

Issues with Medical Teaching Staff's EFL Pronunciation and Fluency

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ABSTRACT: *The medical setting generally depends on the English language as a medium for teaching. Medical teaching staff need to have no issues in their EFL pronunciation and oral fluency when delivering their courses in English. However, it was observed that pertaining pronunciation was not up to appropriate overall levels. Therefore, the study used a mixed method approach in order to achieve the aim of verifying this observation and relating aspects, if any. A four-scale Likert-type questionnaire and a semi-structured interview were used as instruments to collect data from five experienced teaching staff (ages 37-59) at the Faculty of Medicine, Suez Canal University, Egypt. Results revealed that the participants' vast majority (n. 4) had good pronunciation levels, except in the area of word number production. The findings also revealed they (n.4) lacked knowledge and use of the supra-segmental features of pronunciation, such as word stress, intonation, rhythm, timing, and pause. Recommendations included staff attending general language and phonology courses, doing speaking and conversation activities, and practicing with native speakers.*

KEY WORDS: EFL pronunciation, oral fluency, medical teaching staff, supra-segmental features, word production

INTRODUCTION

Nowadays, English is deemed to be the international language for science communication. The reason for this is that much of the recent medical information found in the majority of books, articles, theses, documents and newspapers is obviously written in the English language (Angel, 2020). From another perspective, it is thought that having English skills is a compulsory condition for a medical career (Aburous and Kamlaa, 2022; Herzberg et al, 2022; Pavel, 2014).

It is stipulated that English is the lingua franca of communication and communication-related skills in the medical science field (Milosavljević, 2015: 237), and it has medical as well as general terms (Tolkinovna, 2022). Angel et al. (2020) see that English proficiency is necessary for medical students and doctors, enabling them to study English for medical purposes in order to develop in various settings. It definitely helps in communication at conferences which leads to globalizing and homogenizing science and scientific language

(Milosavljević, 2015: 237). “It is characterized by specific linguistic features and requires special study...” (Ibid: 237).

Generally, English language proficiency which is necessary to communication can help with developing professional language. Learning a professional language implies the shared use of mysterious and often unclear words and terminology, according to Bryson (2016). The study clarifies that health professionals and professors have to be aware of and keen on both how well they communicate and how their colleagues do.

There are a number of commitments which medical staff need to make in order to communicate well in English: 1.) avoiding acronyms and abbreviations 2.) paying attention to words and letters which are not pronounced by certain groups of people, 3.) avoiding using phrases in conversation scattered repeatedly, 4.) abandoning bizarre words (Ibid.). However, it can be proclaimed that clear messages, the use of non-verbal communication, and a suitable fluency rate can lead to a better understanding on the part of the listener.

It is asserted by Milosavljević (2015), Khan (2018), and Hull (2022) that the focus of medical English teaching should primarily be on stable linguistic *competence* in English created by means of a content-context-based curriculum. The study states that such a curriculum instigates students to active use of English at the time of graduation.

The study even states that English is an international means for mutual communication, as clarified earlier, not only in medical settings and sciences but also in *all* sciences in this modern globalized world and asserts that “it is well established that Medical English teaching should primarily focus on stable linguistic competence in English ...thus preparing students for active use of English upon graduation”, p. 238. The study (Ibid: 238) reveals that Medical English teaching forms up constant challenges for the medical teaching staff as they should have new ways to adapt to the new challenges.

It must be stated that studies relating to the staff’s level of proficiency (i.e. pronunciation and fluency as two aspects into focus in this study) are quite rare. However, there are rather related studies: one addressing faculty teaching skills (Berfor et al, 2018) and another focused on the teaching of medical terms (Khan, 2018). To the best knowledge of the researcher, it seems that studies straightforwardly related to medical teaching staff’s pronunciation and oral fluency can particularly be declared not to exist.

Belfor et al (2018: 73) investigated teaching staff’s skills (part of which is English pronunciation and fluency) at the Federal University of Amapá from the perspectives of students. It was concluded there was a need to improve the essential aspects of medical teaching skills and the importance of constant evaluation for this process.

Khan (2018) found that the teaching staff and professionals in the urology/nephrology Department needed a training program and pedagogy in terms of medical terms needed at their department. It is noteworthy that the pronunciation and oral fluency of the staff were not frankly mentioned in this respect.

However, Belfor (2018) and Khan (2018), besides the aforementioned general establishing studies, might give a direction towards the possibility of existence of imperfect skills (again, part of which is English delivery of knowledge and smoothness of this delivery) of teaching staff even in the eyes of their students, suggesting a need for narrow scope investigation.

Staley et al (2020: 2) state that teaching English for specific purposes (ESP), e.g. Medical English, is seen as ‘impactful due to high student motivation and immediate real-world application. Medical professionals devote their careers to improving the health and lives of others. With English language skills, medical professionals, including teaching staff, can further their own professional development by joining international conferences, discussing field journals, and sharing discoveries reached with peers.

Although studies pertaining to medical teaching staff’ English (or pronunciation and oral fluency in particular) are rare, as previously mentioned, there was a study investigating the errors of medical *students*, not staff, Maharani (2020). Other studies handled the mutual effect of the teaching staff and students (e.g. Maharani (2020) and Donisch-Jezo (2014). Only one recent study (Eligindi and Hoque, 2022: 202) dealt with new teachers English for Medical Purposes in Saudi Arabia and found that they had problems with pronunciation of medical terms as well as in the meaning of the medical vocabulary. They also face challenges such as English for medical procedures, and communication with medical staff as well as patients. The following record will take more insights into the above-mentioned studies to reveal how they relate to the present study and give it a rationale.

Maharani (2020) investigates pronunciation errors of Medical students. The results show that the types of pronunciation errors committed by medical students were represented in interference errors, intra-lingual errors, and developmental errors.

It is worth mentioning that these three types of errors are student, not staff errors, and are pointed out in Richards (1974). The study states that interference errors are those made due to the mother tongue. The intra-lingual ones the study depicts are due to generalization of a rule for a certain word to all similar words without considering irregularities, and the developmental ones happen in the way of growing improvement.

From a different perspective particularly relating to pronunciation, Zheng et al (2022: 477) found that the learning of successful pronunciation of second language relates to ‘domain-general auditory processing rather than music aptitude’.

To take an insight into the mutual effect that medical teaching staff have on their students. Maharani (Ibid) revealed that while speaking, teaching staff and students had a *clear* mutual effect to each other. The study points out that the staff have the responsibility to assess and address the errors of students by addressing them permanently, particularly at the time of drilling and practicing. Of this, it is understood that when the teaching staff pronunciation is proper, it will be so on the part of their students, too. This might give the present study a momentum.

It is well known that even before being able to teach proper pronunciation in English, the medical teaching staff must have a good proficiency level in English. Donisch-Jezo (2014: 71) clarifies that university medical teaching staff must provide students with effective communication (part of which are the proficiency elements of pronunciation and oral fluency) to do their target work. The study adds that teaching specialist vocabulary in the teaching of language at a university level is important. The purpose behind ESP classes lies in preparing university students in order to communicate effectively during their target work and clinical practice where English is the main medium for science.

Rather recently, Eligindi and Hoque (2022: 209) find that new teachers of English had difficulty dealing with medical vocabulary, i. e. meaning and pronunciation. However, the participants in the study declared that good preparation could overcome those problem. It is to be argued that the participants in that study were *not* originally medical teaching staff (as is the focus participants of the present study) as they were teachers of general English.

It has to be emphasized that EFL (English as a Foreign Language) pronunciation is a component with specificities vital to learners of the English language. Studies handling this notion are many (e.g. Vančová (2019; Askin and Mohd Ibrahim, 2020; Albaaly, 2017b; Albaaly, 2017a; Alshamsi, 2020).

Vančová (2019) sees pronunciation is an indisputable factor for communication when there is one between native and non- natives of English. It is the most important sub-skill of speaking (Asikin and Mohd Ibrahim,2020) and has segmental and supra-segmental features (Albaaly, 2017b).

It appears that the problems with most non-native EFL students lie in the supra-segmental elements of pronunciation, such as stress (Albaaly, 2017a), and intonation, rather than the segmental ones (Albaaly, 2017b). However, Albaaly's studies are related to EFL teacher students, not medical teaching staff delivering their courses in EFL (English as a Foreign Language), and not to medical students. Needless to state, the relationship between the teaching staff and students is mutual, as analyzed earlier.

As a byproduct of misuse of pronunciation and lack of oral fluency, it is known that language barriers, part of which is pronunciation and oral fluency, can cause dissatisfaction among healthcare professionals and patients as well (Alshamsi, 2020).

As for oral fluency, Perman (2020: 45) having screened various definitions in earlier years, builds up and adopts a definition that ‘oral fluency is a spontaneous natural ability to speak smoothly, quickly, efficiently, accurately and comprehensively with the slightest chances which might cause a distraction from the speaker’s message...’ This view has basic grounds in earlier studies (e.g. Molenda, 2013)

Oral fluency is seen as ‘one of the major learning goals’ participating in the educational process (Suzuki and kormos, 2022: 1-2). To understand the nature and determinants of oral fluency EFL practitioners need, Permana (2020: 45-46) mentions and explains four types of oral fluency: “peech rate, pause rate, disfluent syllable, and mean length of runs,” p. 45. The study explains that speech rate is the number of words produced in the time period of a minute and the pause rate the number of pauses made per so.

Permana (Ibid: 45-46) points out that disfluent syllable calculation is done by subtracting the ‘pruned syllable number’ from the total syllable number in an utterance. The study further explains that pruned syllables include “illers, repetitions, and errors.” The study reveals that “the resultant is the number of disfluent syllables which is then divided by 230, the highest normal number of syllables per minute, and multiplied by the total time in seconds,” p.46.

The mean length of runs (Ibid, 45-46) happens between pauses and measures the average number of syllables produced in runs of speech between pauses and other disfluencies in a speech sample of two-minute time. The study explains that this is done so as to give an idea for calculating how much speech is said without interruption. The mean length of runs, according to the study, is then calculated by subtracting the total syllable number by the times of pauses above 0.3 seconds as well as other disfluencies then divided by the normal number of syllables per minute for total two-minute time for the speech sample.

Problem of the Study

It was observed that a considerable number of the medical teaching staff at the Faculty of Medicine, Suez Canal University in Al-isma’iilayya, Egypt had quite *improper* pronunciation, i.e. particularly in pronunciation of vocabulary, whether general or medical. Besides, there was also a low rate of oral fluency, which might, to some extent, set back their skill of Medical teaching in English in a way that negatively affects their students’ quality of learning.

Aim of the Study

The aim of this study was to find out whether this arbitrary observation had been solid or temporary and, if positive, to what extent it was so and what dimensions imbedded in the problem were.

Questions of the Study

In order to achieve the aim above, two *questions* attempting to attain this aim were set down:

1. To what extent do medical teaching staff have a high level of English language pronunciation?
2. What is the status quo of the Medical teaching staff oral fluency?

METHODOLOGY

The research adopted a mixed method approach. That is, as in the present case, it used an instrument in connection with quantitative data gathering and another related to the qualitative type for the investigation purposes (see Instruments of the study). The participants (ps.) taking part in the investigation were five medical teaching staff who were specialized in pathology and immunology at the Suez Canal University Faculty of Medicine. Their ages were between 37 and 60. The following Table (1) shows the basic information about the ps.

Table (1)

Ps.	Sex	A ge	No. of conferences attended	coun try
Participa nt A	Male	50	13	Egyp t
Participa nt B	Fema le	46	10	Egyp t
Participa nt C	Male	37	6	Egyp t
Participa nt D	Male	55	15	Egyp t
Participa nt E	Male	59	20	Egyp t

As demonstrated in the Table (1), the ps. are mostly males (n. 4) and one female. Their ages range between 37 and 59, which reflect good experience level. The international conference that attended are ten or more for the vast majority of them (n. 4). They were all from Egypt, not including any other EFL nationalities.

Instruments of the Study

Two instruments were developed: a four-scale Likert-type questionnaire (see Appendix 1) and a semi-structured interview (see Appendix 2). The aim of the questionnaire was to find out if both pronunciation and speaking fluency were jeopardized or not and investigate the two language components from various dimensions.

The aim of the interview was to detect if the medical teaching staff had appropriate pronunciation and speaking fluency and investigate existing aspects of their status quo in the area. Also, the interview doubled as a confirmatory tool which emphasized the questionnaire results.

The questionnaire was formed up with six questions with a four-point Likert scale rubric of *Never*, *Sometimes*, *Often*, and *Always* in order to detect all possibilities. The questions dealt with their ability to fluently express thoughts, ability to ascertain proper pronunciation before use, level of pronunciation, staff's pronunciation supra-segmental aspects of speech (The focus was on supra-segmental aspects, not the segmental ones, because, as informed by observation, they had a good level of the latter, not the former.)

In the interview, six questions were to be answered by medical teaching staff representing participants belonging to the specialties of pathology and radiology at the Faculty of Medicine, Suez Canal University, Egypt (See Appendix 2).

Relating validity was assured by submitting the interview questions to three referees and their comments were addressed thoroughly. The questions covered the areas of pronunciation and oral fluency.

FINDINGS AND DISCUSSION

The two early-mentioned questions of the study (see Aim of the study) were answered and relating findings analyzed. Data resulting from questionnaire and interview questions were collected and analyzed. In order to answer the first study question, all questionnaire answers needed to be addressed. The following Table (2) addresses the ps.-related answers.

Table (2)

Number of ps. giving a certain answer and related percentage to the total no. of ps.

Questions	No. of ps. stating Never	No. of ps. stating Sometimes	No. of ps. stating Often	No. of ps. stating Always
1				5(pct. 1,00)
2	1(pct. 0,20)	4(pct.0,80)		
3				5(pct. 1,00)
4		4(pct. 0,80)		1(pct.0,20)
5		4(m.0 ,80)	1(pct.0 ,20)	
6			5(pct. 1,00)	
7		1(pct. 0,20)	4(pct. 0,80)	
8	1(pct.0 ,20)	4(pct. 0,80)		
Pct.= percentage				

The table above shows number of ps. giving a certain answer (and percentage relating to the total ps). It was observed that, as to questionnaire question 1, all the ps. thought they *always* expressed their thoughts in English well. However, in answer to questionnaire question 2, the majority (n. 4) stated they *sometimes* found it hard to search for suitable vocabulary when speaking to an English-speaking person. This indicates quite a contradiction with the answer to the first question, and it can raise issues relating to their vocabulary and practice needs. In another position, in answer to question 7, they (n. 4) even declared they just *often*, not always, expressed their thoughts spontaneously, smoothly, effectively, and completely, which even deepen the evidence that there was a problem with oral fluency. This is further ascertained by the participant answers to question 8, as they (n. 4) *sometimes*, not always, “search my mind for certain ways to express certain structures and this takes time and creates a number of stammers and pauses when I speak”. (This was mentioned during the interview.) This even further confirms the problem in the area of oral fluency. (It also gives an early answer to study question 2.)

The ps. (n. 5) depicted that they were keen to relate correct pronunciation to medical terms’ (answer to questionnaire question 5), which reflected their desire and efforts to use correct pronunciation of medical terms. However, the majority (n.4) stated quite a dissatisfaction with their oral fluency, which may be linked to insufficient practice in enhancing the area of oral fluency. They (n.4), as in their answers to question 8, *sometimes*, not always, use pronunciation aspects, such as stress, intonation, rhythm, linking, timing and pause. Based on this, it can be deduced that have quite a lack of *knowledge* and *practice* in these areas.

The findings from the interview reflected different issues. Although the ps. (n. 5) attended many conferences (i.e. for the majority (n. 4) ten or more, as mentioned earlier), the major issue clarified was their false assumption of what was meant by word, phrase, and sentence-

stress; intonation, rising, falling, falling-rising, rising-falling, and level; rhythm; linking; timing; and pause. They actually (n. 4) thought these elements were just, in the representing words of one participant, “an endorsement of my spoken words and phrases by changing my tone, when to stop and how to split words.” These study findings are consistent with those of (Albaaly, 2017a), as the study found that EFL teachers had problems with the supra-segmental elements of pronunciation, such as stress (Albaaly, 2017a), and others in intonation (Albaaly, 2017b).

The present study findings are also different from those embedded in Maharani (2020), which investigated pronunciation errors of Medical students. The results of the study revealed that the types of pronunciation errors committed by medical students were interference errors, intra-lingual errors, and developmental errors. The present study findings, on the contrary, reached different findings relating to issues in word production and supra-segmental features of pronunciation.

Also, the present study findings are different from Eligindi and Hoque (2022) in that the present findings are directly related to ps. of medical teaching staff, not to new teachers of English for medical purposes whose field is *not* medicine. The findings of the present study revealed insufficient vocabulary and low oral fluency, whereas Eligindi and Hoque found there was unclarity of meaning and pronunciation of medical terms on the part of the ps., the new teachers. Moreover, the ps. of the present study are much experienced professors, not new EFL teachers.

Implication to Practice and Research

Based upon the study results and discussion, a number of recommendations can be made. The medical teaching staff need to be exposed to speaking activities enriching their vocabulary in English for general purposes. This can be done through courses encompassing general English. It is much suggested that the university should offer these types of courses as this will be reflected in the speech production of the teaching staff's graduates, which is later needed when they attend international conference training boosting their knowledge and skills of medicine. This, in turn, will be reflected in clinical skilled practice with patients. The staff also need to study the supra-segmental elements of speech production, such as word stress, intonation, rhythm, timing, pause, and have much practice on them. This is seen to be done through attending phonology classes and also practising the language more with native speakers. These are a number of major directions of situation manipulation.

In terms of sample size, although the participants in the present study are quite small in number, still the study results should be generalized, as university medical teaching staff share quite the same abilities and skills all over the country of Egypt.

CONCLUSIONS

It appears that although the medical staff had apparently satisfactory pronunciation, particularly in the area of scientific term pronunciation, they had genuine drawbacks regarding oral fluency. They often searched for words and did not at least usually practice stress, intonation, rhythm, linking, timing and pause features of speech, and even had improper knowledge about them. This may be referred to their nature of studies which overlooked English as an *academic* study.

The findings revealed that medical staff did not practise English in a way which helped boost oral fluency. They had clear defects in word number production as well as in prosodic elements of speech production and flow. Again, the nature of the above-mentioned studies may not be related to fluency development and optimization, which might make the present study seem as offering new findings for the medical as well as the linguistic domains.

Future Research

Suggestions for further research might include more investigations for issue aspects or remedies. Elements affecting the staff's vocabulary production and the types of supra-segmental pronunciation mistakes they commit should be highlighted for inquiry. An insight into time when they are less/more fluent is also needed as fluency is important to communication in medical settings. Treatments to manipulate intervention for matters/issues raised in this study could also be introduced for examination.

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APPENDIX 1

PRONUNCIATION AND ORAL FLUENCY QUESTIONNAIRE

This is a questionnaire investigating English language pronunciation and oral fluency among medical teaching staff at Suez Canal University. You are kindly requested to respond to each statement choosing the exact case which applies to you. Your comments are highly appreciated.

Name of Teaching Staff Member:

Age:

Specialty:

Experience in the teaching profession:

No. of International Conferences attended:

Item to answer	Never	Sometimes	Often	Always
1. I can describe myself in terms of being able to express my thoughts in English well. 1-4.				
2. I find it hard to search for suitable vocabulary when speaking to an English-speaking person. 2-3.				
3. When about to use medical terms, I become sure of relating correct pronunciation. 3-6.				
4. My oral fluency is appropriate as there are no higher levels I could reach.				
5. While speaking, I use such pronunciation aspects as stress, intonation, rhythm, linking, timing and pause. 5-4				
6. I prepare well when about to speak in English in lectures.				
7. I express my thoughts spontaneously, smoothly, effectively, and completely				
8. I search my mind for certain ways to express certain structures and this takes time and creates a number of stammers and pauses when I speak.				

APPENDIX 2

INTERVIEW

Please, do answer the following questions:

1. Do you think conferences help in improving your pronunciation and oral fluency level and vocabulary retention rate? Do they increase medical term numbers, etc.? 2. How satisfied with your English production rate are you? 3. Why do you think university teaching staff should have a good level of English language pronunciation and fluency? 4. To what extent you think you sound like a native speaker? 5. How many conferences in English have you attended so far? 6. How do you think English language pronunciation, whether of medical terms or of general English, can be improved? 7. What is your definition of/idea about word, phrase, and sentence stress; intonation, rising, falling, falling-rising, rising-falling, and level; rhythm; linking; timing; and pause? 8. Please, mention any uncertainty areas in pronunciation.

9. Which speaking dictionary or reference do you revise pronunciation in? Or what do you do to revise your pronunciation? 10. What do you suggest in order to improve medical teaching staff's pronunciation and oral fluency?

You are free to note down any Additional
remarks.....
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