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## **Social Media as a Platform for Acquiring Medical English: Measuring Perceptions of Non-native Healthcare Providers**

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### **Abstract**

*The primary goal of this study is to measure the perceptions of non-native healthcare providers towards the role of social media in acquiring medical English and enhancing language learning autonomy, and the features of social media that help them acquire medical vocabulary. To this end, a questionnaire was constructed and disseminated to 350 Egyptian healthcare providers working at Magdi Yacoub Foundation (MYF), Aswan Heart Centre (AHC), Egypt. For data triangulation, interviews were conducted with a subset of the questionnaire takers. Findings of the study reveal that social media platforms tremendously assist non-native healthcare providers in acquiring medical English vocabulary and enhancing language learning autonomy. Among the features of social media that proved to be beneficial to Egyptian healthcare providers are easiness of usage, free-of-charge availability, ability to edit, copy and share, ability to store data forever, emoticons to express feelings, choice to join private conversations, and choice to join public discussions and debates.*

**Keywords:** social media, medical vocabulary, healthcare providers, English for medical purposes, learning from social media

### **INTRODUCTION**

Social media has revolutionized the landscape of human communication in the 21<sup>st</sup> century. Intra and inter-communication of individuals at home, at workplace, between organizations and between countries enhanced the concept of socialization as a natural human activity. This has happened as a result of a burst in Information and Communication Technology (ICT) in recent years (Ansari & Khan, 2020). As Chotipaktanasook (2014) indicated, various social media tools and platforms have emerged for the purpose of bringing people together in communities in different forms. There are platforms for social networking such as Facebook, wikis such as Wikipedia, micro blogs such as Twitter and photo sharing platforms like Instagram.

Evans (2014) defined social media as “web-based or personal device-based applications that connect users with online resources or with each other”. Social media, Ansari and Khan (2020) maintained, enhance creativity, learning resources, editing and sharing in the forms of texts, videos

and audios. Thus, learners from all age-groups can log into Facebook, Twitter, WhatsApp, Telegram and other applications to subconsciously pave their own ways to knowledge which tremendously serves social constructivism, a recent learning theory, when blending it with state-of-the-art technologies and business communication pedagogy (Kelm, 2011). The view of constructivism also suggests that learning occurs in real world where learners are self-directed, active and have the freedom to interact with other members of society who share the same culture and values (Mpungose, 2020). Based on that, learning a foreign language depends, to a great extent, on social interplay that is affected by individuals' understanding of the surrounding culture and communication (Mondahl & Razmerita, 2014).

Creating an environment where learners display more self-reliance on their own learning and the teacher's role, in this respect, changed into a facilitator of learning is essential in today's world of education according to constructivism theory (Bensalem, 2018). Therefore, the urgency of looking for effective tools that enable learners to acquire English vocabulary in a practical way has increased in recent years (Alhebshi & Gamlo, 2022). In the pursuit of looking for effective tools to learn English, Tymoshchuk (2022) argued, technology is no longer an option but an indispensable part of language education. In this sense, Siemens (2005) states that "we derive our competence from forming connections".

According to Siemens (2005), connectivism offers a new model of learning that is more convenient to the recent shifts in the utilization of technology and its impact on the nature of education. Siemens maintained that learning is no longer an internal, individualistic activity but rather a collaborative process where learners learn from a flux of information in networks. In this process, learners develop a number of skills such as critical thinking, decision making, and the desire to know more. Flynn et al. (2015) also confirmed that social media provides a platform for the creative and original application of constructivism and connectivism learning theories as it can be used to link learners with one another, improve peer learning, share content, connect outside of the classroom, quickly exchange ideas and establish a community of practice.

With regard to using social media in higher education, a survey which was conducted by Pearson, an educational services company, revealed that more than 55% of the survey takers agreed that technology and social media create better learning opportunities and that more than 40% of the faculty members use social media in teaching. The survey also showed that the less one's age is, the more he/she is prone to use social media for personal and professional purposes (Seaman & Tinti-Kane, 2013). In addition, there was a slight indication of educators' concerns about using social media in learning. The most troubling issues included integrity of students' submitted assignments, privacy, differentiating between personal and professional accounts, grading and assessment, and inability of measuring effectiveness of teaching methodology.

According to Chung and Nation (2004) "Technical vocabulary is subject-related, occurs in a specialist domain, and is part of a system of subject knowledge." Nation and Chung (2003) marked three ways to identify technical vocabulary: a rating scale, a technical dictionary compiled by a subject specialist or group of specialists, and contextual clues provided by text writers. Coxhead (2017) added using a corpus, using annotated texts, and using classroom reading texts and learners' written works. Therefore, the advent of interactive technologies has increased learning opportunities in the medical field (Kim, 2019).

Dziganova (2002) narrated the developmental history of medical English, stating that the Greek language was used in medicine till the fall of the Roman empire. Only a few medical terms date back to the earliest stages of the history of the English language (from Anglo-Saxon). French turned into a highly effective medium for the introduction of new medical words derived from

Greek/Latin components during the Middle Ages. Nowadays, Milosavljevic et al. (2015) stated, the language of communication in the field of medical science is English. It is generally used in correspondence, conferences, and the authoring of scientific publications.

Medical terminologies are derived from specialized vocabulary that non-professional individuals might not be familiar with; however, it is widely used in the medical professional environment with some degree of overlapping with General English vocabulary (Panocova, 2017). As Hsu (2013) points out, medical students rely substantially on their ability to read specialty textbooks in the area, which are mostly written in English. Yet, in this respect, Muller (2011) identified a number of problems confronted by international students when learning medical English vocabulary. These problems are encapsulated in their inability to know the meaning or the pronunciation of some words, reading or skimming through technical texts, needing some time to speak and frustration of communication breakdown. Therefore, learning medical vocabulary is the first step towards understanding medical English (Hsu, 2013).

As stated by Matrozi-Marin (2009), medical English has three main uses in terms of occupational purposes: written medical communication, global medical conference papers and presentations, and the interaction between doctors and their patients. As regards academic medical journals, Matrozi-Marin determined four genres that use medical English significantly: research papers, review articles, clinical case notes and editorials. Milosavljevic et al. (2015) added, teachers who teach medical English face ongoing challenges because they must be adaptable, receptive to new ideas and strategies, capable of making choices, and able to evolve with time.

A thorough review of the literature has revealed that several studies explored the contribution of medical English towards improvement in the medical field. Milosavljevic et al. (2015), for instance, investigated the important specificities of English language teaching for successful education and professional development of medical students. Sakamoto and Sakata (2018) carried out a pilot study of medical English language learning materials using virtual reality and a communication robot. Dzuganova (2019) investigated teaching medical English through professional captioning to medical students. Choi (2021) implemented a needs analysis for the purpose of evaluating whether the courses of English for Medical Purposes for nurses and nursing students meet their learning needs. However, to the researchers' own knowledge, none of the previous studies investigated the role and the significant features of social media in learning medical English vocabulary. Hence, this research aims to fill in this gap in the literature; it is an attempt to measure the perceptions of non-native healthcare providers towards social media as a platform for acquiring medical vocabulary and the features of social media that assist them in this regard. It seeks to answer the following research questions:

**Research Question 1:** To what extent can social media be a platform for acquiring medical English by non-native healthcare providers?

**Research Question 2:** What are the features of social media that help non-native healthcare providers learn medical English?

**Research Question 3:** To what extent does social media enhance non-native healthcare providers' language learning autonomy?

It is worth noting that previously there used to be a distinction between learning and acquiring a language. Oxford (1990) asserts that learning is the conscious understanding of language rules and does not always result in conversational competency while acquiring happens unconsciously and does result in conversational fluency. Oxford (1990) contends that this division into conscious and unconscious processes is overly strict because we still do not fully understand what constitutes each, and because some aspects of language are first conscious before becoming

automatic with use. As a result, learning and acquiring a language are used interchangeably to describe the process. Accordingly, the two terms are used interchangeably in this research.

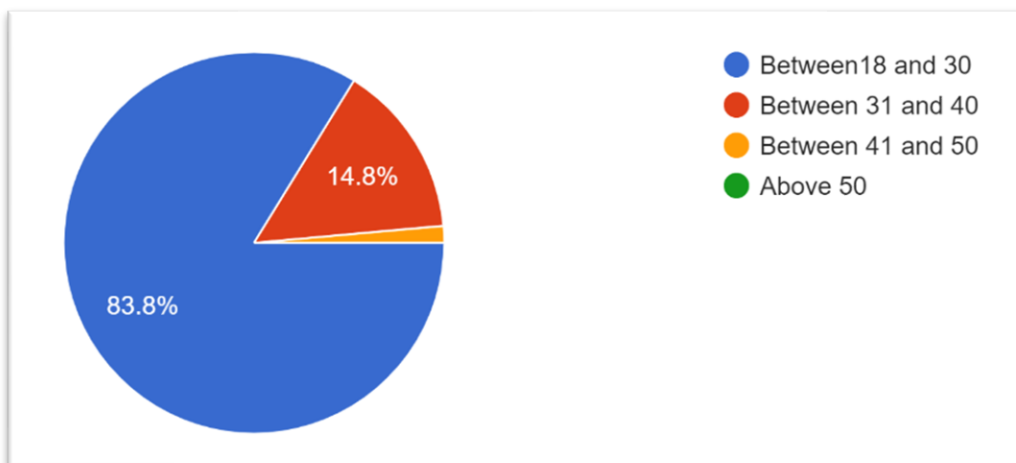
## METHOD

The study design is mixed-method since the researchers employed both quantitative and qualitative data collection techniques. It is exploratory as well since it attempts to find out more about the perceptions of non-native healthcare providers towards integrating social media networks, websites, and applications in the process of learning English for Medical Purposes; more specifically, in acquiring medical English vocabulary.

### Research Participants

The research participants included a total number of 210 out of 350 Egyptian healthcare professionals to whom a questionnaire was sent. All participants work for Magdi Yacoub Foundation (MYF), Aswan Heart Centre (AHC) which is a renowned cardiac healthcare facility that is located in the city of Aswan, Egypt. It provides free-of-charge and state-of-the-art cardiac care for underprivileged Egyptians. In addition, it has a research center essentially concerned with finding solutions and cures for cardiothoracic diseases. This constituted a representative sample of non-native healthcare providers for the descriptive data analysis. They vary in their occupation, educational background, dexterity of skills and motivational attitude towards learning English generally and medical English specifically. With regard to their profession, the sample included 182 nurses, nine doctors and 19 other different professions such as biomedical engineers, laboratory chemists, technicians and administrative clerks. Concerning their age, a number of 176 participants (83.8%) aged between 18 to 30, 31 participants (14.8%) aged between 31 to 40 and three participants (1.4%) were between 41 and 50 years old (Figure 1). Some healthcare providers have full time jobs and others have part time jobs at the center; therefore, 96 participants (45.7%) stated that they work in hospitals, 113 participants (54.3%) stated that they work in a specialized center, which is AHC, and only one participant (0.5%) stated that he works in a private clinic.

**Figure 1.** *Participants' Age*



## Data Collection

The main data collection instrument was a questionnaire constructed by the researchers in an attempt to answer the research questions. The questionnaire consists of three parts including 28 items (Appendix A). The first part includes four items that elicit demographic information about the participants of the study. The second part consists of 10 items that investigate the extent to which social media networks are beneficial in learning medical vocabulary and the third part consists of 15 items that explore the significant features of social media that induce non-native healthcare providers to attain knowledge of medical vocabulary. These items were designed on a 5-point Likert scale (Strongly agree, Agree, Neutral, Disagree, Strongly disagree). Prior to disseminating the questionnaire to the healthcare providers, it was translated, reviewed and piloted for accuracy purposes. To clarify, translating the questionnaire was suggested to avoid any misunderstanding or misinterpretation of questions since not all respondents were at the same level of English proficiency. As a result of the review and the piloting, a number of inaccuracies were modified. The questionnaire was administered to a total number of 350 healthcare providers working at AHC in Aswan. It was sent via a google form link purposively so as to reach as many participants as possible to form a representative sample for the study. A number of 210 of the healthcare providers to whom the questionnaire was sent responded. Data collection lasted for four days.

### Data Analysis

Following the administration of the questionnaire to the research participants, responses and frequencies were analyzed by the Statistical Package for Social Sciences (SPSS) program.

**Table 1. Questionnaire Items Validity.**

Statement	Correlation	Statement	Correlation	Statement	Correlation
5	.253**	13	.574**	21	.560**
6	0.098	14	.660**	22	.603**
7	.485**	15	.264**	23	.657**
8	.558**	16	.553**	24	.671**
9	.556**	17	.345**	25	.572**
10	.595**	18	.647**	26	.222**
11	.661**	19	.507**	27	.609**
12	.564**	20	.507**	28	.549**

*Note.* \*\*. Correlation is significant at the 0.01 level (2-tailed). \*. Correlation is significant at the 0.05 level (2-tailed).

To ensure the validity and reliability of the research findings, data triangulation was adopted by the researchers; semi-structured interviews were conducted following the analysis of the questionnaire's frequencies through the SPSS program, a validity test was conducted and demonstrated in table 1. There were 28 statements in the questionnaire administered to the healthcare providers at AHC. The first four statements extracted demographic information while the rest revolved round the perceptions of healthcare providers towards the role of social media in acquiring medical vocabulary and the features of social media that contribute to enhancing the process of acquisition. All statements had a significant correlation at the ( $P \leq 0.01$ ) level except for the second statement. Moreover, none of the item's correlation was significant at the level ( $P \leq 0.05$ ) which leads to the fact that the questionnaire is valid. In addition to that, the reliability test

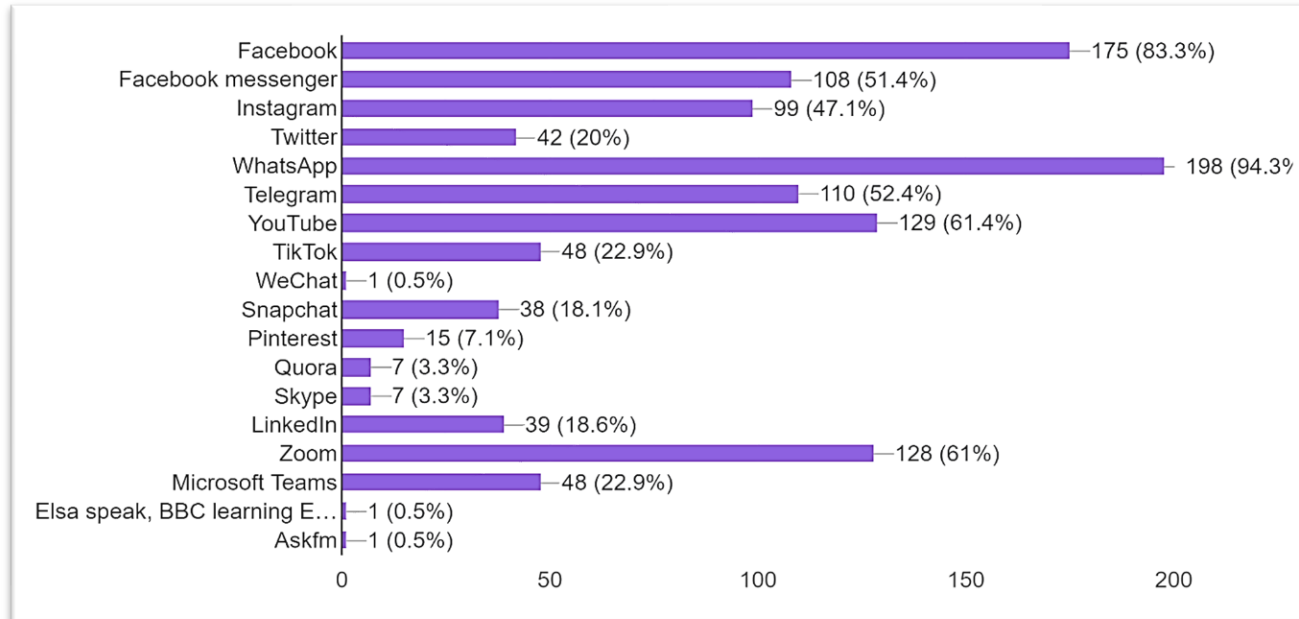
of Cronbach Alpha for the 24 items of social media and medical English in the questionnaire was ( $\alpha = 0.87$ ) and revealed that the questionnaire is highly reliable and applicable.

The interview consisted of five questions (Appendix B). The first two questions provided three choices for the respondents (Yes – Neutral – No). The third question is open-ended and asks about the way social media assists healthcare professionals in learning medical English vocabulary. The fourth question gives respondents points to choose from. These points are the features of social media platform. The last question is meant to elicit the features of social media that are of benefit to healthcare providers in learning medical English vocabulary. A number of ten healthcare providers were selected for interviews. Data of the interview were collected and then organized and grouped as per the concepts that serve as answers to the research questions. The researchers extracted some words and phrases that match the questionnaire frequencies. Then, plausible, yet comprehensive explanations were provided for the interviewees' responses.

### FINDINGS AND DISCUSSION

With regard to the networks and applications participants use for communication and exchange of information, the research findings have revealed that 94% of the research participants, were using WhatsApp; thus, WhatsApp is by far the social media platform that is most commonly used in the MYF organization. In the second place comes Facebook used by nearly 83% of the research participants, and in the third place comes YouTube and Zoom used by nearly 61% of the participants. Telegram and Facebook messenger are used by nearly half of the participants (Figure 2).

**Figure 2. Commonly-used Social Media Platforms for Egyptian Healthcare Providers**



The following tables demonstrate frequencies of data collected from 210 healthcare providers regarding their perceptions of the impact of social media networks and applications on learning medical English as well as the features of social media that are beneficial for the process of learning medical English vocabulary.

**Table 2. Frequencies of Using Social Media to Learn Medical English Vocabulary**

#	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Rank
5	I log into social media websites on daily basis.	80	81	41	6	2	4.1
		38.1%	38.6%	19.5%	2.8%	1%	
6	I use social media but not on a daily basis.	11	45	44	85	25	2.68
		5.2%	21.4 %	21%	40.5%	11.9%	
7	I am a member in specialized medical groups on social media that use English in communication.	44	88	48	27	3	3.68
		21%	41.9%	22.8%	12.9%	1.4%	
8	I read specialized medical posts that contain technical vocabulary very often.	62	108	30	9	1	4.05
		29.5%	51.4%	14.3%	4.3%	0.5%	
9	I learn medical English vocabulary from medical professionals' technical and semi-technical posts.	56	105	37	8	4	3.69
		26.7%	50%	17.6%	3.8%	1.9%	
10	I read the comments of medical professionals that contain technical and semi-technical vocabulary.	43	100	49	16	2	3.79
		20.5%	47.6%	23.3%	7.6%	1%	
11	I learn new medical English vocabulary from reading the comments of medical professionals on medical English debates and discussions.	35	100	49	24	2	3.68
		16.7%	47.6%	23.3%	11.4%	1%	
12	I watch videos posted by medical professionals to learn medical information and medical English vocabulary.	58	101	39	10	2	3.97
		27.5%	48.1%	18.6%	4.8%	1%	
13	I learn medical English vocabulary from voice notes made by medical professionals.	27	92	62	23	6	3.53
		12.9%	43.7%	29.5%	11%	2.9%	
14	Social media improves my professional communication through learning medical English vocabulary.	40	112	48	10	0	3.87
		19%	53.3%	22.9%	4.8%	0%	

Table 2 illustrates the descriptive data collected from Egyptian healthcare providers who have experienced using various social media platforms at workplace as well as for learning medical English. The research findings reveal that a number of 161 participants (76.7%) stated that they log into social media platforms on a daily basis. Also, 56 participants (26.6%) stated that they use social media but not on daily basis, 132 participants (60%) confirmed that they are members in

specialized medical groups and, moreover, 170 participants (80%) revealed that they read medical posts which contain technical vocabulary for their own interest. Furthermore, a number of 143 participants (68.1%) stated that they read comments of medical professionals that contain technical and semi-technical medical vocabulary, 135 healthcare providers (64%), agreed that they learn medical English from discussions, debates and comments of medical professionals on social media platforms. In addition, the research findings show that a number of 159 participants (75%) stated that they learn medical vocabulary from watching videos. Moreover, 119 participants (56.7%) stated that voice notes are useful in learning medical information and vocabulary. Finally, a total number of 152 out of 210 professionals (72.3%) stated directly that social media networks and applications improve their communication style through learning medical English vocabulary.

**Table 3. Frequencies of Features of Social Media in Learning Medical English Vocabulary**

#	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Rank
15	Social media websites and applications are easy to use.	86 41%	112 53.3%	12 5.7%	0 0%	0 0%	4.35
16	I sometimes copy and paste medical posts that contain medical English vocabulary.	29 13.8%	91 43.3%	48 22.9%	37 17.6%	5 2.4%	3.49
17	Comments and posts cannot be removed unless the author removes them.	22 10.5%	81 38.5%	63 30%	39 18.6%	5 2.4%	3.36
18	I share posts of medical professionals in other groups and on my personal account timeline.	22 10.5%	54 25.7%	75 35.7%	50 23.8%	9 4.3%	3.14
19	Posts and comments can be edited for correction of information and vocabulary mistakes.	36 17.1%	105 50%	48 22.9%	17 8.1%	4 1.9%	3.72
20	I sometimes express my feelings towards technical medical posts and comments through the emoticon's buttons.	33 15.7%	99 47.2%	58 27.6%	15 7.1%	5 2.4%	3.67
21	I sometimes express my feelings towards technical medical posts and comments verbally or by writing a comment.	21 10%	88 41.9%	67 31.9%	28 13.3%	6 2.9%	3.43
22	I can choose to join medical groups in my medical sub-specialty.	46 21.9%	116 55.2%	40 19%	6 2.9%	2 1%	3.94
23	I sometimes join public discussions, debates and conversations that use medical English vocabulary.	22 10.5%	91 43.3%	63 30%	32 15.2%	2 1%	3.47
24		20	94	67	27	2	3.49



	I sometimes join private discussions, debates and conversation that use medical English vocabulary.	9.5%	44.8%	31.8%	12.9%	1%	
25	The interface of social media websites motivates me to use them to learn more English vocabulary.	27	120	48	13	2	3.75
		12.9%	57.1%	22.8%	6.2%	1%	
26	Social media websites' comments and posts are free-of-charge.	52	109	34	15	0	3.94
		24.8%	51.9%	16.2%	7.1%	0%	

As shown in Table 3, a total number of 198 healthcare providers out of 210 (95%) stated that social media platforms are easy to use whereas none stated the opposite. Concerning the feature of copy and paste posts, 120 healthcare professionals (57.1%) confirmed that they copy and paste medical posts that contain medical English vocabulary. With respect to the retention of posts on social media platforms, 103 participants (49.1%) either agreed or strongly agreed. In addition, 76 professionals, constituting 36.2%, stated that they share medical posts on their timelines to benefit themselves and others while 59 individuals (28.1%) stated the opposite and 75 professionals (35.7%) were neutral. As regards users' ability to edit posts, a total number of 141 participants (67.1%) exposed that they edit their medical posts and comments for mistakes sometimes. Moreover, a total number of 132 healthcare providers (62.8%) approved that they use emoticons' buttons to express their feelings towards technical medical posts and comments.

Concerning the choice of whether to join medical subspecialty groups or not, 162 professionals (77.1%) were in agreement with the statement. As for joining public discussions, debates and conversations, a total number of 113 professionals (53.3%) either agreed or strongly agreed. However, with regard to private discussions, debates and conversations, a total number of 114 participants (54.3%) either agreed or strongly agreed. A total number of 147 healthcare providers (70%) confirmed that the interface of social media websites motivates them to learn more English vocabulary. Finally, a total number of 161 healthcare providers (76.7%) either agreed or strongly agreed that social media websites' comments and posts are free of charge.

**Table 4**

*Frequencies of Direct Responses to Research Questions*

#	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Rank
27	I learn some medical English vocabulary from social media platforms.	27	125	50	7	1	3.81
		12.9%	59.5%	23.8%	3.3%	0.5%	
28	Social media features help me learn medical English Vocabulary.	33	109	57	11	0	3.78
		15.8%	51.9%	27.1%	5.2%	0%	

Statements 27 and 28 (Table 4) directly address the perceptions of healthcare providers towards the role of social media platforms in learning medical English vocabulary. A number of 152 participants (72%) with a mean rank 3.81 confirmed that they learn medical English vocabulary from social media networks. On the other hand, only eight participants (3.8%)

disagreed with the statement and 50 participants (23.8%) were neutral. Moreover, a number of 142 participants (67.7%) agreed to the usefulness of social media features stating that they are helpful in learning medical English vocabulary. Generally speaking, responses to these two questions show that social media platforms, networks and applications have a significant role in the learning process of medical vocabulary by Egyptian healthcare providers.

In analyzing the respondents' answers to the interview questions (Appendix B), all participants agreed that they use social media platforms on a daily basis and that they learn medical English vocabulary when logging into their personal accounts and surf through pages and groups. Examples of such medical terms as given by the interviewees are included in Appendix C. They include a variety of technical and semi-technical words and phrases. Concerning the third question which elicits answers about the ways participants use social media to learn medical English, the answers varied according to the respondents' educational background, work responsibilities and professional experience. Following are some extracts of their responses:

1. "I watch audiovisual material about nursing in English and read posts about medical issues"
2. "Sometimes, I find new vocabulary that I did not know before and then I go back to search for its synonyms"
3. "I watch YouTube videos and I attend medical lectures on Zoom"
4. "Sometimes I learn medical vocabulary from voice notes"
5. "Exploring others social media pages adds some vocabulary for me from their posts and comments"
6. "It depends on the pages I am following or when my friends are sharing articles or papers about the medical field"
7. "Social media ..... can help you through channels on YouTube and some reels can help gain some vocabulary, also some medical channels on telegram can help gain vocabulary too"
8. "Social media have many sites and pages that introduce free-of-charge continuous learning"
9. "I watch medical videos and gain some vocabulary from it and I read some medical posts from expert"
10. "I catch medical English vocabulary from the online sessions I am attending and our conferences together help us catch medical diagnosis words"

The interviewees' comments confirm the quantitative findings of the questionnaire with regard to whether social media platforms are beneficial or not. Most participants stressed the importance of audiovisual materials posted on social media such as videos, pictures and the attendance of live lectures on Zoom and the alike platforms. Furthermore, joining channels and groups of medical subspecialties is essential as it conduces to significant exposure to medical resources that contain technical and semi-technical English vocabulary. Medical articles, for instance, is one of these considerably beneficial resources. Additionally, the interaction between healthcare providers through posts, comments and voice notes is tremendously helpful in enhancing one's knowledge as well as improving the usage of medical English. In general, social media stands itself among the tools that can be used by non-native healthcare providers in learning medical English vocabulary.

With regard to responses to the fourth question of the interview, the interviewees collectively selected all of the features provided by the interviewer. Among these are easiness of usage, free-of-charge availability, ability to edit, copy and share, ability to store data forever,

emoticons to express feelings, choice to join private conversations and choice to join public discussions and debates.

As the for the fifth question of the interview, the interviewees clarified how social media features help them learn medical English vocabulary. Below are some extracts of their responses:

1. “The easiness of usage, availability and free-of-charge features are the most important.....I can communicate with professionals from all around the world anytime I need”
2. “Social media features help us catch medical English vocabulary .....during debates and discussions”
3. “Social media help me watch videos in the medical field and save them for review”
4. “Some channels offer notifications that help me learn new medical vocabulary every day with the correct pronunciation without time loss”
5. “I think Free-of-charge availability help me read many articles, see many videos. Also, storage on timeline help me return to any videos or articles I saved”
6. “Discussions help interaction between colleagues. Private conversations help know details and knowing about products of healthcare companies”
7. “I sometimes save posts that I find interesting, and I learn medical vocabulary from comments and I f my opinion is similar to anyone, I press like”
8. “I learn medical English vocabulary through reading comments in the chat box and posts of my colleagues”
9. “I learn from People’s reels explaining some vocabulary”

According to the interviewees, some social media features are of great benefit; they induce healthcare providers to acquire medical English vocabulary. Being free of charge, available all time and easy to use are some of the features that assist professionals in the learning process since they are not required to take any training to use them and not to pay any extra fees to communicate through them. Professionals also agreed that they have the choice whether to join private or public conversations, debates and discussions that would help them learn medical English vocabulary. Participants also recommended saving, sharing and copying posts that may contain medical vocabulary to review them later on. Respondents maintained that emoticons are also assistive due to their importance in non-verbal communication. In addition, social media users can express their feelings towards a post or a comment without exerting much effort.

## Discussion

### **Research Question 1: To what extent can social media be a platform for acquiring medical English by non-native healthcare providers?**

The quantitative findings of the questionnaire have revealed that WhatsApp is the most commonly used social media platform in the MYF organization since it is used by the majority of the participants followed by Facebook and in the third place comes YouTube and Zoom. The research findings have further revealed that the majority of the participants log into social media platforms on a daily basis, are members in specialized medical groups, read medical posts which contain technical vocabulary of their own interest, and learn medical English from discussions, debates and comments of medical professionals on social media platforms. In addition, most of the participants learn medical vocabulary from watching videos and think that social media networks and applications improve their communication style through learning medical English vocabulary. Additionally, findings have revealed that the majority of the participants believe that social media platforms are easy to use. Almost half of the participants agreed to joining public

discussions, debates and conversations and participating in private discussions, debates and conversations and most of them confirmed that the interface of social media websites motivates them to learn more English vocabulary. Furthermore, most of them learn medical English vocabulary from social media networks and that most of the respondents believe that features of social media greatly help them in learning medical vocabulary. In general, responses show that social media platforms, networks and applications have a significant role in the learning process of medical vocabulary by Egyptian healthcare providers.

The qualitative findings of the interviews have revealed that the interviewees use social media platforms on a daily basis and that they learn medical English vocabulary when logging into their personal accounts and surf through pages and groups. Most interviewees stressed the importance of audiovisual materials posted on social media such as videos, pictures and the attendance of live lectures on Zoom and the alike platforms. Furthermore, joining channels and groups of medical subspecialties is essential as it conduces to significant exposure to medical resources that contain technical and semi-technical English vocabulary. Additionally, the interaction between healthcare providers through posts, comments and voice notes is tremendously helpful in enhancing one's knowledge as well as improving the usage of medical English.

Thus, both the quantitative and qualitative findings of the research reveal that social media platforms are highly beneficial for non-native healthcare providers in learning medical English lexis with its different types and origins. Medical English vocabulary, including both technical and semi-technical terms, can be learned through posts and comments of healthcare providers (see Appendix C). Readers and writers of posts and comments search for technical words' meanings, pronunciation, spelling and other features of lexis whenever they are required to write or read them on social media. Videos and voice notes would make another useful addition to medical professionals concerning medical information and language. Due to the growing usage of videos and voice notes on social media, users receive a huge amount of medical vocabulary through watching videos or listening to or producing voice notes on various networks. As a result of the huge explicit and implicit exposure to medical vocabulary through posts, comments, videos and voice notes, social media networks improve the overall communication of healthcare providers that conduces eventually to professionalism.

### **Research Question 2: What are the features of social media that help non-native healthcare providers learn medical English?**

It is obvious from the descriptive data that social media features are of great benefit in the process of learning medical English vocabulary for healthcare providers. Features of social media that are thought to be beneficial in the learning process of medical English vocabulary are: easiness of usage, free-of-charge availability, ability to edit, copy and share, ability to store data forever, emoticons to express feelings, choice to join private conversations and choice to join public discussions and debates. According to the interviewees, social media features induce healthcare providers to learn medical English vocabulary. Being free of charge, available all time and easy to use are some of the features that assist professionals in the learning process since they are not required to take any training to use them and not to pay any extra fees to communicate through them. Professionals have the choice whether to join private or public conversations, debates and discussions that would help them learn medical English vocabulary. Participants also recommended saving, sharing and copying posts that may contain medical vocabulary to review them later on and emoticons are also assistive in non-verbal communication. In addition, social media users can express their feelings towards a post or a comment effortlessly (Figure 3).

**Figure 3*****Features of Social Media in Learning Medical English***

They use social media platforms because they are free of charge and available all the time for any



individuals to log in. Users can copy, paste, edit and share medical posts and comments without any restrictions except from the owner of the post. In this sense, social media would be considered as a source of knowledge dissemination generally. These medical posts are stored safely till the user decides to remove them. Emoticons can help express users' feelings openly and freely in any way they would like to. In addition, healthcare providers can engage in private and public conversations without facing any difficulties or obstacles that prevent such an activity. Giving the user the choice whether to engage in public or private discussions and debates is essential as individuals have the right to evaluate the level of discussion they are taking part in.

**Research Question 3: To what extent does social media enhance non-native healthcare providers' language learning autonomy?**

Another finding of the study is that social media platforms enhance users' language learning autonomy. By interacting in English, learners acquire business and most-commonly used medical vocabulary that elevates the level of professionalism for healthcare providers. Furthermore, since healthcare providers acquire language through interaction, searching for new words, memorizing and eventually utilizing them in certain contexts and as they gain knowledge about how to use this vocabulary, their learning autonomy is enhanced in an effective way.

Furthermore, the most implementable practice on social media pertinent to medical English learning, according to the participants' perceptions, was reading specialized posts and learning from them while the most accepted feature in this process is being given the choice whether to join or not to subspecialty groups as 77% of the participants approved that. Another feature that continues to assist learners is the free-of-charge service. Almost 77% of participants stated that it helps them learn medical English vocabulary. This has created a correlation between social media platforms being free-of-charge and learning medical English from them.

Based on the aforementioned research findings, implications include using social media platforms in teaching and learning medical English. Activities like discussions, public and private conversations, composing and writing medical problems, summarizing those medical problems, reading stories and situations utilizing medical vocabulary, watching videos about medical diseases and how to treat them and summarize the information. In addition, learners can deliver presentations on medical issues and discuss them with their peers in English online. A teacher may also post a question on a medical issue and take opinions from other users in the same subspecialty. These opinions might be posted in the form of written English where others can read them or audios and videos where users can listen to or watch them. Such opinions might also lead to learning more about other subspecialties other than medical English.

## CONCLUSION

Various studies (Sakamoto and Sakata, 2018; Dzuganova, 2019; Choi, 2021; Pham, 2022; Farsi et al., 2022) have reviewed and researched medical English in recent years. However, none has delved deep into exploring the perceptions of non-native healthcare providers concerning acquiring medical English from social media platforms. The aim of the study was to measure the perceptions of non-native healthcare providers towards social media networks and applications as a platform for learning medical English vocabulary. To this end, a number of Egyptian healthcare providers working in MYF were selected as a sample of participants for the study. Findings of the research have shown that Egyptian healthcare providers believe that they are learning medical English vocabulary from social media with its various platforms, especially WhatsApp, Facebook, Telegram and Zoom. Yet, the most beneficial practice is reading medical posts. In addition, social media features can greatly assist healthcare professionals learn medical English through bringing them together for communication and dissemination of knowledge by using medical English vocabulary. Yet, the most useful feature of social media platforms is being free of charge. It has also been proven that social media enhances healthcare providers' language learning autonomy.

It is recommended that further research is conducted on the benefits of social media for acquiring ESP vocabulary and the effect of its pedagogies that are suitable for application in ESP classes. They are also encouraged to delve deep into exploring the characteristics of social media, how to use them effectively in various instructional courses and add more characteristics to the list in terms of their assistance to the process of learning.

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**Appendices****Appendix A**

The purpose of this questionnaire is to measure the perceptions of Egyptian healthcare providers towards social media as a platform for learning Medical English.

- 1- I am a (Doctor - Nurse - Technician)
- 2- I am (Between 18 and 30 – Between 31 and 40 – Between 41 and 50 – Above 50)
- 3- I work in a (Hospital - Specialized Centre - Private Clinic )
- 4- I use (Facebook – Facebook messenger - Instagram – Twitter - WhatsApp – Telegram – YouTube – TikTok – WeChat – Snapchat – Pinterest – Quora – Skype – LinkedIn – Zoom – Microsoft Teams)

Strongly Agree – Agree – Neutral - Disagree – Strongly disagree

- 5- I log into social media websites on a daily basis.
- 6- I use social media but not on a daily basis.
- 7- I am a member in specialized medical groups on social media that use English in communication.
- 8- I read specialized medical posts that contain technical vocabulary very often.
- 9- I learn medical English vocabulary from medical professionals' technical and semi-technical posts.
- 10- I read the comments of medical professionals that contain technical and semi-technical vocabulary.
- 11- I learn new medical English vocabulary from reading the comments of medical professionals on medical English debates and discussions.
- 12- I watch videos posted by medical professionals to learn medical information and medical English vocabulary.
- 13- I learn medical English vocabulary from voice notes made by medical professionals.
- 14- Social media improves my professional communication through learning medical English vocabulary.
- 15- Social media websites and applications are easy to use.
- 16- I sometimes copy and paste medical posts that contain medical English vocabulary.
- 17- Comments and posts cannot be removed unless the author removes them.
- 18- I share posts of medical professionals in other groups and on my personal account timeline.
- 19- Posts and comment can be edited for correction of information and vocabulary mistakes.
- 20- I sometimes express my feelings towards technical medical posts and comments through the emoticon's buttons.
- 21- I sometimes express my feelings towards technical medical posts and comments verbally or by writing a comment.
- 22- I can choose to join medical groups in my medical sub-specialty.
- 23- I sometimes join public discussions, debates and conversations that use medical English vocabulary.

- 24- I sometimes join private discussions, debates and conversation that use medical English vocabulary.
- 25- The interface of social media websites motivates me to use them to learn more English vocabulary.
- 26- Social media websites comments and posts are free-of-charge.
- 27- I learn some medical English vocabulary from social media platforms.
- 28- Social media features help me learn medical English Vocabulary.

**Appendix B****Interview Questions**

1. Do you use social media networks on a daily basis? (Yes - Neutral - No)
2. Do social media platforms help you learn medical English vocabulary?  
(Yes - Neutral - No)
3. How do social media platforms help you learn medical English vocabulary?
4. Which of the following features help you learn medical English vocabulary through social media:
  - Easiness of usage (interface)
  - Free-of-charge availability
  - Ability to edit, copy and paste posts and comments
  - Storage of data on timeline
  - Emoticons buttons for the expression of feelings
  - Private conversations
  - Public discussions and debates
5. How do social media features help you learn medical English vocabulary?

**Appendix C****Sample of Medical Terms on Social Media Platforms by the Interviewees**

- Mechanical Ventilator
- CPR (Cardiopulmonary Resuscitation)
- Nursing Care Plan
- Nutrition / Cachexia (Malnutrition)
- Physical Assessment
- Labs / Laboratory Investigations (ex: CBC, Uria, Creatinine, Cardiac Enzymes)
- Cardiac Arrest
- Diagnosis / Prognosis (Congenital Anomalies)
- Clinical Manifestations (ex: Bowl Irritability, Dyspnea, Tachypnea, Bradypnea, Apnea)
- Admission/ Discharge
- Intensive Care Unit (ICU)
- Open Heart Surgeries (ASD / VSD closure, CABG)
- Infection and Prevention Control
- Nosocomial infection
- Hand Hygiene
- Sepsis
- Vital Signs (ex: Hypertension/ Hypotension, Oxygen Saturation, Respiratory/ Heart rate)
- Drug Classification (ex: Beta blockers, Diuretics, ACE inhibitors)
- Radiology (X-ray, MRI, CT)
- Uremia (Urine in Blood)
- Hematoma
- Hemodialysis
- Intubation/ Extubating
- Stroke
- Failure to thrive (high risk of death)
- Palliative Care (End-of-life care)
- Tissue Profusion
- Peptic/ Pressure Ulcer
- Neonates (Infants)
- Medical Records (Medicolegal)
- Blood Transfusion
- ECG (Electrocardiogram)
- Alopecia (Loss of Hair) / Hirsutism (Excessive Hair around the mouth and chin)
- Edema