The English Language Needs of Health Sciences Students in Turkey

Türkiye'deki Sağlık Bilimleri Öğrencilerinin İngilizce Dil Gereksinimleri

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Abstract. With English established as the lingua franca for science and technology, and considering the growing number of international patients in Turkey, the English education of health science students is now recognized as a significant factor in health education. To our knowledge, no study has investigated the English language education needs of health sciences students in the Turkish context. In an effort to address this gap, this study explored (1) the opinions of Turkish health sciences students about English language education, (2) their needs regarding reading, writing, speaking, and listening skills, (3) their perceived problems in learning English, and (4) their opinions and suggestions about the English language education they receive. Six hundred and thirty-one students enrolled in the Faculty of Health Sciences at a foundation university participated in this study. Data were collected through a questionnaire comprising fifty-nine five-point Likert scale items and two open-ended questions. Findings revealed that health sciences students consider both general and academic English significant. They prefer course materials in English lessons to be related to health education fields and express a desire for more interactive lessons with a special emphasis on speaking. According to the study results, students always need all four language skills for their profession; however, speaking and reading were identified as the most essential skills. Concerning perceived challenges in learning English, students face more difficulties in using English for academic purposes than for general purposes, highlighting the necessity for an effective language program tailored to their specific needs.
Keywords: Health Science, ESP, Needs Analysis, Language Skills, Medical English.

Öz. Günümüzde İngilizce'nin bilim ve teknoloji dili olarak yaygın kullanımı ile birlikte, İngiliz dilinin yetkinliği bilimsel alanlardaki gelişmeleri takip edebilmek ve mesleki bilgileri güncel tutabilmek açısından son derece önemlidir. Bununla birlikte, Türkiye'deki uluslararası hasta sayısının sürekli artması da dikkate alındığında, sağlık bilimleri öğrencilerinin İngilizce eğitimi önemli bir faktör olarak karşımıza çıkmaktadır. Bu bağlamda, çalışma, Türkiye'deki bir vakıf üniversitesindeki sağlık bilimleri öğrencilerinin (1) İngilizce dil eğitimi hakkındaki görüşlerini, (2) okuma, yazma, konuşma ve dinleme becerilerine ilişkin ihtiyaçlarını, (3) İngilizce öğrenmede algıladıkları sorunları ve (4) aldıkları İngilizce dil eğitimi hakkındaki görüş ve önerilerini araştırmaktadır. Çeşitli bölümlerden 631 öğrencinin katılımıyla gerçekleştirilen bu çalışmada, veriler, 59 maddelik 5'li Likert-tipi bir ölçekten ve iki açık uçlu sorudan oluşan bir anket aracılığıyla toplandı. Bulgular, sağlık bilimleri öğrencilerinin hem genel hem de akademik İngilizce'yi önemli bulduğunu gösterirken, İngilizce derslerindeki materyallerin sağlık eğitimi alanlarıyla ilişkili olmasını tercih ettiklerini ve daha etkileşimli, özellikle konuşma becerilerinin desteklendiği derslere ağırlık verilmesine ihtiyaç duyduklarını göstermiştir. İngilizce öğrenmede algılanan zorluklar konusunda, öğrencilerin akademik amaçlar için İngilizce kullanmada genel amaçlar için İngilizce kullanmaktan daha fazla zorluk yaşadıkları ve bu nedenle özel ihtiyaçlarına uygun etkili bir dil programının gerekliliği ortaya çıkmıştır. Bu çalışma, sağlık bilimleri öğrencilerinin dil yetkinliklerine ışık tutarak zor ve rekabetçi sağlık endüstrisinin uluslararası alanda geliştirilmesine katkı sağlamayı hedeflemektedir.
Anahtar kelimeler: Sağlık Bilimi, İngilizce Öğretimi, İhtiyaç Analizi, Dil Becerileri, Tıbbi İngilizce.

DOKUZ EYLÜL ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ

Genişletilmiş Özet

Giriş. İngilizce, dünya çapında genel dil olarak kabul edilmiş ve farklı ortamlarda çeşitli insan grupları arasındaki etkileşimin temel aracı olarak kullanılmakta olup tıp alanında da hâkim bir dil olarak kullanılmaktadır. (Jenkins, 2004; Seidlhofer, 2005; Vahdany & Gerivani, 2016. Bu bağlamda, bilimsel Bilgi Enstitüsü (ISI) tarafından sunulan verilere göre, doğa bilimleri dergilerinin %95'ten fazlası ve sosyal bilimler dergilerinin %90'ı İngilizce olarak yayımlanmaktadır (Lillis & Curry, 2010). Ayrıca İngiliz dili tıbbi iletişimde yaygın olarak kullanılmakta olup uluslararası tıp dilinin öncü rolünü üstlenmiştir. (Džuganová, 2019; Tweedie & Johnson, 2019). İngilizce, tıp profesyonelleri için çeşitli önemli yönlerde temel olarak kabul edilmektedir. İlk olarak, sağlık alanında yapılan çoğu seminer, araştırma sonuçları, tıp kitapları ve profesyonel dergiler artık yalnızca İngilizce olarak yayımlanmaktadır; bu nedenle tıp öğrencilerinin erişmesi gereken neredeyse tüm tıbbi bilgiler İngiliz dilindedir (Kang, 2004; Vahdany & Gerivani 2016; Çelik & Topkaya, 2018). İngilizce'nin statüsü sadece bilimsel bilginin iletilmesi ve değiş tokuşunu temsil etmez (Hu, 2018), aynı zamanda İngilizce dergilerin yayımlanması, tıp alanında yüksek statü veya uluslararası yayıncılıkla ilişkilendirildiği için ödüllendirici etkilere sahiptir (Lillis & Curry, 2013). Bu, tıp öğrencilerinin İngilizce'ye sadece bilgilerini genişletmek ve alandaki son trendleri ve gelişmeleri takip etmek (Vahdany & Gerivani, 2016; Çelik & Topkaya, 2018; Karimnia & Khodashenas, 2018) için değil, aynı zamanda araştırmalarını uluslararası arenada sunmak için de ihtiyaç duymalarını güçlendirir (Piroozan vd., 2016). İngilizce, uzun süredir tıp eğitimi için bir gereklilik olarak kabul edilmiştir (Kayaoğlu & Akbaş, 2016; Lu & Corbett, 2012; Maher, 1986; Sinadinović & Mićić, 2013), ancak Türkiye'de sağlık bilimleri öğrencilerinin eğitim ihtiyaçlarına yönelik mesleki İngilizce dersleri sunan çok az üniversite vardır. Sağlık öğrencilerinin ihtiyaçlarına ve taleplerine yanıt vermek üzere özel olarak tasarlanmış bir dil öğretim kursu, uluslararası standartlarda etkili bir sağlık eğitimine katkıda bulunur (Serafini vd., 2015). Akademik veya belirli akademik amaçlar için bir kurs tasarlarken, öğrencilerin öğrenme ihtiyaçlarının değerlendirilmesi ve içerik bölümleriyle iş birliği yapılması temel bileşenlerdir (Mazdayasna & Tahririan, 2008).

Bununla birlikte, Türkiye'deki uluslararası hastaların sayısının artması ve tıp alanındaki ilerlemelerle birlikte, etkili iletişim yeterliliğine sahip sağlık çalışanları tarafından sunulan sağlık hizmeti sağlayıcılarına olan talep artmıştır. Bu çalışma da, Türkiye bağlamında sağlık bilimleri öğrencilerinin İngilizce Dil eğitim ihtiyaçlarını belirlemek amacıyla aşağıdaki araştırma sorularına cevap aranmıştır:

1. Türk sağlık bilimleri öğrencilerinin İngilizce Dil eğitimi hakkındaki görüşleri nelerdir?
2. Türk sağlık bilimleri öğrencilerinin ikinci dil olarak İngilizce okuma, yazma, konuşma ve dinleme becerilerine ilişkin ihtiyaçları nelerdir?
3. Türk sağlık bilimleri öğrencilerinin İngilizce öğrenme konusundaki algılanan zorlukları nelerdir?
4. Türk sağlık bilimleri öğrencilerinin aldıkları İngilizce dil eğitimi hakkındaki görüşleri ve önerileri nelerdir?

Yöntem. Bu çalışmada, karma yöntem araştırma deseni uygulanmıştır. Türkiye'de bir vakıf Üniversitesinin Sağlık Bilimleri Fakültesi'nin çeşitli bölümlerine kayıtlı altı yüz otuz bir öğrenci çalışmaya katılmıştır. Katılımcıların yaşları 17 ile 39 arasında değişmekte olup, ortalama yaş 20.77'dir (SD = 2.37). Fakülte, hem Türkçe hem de İngilizce dilde eğitim veren programlara sahiptir. Türkçe bölümlerde, İngilizce zorunlu bir ders olup haftada iki saatlik ders içermekte ve bu dersler ilk ve ikinci sınıflarda verilmektedir. İngilizce bölümlerde ise tüm dersler İngilizce olarak verilmektedir. Örneklem, (1)

DOKUZ EYLÜL ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ

Beslenme ve Diyabetik - Türkçe (n=245, %38.8), (2) Beslenme ve Diyabetik - İngilizce (n=99, %15.7), (3) Fizyoterapi ve Rehabilitasyon - Türkçe (n=169, %26.8), (4) Fizyoterapi ve Rehabilitasyon - İngilizce (n=43, %6.8), (5) Hemşirelik - Türkçe (n=75, %11.9) olmak üzere birinci ile dördüncü sınıflara kayıtlı öğrencilerden oluşmaktadır.

Katılımcıların gönüllülüğü ve erişim kolaylığı göz önünde bulundurularak, amaçlı örnekleme tekniklerinden uygun örnekleme yöntemi kullanılmıştır. Bu çalışmada veri toplamak için, 59 maddelik 5'li Likert tipi bir ölçek ile iki açık uçlu soruyu içeren bir anket kullanılmıştır.

Anket, sağlık bilimleri okullarında daha önce yapılan ihtiyaç analizi çalışmalarına (Taşcı, 2007) dayanarak ve fakülte personeli ve öğrencilerle yapılan görüşmelerden elde edilen bilgilere dayanarak tasarlanmıştır. Anket, Google Forms aracılığıyla Türkçe olarak uygulanmıştır ve beş bölümden oluşmaktadır: (1) öğrencilerin İngilizce dil eğitimi ve bu konuya verilen önem hakkındaki görüşleri (on madde), (2) öğrencilerin temel dört İngilizce dil becerisi konusundaki bireysel ihtiyaçları (dört madde) (3) öğrencilerin, İngilizce Dilini öğrenme konusundaki görüşleri, 'neden ve hangi alanlar için' sağlık öğrencilerinin her bir beceriye ihtiyaç duyduğu (yirmi dört madde), (4) İngilizce öğrenme sırasında karşılaşılan algılanan zorluklar (on üç madde), (5) öğrencilerin üniversiteleri tarafından sağlanan eğitim hakkındaki görüşleri (yedi madde) ve (6) İngilizce dil eğitimleri hakkındaki görüş ve önerilerini daha fazla anlamak için iki açık uçlu soru. Anketin ilk, üçüncü, dördüncü ve beşinci bölümlerindeki her madde, 'kesinlikle katılmıyorum (5)' ve 'kesinlikle katılıyorum (1)' arasında değişen 5 yanıt seçeneğine sahiptir, ancak ikinci bölüm 'asla (1)' ile 'her zaman (5)' arasında değişmektedir. Anketin üçüncü bölümünde, 'neden ve hangi alanlar için' öğrencilerin bu dört beceriye ihtiyaç duyduğu konusunda, katılımcılar yirmi dört maddeyi (her bir beceri için altı madde) derecelendirmiş ve her beceri için en yüksek derecelendirilen madde yalnızca sonuçlar bölümünde sunulmuştur (Tablo 3). Anketin güvenilirliği, Cronbach Alfa hesaplanarak belirlenmiştir. Güvenilirlik katsayısı 0.70 olarak hesaplanmıştır. Nicel verilerin istatistiksel analizleri, IBM SPSS Statistics yazılımı, 22. sürümü kullanılarak gerçekleştirilmiştir. Tanımlayıcı istatistikler, ortalama, standart sapma (SD), minimum değerler, maksimum değerler, sayılar ve yüzdeler ile sunulmuştur. Nitel veriler, Miles ve Huberman'ın (1994) kodlama yönetimi ile analiz edilmiştir.

Sonuç, Tartışma ve Öneriler. Bu araştırmada, Türkiye'deki sağlık bilimleri öğrencilerinin dil ihtiyaçları, İngilizce öğrenmedeki algıladıkları sorunlar ve ayrıca aldıkları İngilizce dil eğitimi hakkındaki görüşleri araştırılmıştır. Çalışma, tıp öğrencilerinin İngilizce eğitimine büyük önem verdiğini ve okuma ve konuşmanın en çok ihtiyaç duyulan beceriler olduğunu kabul ettiklerini ortaya koymuştur. Sağlık bilimleri öğrencilerinin (1) okuma becerilerine çoğunlukla tıbbi dergi ve makaleleri okumak için, (2) konuşma becerilerine yabancı hastalarla iletişim kurmak için, (3) dinleme becerilerine seminer ve konferansları anlamak için ve (4) yazma becerilerine bir inceleme/araştırma makalesi yazmak için gereksinim duydukları sonucuna ulaşılmıştır. Genel olarak, İngilizce derslerinde materyallerin sağlık eğitimi alanlarıyla ilişkili olması gerektiğine inanmalarına rağmen, İngilizce derslerinin genel ve akademik amaçlar için son derece önemli olduğu bulgusu edinilmiştir. Çalışma sonuçları, İngilizce öğrenimi sırasında, öğrencilerin en çok konuşma ile ilgili sorun yaşamakta olduklarını ortaya koyarak, İngilizcelerini hem genel hem de akademik amaçlar için yetersiz olarak algıladıkları bulgusunu sunmuştur. Araştırma, Sağlık bilimleri öğrencilerinin genel İngilizceye kıyasla akademik amaçlı İngilizce de daha fazla sorunla karşılaştığı saptanmıştır. Araştırma sonuçları, Sağlık bilimleri öğrencilerinin profesyonel yaşamlarına gerekli şekilde hazırlanmak için İngilizce dil yeterliliklerini geliştirmeleri

Sayfa | 1952

gerektiğini ve bu nedenle genel İngilizce kursları yerine mesleki ve akademik ihtiyaçlarını karşılayabilecek bir İngilizce kursuna ihtiyaç duyduklarını göstermektedir. Öğrencilerin üniversite tarafından sağlanan İngilizce eğitimi hakkındaki görüşleri olumlu olmakla birlikte, ders saatlerinin İngilizce ihtiyaçlarını karşılamak için yetersiz buldukları saptanmıştır. Mesleki İngilizce' ye daha fazla ağırlık verilmesi ve pratik konuşma dersleriyle akademik alanda İngilizce eğitimine ihtiyaç duydukları belirlenmiştir. Ders içeriği ile ilgili olarak öğrenciler, daha fazla akademik ve alanla ilgili İngilizce ile daha etkileşimli, konuşma becerisi entegre dersleri tercih etmektedirler. İngilizce dil, tıp eğitiminde (1) çok kültürlü bir ortamda yetkin bakım sağlama, (2) öğrenme amaçları, (3) uluslararası alanda araştırma faaliyetlerini sunma ve (4) küresel olarak yayımlanan veya sunulan bilimsel, teknolojik ve akademik bilgileri okuma konularında önemli bir rol oynamaktadır. Bu nedenle, sağlık bilimleri öğrencilerinin, değişen ihtiyaçlarının araştırılmasına dayanan, profesyonel ve akademik gereksinimlerini karşılayacak etkili dil eğitimi alması son derece önem arz etmektedir. Bu çalışma, sağlık sektörünün, uluslararası sağlık sistemlerinin geleceğini etkileyecek zorlukları aşmasına katkı sağlamak adına önemlidir.

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DOKUZ EYLÜL ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ

Introduction

English has been accepted globally as a common language and used as the primary means of interaction among various groups of people in different settings around the world (Jenkins, 2004; Seidlhofer, 2005; Vahdany & Gerivani, 2016) and is the dominant language of medicine (Hwang & Lin, 2010; Tweedie & Johnson, 2019). The dominance of English-language journals in academia is evident, with the Institute for Scientific Information (ISI) reporting that over 95% of indexed journals in the natural sciences and 90% in the social sciences use English either partially or entirely (Lillis & Curry, 2010). In medical communication, English serves speakers of diverse first language backgrounds and established a leading role as the international language of medicine (Džuganová, 2019; Tweedie & Johnson, 2019). English is acknowledged as essential for medical professionals in a variety of significant aspects. Firstly, the majority of the seminars, research results, medical textbooks, and professional journals in the field of health are now published exclusively in English; thus, almost all the medical information that medical students need to access is in English (Çelik & Topkaya, 2018; Kang, 2004; Vahdany & Gerivani, 2016). The status of English does not only represent the transmission and exchange of scientific knowledge (Hu, 2018), but also publishing of English-medium journals has rewards as it is affiliated with high status or international publishing (Lillis & Curry, 2013) in the medical field, not being an exception. Hence, medical students must possess a high level of proficiency in the English language to expand their knowledge and stay current with recent trends and developments in the field (Vahdany & Gerivani, 2016; Çelik & Topkaya, 2018; Karimnia & Khodashenas, 2018), and to present their research internationally (Piroozan et al., 2016).

In recent decades, global migration, globalization, health tourism, and cultural trends have collectively contributed to the emergence of a culturally diverse environment, thereby reinforcing the pivotal role of English in the medical field. Delivering competent care in a multicultural environment depends on the ability to communicate clearly and effectively with both patients and other medical professionals (Crawford & Candlin, 2013; Taylor et al., 2013). Effective communication significantly contributes to positive health outcomes for patients, while communication difficulties can lead to irreversible problems (Caroline et al., 2006; Tweedie & Johnson, 2019). Foronda et al. (2016) emphasize that poor communication in healthcare can lead to delayed treatment, misdiagnosis, medication errors, patient harm, or even death. Similarly, Tweedie and Johnson (2019) argue that language barriers are associated with 'hindrances to quality care' (p. 2) and present the risk of significant medical incidents (Flores, 2005; Johnstone & Kanitsaki, 2006). Furthermore, clear communication with patients allows healthcare providers to empathize and connect with them (Crawford & Candlin, 2013), which helps build trust and leads to greater patient satisfaction and improved outcomes (Betancourt et al., 2003).

English has long been established as a requirement for medical education (Kayaoğlu & Akbaş, 2016; Lu & Corbett, 2012; Maher, 1986; Sinadinović & Mićić, 2013), yet very few universities offer English courses for their health science students even though the effectiveness of the English education students obtain has a direct impact on their profession (Kayaoğlu & Akbaş, 2016). A language teaching course designed to meet the specific needs of medical students provides a solid foundation for an effective learning experience (Serafini et al., 2015). In designing a course for

academic or specific academic purposes, the assessment of the student's learning needs and collaboration with the content departments are essential components (Mazdayasna & Tahririan, 2008).

Recent research highlights the critical need for customized English courses specifically designed for medical students. A study conducted at the Iranian University of Medical Sciences identified significant mismatches between the English courses offered and the students' future needs. Despite acknowledging the importance of all language skills for their careers, students, teachers, and graduates expressed dissatisfaction with the existing English curriculum, highlighting the need for revisions to better align the courses with the specific needs of students (Weisi & Ashrafabadi, 2018). Similarly, research conducted in Libya explored the challenges faced by medical students in using English within a university context and assessed the effectiveness of the current English language program. The study's needs analysis revealed that most respondents favored a curriculum that integrates both General English and English for Medical Purposes, emphasizing the need for a more cohesive approach to language education in medical contexts (Faraj, 2015).

These findings underscore the critical need for English language education for health science students to be meticulously tailored to their specific professional and academic requirements. The absence of such targeted courses could leave students insufficiently equipped to meet the linguistic demands of their future careers in the healthcare sector.

Turkish context

The number of patients who applied to public and private hospitals in Turkey from abroad for treatment purposes was approximately 74 thousand in 2008. This number has proliferated in the past ten years, reaching around 750 thousand in 2018. In 2024, this figure dramatically increased to nearly 1.4 million with 2,3 billion dollars in health tourism income (USHAŞ ULUSLARARASI SAĞLIK HİZMETLERİ A.Ş., 2024). Turkey is poised to become one of the world's leading medical tourism destinations, thanks to recent health sector transformations and investment reforms designed to enhance international tourism performance (Aksu et al., 2016; Sag & Zengul, 2019; TUSEB, 2019; Duz, 2021). International tourists mainly come to Turkey from Saudi Arabia, Kuwait, Qatar, the United Arab Emirates, Germany, the UK, the Netherlands, Italy, Spain, and France (Sağlık Turizminden 10 Milyar Dolar, n.d.). The most preferred clinical branches by the patients who come to Turkey are gynecology, internal diseases, ophthalmology, medical biochemistry, general surgery, dentistry, orthopedics and traumatology, infectious diseases, and otorhinolaryngology (Duz, 2021), as well as aesthetics and hair plantation (Sag & Zengul, 2019). The factors that affect the patients to choose Turkey for medical treatment are 'quality of care, safety and security, the potential for saving, tourism opportunities, hygiene level, and accessibility to healthcare' (Çapar &Aslan, 2020, p.86).

The expanding medical tourism industry in Turkey, the increasing number of foreign patients, and the prominent role English plays in the healthcare industry put more emphasis on the English language education provided to prospective health professionals. The ability to communicate clearly and effectively in English is a significant element in providing culturally competent care (Taylor et al., 2013). Effective

communication is the foundation of strong relationships between health professionals and patients. The majority of the universities provide General English courses (GE or English for General Purposes, EGP) to medical students in Turkey. However, research in the field supports that EGP courses do not meet medical students' needs (Önder, 2012; Yeniçeri, 2008).

In order for any education program to be efficient, the specific needs of the students have to be identified, and to determine the objectives of the course, the needs have to be identified according to the given context (Hutchinson & Waters, 1987; Ibrahim, 2010). The needs analysis reflects an understanding of the students' requirements (Hutchinson & Waters, 1987). It is conducted to gather information about the students' learning preferences and requirements (Ibrahim, 2010) to ensure that they learn exactly what they need (Serafini et al., 2015). The assessment of learners' needs enable students with the most effective instructional materials and techniques. (Mazdayasna & Tahririan, 2008).

In their study, Kayaoğlu and Akbaş (2016) examined the academic English language needs of freshman medical students at a Turkish university. The researchers concluded that speaking is the most crucial skill to develop, followed by listening, reading, and writing. Medical students mostly need to improve their speaking skills to 'speak to the public on medical issues, discuss medical issues in conferences, and speak conversational English'. A similar study conducted at a different University in Turkey, Taşçı (2007) found out that reading is considered the most critical skill to enhance for medical students, particularly for conducting research required in problem-based learning classes. These findings support that English should be seen as a part of medical education (Kayaoğlu & Akbaş, 2016), and a language course should be specifically designed to address the particular needs of medical students, which will also enable them to compete in the global market.

There has been some research on the English education of medical students; however, to our knowledge, no prior studies have examined the English language needs of health science students and their perceptions on the education they receive in the Turkish higher education context. Given the importance of English in the health sector, this research aims to explore the language needs of medical students in order to assist them in their completion of the health science program in a Turkish context as well as their perceived problems faced while learning English aim of preparing them to become successful professionals.

With the growing number of international patients in Turkey and the advances in the field, there is a high demand for healthcare providers who can provide culturally component care with effective communicative competence. Communicative competence cannot be obtained without linguistic competence, which mainly involves the ability of the healthcare provider to speak clearly and correctly with patients (Guttman, 2004). To our knowledge, no research has been conducted to explore the English language education requirements of health sciences students in the Turkish context. Aiming to address this gap, the current study addressed the below questions:
1. What are the opinions of Turkish health sciences students about English Language education?

2. What are the needs of the Turkish health sciences students regarding reading, writing, speaking, and listening skills in L2 English?
3. What are the perceived challenges Turkish health sciences students face when learning English?
4. What are the opinions and suggestions of Turkish health sciences students about the English language education they receive?

The aforementioned research questions signify the focus of this study, which seeks to explore the language requirements of medical students with the objective of providing them the necessary support to successfully complete the health science program. This in turn aims to optimize potential learning outcomes and enhance the effectiveness of the course. Considering the predominant role of English as the primary language for science and technology, alongside the increasing presence of international patients in Turkey, the English education of health science students is now acknowledged as a crucial component of health education.

Methodology

The study adopted a mixed-method research approach, including a questionnaire and open-ended questions.

Participants

Six hundred thirty-one students enrolled in the department of the Faculty of Health Sciences of a foundation university participated in this study. The majority of participants were female (n=564, 89.4 %). Participants' ages ranged from 17 to 39, with a mean of 20.77 (SD = 2.37).
The faculty has programs that provide both Turkish and English medium instruction. In the Turkish departments, English is a compulsory course in the first and second years, with two hours of instruction every week, whereas in the English departments, all courses are delivered in English. The sample consisted of students from the departments of (1) Nutrition and Dietetics–Turkish (n=245, 38.8%), (2) Nutrition and Dietetics-English (n=99, 15.7%), (3) Physiotherapy and Rehabilitation–Turkish (n=169, 26.8%), (4) Physiotherapy and Rehabilitation–English (n=43, 6.8%), (5) Nursing–Turkish (n=75, 11.9%) enrolled in the first through fourth grade. The distribution of the students according to their academic years and departments, including Turkish and English medium instructions, are presented in Table 1.

Table 1.
Distribution of Students by Department, Class Level and Gender

Department	1st Grade	2nd Grade	3rd Grade	4th Grade	Total
	n (%)	n (%)	n (%)	n (%)	n (%)
Nutrition & Dietetics - TR	65 (10.3)	62 (9.8)	65 (10.3)	53 (8.3)	245 (38.8)
Nutrition & Dietetics - EN	16 (2.5)	38 (6)	19 (3)	26 (4.1)	99 (15.7)
Physiotherapy & Rehabilitation – TR	29 (4.5)	49 (7.7)	39 (6.1)	52 (8.2)	169 (26.8)

Eren, E. U., Atay, D., Atas Balcı, L., Sevim, Y. & Eti Aslan, F. (2024). The English language needs of health sciences students in Turkey. *Batı Anadolu Eğitim Bilimleri Dergisi, 15*(2), 1948-1968.
DOI. 10.51460/baebd.1436231

Physiotherapy & Rehabilitation – EN	7 (1.1)	15 (2.3)	8 (1.2)	13 (2)	43 (6.8)
Nursing TR	17 (2.6)	19 (3)	9 (1.4)	30 (4.7)	75 (11.9)
Total	**134 (21.2)**	**183 (29)**	**140 (22.2)**	**174 (27.6)**	631 (100)

Data collection tools

The data for the study was collected using a questionnaire designed based on previous needs analysis studies in health sciences schools (Tascı, 2007) and information obtained from informal interviews with faculty, staff, and students. The questionnaire was administered in Turkish via Google Forms and consisted of six sections:

1. Student's opinions about the importance of English language education (ten items).
2. Individual needs of students regarding the four language skills: reading, writing, speaking, and listening (four items).
3. Students' opinions about why and for which areas health students need each of the four language skills (twenty-four items).
4. Perceived challenges faced during learning English (thirteen items).
5. Student's opinions about the education provided by their university (seven items).
6. Two open-ended questions to gain further insight about their opinions and suggestions regarding the English language education they receive.

In total, there were 59 five-point Likert scale items and two open-ended questions. Each item in the first, third, fourth, and fifth sections had 5 response choices ranging from 'strongly disagree (1 point)' to 'strongly agree (5)'. The second section ranged from 'never (1)' to 'always (5)'.

In the third section of the questionnaire, participants rated twenty-four items (six items for each skill) about 'why and for which areas' students need these language skills, and only the highest-rated item for each skill was presented in the results section (Table 3). The questionnaire's reliability was determined by calculating Cronbach's Alpha, which was found to be higher than 0.70, considered acceptable.

Data analysis

The descriptive quantitative data was analyzed using IBM SPSS Statistics software, version 22. The analysis included mean, standard deviation (SD), minimum and maximum values, as well as numbers and percentages for the descriptive statistics. For qualitative data, pattern coding, as suggested by Miles and Huberman (1994), was utilized for analysis.

Results

In this section, the findings obtained by the quantitative and qualitative analysis of the data are presented in accordance with the research questions.

Quantitative analysis

Research question one

The first research question was about health sciences students' opinions regarding English education. In this section of the questionnaire (part B- section 1), there were ten items related to students' opinions about English education (items 1-6) and the importance given to it (items 6-10). The majority of the participants believe that English education for both general and academic purposes should start from prep classes (58.5% and 41.5% respectively), and the course materials in the English courses should be related to the health education fields rather than general English (46%). The respondents, mostly strongly agree and agree that learners with different English language levels in the preparatory class should study in separate classes (69%) English courses must continue throughout the student's education at the university (64%). The majority of the learners strongly agree that health students must have a good level of English in order to benefit from health-related websites on the Internet (58.8%). When the students were asked about the importance of learning English, a great majority of them strongly agreed and agreed that English is important both for general and academic purposes (92.9% and 88.1 % respectively). The findings revealed that it is important for students to be able to read original English texts (65.1%) and to develop their translation skills (64.8%) (Table 2).

Table 2.
The student's opinions related to English language education

Questions	Strongly disagree n(%)	Disagree n(%)	Indecisive(%) n(%)	Agree n(%)	Strongly Agree n(%)
1. English education for general purposes should start from preparatory classes.	17 (2.7)	25 (4)	71 (11.3)	149 (23.6)	369 (58.5)
2. English education for academic purposes should start from preparatory classes.	36 (5.7)	50 (7.9)	134 (21.2)	149 (23.6)	262 (41.5)
3. Course materials in the English lessons should be related to the health education fields.	10 (1.6)	39 (6.2)	107 (17)	185 (29.3)	290 (46)
4. Students with different English language levels in the preparatory class should study in separate classes.	60 (9.5)	56 (8.9)	80 (12.7)	157 (24.9)	278 (44.1)
5. English courses must continue throughout four years at the university.	46 (7.3)	71 (11.3)	111 (17.6)	145 (23)	258 (40.9)
6. The student must have a good level of English in order to benefit	10 (1.6)	12 (1.9)	56 (8.9)	182 (28.8)	371 (58.8)

Eren, E. U., Atay, D., Atas Balcı, L., Sevim, Y. & Eti Aslan, F. (2024). The English language needs of health sciences students in Turkey. *Batı Anadolu Eğitim Bilimleri Dergisi, 15*(2), 1948-1968.
DOI. 10.51460/baebd.1436231

from health-related websites on the Internet.					
7. Learning English for general purposes is important for students.	7 (1.1)	9 (1.4)	29 (4.6)	102 (16.2)	484 (76.7)
8. Learning English for academic purposes is important for students	9 (1.4)	11 (1.7)	55 (8.7)	181 (28.7)	375 (59.4)
9. It is important to develop students' translation skills.	9 (1.4)	9 (1.4)	41 (6.5)	163 (25.8)	409 (64.8)
10. It is important for students to be able to read original English texts.	9 (1.4)	16 (2.5)	58 (9.2)	137 (21.7)	411 (65.1)

Research question two

The second research question addressed the needs of the students regarding reading, writing, speaking, and listening skills. The majority of the participants stated that they always need all of the four language skills. As shown in Table 3, students rated speaking (75.4%) and reading (68.9%) as the skills they most need. Students were further asked to determine the areas most needed for each skill. They strongly agreed that speaking skills are needed for communicating with foreign patients (77.5%), reading skills for reading medical journals and articles (73.5%), listening skills for understanding seminars and conferences (69.1%), and writing skills for writing a review/research article (64.7%) (Table 3).

Table 3.
The needs of students the student's regarding the reading, writing, speaking, and listening skills

Skills	Never	Rarely	Sometimes	Often	Always	Most needed area of use (frequency of strongly agree)
	n(%)	n(%)	n(%)	n(%)	n(%)	
Reading	16 (2.5)	4 (0.6)	42 (6.7)	134 (21.2)	435 (68.9)	Reading medical journals and articles (73.5%)
Writing	21 (3.3)	22 (3.5)	65 (10.3)	173 (27.4)	350 (55.5)	Writing a review/ research article (64.7%)
Speaking	17 (2.7)	8 (1.3)	30 (4.8)	100 (15.8)	476 (75.4)	Communicating with foreign patients (77.5%)
Listening	14 (2.2)	8 (1.3)	29 (4.6)	149 (23.6)	431 (68.3)	Understanding the seminars and conferences (69.1%)

Research question three

The third research question focused on the perceived challenges that health science students encounter when learning English. The majority of students expressed strong agreement or agreement in facing difficulties with vocabulary, grammar, listening comprehension, speaking, reading, and pronunciation when using English for both general and academic purposes. Based on the data

illustrated in Table 5, students find it more challenging to use English for academic purposes compared to general purposes, and speaking skills challenge the students most (Table 4).

Table 4.
Perceived challenges faced during learning English

I believe	Strongly disagree	Disagree	Indecisive	Agree	Strongly Agree
	n(%)	n(%)	n(%)	n(%)	n(%)
1. I have insufficient vocabulary when using English for general purposes	17 (2.7)	57 (9)	123 (19.5)	199 (31.5)	235 (37.2)
2. I have insufficient vocabulary when using English for academic purposes	10 (1.6)	32 (5.1)	99 (15.7)	212 (33.6)	278 (44.1)
3. I have insufficient grammar (grammar)	29 (4.6)	66 (10.5)	172 (27.3)	170 (26.9)	194 (30.7)
4. I have an inability to understand what is heard about English for general purposes	22 (3.5)	77 (12.2)	147 (23.3)	189 (30)	196 (31.1)
5. I have an inability to understand what is heard about English for academic purposes	10 (1.6)	48 (7.6)	130 (20.6)	200 (31.7)	243 (38.5)
6. I have insufficient speaking skills when using English for general purposes	27 (4.3)	62 (9.8)	141 (22.3)	182 (28.8)	219 (34.7)
7. I have insufficient speaking skills while using English for academic purposes	8 (1.3)	33 (5.2)	124 (19.7)	192 (30.4)	274 (43.4)
8. I have a low speed of reading in English for general purposes	37 (5.9)	97 (15.4)	154 (24.4)	171 (27.1)	172 (27.3)
9. I have a low speed of reading in English for academic purposes	25 (4)	70 (11.1)	157 (24.9)	176 (27.9)	203 (32.2)
10. I have poor pronunciation problems in English for general purposes	43 (6.8)	90 (14.3)	149 (23.6)	152 (24.1)	197 (31.2)
11. I have poor pronunciation in English for academic purposes in subject-related areas	30 (4.8)	77 (12.2)	138 (21.9)	161 (25.5)	225 (35.7)
12. there is a complex use of English in general-purpose reading materials	23 (3.6)	61 (9.7)	173 (27.4)	171 (27.1)	203 (32.2)

Eren, E. U., Atay, D., Atas Balcı, L., Sevim, Y. & Eti Aslan, F. (2024). The English language needs of health sciences students in Turkey. *Batı Anadolu Eğitim Bilimleri Dergisi, 15*(2), 1948-1968.
DOI. 10.51460/baebd.1436231

DOKUZ EYLÜL ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ

| 13. there is a complex use of English in academic purpose reading materials | 16 (2.5) | 48 (7.6) | 152 (24.1) | 185 (29.3) | 230 (36.5) |

Research question four

The last research question was about the students' opinions regarding the English education provided by their university. According to the results, most of the students strongly disagreed and disagreed that the hours of English courses given to them were sufficient to meet their English language needs (35.4 %) and were indecisive about whether there were enough resources, books, and textbooks translated from English to Turkish in the library of the university (46%). Most of the students agreed that the instructors who teach the English course have enough knowledge to teach English for medical purposes (33.8%), consider the academic English needs of students when choosing course materials (36.3%), and use technological tools effectively (34.9%). In addition, most of the students strongly agreed that instructors use a method that allows students to learn English more interactively in group work (41.4%). Most of the students strongly agreed that the university has enough technological devices for language teaching (36.3%) (Table 5).

Table 5.
The opinions of participants regarding English education provided by the university.

Questions	Strongly disagree	Disagree	Indecisive	Agree	Strongly Agree
	n(%)	n(%)	n(%)	n(%)	n(%)
1. The current hours of English classes given to students are sufficient to meet the academic and professional English language needs of students.	97 (15.4)	126 (20)	197 (31.2)	111 (17.6)	100 (15.8)
2. There are enough resources, books, and textbooks translated from English to Turkish in the library of the university.	39 (6.2)	74 (11.7)	290 (46)	149 (23.6)	79 (12.5)
3. Instructors who teach English use a method that allows students to learn English in a more interactive way in group work.	21 (3.3)	32 (5.1)	100 (15.8)	217 (34.4)	261 (41.4)
4. The instructors who teach the English course have enough knowledge to teach English for medical purposes.	20 (3.2)	48 (7.6)	168 (26.6)	213 (33.8)	182 (28.8)
5. Instructors who teach English at the university consider the academic English needs of students when choosing course materials.	24 (3.8)	51 (8.1)	156 (24.7)	229 (36.3)	171 (27.1)

Eren, E. U., Atay, D., Atas Balcı, L., Sevim, Y. & Eti Aslan, F. (2024). The English language needs of health sciences students in Turkey. *Batı Anadolu Eğitim Bilimleri Dergisi, 15*(2), 1948-1968.
DOI. 10.51460/baebd.1436231

6. There are enough technological devices (TV, video, computer, D.V.D. sound system, etc.) for language teaching at the university.	23 (3.6)	30 (4.8)	138 (21.9)	229 (36.3)	211 (33.4)
7. Instructors who teach English at the university use technological tools (TV, video, computer, D.V.D. sound system, etc.) effectively.	20 (3.2)	44 (7)	131 (20.8)	220 (34.9)	216 (34.2)

Qualitative analysis

The Qualitative Analysis aimed to understand the opinions of Turkish health sciences students regarding the English language education they receive. To gather insights, the students were asked two open-ended questions. The responses to these questions were analyzed using pattern coding. One sample quotation is provided for each sub-theme. The analysis of the first question, which asked for opinions about the English language instruction content and hours provided by the university, showed that 33% of the students (n=208) found the education hours sufficient, while 46% (n=290) thought it was not enough. Students who found the hours insufficient expressed the need for more academic English language education and practical speaking lessons. Some also mentioned the importance of instructor effectiveness. The themes and sub-themes identified from the qualitative analyses are presented in table 6.

DOKUZ EYLÜL ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ

Table 6.
The opinions of participants regarding English language instruction content and hours provided by the university

Question	Opinions	Themes	Subthemes	Sample Item
Question 1 Do you think the current English hours at the university are sufficient to meet the English needs of students? Explain.	Sufficient (208)			I think it is enough, 2 or 3 hours a week ideal for education.
	Not Sufficient (290)	Content (91)		I think the available hours should be increased. Insufficient content.
			Vocational Content (23)	I think it's not enough for vocational English.
			Academic English (20)	I do not think it is enough. There should be more English education in the academic field.
			Level (13)	I don't think it is enough. A very simple English language is taught.
			Speaking Practice (15)	I think there should be practical lessons on speaking.
		Instructor (8)		We are having trouble with English, instructors should be aware of the effectiveness of the course.
	Undecided/ No idea (28)			I am indecisive/ I don't have an idea.
	Other (18)	Too many class hours (4)		Lecture hours are long. No need for so many lessons.

The second open-ended question asked Turkish health sciences students about their opinions and suggestions regarding the English language education they receive. The students' responses yielded three main themes: content, approach, and program. Students emphasized that (1) the content should cover more academic English relevant to the health field and should include a wider variety of more engaging materials, (2) the approach to lessons should be more interactive, with a

DOKUZ EYLÜL ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ

greater focus on speaking, and (3) the program should offer an adequate number of English class hours with an effective design aimed at teaching rather than just preparing students for exams. The main themes and subthemes, along with sample quotations, were presented in Table 7 based on the analyses.

Table 7.
The opinions and suggestions of participants regarding English education provided in the university.

Questions	Themes	Subthemes	Sample Item
	Content	Materials (21)	By using a variety of materials, courses should be made more interesting and comprehensible.
		Academic English (40)	Rather than a department-related English program how to read an academic article can be taught.
		Job and Field Related English (165)	Instead of a general English program, department-related English education will definitely be more beneficial.
		General English (12)	General English education should be given considering the opportunities abroad
Question 2 How should the English language education provided at your university be?	Approach	Interactive (48)	Lessons should be more interactive. Movies can be analyzed and the number of dialogues can be increased.
		Speaking-Based (104)	Speaking should be emphasized more.
		Emphasis on Grammar-Vocabulary (5)	The program should serve for the usage of newly learned vocabulary.
		Emphasis on 4 Language Skills (4)	All language skills should be addressed rather than emphasizing a single one.
	Program	Proficiency Levels (14)	I think sections should be designed in line with the proficiency level of students
		Class Hours (12)	Class hours need should be increased
		Assessment (3)	Education should be provided for teaching and learning, not for exams.
		Instructors (17)	Teachers should be able to speak comprehensibly and fluently.
		Turkish Medium Departments (3)	English Prep School should be obligatory for Turkish-Medium Departments, as well.

Eren, E. U., Atay, D., Atas Balcı, L., Sevim, Y. & Eti Aslan, F. (2024). The English language needs of health sciences students in Turkey. *Batı Anadolu Eğitim Bilimleri Dergisi, 15*(2), 1948-1968.
DOI. 10.51460/baebd.1436231

DOKUZ EYLÜL ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ

Discussion, Conclusion, and Recommendations

This research investigated the language needs of health sciences students in Turkey, their perceived problems in learning English, and also their opinions about the English language education they receive. This study revealed that medical students give great importance to English education and acknowledge that they need four language skills with reading and speaking being the most needed skills. Medical students need (1) reading skills mostly for reading medical journals and articles, (2) speaking skills for communicating with foreign patients, (3) listening skills for understanding the seminars and conferences, and (4) writing skills for writing a review/research article. Despite the fact that they both value English education for general and academic purposes and request English language education throughout their field education starting from the preparatory year, they believe that materials in the English lessons should be related to the health education fields. Addressing the perceived problems faced during learning English, the students suffer most from speaking-related problems as they perceive their English as insufficient both for general and academic purposes followed by insufficient vocabulary knowledge. In general, they face more problems in English for academic purposes than general purposes both in receptive and productive skills. These results show that medical students are required to develop their English language proficiency as well as a high level of medical English to be prepared for their professional lives. Therefore, rather than general English courses, they require an English course that can meet their professional and academic needs.

The majority of students had positive opinions about the English education provided by the university. However, they generally find the current English hours insufficient to meet their needs. Many students stated that the current English education needs to adequately address vocational English and that they require practical speaking skills in the academic field. Given that in EFL settings, medical students have limited exposure to the language and few opportunities to use it for communicative purposes, such as interacting with foreign patients or colleagues, they request more emphasis on speaking skills. Regarding the content of the lessons, students prefer more academic and field-specific English with more interactive, speaking skill-integrated lessons.

The English language plays a significant role in medical education for (1) providing competent care in a multicultural environment, (2) learning purposes, (3) presenting research activities in an international field, and (4) reading scientific, technological, and academic information that is globally published or presented in English. Therefore, it is essential for health science students to receive effective language education that is based on the investigation of their changing needs, which will accommodate their professional and academic requirements and will aid the healthcare industry in overcoming the challenges that will impact the future of the international healthcare system.

Given the findings, several implications for future research, curriculum development, and pedagogical practices emerge. First, the results underscore the necessity of designing English for Specific Purposes (ESP) courses tailored to the medical field, which prioritize the integration of domain-specific vocabulary and the development of practical language skills essential for medical professionals. Future studies should explore the long-term efficacy of such ESP courses in enhancing students' professional competencies, especially in real-world healthcare settings.

Eren, E. U., Atay, D., Atas Balcı, L., Sevim, Y. & Eti Aslan, F. (2024). The English language needs of health sciences students in Turkey. *Batı Anadolu Eğitim Bilimleri Dergisi, 15*(2), 1948-1968.
DOI. 10.51460/baebd.1436231

Moreover, the emphasis on speaking skills indicates a need for innovative instructional strategies that incorporate more communicative and interactive activities, such as simulations, role-plays, and problem-based learning scenarios that mimic clinical environments. Research could investigate the impact of these methods on students' confidence and proficiency in using English in professional contexts.

Finally, the recognition of the limited exposure to English outside the classroom in EFL settings calls for the development of immersive language programs, possibly through international exchanges or partnerships with English-speaking institutions. Future studies could evaluate the outcomes of such programs on students' language proficiency and their ability to function effectively in global healthcare environments.

In conclusion, this study highlights critical areas where English language education for health sciences students can be improved to better meet their professional and academic needs. The future direction of research and curriculum design should focus on creating more targeted, practical, and immersive learning experiences that align with the demands of the healthcare industry, thereby contributing to the preparation of competent, globally-minded medical professionals.

Research and publication ethics statement

The study was planned as an original study and was carried out with university students. The reporting process was carried out in accordance with the rules of research ethics so as not to violate the participating students' rights in the study.

The research was carried out by the Education and Health Sciences departments of Bahçeşehir University. It was found ethically appropriate in a decision dated 02.06.2020 and numbered 604.01.01-E.2240. The authors hereby declare that they have not used any sources other than those listed in the references.

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