

# An Overview of Speech and Language Therapy Undergraduate Programs and Students in Türkiye: A Descriptive Research

## Türkiye'deki Dil ve Konuşma Terapisi Lisans Programlarının ve Öğrencilerinin Genel Görünümü: Tanımlayıcı Araştırma

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**ABSTRACT Objective:** Since undergraduate programs in speech-language therapy (SLT) in Türkiye started to admit students in 2012, these programs and student profiles have not been investigated in detail. This study aims to examine the undergraduate programs in SLT and SLT undergraduate student profiles in Türkiye. **Material and Methods:** Using publicly available data from government websites, 27 active and 34 inactive SLT undergraduate degree programs were examined through document analysis. The number and gender distribution of students and graduates who were placed in SLT undergraduate programs, the students' vocational preference tendencies, characteristics of the undergraduate programs, the number of SLT undergraduate programs and students between 2012-2024, and the distribution of academic staff in the SLT programs depending on titles were determined. **Results:** The proportion of females among SLT students and graduates ranges from 78% to 85%. Between 2012-2024, the number of active SLT programs increased from 1 to 27, and the number of students admitted per year increased from 31 to 1661. The proportion of professors and associate professors in active SLT degree programs is 14.73%. **Conclusion:** SLT undergraduate programs in Türkiye have proliferated since their inception in 2012. However, sustainable growth requires careful planning. The study findings highlight the female students' significant predominance in the field, the insufficient academic staff, and the concentration of programs in specific cities. The number of academic staff should be considered to provide growth for SLT undergraduate programs in Türkiye.

**ÖZET Amaç:** Türkiye'de dil ve konuşma terapisi (DKT) lisans programları 2012 yılında öğrenci alımına başlamıştır. Bu programlar ve öğrenci profilleri ise henüz ayrıntılı olarak araştırılmamıştır. Bu çalışmanın amacı, Türkiye'deki DKT lisans programlarını ve lisans öğrenci profillerini incelemektir. **Gereç ve Yöntemler:** Kurumların resmi web sitelerinden elde edilen kamuya açık veriler kullanılarak, 27 aktif ve 34 aktif olmayan DKT lisans programı doküman analizi yoluyla incelenmiştir. Bu veriler aracılığıyla DKT lisans programlarına yerleşen öğrenci ve mezunların sayısı, cinsiyet dağılımı, öğrencilerin mesleki tercih eğilimleri, lisans programlarının özellikleri, 2012-2024 yılları arasında DKT lisans programlarının sayısı ve öğrenci sayıları, DKT programlarındaki akademik personelin ünvanlara göre dağılımı belirlenmiştir. **Bulgular:** DKT öğrencileri ve mezunlarına dair veriler incelendiğinde, kadınların oranının %78-85 arasında değiştiği görülmektedir. 2012-2024 yılları arasında aktif DKT programlarının sayısı 1'den 27'e, bu programlara kayıt yaptıran öğrenci sayısı ise 31'den 1661'e yükselmiştir. Aktif DKT lisans programlarında profesör ve doçent kadrosundaki akademisyenlerin oranı ise %14,73 olarak raporlanmıştır. **Sonuç:** DKT lisans programları, 2012 yılından itibaren hızlı bir büyüme göstermiştir. Ancak, bu büyümenin sürdürülebilir olması için dikkatli bir planlama gerekmektedir. Çalışma bulguları, kadın öğrencilerin alandaki belirgin üstünlüğünü, akademik personel sayısının yetersizliğini ve programların büyük ölçüde belirli şehirlerde yoğunlaştığını ortaya koymaktadır. Türkiye'deki DKT lisans programlarındaki büyüme, akademik personel sayısına dikkat edilerek gerçekleştirilmelidir.

**Keywords:** Speech-language pathology; education; Türkiye

**Anahtar Kelimeler:** Dil-konuşma patolojisi; eğitim; Türkiye

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In Türkiye, universities (state or foundation) accept students through a central annual exam conducted by the Measuring, Selection and Placement Centre.<sup>1,2</sup> The Department of Speech-Language Therapy (SLT), one of the 4-year undergraduate programs and among the growing professions in Türkiye, is one of the programs that students can choose based on their exam scores.<sup>1,3-6</sup>

Following establishing the Audiology Unit in Türkiye in 1967, a master's program in Audiology was started at the Department of Ear, Nose and Throat, Hacettepe University (Ankara) in 1968. In 1982, the name of this graduate program was changed to "Audiology and Speech Therapy".<sup>7,8</sup> However, it is stated that these programs mainly focused on audiology courses, and audiology or SLT options were not offered to students separately.<sup>1,3,4</sup> In addition, it has been stated that combined programs such as "Audiology and Speech Therapy" adversely affect the development of both disciplines, and according to American Speech-Language-Hearing Association guidelines, these professions are interrelated but independent; therefore, these 2 departments should be separated.<sup>1,4,9-12</sup>

The most critical step towards making SLT a separate discipline in Türkiye was taken in the 1980s when Dr. Ahmet Konrot, who was trained in the SLT field in the UK, established a small speech therapy unit in the Medico-Social Hospital at Anadolu University and then started a doctoral program in the field of "Education for the Speech Handicapped" under the Department of Special Education at Anadolu University for the first time in Türkiye in 1990.<sup>1,3,4,12-14</sup> However, the Turkish Council of Higher Education closed this program in 1996 by stating that faculties of education should be structured only for teacher training.<sup>4,12,14</sup> Topbaş and Maviş, graduates of this program, together with Konrot established the "Research, Education and Training Centre for Speech and Language Disorders" at Anadolu University in 1999.<sup>1,3,4,12</sup> Subsequently, master's (2000) and doctoral (2004) programs were initiated under the Institute of Health Sciences at Anadolu University.<sup>1,3,12</sup>

In Türkiye, the 1<sup>st</sup> SLT undergraduate program was founded at Anadolu University in 2012 and the

2<sup>nd</sup> undergraduate program was started at Hacettepe University in 2013.<sup>3,5</sup> In the following years, the number increased with the opening of undergraduate programs in different universities.<sup>15</sup> Despite the increasing number of SLTs in our country, it is known that the need for SLTs is also increasing day by day.<sup>16</sup>

The current situation must first be defined in terms of quantity and quality for the improvement and development in the health field. Although studies occasionally provide some information on the number of SLTs or academics in Türkiye, no study in the literature reports the profile of programs, students, and academics in the field of SLT using a comprehensive database.<sup>1,3,5,12,17,18</sup> In this respect, after the first SLT undergraduate program was opened in Türkiye in 2012, no studies reported current data such as the number of universities providing SLT education and the accreditation status of the programs, the number of students, the profile of academics in SLT undergraduate programs, the gender distribution of students, etc. Considering these situations, this study aims to reveal the detailed profile of SLT undergraduate programs in Türkiye. Understanding the current state of these programs, including student and academic profiles, helps identify areas for improvement and supports strategic planning to ensure the sustainable development of SLT education and practice in Türkiye.

## MATERIAL AND METHODS

The study examined the current status of SLT undergraduate programs in Türkiye from multiple perspectives, including the gender distribution of students and academic staff, the academic titles of faculty members, the number of active and inactive programs, the institutional characteristics of universities offering these programs, as well as the number of SLT programs and students over the years.

## DATA SOURCE

The criterion sampling method was preferred in our study. The criterion here is the universities with SLT undergraduate programs in Türkiye. The data source of the study consists of the Turkish Council of Higher Education Statistics, Turkish Higher Education Program Atlas data for 2024, numerical information on

the placement results of the Turkish Measuring, Selection and Placement System between 2010-2024, and Turkish Statistical Institute Higher Education Employment Indicators.<sup>19-24</sup> The data obtained are also accessible and verifiable for different researchers.

## DATA COLLECTION

The study used document analysis as the data collection method. The documents analyzed were obtained from the official government websites of the Republic of Türkiye. The data were collected on January 15-16, 2025. In the Turkish Higher Education Program Atlas database, which was prepared primarily to guide students who will make university preferences, the number and gender distribution of students who were placed in SLT undergraduate programs in 2024, graduated in 2022-2023 and are currently registered, the vocational preference tendencies of students who were placed in 2024, the distribution of foundation and state universities, the national accreditation status of the programs, and the English language education status of the programs were determined. Then, numerical data on the placement results of the Turkish Measuring, Selection and Placement System between 2010-2024 were examined. The number of SLT undergraduate programs and students enrolled in these programs were determined cumulatively. Finally, in the Turkish Higher Education Information Management System, which contains metadata on higher education programs in Türkiye, active (accepting students) and inactive (not yet accepting students) SLT programs were identified. The distribution of academic staff in these programs by titles and gender was recorded.

## ETHICAL CONSIDERATIONS

Approval was obtained from the Cappadocia University Ethics Commission on January 13, 2025 date with the number E-64577500-050.99-99624, stating that there is no ethical objection to the realization of this study. This study was carried out following the guidelines outlined in the Helsinki Declaration.

## DATA ANALYSIS

Excel (Microsoft, USA) and SPSS 29.0 (IBM, USA) were used for data analysis. A horizontal bar graph

shows the percentages and gender distribution of students placed in SLT undergraduate programs in 2024, graduated in 2022-2023 and are currently enrolled in SLT undergraduate programs. In addition, the vocational preference tendencies of students placed in 2024 are also included. The distribution of foundation and state universities, national accreditation status of the programs, active and inactive programs, distribution of academics in active and inactive programs by titles and gender, and the English language education status of the programs are tabulated as frequencies and percentages. A map of Türkiye showing the cities with active and inactive SLT undergraduate programs was also created. The frequencies of SLT undergraduate programs and students enrolled in these programs between 2010-2024 are shown cumulatively in line graphs.

## RESULTS

The percentages and gender distributions of students who were placed in SLT undergraduate programs in 2024, graduated in 2022-2023, and are currently enrolled in SLT undergraduate programs are given in Figure 1.

Figure 1 shows that 78% (f=358) of the students who graduated in 2022 are female and 22% (f=100) are male; 84% (f=508) of the students who graduated in 2023 are female and 16% (f=99) are male; 83% of the currently enrolled students (f=4208) are female and 17% (f=851) are male; 85% (f=1408) of the students who were placed in 2024 are female and 15% (f=253) are male. The number of female students is considerably higher than male students. The percentage of female students has shown a steady increase over time.

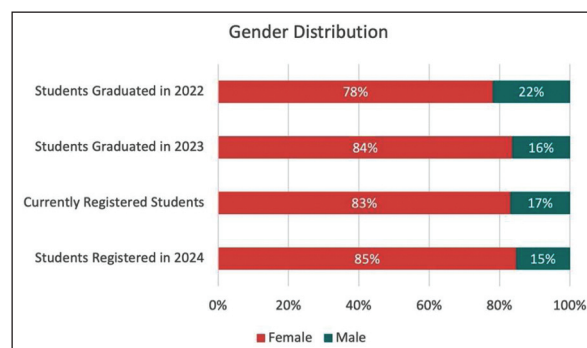


FIGURE 1: Gender distribution of SLT students

Figure 2 shows the university preference trends of students placed in the SLT undergraduate program in 2024. Students made a total of 17,097 preferences, and the programs with fewer than 50 were not included in Figure 2. According to the figure, the 10 programs most preferred by the students are as follows: 39.85% SLT ( $f=6813$ ), 13.67% nursing ( $f=2338$ ), 7.58% pharmacy ( $f=1296$ ), 5.07% dentistry ( $f=867$ ), 3.35% nutrition and dietetics ( $f=573$ ), 3.33% physiotherapy and rehabilitation ( $f=569$ ), 2.35% elementary mathematics education ( $f=401$ ), 1.86% occupational therapy ( $f=318$ ), 1.85% psychology ( $f=316$ ) and 1.57% industrial engineering ( $f=269$ ). It is seen that the students' preference trends were concentrated on health programs.

The distribution of active and inactive SLT undergraduate programs, the distribution of active SLT programs in foundation and state universities, the distribution of students in foundation and state universities, the national accreditation status of the programs, and the English language education status of the programs are given in Table 1. According to these findings, 44.26% of SLT undergraduate programs have

accepted students (active), and 55.73% have not yet accepted students (inactive). 61.8% of the students in the programs that accepted students in 2024 are enrolled in foundation universities and 38.2% in state universities. 62.97% of the active programs that admit students are foundation universities, and 37.03% are state universities. In addition, 7.40% of the active programs are accredited by the Turkish Association of Evaluation and Accreditation of Health Sciences Programs, while 92.60% are not accredited. Considering the program language, 7.40% of the active programs are in English, while 92.60% provide education in Turkish.

Figure 3 shows the cumulative number of active SLT undergraduate programs by year. Undergraduate education in SLT, which began with a single program in 2012, has expanded rapidly to 27 programs by 2024. Active SLT undergraduate programs have increased dramatically, especially after 2018. After 2021, the number of active SLT programs reached a plateau and even declined.

Figure 4 shows the cumulative number of students placed in SLT undergraduate programs by year.

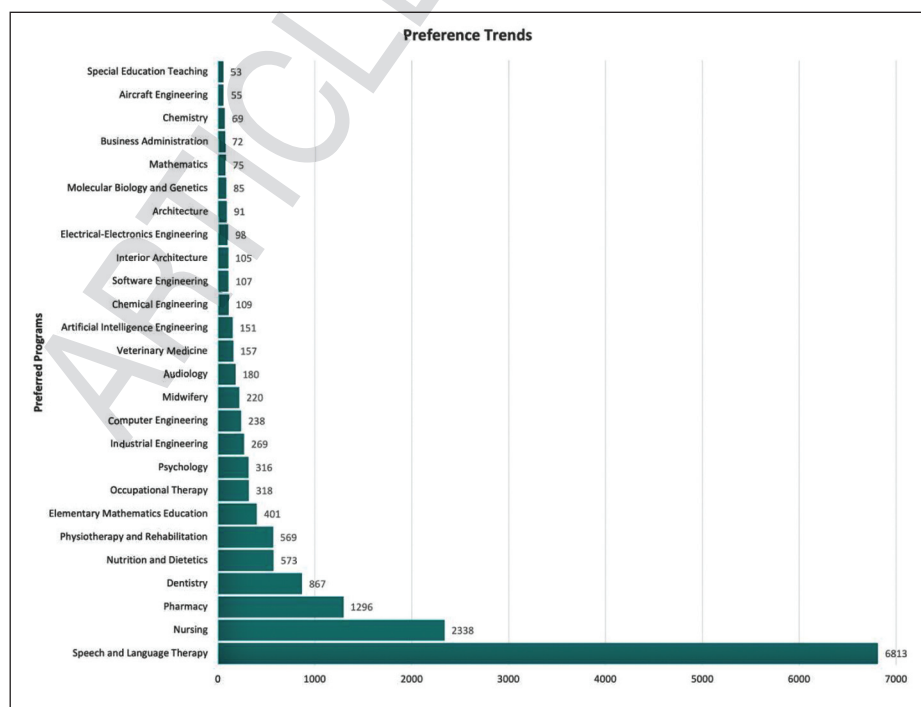
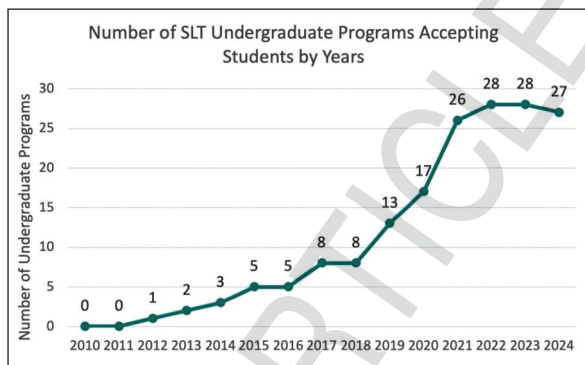


FIGURE 2: Vocational preference trends of SLT undergraduate students placed in 2024

**TABLE 1:** Characteristics of Turkish SLT undergraduate programs

	f	%
Distribution of active and inactive SLT programs		
Active	27	44.26%
Inactive	34	55.73%
Total	61	100%
Distribution of students in SLT programs in state and foundation universities		
State	635	38.2%
Foundation	1026	61.8%
Total	1661	100%
Distribution of SLT programs in state and foundation universities		
State	10	37.03%
Foundation	17	62.97%
Total	27	100%
Turkish association of evaluation and accreditation of health sciences programs Accreditation status of SLT undergraduate programs		
Accredited	2	7.40%
Not accredited	25	92.60%
Total	27	100%
Program language		
English	2	7.40%
Turkish	25	92.60%
Total	27	100%

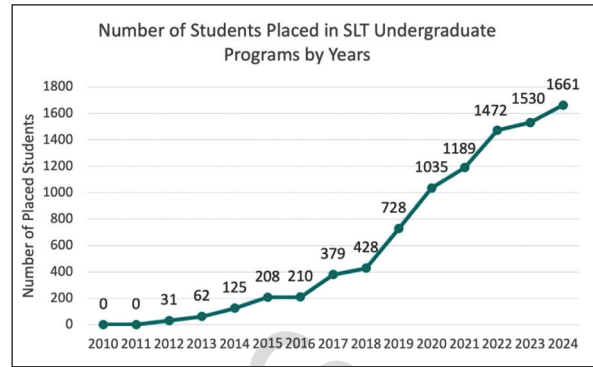
SLT: Speech-language therapy



**FIGURE 3:** Number of active SLT undergraduate programs with students by years

The number of students admitted to SLT undergraduate programs has risen significantly, from just 31 in 2012 to 1661 in 2024. The increase in question has occurred especially after 2016.

Figure 5 shows the map of Türkiye where the active SLT undergraduate programs are located. Accordingly, most of the active SLT undergraduate programs are in İstanbul (f=11, 44%) and Ankara (f=5, 20%).



**FIGURE 4:** Number of students placed in SLT undergraduate programs by years

Figure 6 shows the map of Türkiye with inactive SLT undergraduate programs that have not yet accepted students. According to the figure, inactive SLT programs are mostly in İstanbul (f=7), Ankara (f=3), and Konya (f=3). It is also observed that this distribution is spread across Türkiye and that there are inactive SLT programs in 7 regions.

The distribution of academic staff by titles and gender in active SLT undergraduate programs is given in Table 2. Of the academic staff, 8.9% are professors (f=17), 5.8% are associate professors (f=11), 42.1% are assistant professors (f=80), 20% are lecturers (f=38), and 23.2% are research assistants (f=44). Among the academic staff in active SLT undergraduate programs, 75.8% are female (f=144) and 24.2% are male (f=46).

The distribution of academic staff in inactive SLT undergraduate programs by titles and gender is given in Table 3. Of the academic staff, 4.2% are associate professors (f=1), 16.6% are assistant professors (f=4), 12.5% are lecturers (f=3), and 66.6% are research assistants (f=16). There are no professors in any of the inactive SLT programs. Consistent with previous findings, female academics constitute the majority in inactive SLT programs (Figure 1 and Table 2). In this respect, the rate of female academic staff was calculated as 71%. Along with these findings, it should be noted that only 13 of the 34 inactive SLT programs are shown in Table 3 according to the distribution of academics. There are 21 more inactive SLT programs with no academics, although not included in this table.



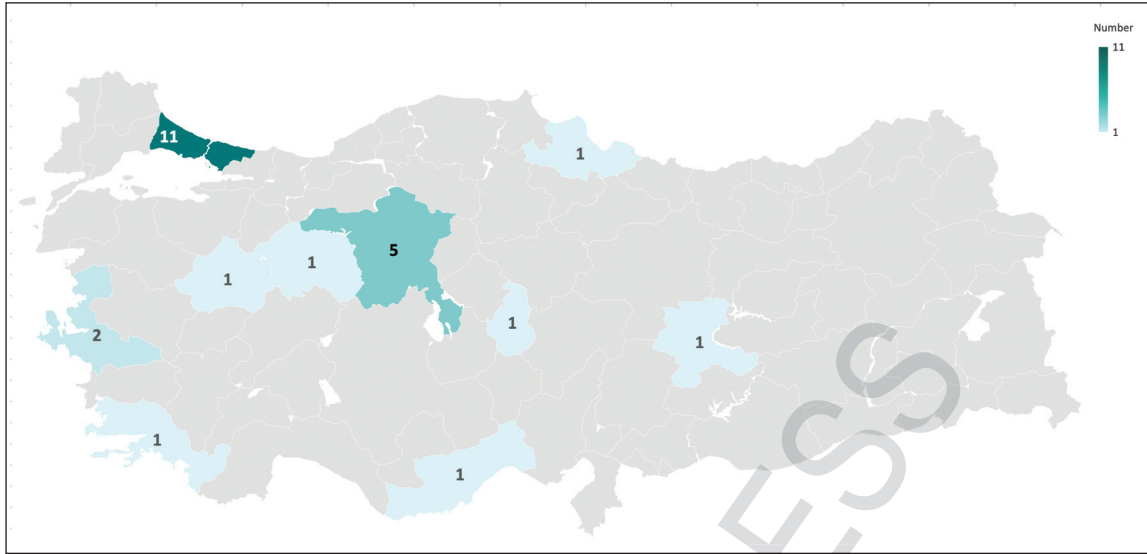


FIGURE 5: Active SLT undergraduate programs with students

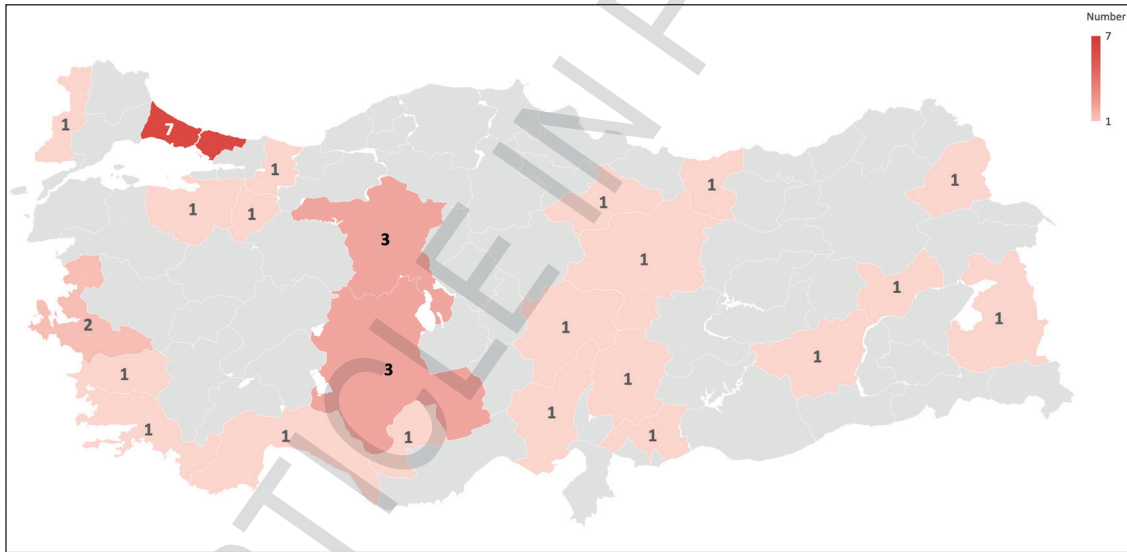


FIGURE 6: Inactive SLT undergraduate programs not yet recruiting students

## DISCUSSION

This study's findings indicate that SLT undergraduate programs and student enrollments have increased significantly since 2012. The rapid increase highlights the growing interest in the SLT profession in Türkiye.

The findings show that females outnumber males in all cases examined and that the proportion of

females has increased chronologically. In this respect, the SLT profession in Türkiye is mostly preferred by females. 83% of the 5,059 currently enrolled students are female, suggesting that female academics and clinicians are likely to outnumber males in the future, similar to the current situation. The predominance of female students (83%) aligns with global trends in healthcare-related fields. Efforts to attract male students through targeted campaigns may help achieve

**TABLE 2:** Distribution of academics in SLT undergraduate programs that continue to recruit students

University	Professor			Associate professor			Assistant professor			Lecturer			Research assistant			Total	
	M	F	T (%)	M	F	T (%)	M	F	T (%)	M	F	T (%)	M	F	T (%)	M (%)	F (%)
Anadolu University <sup>a</sup>	-	1	1	-	-	-	1	3	4	1	-	1	-	5	5	2	9
Ankara Medipol University	1	-	1	-	-	-	-	3	3	-	3	3	-	3	3	1	9
Ankara Yıldırım Beyazıt University	-	-	-	1	2	3	1	2	3	-	-	-	1	2	3	3	6
Bahçeşehir University	-	-	-	1	1	2	1	-	1	1	1	2	1	-	1	4	2
Bruni University <sup>b</sup>	-	2	2	1	-	1	1	3	4	-	-	-	-	2	2	2	7
Cappadocia University	1	1	2	-	-	-	-	2	2	-	-	-	-	1	1	1	4
Fenerbahçe University	1	-	1	1	1	2	1	1	2	1	-	1	-	1	1	4	3
Hacettepe University	-	1	1	-	1	1	1	4	5	-	1	1	-	3	3	1	10
Health Sciences University (Istanbul)	-	-	-	-	-	-	1	2	3	-	2	2	-	2	2	1	6
İnönü University	-	-	-	-	-	-	1	-	1	-	-	-	-	1	1	1	2
İstanbul Atlas University	-	1	1	-	-	-	2	5	7	1	4	5	-	1	1	3	11
İstanbul Gelişim University	1	-	1	-	-	-	2	1	3	-	1	1	-	2	2	3	4
İstanbul Kent University	-	-	-	-	-	-	-	3	3	-	3	3	-	2	2	-	8
İstanbul Medipol University <sup>a,b</sup>	-	1	1	1	1	1	4	3	7	-	1	1	-	4	4	5	9
İstanbul Nişantaşı University	-	-	-	-	-	-	-	1	1	-	1	1	-	1	1	-	3
İstinye University	-	-	-	-	-	-	1	1	2	1	1	2	-	1	1	2	3
İzmir Bakırçay University	1	-	1	-	-	-	-	5	5	-	1	1	-	3	3	1	9
İzmir Tınaztepe University	-	-	-	-	-	-	3	-	3	-	1	1	-	-	-	3	1
Kütahya Health Sciences University	-	-	-	-	-	-	1	3	4	1	1	2	-	2	2	2	6
Lokman Hekim University	1	1	2	-	-	-	-	3	3	-	2	2	-	-	-	1	6
Muğla Sıtkı Koçman University	-	-	-	-	-	-	1	4	5	-	-	-	-	-	-	1	4
On dokuz Mayıs University	-	-	-	-	-	-	-	1	1	1	3	4	-	3	3	1	7
Tarsus University	-	2	2	-	-	-	1	1	2	-	1	1	-	1	1	1	5
Üsküdar University	1	-	1	-	1	1	-	3	3	-	1	1	-	2	2	1	7
Yüksek İhtisas University	-	-	-	-	-	-	1	2	3	1	2	3	-	-	-	2	4
Total	7	10	17 (8.9)	5	6	11 (5.8)	24	56	80 (42.1)	8	30	38 (20)	2	42	44 (23.2)	46 (24.2)	144 (75.8)
																	190

<sup>a</sup>SLT undergraduate programs accredited by the Turkish Association of Evaluation and Accreditation of Health Sciences Programs; <sup>b</sup>Academics from universities with SLT undergraduate programs in Turkish and English were combined. M: Male; F: Female; T: Total

**TABLE 3:** Distribution of academics in SLT undergraduate programs that have not yet admitted students

University	Professor			Associate professor			Assistant professor			Lecturer			Research assistant			Total		
	M	F	T (%)	M	F	T (%)	M	F	T (%)	M	F	T (%)	M	F	T (%)	M (%)	F (%)	T
Akdeniz University	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	1
Çukurova University	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	1
Erciyes University	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3	1	2	3
Gazi University	-	-	-	-	-	-	1	2	3	1	-	1	1	1	2	2	4	6
Health Sciences University (Ankara)	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	1
İstanbul Medeniyet University	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	1
Maltepe University	-	-	-	-	-	-	1	-	1	1	-	1	-	-	-	1	1	2
Marmara University	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	1
Muş Alparslan University	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-	1
Necmettin Erbakan University	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	1	1	2
Selçuk University	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3	-	3	3
Trakya University	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	1
Van Yüzüncü Yıl University	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1
Total	-	-	-	1	1	1 (4.2)	2	2	4 (16.6)	3	-	3 (12.5)	4	12	16 (66.6)	7 (29)	17 (71)	24

Mr: Male; F: Female; T: Total  
The 21 SLT undergraduate programs that have not yet admitted students and have no academics have not been added.

a more balanced gender distribution in the future.

The fact that the majority (39.85%) of the students placed in SLT prioritized SLT in their preferences gives a clue about the number of students who want to enroll in the SLT program. In addition, this underscores the increasing awareness and recognition of SLT as a vital profession in Türkiye. However, some students' top 10 preference trends were not from the health sector may suggest that some of the students made their choices based on their university exam scores without being sure of their decisions about the sector.

The low number of accredited programs (7.40%) emphasizes the need for quality improvements. Accreditation efforts should be prioritized to enhance the educational standards and global reputation of SLT programs.

Geographical distribution data reveal that most programs are in İstanbul and that no city in Türkiye except for three big cities (İstanbul, Ankara, and İzmir) has more than one SLT program. It may be because İstanbul has a high immigration rate in terms of cultural, social, etc. aspects and the relevant cities have the highest population in Türkiye.<sup>2,25</sup> This calls for strategic planning to expand SLT education to underrepresented areas, ensuring equitable access to training and services. Inactive programs spread across Türkiye. Considering that "location of the university" is one of the factors that students consider in their university preferences, the distribution of SLT programs across Türkiye can be seen as a positive situation regarding access and preference.<sup>26</sup> However, it should be noted that inactive programs are concentrated in İstanbul, similar to active programs ( $f=7$ , 20.58%).

The low number of academic staff in active programs may indicate that the workload of the academic staff in the relevant program is high. However, in order to decide on this



issue, it would be appropriate to make some calculations, such as the number of students per faculty member, and to evaluate other parameters, such as whether there is postgraduate education in the relevant university. Additionally, there are no professors in 12 universities and no associate professors in 18 universities, which may be because the SLT is a relatively new-department.<sup>1,12</sup>

In addition, it is noteworthy that the proportion of female academic staff increases as the staff title decreases. In this respect, the fact that there are 7 male and 10 female professors, while there are 2 male and 42 female research assistants, seems to be consistent with our previous findings, in which we stated that the female population is increasing in the field of SLT in Türkiye. Although not only examined for the SLT program, recent data from the Turkish Higher Education Information Management System show that the number of male academics in Türkiye is higher than that of females. The results obtained from this study report that this is the opposite finding for the SLT population.<sup>19</sup> According to previous literature, in terms of the total number of academic staff, based on 2009, the number of teaching staff in the field of SLT in Türkiye was 8.<sup>1</sup> In this context, our study also reveals the increase in the number of academic staff in SLT programs over the years. However, Georgieva et al. reported 4 professors, 2 associate professors, 7 assistant professors, and 5 research assistants at Anadolu University.<sup>12</sup> Considering other parameters such as the transfer of academic staff to SLT programs in other cities, it is quite normal that this number is lower in our study.

The Turkish Council of Higher Education has set the minimum number of teaching staff in SLT programs as 3 for the start of education and training.<sup>27</sup> When the number of academic staff in inactive programs is examined, it is seen that only one of the programs in question meets this criterion. When the academic titles of academic staff in inactive programs are examined, most of the academic staff members (66.6% of research assistants) are at the beginning of their academic development process.

In studies on the future of the SLT profession, employment rates should also be taken into consid-

eration.<sup>28</sup> According to the current Turkish Statistical Institute data, the registered employment rate of SLTs in Türkiye is reported as 89.5% for 2021, 87.9% for 2022, and 93.9% for 2023. In addition, SLT is reported as the undergraduate program with the shortest average time to find the first job (2.4-2.3 months) for 3 years.<sup>21-23</sup> These reports show that employment rates and short job acquisition times for SLTs in Türkiye are promising, suggesting a favorable job market for graduates. In addition, in line with our study's findings, this situation shows a need for SLTs since there has only been an active undergraduate program in Türkiye for the last 10 years, and the number of students is relatively low. The examination of Turkish Statistical Institute reports by families/students may have affected the preference tendencies of students who were placed in the SLT program to choose the SLT department in the first place. In addition, it is crucial to consider reports such as the employment rate of SLTs in Türkiye and the duration of finding the first job when making decisions about opening new SLT programs in universities. Thus, continuous monitoring of workforce dynamics is essential to ensure alignment between education output and market needs.

Law et al. reported that there are seven SLT programs in different universities in Türkiye, and other universities are planning to establish undergraduate programs.<sup>3</sup> Our study findings indicated that this planning has been implemented by some universities. Law et al. stated that only one program offers education in English. According to our study findings, only 7.4% of active programs offer education in English.<sup>3</sup> These results show a minimal increase in the number of English programs in the last 5 years.

The number of students placed in undergraduate programs has also increased in line with the increasing number of programs over the years. Considering that the number of students enrolled in the program has increased 53.5 times over the last 12 years, the results seem quite striking. The related findings can also provide predictions about the increase in the number of SLTs in the future. The literature has provided some information on the number of SLTs in Türkiye. Topbaş and Özdemir stated that the number of SLTs in Türkiye who received education abroad

and completed their postgraduate education was 7, while the number of SLTs was stated as 61 in another study in 2008.<sup>17,18</sup> Topbaş also stated that 53 students graduated with an MSc degree and 1 student graduated with a PhD degree by 2009, and the number of students currently registered was 47 (35 MSc-12 PhD).<sup>1</sup> Georgieva et al. reported that there were 120 SLTs in Türkiye.<sup>12</sup> The findings of the related studies are crucial in showing the increase in the number of SLTs in Türkiye from time to time and support our study findings. In addition, previous studies reported very few SLTs in Türkiye and that different professions, such as psychologists (30%) and special educators (25%) serve in the field.<sup>4,5</sup> However, it should be considered that professional boundaries should be known, except in emergencies, and it is emphasized that the SLT profession should be handled separately.<sup>4</sup> A recent study states that this problem has been partially solved because the number of SLTs has increased recently with the start of undergraduate and graduate education in SLT programs.<sup>3</sup> According to the findings of our study, the increasing number of SLTs can be a positive development in terms of determining professional boundaries and ethics. In addition, the 99.8% occupancy rate seen in the quota in 2024 shows that the supply-demand balance is achieved with the number of quotas.

Our findings confirm that the SLT profession is developing in Türkiye, as stated in previous studies.<sup>1,4,5</sup> This study is expected to offer a holistic perspective for academics, current undergraduate students, and students who want to choose the program. While the development of SLT undergraduate programs in Türkiye shows substantial progress, addressing regional disparities, gender imbalances, and accreditation issues will be crucial for achieving sustainable growth and maintaining high standards in education and practice.

These databases, where the data were collected, are open to general access. The data used in this research are limited to the current database information at the time of collection. It should be considered that the student profiles of universities (quota, gender distribution, etc.) and academic staff status may change frequently. For this reason, it is recommended that similar studies should be repeated at certain intervals

to report and monitor the data on the quality and quantity of the SLT programs and to make comparisons regarding the findings.

## CONCLUSION

SLT undergraduate programs in Türkiye have grown rapidly since their inception in 2012. However, sustainable growth requires careful planning. This study's findings highlight the significant predominance of female students in the field, the insufficient academic staff, and the concentration of programs in specific cities. Increasing the number of programs in regions outside İstanbul, Ankara, and İzmir could promote educational equity. In addition, addressing the shortage of academic staff and accelerating accreditation processes are critical for improving the program quality.

While the high employment rates of graduates contribute to the growing interest in the profession, careful planning of current quotas is necessary. This study provides a basis for strategic planning and sustainable development in the SLT field.

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*No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.*

## Authorship Contributions

**Idea/Concept:** Namık Yücel Birol; **Design:** Namık Yücel Birol, Esra Yaşar Gündüz; **Control/Supervision:** Namık Yücel Birol; **Data Collection and/or Processing:** Namık Yücel Birol, Esra Yaşar Gündüz, Zübeyir Tutuş; **Analysis and/or Interpretation:** Namık Yücel Birol, Esra Yaşar Gündüz, Zübeyir Tutuş; **Literature**

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