Medical English in Italian University Courses in Sports Sciences: Some Issues in Focus

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1. Introduction

Over the last few decades, the increasingly rapid progress of medical science and technology, together with the growing importance of English as the language of international communication, has made the study of medical English a crucial segment in the curriculum of medical undergraduates. In Italy, medical topics are studied not only in medical degree courses but also in those of sports sciences.

This paper focuses attention on some medical English-related issues in sports sciences degree courses in Italian universities. More precisely, the work is divided into four main parts. The first part raises the terminological question concerning the denomination of the discipline "lingua inglese"/"lingua straniera" in sports sciences courses, which is discussed in relation to the ministerial objectives about specialized language teaching in university education. The second part draws attention to the important role that medical English plays in Italian sports sciences degree courses, the curriculum of which is outlined on the basis of its main subjects. In this respect, emphasis is given to English in the domain of sports medicine, one of the fields of knowledge which characterises the sports sciences degree course. Moreover, the importance of the acquisition of the lexicon of sports medicine is highlighted, also through a short account of the main eponyms belonging to the specific domain in question. The third part deals with the issue concerning credits, attendance at classes, and syllabuses in sports sciences courses. Finally, the fourth and last part discusses questions common to all medical English courses like students' initial linguistic competences, comprehension difficulties in dealing

with medical English communication, including subtechnical vocabulary acquisition, and the importance of genre-based and content and language integrated learning (CLIL) approaches to medical English teaching. The main purpose of the work is to draw attention to the importance that medical English syllabuses in sports sciences courses be well-designed in terms of effective methodologies and curriculum dominant subject-oriented contents in order to develop students' linguistic competences within their chosen professional field. The paper also aims at highlighting the importance of uniformizing the time devoted to medical English teaching in sports sciences courses, also on account of the fact that the same learning-related difficulties in facing the language of medicine in English are essentially shared by all Italian undergraduates.[1]

Before going into the core of the work, the definition of EMP will be given and its importance discussed.

1.1. *Research on medical communication and English for medical purposes (EMP)*

Within linguistic studies on specialized discourse medical communication has been an object of deep interest parallel to the rapid advances in both medical sciences and information technology. The latter, in particular, has led to a dramatic increase in worldwide interaction, not only between specialists but also between specialists and the lay public. The dissemination of medical literature is testified by the ever-increasing number of journals addressing medical, paramedical and related topics. Several works on medical communication have been produced up to now, with numerous theoretical frameworks and orientations being representative of the linguistic community's interest in medical discourse, its analysis potentials and didactic implications at university level. Linguistic research on medical discourse has largely focused on the doctor-patient interaction (Adolphs *et al*.

[1] The paper is mainly based a) on my medical English teaching experiences in the university courses in sports sciences in Palermo (where I work as a researcher in English language and translation); b) on my teaching experience in the three-year degree courses in obstetrics and nursing sciences of the University of Palermo, and physiotherapy and nursing sciences of the University of Milan.

2004, Gotti & Salager-Meyer 2006, Menz & Al-Roubaie 2008), which has been analysed from many perspectives (ethical, gender, social, etc.) and methodologies (conversation analysis, corpus linguistics, discourse analysis, etc.). Medical discourse has also been investigated from a lexical point of view (Salager-Meyer 1983, Baker 1988, Ramos 2001, 2006), syntactical (Salager-Meyer 1985, 1986), and textual (Salager-Meyer 1991, 1992, 1994, Nwogu 1997, Vihla 1999, Webber *et al*. 2001, Mungra 2006). Within the field of discourse and communication studies, several scholars have focused attention on genres in medical English (Salager-Meyer *et al*. 1989, Swales 1990, McDonald 2002, Piqué & Posteguillo 2006a, b, Giannoni 2008, Gotti 2011, Kunt-Akbaş 2013) and their pedagogical applications (Fryer 2007, 2012, Mungra 2010, Garzone 2011).

Research in medical communication has also focused much attention on medical English language teaching and learning, an area of study known as English for medical purposes (EMP). The main studies on EMP have given detailed accounts of courses available and teaching materials (Ferguson 2013), and have highlighted the importance of needs analysis in curriculum design (Antic 2007, Bosher & Smalkoski 2002, Hwang & Lin 2010, Hwang 2011).

1.2. *English for Medical Purposes (EMP): a definition*

What is usually referred to as "English for Medical Purposes (EMP)" is a specialized area of study within "English for Specific Purposes (ESP)", "the teaching and learning of English as a second or foreign language where the goal of the learners is to use English in a particular domain" (Paltridge & Starfield 2013: 2).

A detailed definition of the term "EMP" is given by Maher (1986: 112), who describes it as

> the teaching of English for doctors, nurses, and other personnel in the medical professions. It involves the teaching/learning of English for utilitarian purpose, an identifiable goal – typically, the successful performance of work or the optimum effectiveness of medical training. In general terms, EMP (*a*) is designed to meet the specific English language needs of the medical learner (e.g. nurse, GP, dentist, etc.); (*b*)

focuses on themes and topics specific to the medical field; (*c*) focuses on a restricted range of skills which may be required by the medical learner (e.g. for writing a medical paper, preparing a talk for a medical meeting, etc.).

EMP can be further divided into various subgroups according to the specific area of knowledge of the medical field of reference. English for doctors, English for nurses, English for healthcare assistants and English for dentists are some examples of medical English, each having its own contents and terminologies. Hence the question arises, which will be discussed in more detail later, of whether EMP courses can be considered effective if held by only an English language teacher or rather by two professionals, a linguist and an expert in the specific medical area where English is required.

2. '*Lingua straniera*', '*lingua inglese*': the terminological question of the denomination of the discipline in sports sciences courses

Similarly to what happens in most medical and other scientific university courses throughout Italy, no specialized English is provided for by the educational offer of sports sciences courses, at least from the point of view of the denomination of the discipline. The name of the discipline is not, as one would expect it to be, "scientific (or medical) English", but simply "lingua inglese" or "lingua straniera". This is in contrast with the educational objectives set by the Italian Ministry of Education, University and Research (*MIUR - Ministero dell'Istruzione, dell'Università e della Ricerca*, Ministry of Education, University and Research), according to which university students of sports sciences are also required "to be able to use at least one language of the European Union - besides Italian - for international communication in their own specific professional field."[2] Consequently, if sports sciences students are expected to communicate in a foreign language of the

[2] The instruction in the source language is "essere in grado di utilizzare almeno una lingua dell'Unione Europea, oltre l'italiano, allo scopo di consentire la comunicazione internazionale nell'ambito specifico di competenza."

EU and in their specific specialized domain, then why has specialized language teaching, which in the case of Italian scientific courses is almost always English, not been included in the curriculum of those in sports sciences?[3] The most obvious consequence of this problem is that teaching medical English in sports sciences (as well as in medical) degree courses only depends on the individual initiative of each lecturer, who can decide whether or not to include medical English in their own syllabus.

3. The importance of medical English in the Italian sports sciences courses curriculum

Italian sports sciences university courses stand out for their multidisciplinary nature, since their curriculum encompasses different specialized domains – medicine, psychology, pedagogy and law being the most important. The first year of the (three-year) degree course in sports sciences focuses on the acquisition of anatomical, biochemical and human movement-related notions in order to understand how the human body works, as well as on the psychological, historical and social aspects that are involved in the bent of human beings for sports activities. The second year is centred on such subjects as physiology, physiopathology, developmental psychology, theories and techniques of sports activities, to mention just some of them. The subjects of the third year are mainly represented by the theoretical aspects of training as well as by those related to its practice, by athletes' relationship with food, and by the environmental quality and safety of sports facilities. Moreover, special emphasis is put on neurology and traumatology, on preventive and compensative theories and practices of sports activities, as well as on the legal and economic foundations of how sports organizations work.

The purpose of the three-year degree course is to develop suitable knowledge and skills to allow students to organize, lead and

[3] In the degree course in sports sciences of the University of Milan, students can choose between English and Spanish.

manage sports and recreational activities in order to promote fitness activities and preserve psycho-physical wellness.[4]

Within the framework outlined above, specialized English teaching plays a very important role in sports sciences degree courses, as it requires encompassing several fields of human knowledge and corresponding terminology. However, the subjects of the medical domain play a very important role in the curriculum of sports sciences courses and, consequently, they are given very large space, especially as far as anatomy and sports medicine are concerned. The most obvious implication at the teaching level is that in planning its syllabus English teaching should take into consideration the above-mentioned fields of knowledge and exploit them as a ground on which to develop students' communicative skills.

With regard to sports medicine in particular – this discipline being concerned with both the effects of exercise on the human body, and with the diagnosis, treatment and prevention of athletic injuries – students approaching its language must cope with the vocabulary of anatomy, sports, orthopaedics, traumatology, and preventive medicine. The terminology of all these domains is particularly rich in eponyms.

3.1. *Eponyms in sports medicine language: a sample terminological issue*

Sports medicine eponyms are used to refer to musculoskeletal injuries owing to the practice of sports and recreational activities, or of specific occupations. *DANCER'S FRACTURE*, *BASEBALL FINGER*, *TENNIS ELBOW*, *JUMPER'S KNEE*, *GOLFER'S ELBOW*, *BOXER'S FRACTURE* (also called *BRAWLER'S FRACTURE*), *GAMEKEEPER'S THUMB*, *COAL MINER'S KNEE*, *LORRY DRIVER'S FRACTURE* and *HOUSEMAID'S KNEE* are only some among the very numerous examples. Eponyms are widely used in medical language, not only in spoken communication contexts but in scientific literature as well. The title of an article from one of the foremost orthopaedics

[4] The curriculum and the purposes of the Italian degree courses in sports sciences were taken from the websites of the Universities of Bologna, Milan (Statale), Naples (Parthenope), Palermo, Rome (Foro Italico), Udine, Urbino, and Verona.

journals, namely *International Orthopaedics*, is an example: "Use of platelet-rich plasma for the treatment of refractory jumper's knee" (Filardo *et al*. 2010: 909). The acquisition of the most frequently used eponyms in sports medical language represents an important part of medical English teaching in sports sciences courses, all the more so because there are expressions which do not have an equivalent descriptive term.[5] *BOXER'S FRACTURE* (or *BRAWLER'S FRACTURE*), for instance, which refers to "fracture of the metacarpal neck with volar displacement of the metacarpal head caused by striking a hard object with the closed fist" (Newman Dorland's *Illustrated Medical Dictionary* 2011), does not seem to have a corresponding scientific denomination.

Eponyms have been an object of long-standing controversy among linguists and physicians themselves. Even though they are generally considered barriers to effective international communication, eponyms are still largely used in medical discourse, as they convey a great deal of information in a very concise way. As a consequence, learning at least the main eponyms in each medical specialty should be part of any medical English syllabus.

4. Credits, attendance at courses, and syllabuses in sports sciences study courses

English courses within the sports sciences curriculum vary according to the specific university. For example, at the University of Palermo, English is taught in the first and third years, for a total number of six credits (two in the first year and four in the third year), corresponding to a total of 48 hours (*Università degli Studi di Palermo, Scienze Motorie, Piano di Studi, Anno Accademico 2012-2013*, University of Palermo, Sports Sciences, Study Plan, 2012-2013 Academic Year). Attendance is not compulsory (mainly because most students are also workers) and the focus of syllabuses is on the acquisition of medical terminology – especially that concerning the musculoskeletal system and corresponding diseases – through extensive reading and analysis of medical material

[5] For the question of medical eponyms and their descriptive equivalent terms, see Cappuzzo (2008). A classification of medical eponyms is given by Canziani (2011).

(mostly abstracts, articles, case reports, and reviews). In Milan, English is taught only in the first year, three credits are awarded, corresponding to 21 hours (*Università degli Studi di Milano, Scienze Motorie, Piano di Studio, Anno Accademico 2012-2013*, University of Milan, Sports Sciences, Study Plan, 2012-2013 Academic Year), and 70% attendance is required (*Università degli Studi di Milano, Scienze Motorie, Manifesto degli Studi, Anno Accademico 2012-2013*, University of Milan, Sports Sciences, Manifesto Studiorum, 2012 - 2013 Academic Year). The focus of the syllabus is on the acquisition of an intermediate level of knowledge of general English language, whereas specialized English teaching is essentially centred on the sports domain. In Urbino, English is taught in the third year (*Università degli Studi di Urbino 'Carlo Bo', Scienze Motorie, Sportive e della Salute, Piano di Studi, Anno Accademico 2012-2013*, University of Urbino 'Carlo Bo', Sports and Health Sciences, Study Plan, 2012-2013 Academic Year), and the syllabus, which includes some elements of anatomical terminology, mainly focuses on general language teaching. Classes are held at the CLA (*Università degli Studi di Urbino 'Carlo Bo', Centro Linguistico d'Ateneo*, University of Urbino 'Carlo Bo', University Language Centre), two credits, 40 hours, and 80% attendance is required.

Lack of homogeneity in credits and hours, the question of attendance at courses and of basically different syllabuses are aspects which do not characterise sports sciences courses as the phenomena in question also concerns medical faculties at the national level. To give only two examples, from a more recent study carried out by Taylor (2011) on the situation of medical teaching in the medical curriculum, it emerges that the University of Rome La Sapienza devotes twelve credits to medical English teaching, whereas at the University of Trieste English credits are ten. At La Sapienza, medical syllabuses are on reading, assignments, which are kept in a personal portfolio, and genre analysis; in Trieste, the accent is mainly on the analysis of medical articles.

5. Some medical English teaching-related issues in sports sciences study courses

Medical English teaching in Italian sports sciences faculties shows aspects and problems which are common to all degree courses where medical English is taught.

5.1. *Students' initial linguistic competences*

One of the major problems English language teachers must cope with in Italian universities concerns the students' different levels of knowledge of the English language, school training and study methods. This heterogeneous situation causes not a few problems, especially when classes are overcrowded. Students are expected to leave secondary school and enter university with at least a basic knowledge of English (A2), so that at the end of their degree course their linguistic proficiency can reach intermediate level, i.e. be between the B1 and B2 levels, in accordance with what is provided for by the *Common European Framework of Reference for Languages*. Instead, many students have very little knowledge of English or have never even studied it at all (mainly because they learnt another foreign language at school, usually French). Hence the problem of harmonizing the students' initial abilities with the objectives set up by English syllabuses, also considering what is required by MIUR with regard to the educational objectives which were referred to in section 2.

Moreover, if on the one hand it is true that no specific reference is made by MIUR to the necessity of choosing English as the language to be taught in university courses, on the other hand English is, in fact, the language of international communication as well as of most scientific literature, and as such the foreign language chosen in most (if not all) courses.

5.2. *Subtechnical vocabulary, pre-modification and nominalization in medical discourse*

The difficulties that students come across when approaching English medical language may both concern its terminology and its syntactic features. As far as the former is concerned, if on the one hand

English medical communication does not generally prove particularly obscure for Italian students at least as for specialized terminology, this being largely represented by words of classical origin, on the other hand difficulties with understanding scientific texts lie in the area of vocabulary generally referred to as "subtechnical". "Subtechnical" vocabulary, also variously labelled as "non-technical" or "semitechnical" vocabulary, concerns

> items which are neither highly technical and specific to a certain field of knowledge nor obviously general in the sense of being everyday words which are not used in a distinctive way in specialized texts. (Baker 1988: 91)

In other words, subtechnical vocabulary is represented by those items which have the same meaning as in general language but "operating under different restrictions". An example cited by Baker (1988: 104) is "report", which is used, in medical journal articles, in such patterns as "we report on (+ noun phrase)" and "we report (+ noun phrase)". On the contrary, "report" is unlikely to be used in patterns like "we report that" or "this paper reports".

Other examples include such expressions as "*others* have *said*", "one *explanation* is", and "it has been *pointed out* by", "items which are used in specialized texts to perform specific rhetorical functions. These are items which signal the writer's intentions or his evaluation of the material presented" (Baker 1988: 92). Subtechnical vocabulary plays a crucial role in L2 acquisition in scientific study courses as it is used to perform specific rhetorical/organizational functions and to structure the writers' argument. Hence Baker's conclusion that

> learners should be given a great deal of exposure to these items in order to appreciate and make use of the information in a text. The other obvious implication is that these items should not be taught in isolation but in context and as central elements in typical collocations. (Baker 1988: 103)

As for the second issue mentioned above, that is the syntactic structure of English medical discourse, this is likely to create comprehension difficulties because it is different from the Italian one. For example, pre-modification – a common feature of the

English language – is particularly marked in medical discourse, and students often have trouble understanding the correct sequential order of pre-modifiers, both when translating from English and even more so, obviously, when producing English. Nominalization, too, "an essential resource for constructing scientific discourse" (Halliday & Martin 1993: 61) is another common sentence-style aspect of medical communication which, together with pre-modification, often makes textual decoding hard work for non-specialist/non-native English users. The use of nominalization entails "increased lexical density, i.e. a high percentage of content words within a text" (Gotti 2003: 81).

Wenyan (2012: 87) highlights that

> texts in which there is a great deal of nominalization can be very dense because information can be compacted and it may be hard to process. Nominalization can also lead to the meaning relationships between parts of the information being implicit or potentially ambiguous. This can be a problem when the reader does not have the knowledge needed to unpack a particular noun group.

Moreover,

> the decoding of long nominal groups poses a major interpretative challenge for the addressee, who is forced to identify the semantic-syntactic links between different groups. […] Linguistic competence alone is not sufficient and has to be integrated by specialist knowledge of the topic and of other factors such as context and co-text. (Gotti 2003: 74-75)

Undoubtedly, the students' command of a given specialized field of knowledge increases gradually, parallel to the development of their professional competences. For this reason, it is important for medical English courses to consider the general curriculum of the degree course that is being followed, so that the English course can involve the same topics as those in the other subjects.

5.3. *Genre-centred syllabuses and content and language integrated learning (CLIL)*

The aim of any medical English course is to supply students with the necessary linguistic means to communicate effectively in English in the specific domain required by their degree course. In the case of medicine, this means guiding students in the process of learning medical English linguistic features – from lexical to syntactic and textual peculiarities related to both spoken and written communication. In this respect, almost unanimously scholars do agree about the crucial role that genre analysis plays in second language education. In most medical English courses, students are generally trained to become familiar with different text genres, i.e. research papers, journal abstracts, case reports, editorials, clinical studies, and so on, because "today, genre is one of the most important and influential concepts in language education" (Hyland 2004: 5). Genre-based courses usually aim at developing all language skills. Focusing on listening, Hirvela (2013: 87) highlights that students must be "repeatedly exposed to texts exemplifying the genres they must learn to understand and reproduce as they seek to gain membership in their chosen disciplinary communities." Mungra (2010) proposes a genre-centred teaching model to write scientific abstracts in English. Her methodology uses a content and language integrated learning (CLIL) approach – within the Italian university medical curriculum – to train students to write journal abstracts for medical experimental research articles. More specifically, the model proposed is represented by the integration between language and content with lessons being held by subject teachers focusing on different medical areas, and English language teachers concentrating on lexis, form, structure and academic register of research articles (Mungra 2010: 155). This methodology draws attention to two major issues, that is the crucial role that genre-centred and content-centred teaching plays in EMP (and ESP more in general) as it basically takes into account students' effective communicative needs, and the importance of cooperation between two distinct professional figures, the specialist in the subject concerned and the linguist. With regard to the latter aspect, a survey carried out by McCarthy (2007: 74) reports that in the medical course of Rome La Sapienza clinical teachers are involved

in lessons and in assessment procedures, on the basis of a multidisciplinary approach where "English overlaps into other teaching areas."[6]

6. Concluding remarks

Students who wish to work in a sports and health-related environment are expected to achieve adequate linguistic competences in order to be able to communicate effectively and accurately in English in the chosen professional field. In the Italian courses in sports sciences, it would first be necessary to acknowledge the importance of Medical English teaching and draw more attention to the contribution it can make to the development of students' professional competences. Syllabuses are expected to give much emphasis to materials concerning the sports medicine domain as the main subject where acquiring and reinforcing vocabulary, with eponyms occupying a prominent place. Methodologies should take into consideration the function that genre-based and CLIL approaches serve in developing students' linguistic skills and communicative competence within EMP.

Moreover, an important goal for the future of medical English teaching in sports sciences courses could be the standardization of syllabuses at the national level, as well as of the number of credits and the amount of hours devoted to classes, all factors currently varying according to the specific university. Finally, more value should be attributed to the crucial role that the CLA can play in the improvement of students' linguistic skills, in both general and specialized English, also to keep up with European levels of proficiency.

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[6] The survey carried out by McCarthy (2007) also extended to the situation of medical scientific-based courses at several European Universities, among which that of the Parisian Pitié-Salpêtrière University, which has its own department of medical English, and the University of Bourgogne where English classes are made up of 125 hours along the five years of the degree course, with exams - at the end of the fourth and fifth years - aimed at reaching a high level of competence on spoken and written medical communication (McCarthy 2007: 75).

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