

A review of English for medical purposes for Iranian EFL learners

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Received for publication: 08 January 2016.

Accepted for publication: 15 March 2016.

Abstract

Considering the significant role that English language plays in medical education, not only for learning purposes and seeking knowledge but also for presenting research activities in international fields, English learning and teaching programs are worth noting more accurately. The aim of this review paper is to present some of the basic concepts regarding teaching English for medical purposes to English- as-a-foreign-language students. Some of these influencing factors in the academic field could be named as the necessity of students' need assessment, content evaluation, promotion of teachers' knowledge and renewing medical English curricula every now and then as needed. Ultimately, several suggestions are presented which could be utilized by instructors, text developers and educational authorities for the betterment of medical English programs.

Key words: language barriers, English language teaching, medical students, medical education

Introduction

In today's communication era when expressing one's thoughts could lead to arising international integration, learning English has become even more essential since it serves as a medium. The demand to convey specific information has also added to this discipline. English language is the *lingua franca* for communicating the basic concepts of different fields, including medicine (Faraj, 2015). Medical doctors and researchers need to learn English, not only for the purpose of teaching and learning, but also for publishing their research work (Milosavljević, 2008). It has been reported that the level of medical English used in lectures, textbooks and journal articles has been increasing steadily (Hwang & Lin, 2010). The significant role that English language plays in the field of medicine is due to the fact that much of the scientific, technological and academic information is globally expressed in English (Creswell, 2013). Therefore, motivating medical students and doctors to learn English is very much instrumental (Milosavljević, 2008). As was asserted previously, "English is the *de facto* language of international medicine" and fluency in English would be a necessity to get the essential medical and scientific information (Heming & Nandagopal, 2012).

Carrying out research and getting information are not the only factors that highlight the role of English language in medical education. The quality of medical care may be even impacted negatively by the lack of language competence (Ibrahim, 2010).

The burden of English language in medical education could be studied from another perspective as well. Different studies have reported that medical students' inadequate English

language proficiency, might be considered the major obstacle to their academic achievement (Al-Rukban, Munshi, Abdulghani, & Al-Hoqail, 2010) and the problems that English as a Foreign Language (EFL) medical students face regarding their medical subjects could be partially attributed to English language incompetence (Faraj, 2015). On the other hand, sufficient knowledge of English language and the ability to speak English as a Second Language (ESL) can have positive impacts on students to such an extent that it even increases their self-confidence (Jane Koch MA, Yenna Salamonson PhD, Du BN, Sharon Andrew PhD, & Dunnclyff, 2011).

In order to have a better understanding of the role that English for medical purposes (EMP) plays in medical education, a closer look at the difference between English for Academic purposes (EAP) and English for Specific Purposes (ESP) would be beneficial: it should be noted that EAP is learnt with an intention to achieve the ability to read and comprehend the texts in a scientific field, while ESP teaches the skill of using the target language for communication in the work environment. Therefore, it could be concluded that ESP is mostly used in an ESL context and EAP for EFL ones (Kazem & Fatemeh, 2014). Based on the definition by Hutchinson and Waters (Ghalandari & Talebinejad, 2012), “ESP is an approach to language teaching in which all decisions as to content and method are based on the learners’ reason for learning”. Accordingly, learners’ needs are considered the core for teaching ESP and, as in the case of this review, EMP.

Needs assessment of medical students

Needs assessment is a process through which learners’ needs, wants and lacks are specified to clarify the very objectives for a proper curriculum design (Al-Ahdal, 2010; Ibrahim, 2010). Practically, needs assessment is a “fact-finding process” for the identification of suitable educational materials as well as teaching approaches for an ESP context (Faraj, 2015).

Neglecting learners’ demands and interests lead to lack of motivation which in turn ends in poor performance and academic achievement (Kazem & Fatemeh, 2014). Recent studies claim that instructors, course designers and material writers must incorporate learners’ needs as a vital part of syllabus to gain the optimal objective of successful learning (Ghalandari & Talebinejad, 2012). It is also declared that the only way to achieve useful feedback that supports language acquisition is to assess students’ learning needs (Sabbour, Dewedar, & Kandil, 2010).

The requirement to address educational needs of students seems even more crucial in a context that English is taught as a foreign language (Jane Koch MA et al., 2011). Unfortunately, most of the research on ESP teaching is carried out for ESL students in health sciences (Molnar, 2011) and EFL students are neglected roughly (Heming & Nandagopal, 2012). In this regard, a shift of look for future research in this area is essential.

Typically, when teaching ESP to medical students, most of the attention is directed toward “subject-unique vocabulary and associated modifiers”, yet it is stated that students face difficulties with general vocabulary as well (Heming & Nandagopal, 2012). Therefore, it would be beneficial to satisfy this need of students by enhancing their general vocabulary knowledge.

One of the main reasons for the negligence of different levels of students’ skills is that no studies have been conducted on the medical students’ English language proficiency which eventually leads to improper curriculum design for medical education (Faraj, 2015). Consequently, in order to help medical students manage the challenges they encounter during their academic education, understanding their English language needs is a must (Faraj, 2015).

Currently, the English language used in medical context includes the special terminology and structures that students have not studied before (Faraj, 2015) and most of the students have great problems with medical English especially during their first year. Moreover, the curricula of English language courses are mostly on grammar translation method which does not enable students for

communicative purposes and lacks functional language (1). It is recommended that a medical English curriculum should include all major English language skills (speaking, listening, writing and reading) in addition to English grammar and medical/ general vocabulary to satisfy students' need of communicative competence as well (Doley, 2010).

Based on the investigations, it is highlighted that reading is the most required skill for medical students as most of their textbooks and journal articles are in English. Listening, writing and speaking come next respectively (Lu & Corbett, 2012).

Considering the demanded skills of English language in medical education along with the cognitive processes that promote second language learning, reviewing the Cummins' model would benefit selecting proper language teaching strategies for EFL students (Doley, 2010). According to Cummins, there are two basic domains of language acquisition: Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) (Caputi, Engelmann, & Stasinopoulos, 2006). BICS involves the speaking and listening skills and is learnt through interaction with others, while CALP is achieved in academic and educational settings. It involves the need to communicate advanced and abstract ideas (Doley, 2010). Some studies claim that poor academic performance in students could be due to their lack of CALP mainly (Salamonson, Everett, Koch, Andrew, & Davidson, 2008). Yet, when students' needs regarding their social and economic status were assessed, it was shown that speaking and writing skills satisfied them mainly (Milosavljević, 2008). Hence, in order to meet academic needs along with social/ economic ones, it would be beneficial to design curricula that take BICS and CALP into consideration simultaneously.

Teachers of English for medical purposes

The most significant point about teachers of EMP is to improve their knowledge of medical terminology and structures used in medical texts. They could promote themselves by attending training workshops (1). Their knowledge of the discipline helps them achieve EMP educational objectives (Chang, 2007).

It is suggested that teachers of medical English engage students more in the process of language learning by providing practical sessions and creating an imaginary environment that helps them learn all aspects of English language (Al-Qahtani, 2013). Current research also demonstrates that teachers can enhance students' understanding of the material by asking them frequent, challenging questions (Doley, 2010).

EMP teachers would encounter problems as well. For instance, one of the challenges they face is lack of university resources (Heming & Nandagopal, 2012). Another obstacle would be a diverse student body which makes it difficult for an instructor to teach all students effectively (Starkey, 2015). Students who have limited English language proficiency in addition to traditional pedagogical approaches to which teachers are bound, make the situation even more difficult for EMP teachers (Rivera-Goba & Campinha-Bacote, 2008). In this regard, a more accurate evaluation of medical students' English language proficiency, pedagogical approaches and university resources would be beneficial for an EMP teacher promotion.

Educational content of English for medical purposes

In the early 1960s, ESP became one of the most prestigious areas of EFL teaching and large numbers of ESP books have been published since then, however they mostly lack a careful research base and defined theoretical position (Kazem & Fatemeh, 2014). Accordingly, in order to gain educational objectives effectively, evaluation of teaching materials is critical through which an understanding of the way they work is achieved with regard to both acquisition theory and pedagogic practice (Al Fraidan, 2012; McGrath, 2002; Tomlinson, 2005).

Based on previous studies (LITZ) there are three types of material evaluation: "pre-use" or "predictive evaluation", "in-use evaluation" and "retrospective" or "post-use evaluation". The most efficient one is "predictive evaluation" that investigates potential performance of a textbook. There is also "textbook Evaluation Instrument Based on the ACTFL standards" (Kazem & Fatemeh, 2014). Considering a given situation and based on the type of evaluation, the most suitable teaching material could be selected for teaching medical English.

In an EFL context where classrooms are the only source of English, textbooks play a critical role in exposing students to learning (Riazi, 2003) and this makes the significance of choosing the right teaching material even more prominent. A teacher of English for academic purposes always tries to meet the needs of students, yet textbooks that fully satisfy all needs and objectives are rare. Therefore, it is suggested that supplementary materials be used to support the main textbook (Kazem & Fatemeh, 2014).

Renewing old fashioned curricula and pedagogic approaches of teaching medical English

Almost fifteen years ago, it was reported that language barriers block the globalization of health resources and the problem has continued to present (Sabbour et al., 2010). This limitation is also extended to medical students and confronted them with a lot of challenges mainly because they know limited vocabulary and slow reading speed (Lu & Corbett, 2012). In a very brief time, medical students need to learn a great number of medical terms, improve their reading and listening skills and enhance their writing ability (Lu & Corbett, 2012). In some universities, formal training is provided for diagnosing language barriers in medical education. Language learning programs are also integrated within the medical curriculum to overcome these obstacles (Tucker, Chen, & Glass, 2012). Some of the language difficulties that make medical education struggling for students include understanding lectures, reading comprehension, correlating written material with verbal lectures, taking notes and academic writing (Starkey, 2015). A recent study summarized the most common language difficulties in areas of oral communication, reading, understanding and writing (Starkey, 2015).

A number of strategies could promote students' English proficiency including increased exposure to English, motivating students to become competent in English and providing opportunities for interaction with English speaking peers (Heming & Nandagopal, 2012). According to some scholars, such opportunities could be provided using technology innovation for instance utilizing podcast and vodcast technology or even web-based technologies (Rogan & San Miguel, 2013). These studies clarify that online learning resources can be developed with a modest budget based on existing university resources. However, little research has been carried out on the impact of online technologies on students' learning outcomes (Rogan & San Miguel, 2013).

Recent surveys indicate that if language learners are taught how to integrate different learning strategies, they could become more efficient and independent learners (Al-Qahtani, 2013). The language learning strategies include meta cognitive, cognitive and social strategies. Students should attend workshops on how to adopt a mixture of these strategies as they are used to employing mainly cognitive strategies most of the time (Al-Qahtani, 2013).

last but by no means least, it is important to enhance medical students' motivation during the process of English language learning. Motivation is a crucial instrument of learning (Milosavljević, 2008). Creating multi factorial programs that provide students an all-English instruction would give them access to innovative medical science (Milosavljević, 2008). It also increases students' integrative motivation which in turn has a great impact on second language learning (Al-Qahtani, 2013).

Based on the challenging areas of language for medical students, their demands and learning strategies that benefit medical education, it would be favorable to review and renew the existing programs every now and then. Although change may be difficult, exploring new pedagogies would facilitate inclusive learning (Vickers, 2008).

Conclusion

According to all that went on, teachers, textbook developers and educational authorities could improve the quality of learning and teaching by considering the influencing factors of medical English learning such as overcoming language barriers, reviewing medical English curricula, providing extracurricular programs to enhance both the teachers and students' medical English proficiency, choosing optimal teaching materials, the efficacy of which have been confirmed through evaluation, and last but by no means least, modifying medical education context based on the assessed needs of students.

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