the present study. The collected data was analyzed via SPSS version 25. Descriptive statistics was used to draw the results of frequency distribution, percentage and t-test. Overall findings concluded that medical students observed reading and writing as the most essential skills compared to listening and speaking. In addition, students also found their English language proficiency relatively high in some areas apart from some variation in their self-judgment. This can be suggested that more research studies are needed to be conducted on this topic so that a clear picture can be seen in the context of medical English education.

Keywords: English for medical purpose , Medical education in Pakistan, Medical English, Need analysis

INTRODUCTION

The study focuses on the importance of English as a global lingua franca, particularly in the context of medical education in Pakistan (Crystal 2003). English plays a major role in providing access to technical, academic, and professional opportunities worldwide (Hinkel 2006). However, Niazi (2012) in her research argues in Pakistan, there is a lack of specific English for Medical Purposes (EMP) syllabus and trained instructors. Medical students in Pakistan have significant motivations to learn EMP, as they need English proficiency for various purposes, such as attending lectures, reading medical literature, delivering presentations, and pursuing postgraduate studies in English-speaking countries. The study highlights the necessity of developing EMP syllabi and textbooks tailored to the unique needs of Pakistani medical students.

In the context of medical education in Pakistan, the importance of learning English for medical purposes cannot be overstated. English has emerged as a global lingua franca, facilitating communication and knowledge exchange among medical professionals worldwide (Frînculescu, 2009). In recent years, English has become a central medium for the sharing of knowledge in both American and European journals. There is no question about it that medical education has got enormous attention and regard in English speaking world including USA, Australia, New Zealand, UK and Canada. English is a language that is spoken all over the world. English is becoming the most widely used research language in the medical field. However, English is used medical field widely and it has quite specific and to the point language and terms that doctors and medical professionals widely used in day to day activities. They don't pay attention to sentence structure at all. Because Medical English requires advance level of understanding in English and medical English needs required excellent skills to teach and learn because it cannot be learnt the way general English is being used, taught, and learnt because it is very precise and context depend. In fact, The English for Medical Purpose (EMP) learners are very professionals and do their acts related to health. According to Niazi (2012), the goal of EMP learning is not focus on structure and grammar of English rather they learn to utilize and extend their professional and social purposes of learning and using English language.

Undoubtedly, English language has been the language of the modern age. It has been common vehicle to the masses today to communicate and share their ideas, opinions, information, knowledge, culture, civilization, and almost everything. The merger of technology and English language has been contextualized in such way that English helps technology to grow and technology promotes the worth of English language around the globe. In education, English is the only language that offers new and novel perspectives therefore teachers, instructors, writers, researchers, businessman, professionals, tech individuals need to possess mastery over English language in order stay and survive in the modern world. As there is common phrase, "Necessity is mother of invention". Hence, English language is the need and necessity of time so everybody has to learn it without any biases and fabrication. Subsequently, students who study in medical discipline needs equally the proficiency and skills of English language because they are being instructed via English language. According to Kang (2004) that is of fundamental value to understand that medical students and professionals and students need to get English proficiency since medical knowledge and information has been available in the English language across the world.

Considering the central role of English as a global lingua franca, learning English for medical purpose is necessary for all students pursuing careers in medical science, including Pakistani medical graduates.

This need arises from various significant reasons with higher medical institutions offering degree courses predominantly in English language and using it as the medium of instruction, and the necessity for English proficiency in the medical field becomes need for various aspects of their education, including attending seminars, lectures, accessing research material, participating in international conferences, and writing for foreign research journals so on. In every situation, Pakistani medical learners need to rely on English. Likewise, there are a massive number of medical learners seeking postgraduate studies in English speaking countries like the United Kingdom or the United States, and providing services in hospitals where major language is used English making it necessary for them to have adequate English proficiency for medical purposes (EMP). Thus, medical students in Pakistan have a great motivation to learn EMP as a subject in their syllabus. As there is no such syllabus developed at Pakistani medical institutions to improve medical students' English language competence in order to fulfil their sole medical needs. Niazi (2012) argues that there is lack of any expert instructor in EMP teaching in Pakistan. Moreover, she says that EMP textbooks should be designed to focus on present needs and future possibilities of medical students in Pakistan such as English for medical terminology and communication, English for academic and professional purpose such courses aim to enhance students' understanding and usage of medical terminology, abbreviations, and acronyms commonly used in the medical field. They also focus on developing effective communication skills for medical professionals, including patient interactions, and collaborating with colleagues. Additionally, courses aim to provide students with the necessary language skills to excel academically and professionally in the medical field.

Problem Statement

The motivation for conducting the present research is to identify the needs of medical student's stems from the fact that no substantial attempts have been made to develop a specific English courses to meet the needs of medical students in Sindh. Hence, there is very limited research, and that is also at a very minimal level exists in terms of investigating the English language needs of medical students in Pakistan. Medical students must acquire or improve their English proficiency level. As a result, it is necessary to look into the needs of medical students in order to promote the English for Specific Purpose (ESP) course that EAMP and EOMP is being taken into considerations. English for Medical Purposes (EMP) is a specific course that addresses their problem areas based on their specific needs. The present research aims to explore the English language proficiency of the medical students at JSMU Karachi.

- To investigate the present level of proficiency in English language skills among second- and final-year medical students at Jinnah Sindh Medical University (JSMU) Karachi

Research Questions

- What is the present level of proficiency in English language skills among second- and final-year medical students at Jinnah Sindh Medical University (JSMU) Karachi?

LITERATURE REVIEW

Undoubtedly, English has emerged as a global language, serving as the primary medium for international communication across diverse domains, including business, science, education, and media (Alqurashi, 2016). Consequently, the number of individuals learning English has witnessed a significant surge (Karimnia & Khodashenas, 2018). Effective communication plays a crucial role in patient-centered care within hospital therapeutic sessions. Moreover, proper communication skills have been shown to reduce patient anxiety (Bharathi, 2022). Dentists' adept communication encourages patients to express their emotional needs more openly during interview sessions. The communication skills of medical professionals are particularly vital for tasks such as history taking, arriving at a diagnosis, and treatment planning (Hashim et al., 2013).

In the context of EMP, a subset of ESP education aims to put attention on teaching parts of medical English, especially terminology. The language of medicine is sometimes referred to as ESP, although it is fundamentally different. It's full of slang, colloquialisms, abbreviations, and acronyms, as well as technical, academic terminology. It follows its own set of laws and has its own structure. Health professionals must read, write, interpret, and provide directions, and so on, utilizing a vast range of abbreviations and acronyms that are very specialized to their career. There has been a vast spectrum of research in the subject done all across the globe. The study aims to identify the significant gap between doctors acquired English language competencies and their desired proficiency level. Additionally, it seeks to explore the specific communicative needs of medical students and doctors in their professional context. It also explores the communicative needs

of medical students and doctors and assesses the effectiveness of introducing English language courses and workshops. The ultimate goal is to design a specialized ESP course for medical professionals to enhance their communication skills in a medical setting (Lodhi, et al., 2018).

A needs analysis study was done by Li and Heron (2021) that aimed to investigate the language learning needs of medical students at a Chinese university regarding the choice between English for General Academic Purposes (EGAP) and English for Specific Purposes (ESP). The primary objectives of the study were to determine whether medical students prefer Medical English courses taught from the early years of university education and whether incorporating medical texts in the curriculum facilitates the development of medical English proficiency from the first year of study. The study conducted by Rizal (2020) is about the need analysis for nursing English speaking materials for first-semester nursing students. The research aims to identify the specific communication needs of nursing students related to interactive communication in various healthcare settings. The results of the study reveal three main areas of need for nursing English speaking materials: interactive communication for nurses within the hospital, interactive communication for nurses while talking to patients in the hospital, and interactive communication for nurses when interacting with patients' families. The study suggests that providing English-speaking materials focused on communication aspects, is essential for nursing students during their academic years. .

The study conducted by Syakur and Zainuddin (2020) is the needs analysis for English for Specific Purposes (ESP) among vocational pharmacy students. The research aims to investigate the academic needs of these students and assess their progress in learning English, focusing on various skills such as reading, writing, grammar, and other language competencies in order to better prepare the vocational pharmacy students to meet their future language needs effectively. The study conducted by Choi (2021) is about the implementation of English for Medical Purposes (EMP) in South Korea, specifically focusing on the ongoing needs analysis of nursing students. The research aims to understand the language learning needs of nursing students in the context of EMP courses. The findings of the study have significant implications for language instructors, policy makers, and researchers in the East Asian region, as they provide a better understanding of the importance of offering English for Medical Purposes courses and addressing the unique language needs of nursing students pursuing careers in the medical field.

A needs analysis study was done by Boshier and Smalkoski (2002) to understand, why many ESL students enrolled in a nursing program, were failing academically? Information on the objective needs of learners was gathered through interviews, observations, and surveys. The data revealed that the most difficult aspect of working in a clinical setting was interacting with clients and co-workers. Via need analysis studies, it was identified that speaking and listening was the basic and main cause of among healthcare setting courses. The curriculum was developed using range of approaches and resources, largely from source for developing health care communication skills.

RESEARCH METHODOLOGY

In this study, the researcher employed a quantitative research design, specifically utilizing a survey approach. The explanatory research method is applied to guide the investigation. Creswell (2014) explains that a research design serves as a roadmap for gathering, analyzing, interpreting, and ultimately presenting the final data. Cooper et al., (2003) also describe research design as a blueprint that aids in meeting research objectives and addressing research questions coherently. Furthermore, a well-constructed research design helps researchers focus on the right direction, ensuring that the desired objectives and research questions are properly tackled by employing specific techniques for data collection and analysis. By opting for a quantitative research design and a survey methodology, the researcher can systematically gather and analyze data, ultimately leading to insightful conclusions and findings.

The study site is the Jinnah Sindh Medical University (JSMU) Karachi, where a needs analysis of the English language skills of medical students is conducted. The aim of the study was to identify the specific areas where medical students require English language support in order to improve their communication skills and succeed in their academic and professional endeavors. The study involved data collecting from students at JSMU Karachi using a variety of research tools, including surveys, interviews, and focus group discussions. The data was then analyzed using quantitative methods in order to identify the key areas where English language support was most needed.

Population and Sampling Technique

The purposive (i.e. non-probability) sample is adopted for the current study. Purposive sample is defined as the intentional selection of the population for the research. Therefore, it was believed that the selected population can respond to the questions related to the problem under study. The participants of the current study are enrolled medical students studying in third and final year. The sample size contains 60 medical students of third year and final year. In this study, the purposive sample comprises a total of 60 medical students, with 35 male and 25 female students in their third year and final year of study at Jinnah Sindh Medical University Karachi. This specific distribution allowed the researchers to gain insights from students at different stages of their medical education, potentially highlighting differences in perspectives and experiences between these two groups. By engaging with students who are nearing the end of their academic journey, the researchers explored the students' perceptions of their education, the challenges they faced, and the effectiveness of various teaching methods.

The measure employed in this study is questionnaires, which were chosen based on previous research emphasizing their effectiveness in medical education studies. These questionnaires aim to explore the English language needs and proficiency of medical students at JSMU Karachi. Additionally, they helped in suggesting potential curriculum changes and identifying ESP recommendations based on data collected from second and final year students. The distribution of the questionnaires was conducted via email and in-person, depending on participant availability.

Data Analysis Techniques

The data is analyzed via Statistical Package for Social Sciences (SPSS) version 25. The statistical devices used in the study are frequency count, percentage, Cronbach Alpha method, and five-point Likert Scale. Further, the researcher has applied descriptive statistics to the responses collected against Likert-scale. Furthermore, the results are presented in table form for percentages and frequencies of respondents for each question. Mode can be viewed as the most suitable method for the data type collected in the present study. Standard deviation and Mean are calculated to measure the mode value for each question.

Demographical Information of Respondents

Table 1

Total Number of Respondents and their Gender

Gender	Number of Students	Percentage
Male	35	58.3%
Female	25	41.7%

Table 1 show that most students in this group are male, making up 58.3% of the total, while female students make up 41.7%. This information could be useful for analyzing the gender distribution of the group or comparing it to other groups with different gender distributions. Furthermore, there were no second or final year students in the 18-20 and 24-26 age ranges, as their percentages are at 0%. In the 20-22 age range, 33.3% of the students are in their second year, while 16.7% are in their final year. In the 22-24 age range, the distribution is equal, with both second and final year students constituting 25% each. Therefore, the bulk of the students, whether in their second or final year, fall within the age range of 20-24.

Table 2

High School Instruction Frequency and Percent

High School Type	Number of Students	Percentage
English Medium	36	60.0%
O Level	20	33.3%
Urdu Medium	3	5.0%
Other	1	1.7%

Table 2 outlines the distribution of students based on their high school type. The majority of the students, 60.0%, come from English Medium high schools, accounting for 36 students. This is followed by students from O Level high schools, who constitute 33.3% or 20 students. Urdu Medium high schools are represented by only 3 students, making up 5.0% of the total, and the 'Other' category includes just 1 student, accounting

for 1.7% of the total student population. Thus, students from English Medium and O Level high schools comprise the vast majority, at over 93% of all students.

RESULTS & FINDINGS

First subsidiary research question was: What is the present level of proficiency in English language skills among second- and final-year medical students at Jinnah Sindh Medical University (JSMU) Karachi? Hence, the results of the first subsidiary research question were:

Table 3

Student Perceived Frequency and Percentage of Using English

Perceived Percentage of Using English	Frequency	Percentage
91-100%	34	56.7%
71-90%	20	33.3%
51-70%	3	5%
31-50%	2	3.3%
No opinion	1	1.7%
Total	60	100%

Table 3 presents the student's perceptions about perceived percentage of using language which is shown here via frequencies and percentages by the medical students utilizing English language in their discipline. The total number of respondents in this study is 60, and they were classified into five categories based on their perceptions of percentage of English usage in medical studies. Largest category of respondents (56.7%) believed that English has been utilized in medical field and in the medical purposes from "91-100%", followed by 33.3% of respondents who believed that English was used in medical studies from "71-90%". The "51-70%" category was perceived by 5% of the respondents, and only 3.3% of the respondent's believed English was used in medical studies from "31-50%". 1.7% of the respondents did not give any opinion. The table shows that most of the respondent's believed English was used extensively in medical studies, with a significant proportion perceiving English usage to be between 91-100% and 71-90%. The results suggest that English proficiency is likely an important factor in medical studies, as it is widely perceived to be used at high levels.

The table1 illustrates the distribution of the perceived percentage of English usage among a population, with a total of 60 responses. A majority of the respondents, 56.7% or 34 individuals, perceive that they use English 91-100% of the time. The next largest group, comprising 20 people or 33.3% of the respondents, believe they use English 71-90% of the time. Fewer people, only 3 or 5%, perceive their English usage to fall within the 51-70% range. Only a small group of 2 respondents, or 3.3%, consider their usage to be within the 31-50% range. Lastly, 1 people, or 1.7% of the respondents, had no opinion on their English usage. Please note, the given percentages add up to more than 100%, indicating there might be a miscalculation or overlap in the data.

Comparison of Combined Groups' Perceptions

Table 4

Descriptive statistics of Student Perceived Frequency and Percentage of Using English

	N	Average	Median	Mode	SD	Min	Max
Students	60	1.9852	2.0	1.0	1.11922	1.0	5.0

Table 4 presents statistical data about a group of 60 students. The mean (average) value of the collected data is 1.9852, indicating that the average result across all students is near 2. The median (middle value in an ordered list) of the dataset is exactly 2.0, which further confirms the central tendency of the results. The mode (most frequent value) is 1.0, showing that this is the most common result among the students. The standard deviation (SD), which is a measure of the dispersion or spread of the data, is 1.11922, suggesting there is a moderate degree of variability in the results. The minimum (lowest) result observed among the students is 1.0, while the maximum (highest) result is 5.0, indicating a total range of 4.0 in the data.

Existing Proficiency of Medical Learners in English Skills

Table 5

Existing Proficiency Level in English Listening Skill

	Excellent		Good		Fair		Poor		No Opinion		Total
	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	
Listening	27	45	23	38.33	6	10	3	5	1	1.67	100%
Writing	30	50	23	38.33	5	8.33	2	3.33	0	0	100%
Speaking	20	33.33	27	45	06	10	05	8.3	02	3.33	100%
Reading	28	46.67	21	35	8	13.33	2	3.33	1	1.67	100%

Table 5 shows the frequency and percentage of students' perceptions regarding their existing proficiency level in English listening, writing, speaking, and reading skills. The table is organized into columns representing the different levels of proficiency: excellent, good, fair, poor, and no opinion. The table also includes a total column that shows the total number of responses for each skill. For the English listening skill, 27 students (45%) perceived their proficiency level as excellent, 23 (38.33%) perceived it as good, 6 (10%) perceived it as fair, 3 (5%) perceived it as poor, and 1 (1.67%) had no opinion. In terms of writing, 30 students (50%) perceived their proficiency level as excellent, 23 (38.33%) perceived it as good, 5 (8.33%) perceived it as fair, and 2 (3.33%) perceived it as poor, with none having no opinion. For speaking, 20 students (33.33%) perceived their proficiency level as excellent, 27 (45%) perceived it as good, 6 (10%) perceived it as fair, 5 (8.3%) perceived it as poor, and 2 (3.33%) had no opinion. Finally, in terms of reading, 28 students (46.67%) perceived their proficiency level as excellent, 21 (35%) perceived it as good, 8 (13.33%) perceived it as fair, 2 (3.33%) perceived it as poor, and 1 (1.67%) had no opinion. The table provides insight into the students' perceptions of their proficiency level in English skills. However, it is important to note that these perceptions may not reflect the students' actual proficiency level. The table does not provide any information about the students' backgrounds or their actual performance in English, which may have influenced their perceptions.

Communication in English with whom.

Table 6

English Communication Perceptions for Students

	Teacher		Administrator		Students		Patient		Others		Total
	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	
Students	25	61.67	6	10	20	33.33	4	6.67	5	8.33	100%

Table 6 presents the frequency and percentage of English communication perceptions for students, categorized by different respondent groups: teacher, administrator, student, patient, and others. The table shows that out of the 25 student responses, 61.67% believed that they communicate in English with their teachers, while 10% believed that they communicate with administrators. Among their peers, 33.33% believed that they communicate in English with fellow students, while only 6.67% believed that they communicate in English with patients, and 8.33% with others. The total percentage is 100%, showing that all 60 students provided responses to this question. Overall, Table 6 provides an insight into the English communication perceptions of students from various respondent groups. The results suggest students are more likely to communicate in English with their teachers and peers than with administrators, patients, or others. These findings may have implications for language education and policymaking, highlighting the importance of promoting English language skills among students in different settings.

English with Other Health Professionals

Table 7

English Communication with Other Health Professionals

	Always		Often		Sometimes		Rarely		Never		Total
	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	<i>f</i>	<i>p</i>	
Students	02	3.3	16	26.7	31	51.7	08	13.3	03	5	100%

Table 7 depicts the distribution of responses from students for a particular question with the options:

"Always," "Often," "Sometimes," "Rarely," and "Never." The frequency (F) and the percentage (P) of responses are presented for each category. Only 2 students, or 3.3% of the total, responded with "Always." A larger group of 16 students, representing 26.7% of respondents, chose "Often." The most common response was "Sometimes," selected by 31 students or 51.7% of the total. Eight students, or 13.3%, reported their answer as "Rarely," and finally, 3 students, or 5%, selected "Never." In sum, all responses total to 100% of the students.

Table 8

English Communication with Oher Health Professionals

	n	Average	Median	Mode	SD	Min	Max
Students	60	2.3873	2.0	1.0	1.119	1.0	5.0

Table 8 provides statistical data about a group of 60 students. The average, or mean, value of the group is 2.3873, indicating that the typical result across all students is just under 2.4. The median, which represents the middle value in an ordered list of results, is 2.0, showing that half the students have results below or equal to 2. The mode, which is the most frequently observed result, is 1.0, indicating that the most common result among the students is 1.0. The standard deviation, a measure of the spread or dispersion of the results, is 1.11922, suggesting a moderate degree of variability among the student results. The minimum and maximum values in the data set are 1.0 and 5.0, respectively, indicating that the range (the difference between the maximum and minimum) of the results is 4.0.

CONCLUSION

The present study provides valuable insights into medical students' perceptions of their English language proficiency across various skills and the importance of these skills in their medical studies. The findings reveal that most students perceive reading and writing skills as more important than speaking and listening skills in their medical studies, but all skills are considered important to some extent. Additionally, students generally perceive their proficiency levels to be relatively high in most areas, although there is some variability in their self-assessments. The practical implications of this study suggest that educators and curriculum planners should consider the students' perceptions, when designing language learning programs tailored to medical students' specific needs. By focusing on the skills that students perceive as most important, language support initiatives can better target areas of improvement and help enhance the students' overall language proficiency. It is essential to acknowledge the limitations of this study. Such as its reliance on self-reported data, limited sample size, and lack of demographic information. Future research should address these limitations and explore additional factors that may influence medical students' English language proficiency and their perceptions. Medical students' language needs, educators help prepare these future professionals for success in their academic and professional careers. This is particularly crucial in today's globalized healthcare environment, where effective communication in English is often essential for providing high-quality patient care and participating in international collaborations.

Competing Interest

The authors had no competing interests.

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