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Research Article

Attitudes Toward Artificial Intelligence Among Audiologists and Speech-Language Pathologists: A Comparative Study

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ABSTRACT

Purpose: This study aimed to compare the attitudes of audiologists and speech-language pathologists (SLPs) toward artificial intelligence (AI) and to investigate the effect of the participants' professional characteristics such as education level, duration of professional experience, workplace setting on these attitudes.

Method: A total of 157 professionals from Türkiye, participated in the study, including 87 audiologists (73 females, 14 males) and 70 SLPs (60 females, 10 males). Participants completed a Demographic and Professional Characteristics Information Form, and the General Attitudes to Artificial Intelligence Scale (GAAIS).

Results: Audiologists obtained mean scores of 46.49 ± 6.05 on the Positive GAAIS (P-GAAIS) and 23.52 ± 5.27 on the Negative GAAIS (N-GAAIS). Corresponding scores for SLPs were 45.54 ± 6.23 and 22.12 ± 4.78, respectively. No significant differences were observed between audiologists and SLPs on either subscale (p >.05). Among audiologists, attitudes toward AI did not differ significantly according to education level, years of professional experience, or workplace setting (p >.05). In contrast, P-GAAIS scores differed significantly among SLPs based on workplace setting (p = .01), with post-hoc analyses revealing differences between professionals working in private clinics and those employed in special education centers (p = .007).

Conclusion: The findings indicate that both audiologists and SLPs generally demonstrate positive and comparable attitudes toward AI. These results suggest a favorable professional climate for the adoption of AI-based technologies in audiology and speech-language therapy. Supporting positive attitudes and promoting the evidence-based integration of AI into clinical practice may facilitate its effective and responsible use in these fields.

Keywords: artificial intelligence, attitudes, audiologists, speech-language pathologists, health

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Araştırma Makalesi

Odyologlar ve Dil-Konuşma Terapistlerinin Yapay Zekâya Yönelik Tutumlarının Karşılaştırmalı Olarak İncelenmesi

GENİŞLETİLMİŞ ÖZET

Amaç: Yapay zekâ (YZ), makineler veya sistemler aracılığıyla insan zekâsını taklit eden, makine öğrenmesi ile derin öğrenme gibi birçok alt alanı kapsayan, hızla gelişmekte olan bir teknolojidir (Aggarwal ve ark., 2025). Basitleştirilmiş biçimiyle, YZ; algılama, akıl yürütme, öğrenme, planlama ve hesap yapma gibi insana ait bilişsel davranışları yerine getirebilmektedir. YZ'nin kullanımı; ekonomi, hukuk, sağlık hizmetleri, bilimsel araştırma ve eğitim gibi insan yaşamının pek çok boyutu üzerindeki önemli etkisi nedeniyle dünya genelinde dikkat çekmektedir (Kamalov ve ark., 2023). YZ'nin potansiyel uygulamaları; diş hekimliği, oftalmoloji, eczacılık ve radyoloji gibi klinik hizmet alanlarında araştırılmaktadır. Bunların yanında, YZ uygulamalarının, odyoloji ve dil ve konuşma terapisi alanlarına da önemli yenilikler getirme potansiyeline sahip olduğu belirtilmektedir (Aggarwal ve ark., 2025). Bu uygulamalar; odyoloji alanında işitme değerlendirmelerinin yapılmasından, işitme cihazı ve koklear implant programlamalarının yapılmasına, işitsel rehabilitasyon süreçlerinin optimize edilmesine kadar geniş bir yelpazeyi kapsamaktadır (Frosolini ve ark., 2024). Dil ve konuşma terapisi alanında ise, bireylerin konuşma örüntülerini ve kalıplarını tespit ederek kekemelik rehabilitasyonunda kişiye özel terapi planlarının oluşturulmasına, benzer şekilde afazi rehabilitasyonunda kişiselleştirilmiş rehabilitasyon planlarının sunulmasına yardımcı olabileceği belirtilmektedir (ElHennawy, 2024). Bunların yanında, YZ uygulamaları son yıllarda dil ve konuşma terapisi alanında, larinks hastalıklarının tanı ve tedavisinde de uygulanabilir bir araç haline gelmiştir (Suvvari, 2023). YZ'nin sunduğu tüm olanaklara rağmen, sağlık sistemine entegrasyonu çeşitli zorlukları da beraberinde getirmektedir. Bu zorluklar arasında; etik sorunlar, veri gizliliğinin ihlali ve bilimsel sınırlılıklar yer almaktadır (Aggarwal ve ark., 2025). Bu zorluklar ile teknolojinin yasal ve etik boyutları göz önüne alındığında, sağlık profesyonellerinin bu araçlara uyum sağlaması ve onları etkin bir şekilde kullanması büyük önem taşımaktadır. Bu noktada, yapılan çalışmalar, sağlık profesyonellerinin YZ araçlarına uyum sağlamaları ve YZ araçlarını etkin bir şekilde kullanabilmeleri için, YZ'ye yönelik tutumlarına ve farkındalıklarına odaklanılması gerektiğini göstermektedir (Khan Rony ve ark., 2024). Bu bilgiler doğrultusunda ve YZ teknolojilerinin odyoloji ve dil ve konuşma terapisi alanlarında artan önemi nedeniyle, odyologların ve dil ve konuşma terapistlerinin (DKT) YZ'ye yönelik farkındalıklarına ve tutumlarına odaklanmanın önemli olduğu düşünülmüştür. Bu çalışmada, odyologlar ve DKT'lerin YZ'ye yönelik tutumlarının incelenmesi ve karşılaştırılması, ayrıca odyologlar ve DKT'lerin eğitim düzeyi, mesleki deneyim süresi, çalışma ortamı gibi mesleki özelliklerinin YZ'ye yönelik tutumlar üzerine olan etkisinin araştırılması amaçlanmıştır.

Yöntem: Çalışmaya 87 odyolog (73 kadın, 14 erkek) ve 70 dil ve konuşma terapistinden (60 kadın, 10 erkek) oluşan 157 birey dahil edilmiştir. Dahil edilme kriterleri arasında, Türkiye'deki bir üniversiteden Odyoloji veya Dil ve Konuşma Terapisi alanlarından en az lisans düzeyinde bir diplomaya sahip olmak ve anadili Türkçe olmak yer almıştır. Katılımcıların yaş ortalaması 27.80 ± 4.11 yıl olup, yaş aralığı 22.00 ile 45.50 yıl arasındadır. Katılımcılar, çoğunluğu özel eğitim merkezlerinde çalışmakta olan (n=49, %31.20), lisans düzeyinde eğitim seviyesine sahip (n=91, %58) ve mesleki deneyimleri üç yıl veya daha az olan (n=84, %53.50) bireylerden oluşmaktadır. Çalışma kapsamında, katılımcılardan Demografik ve Mesleki Özellikler Bilgi Formu'nu ve Yapay Zekaya Yönelik Genel Tutum Ölçeği'ni Google Forms aracılığıyla doldurmaları istenmiştir. Demografik ve Mesleki Özellikler Bilgi Formu araştırmacılar tarafından oluşturulmuştur. Demografik özellik olarak katılımcıların yaş ve cinsiyet bilgileri; mesleki özellik olarak eğitim düzeyi (lisans, yüksek lisans, doktora), mesleki deneyim süresi (≤3 yıl, >3 yıl) ve çalışma ortamı (hastane, üniversite, özel klinik, özel eğitim merkezi, işitme cihazı

merkezi) bilgileri kaydedilmiştir. Bireylerin YZ'ye yönelik genel tutumlarını değerlendirmek amacıyla Yapay Zekaya Yönelik Genel Tutum Ölçeği'ni doldurmaları istenmiştir. Bu ölçek, Schepman ve Rodway tarafından geliştirilmiş olup (Schepman & Rodway, 2020; 2023), Türkçe'ye uyarlama ve geçerlik-güvenirlik çalışması Kaya ve arkadaşları tarafından gerçekleştirilmiştir (Kaya ve ark., 2024). Ölçek, 5'li Likert tipi bir derecelendirme sistemine sahiptir (1= Kesinlikle katılmıyorum, 2= Katılmıyorum, 3= Kararsızım, 4= Katılıyorum, 5= Kesinlikle katılıyorum) ve iki alt ölçekten oluşmaktadır: Pozitif Tutum Alt Ölçeği ve Negatif Tutum Alt Ölçeği. Pozitif Tutum Alt Ölçeği 12 maddeden oluşmakta ve 12 ile 60 arasında puan alınabilmektedir. Yüksek puanlar YZ'ye yönelik daha olumlu bir tutumu yansıtmaktadır. Negatif Tutum Alt Ölçeği ise sekiz maddeden oluşmakta, sekiz ila 40 arasında puan alınmakta olup, yüksek puanlar daha olumsuz bir tutumu göstermektedir.

Bulgular: Katılımcıların demografik verileri incelendiğinde, odyologlar grubunun 73'ü kadın, 14'ü erkek olmak üzere toplam 87 kişiden oluştuğu ve yaş ortalamasının 28.0 ± 4.01 olduğu belirlenmiştir. DKT grubunda ise 60 kadın ve 10 erkek olmak üzere toplam 70 katılımcı yer almış; bu grubun yaş ortalaması ise 27.56 ± 4.25 olarak saptanmıştır. Yapılan istatistiksel analizler sonucunda, iki grup arasında yaş ortalamaları (p = .25) ve cinsiyet dağılımları (p = .75) açısından istatistiksel olarak anlamlı bir fark bulunmamıştır. Katılımcıların mesleki özellikleri değerlendirildiğinde; odyologların çoğunluğunun üç yıl veya daha az mesleki deneyime sahip olduğu, büyük kısmının en son lisans düzeyinde eğitim aldığı ve çoğunlukla çalışmayan ya da üniversite bünyesinde görev yapan bireylerden oluştuğu görülmüştür. Benzer şekilde, DKT grubunun da çoğunluğunun üç yıl veya daha az mesleki deneyime ve lisans düzeyinde eğitime sahip olduğu, ancak ağırlıklı olarak özel eğitim merkezlerinde görev yaptığı belirlenmiştir. Odyologlar ve DKT'ler arasında eğitim düzeyleri (p = .11) ve mesleki deneyim sürelerine (p = .41) göre de istatistiksel olarak anlamlı bir fark bulunmamıştır. Odyologlar Pozitif Tutum Alt Ölçeği ve Negatif Tutum Alt Ölçeği'nden sırasıyla ortalama 46.49 ± 6.05 (min: 30, maks: 60) ve 23.52 ± 5.27 (min: 13, maks: 37) puan elde etmiştir. DKT'ler ise Pozitif Tutum Alt Ölçeği'nden ortalama 45.54 ± 6.23 (min: 22, maks: 59), Negatif Tutum Alt Ölçeği'nden ise 22.12 ± 4.78 (min: 14, maks: 40) puan elde etmiştir. İstatistiksel analizler, iki grup arasında Pozitif Tutum Alt Ölçeği (p = .33) ve Negatif Tutum Alt Ölçeği (p = .87) puanları açısından anlamlı bir fark olmadığını göstermiştir. Ayrıca, odyologlar ve DKT grupları içerisinde eğitim düzeyi, mesleki deneyim süresi ve çalışma ortamının YZ'ye yönelik tutumlar üzerindeki etkisi incelenmiştir. Odyologların eğitim düzeyleri, mesleki deneyim süreleri ve çalışma ortamlarına göre gruplandırılması sonucunda gerçekleştirilen grup içi karşılaştırmalarda, Negatif Tutum Alt Ölçeği ve Pozitif Tutum Alt Ölçeği puanları arasında istatistiksel olarak anlamlı bir farklılık bulunmamıştır (p > .05). Benzer şekilde DKT'lerde de eğitim düzeyi ve mesleki deneyim süresine göre yapılan grup içi karşılaştırmalarda Negatif Tutum Alt Ölçeği ve Pozitif Tutum Alt Ölçeği puanları açısından anlamlı bir fark görülmemiştir (p > .05). Ancak, odyologlardan farklı olarak DKT'lerin Pozitif Tutum Alt Ölçeği puanlarında çalışma ortamına göre anlamlı bir fark tespit edilmiştir (p = .01). Post-hoc analizler, bu farkın, özel kliniklerde çalışan DKT'lerin, özel eğitim merkezlerinde çalışanlara göre YZ'ye yönelik istatistiksel olarak anlamlı düzeyde daha pozitif tutumlara sahip olmalarından kaynaklandığını ortaya koymuştur (p = .007, p < .012).

Sonuç: Çalışmanın bulguları, odyologlar ve dil ve konuşma terapistlerinin genel olarak yapay zekâya karşı olumlu ve benzer tutumlar sergilediklerini ortaya koymuştur. Bu durum, her iki meslek grubunun da sağlık alanındaki dijital dönüşüme açık olduğunu ve YZ teknolojilerinin klinik uygulamalarda kullanım potansiyelini benimseyebileceklerini göstermektedir. Elde edilen sonuçlar, YZ tabanlı teknolojilerin odyoloji ve dil-konuşma terapisi alanlarında kabulünü ve benimsenmesini teşvik etmede önemli bir referans kaynağı olarak değerlendirilebilir. Ayrıca bu bulgular, YZ'nin etkili kullanımını artırmaya yönelik eğitim programları oluşturma, klinik entegrasyon süreçlerini destekleme ve profesyonellerin dijital yeterliliklerini geliştirme açısından yol gösterici niteliktedir. Bununla birlikte, etik farkındalık, veri güvenliği, hasta mahremiyeti ve teknolojik yeterlilik gibi unsurların YZ'nin klinik ortamlarda uygulanabilirliğini doğrudan etkileyebileceği göz önünde bulundurulmalıdır. Bu bağlamda, sağlık profesyonellerinin YZ'ye karşı mevcut olumlu tutumlarının desteklenmesi ve güçlendirilmesi; ayrıca YZ teknolojilerinin odyoloji ile dil ve konuşma terapisi alanlarındaki klinik uygulamalara etkili, güvenli ve kanıta dayalı biçimde entegre edilmesinin aktif olarak teşvik edilmesi önemlidir. Bunun yanında, odyoloji ve dil ve konuşma terapisi alanlarında mevcut literatürün daha da

güçlendirilmesi için, gelecekte daha geniş örneklem gruplarıyla yürütülecek ve YZ'nin mesleki uygulamalardaki kullanım düzeyini, farkındalığını ve mesleki tutumlarla ilişkisini değerlendiren ölçeklerin kullanıldığı benzer çalışmaların yapılması önerilmektedir. Bu tür araştırmalar, YZ'nin klinik karar verme süreçlerine, terapi planlamasına, hasta yönetimine ve rehabilitasyon sonuçlarına olan etkilerini daha iyi anlamaya yardımcı olacak ve uygulamaya yönelik stratejilerin geliştirilmesini destekleyecektir. Ayrıca, farklı çalışma ortamlarının ve kurum türlerinin profesyonellerin YZ'ye yönelik tutumlarını nasıl şekillendirdiğini inceleyen analizler, mesleki eğitim ve politika oluşturma açısından önemli bilgiler sağlayabilir. Sonuç olarak, YZ'nin odyoloji ve dil-konuşma terapisi alanlarında benimsenmesini ve etkin kullanılmasını destekleyecek kapsamlı eğitim, farkındalık ve politika çalışmaları büyük önem taşımaktadır.

Anahtar Sözcükler: yapay zekâ, tutum, odyologlar, dil ve konuşma terapistleri, sağlık

Introduction

Artificial intelligence (AI) is a developing technology that simulates human intelligence through machines or systems and includes multiple subfields, such as machine learning and deep learning. In simplified terms, AI replicates human cognitive behaviors, including perception, reasoning, learning, planning, calculation, and so forth (Aggarwal et al., 2025b). The use of AI has gained global attention due to its significant impact on multiple dimensions of human life, including the economy, laws, healthcare, scientific research, and education (Kamalov et al., 2023).

The potential applications of AI have been investigated in various health-care sectors for providing clinical services, such as dentistry, ophthalmology, pharmacy, and radiology (Aggarwal et al., 2025a). The implementation of AI could transform the fields of audiology and speech-language therapy (Aggarwal et al., 2025a). In audiology, AI applications range from enhancing the accuracy of hearing assessment to automating hearing aid and cochlear implant fitting, as well as optimization of auditory rehabilitation process (Frosolini et al., 2024). In the field of speech-language therapy, artificial intelligence can serve multiple purposes (ElHennawy, 2024). AI applications can understand each person's speech patterns and help create customized therapy plans in stuttering and dysarthria rehabilitation (Al-Banna et al.,

2022) . Similarly, AI-based tools have been reported to facilitate patient-centered and individualized rehabilitation planning in aphasia therapy (Mahmoud et al., 2021). In addition, AI has recently become a viable diagnostic and therapeutic tool for laryngeal diseases (Suvvari, 2023).

Despite the promise of AI, its integration into health-care system also raises several challenges. Ethical issues, data privacy violations, liability, and scientific limits present significant challenges in providing AI-driven health-care services (Aggarwal et al., 2025a). Due to these challenges, as well as the legal and ethical aspects of technology, it is crucial for healthcare professionals to adapt to and efficiently use these tools. At this point, it is important to focus on health-care professionals' awareness of AI concepts and their attitudes on its implementation (Khan Rony et al., 2024).

Several recent studies investigated the knowledge, attitudes, and perceptions on AI in healthcare across dental students, medical students, pediatricians, and nurses (Hasan et al., 2024; Kandemir & Azizoğlu, 2024; Perrier et al., 2022; Yüzbaşıoğlu, 2021). There are a limited number of studies that investigate the perspectives and attitudes of SLPs and audiologists regarding the implementation of AI tools in the healthcare sector. Furthermore, to the best of our knowledge, there is a very limited study examining the attitudes of audiologists and SLPs toward AI in Türkiye. In line of this information this study has two aims; 1) to investigate and compare the attitudes of audiologists and SLPs towards AI, 2) To examine the attitudes of audiologists and SLPs toward AI in relation to their professional characteristics.

Method

This cross-sectional study received ethical approval from the Anadolu University Health Science Ethics Board (No: 889573).

Participants

Although a formal sampling method, such as power analysis (e.g., using G*Power), was not conducted, a target of between 70 and 100 participants per group was set based on sample sizes commonly used in previous studies involving AI in the fields of audiology and speech-language pathology (Aggarwal et al., 2025b, 2025a; Austin et al., 2024). As a result, 87 audiologists and 70 SLPs were included in the study. Participants were eligible for inclusion in the study if they had at least a bachelor's degree in either Audiology or Speech and Language Therapy obtained from a university in Türkiye. Additionally, all participants were required to be native speakers of Turkish.

Data Collection Tools

Demographic and Professional Characteristics Information Form

This form developed by the researchers was designed to collect information on participants' demographic and professional characteristics. The demographic section included items related to age and gender, and the professional section focused on workplace setting, years of professional experience, and educational level.

The General Attitudes to Artificial Intelligence Scale (GAAIS)

The general attitudes of participants toward AI investigated by the GAAIS in this study. The GAAIS was developed by Schepman and Rodway to measure individual's general attitudes toward AI (Schepman & Rodway, 2020, 2023). The validity and reliability study of the Turkish version of the GAAIS was conducted by Kaya et al. (2024). The scale consists of 20 items, comprising 12 items in the Positive GAAIS (P-GAAIS) and 8 items in the Negative GAAIS (N-GAAIS). To provide clearer understanding of the scale's content and structure, two example items are presented below:

A positively worded item: "There are many beneficial applications of Artificial Intelligence."

A negatively worded item: "Artificial Intelligence might take control of people."

Items are rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Negatively worded items are reverse scored. The positive attitudes toward AI subscale yields scores between 12 and 60, with higher scores indicating more favorable attitudes. The negative attitudes subscale yields scores ranging from 8 to 40, with higher scores indicating stronger negative attitudes toward AI. The Turkish GAAIS had good internal consistency and reliability. The Cronbach's Alpha was .82 for the P-GAAIS subscale and .84 for the N-GAAIS subscale. The item-total correlation coefficients of the scale were r = .77 for the P-GAAIS subscale, and r = .83 for the N-GAAIS subscale.

Data Collection

Data were collected online via Google Forms between June 4 and June 15, 2025. The Demographic and Professional Characteristics Information Form and the General Attitudes to Artificial Intelligence Scale (GAAIS) were administered in digital format. At the beginning of the survey, participants were provided with a brief description of the study objectives, followed by an informed consent statement and a checkbox indicating voluntary participation. The survey link was distributed via e-mail and social media platforms to recruit potential participants.

Statistical Analyses

Statistical analyses were performed using SPSS version 24. Normality of continuous variables was evaluated using histograms, probability plots, and the Kolmogorov–Smirnov and Shapiro–Wilk tests. Continuous variables are expressed as mean ± standard deviation, and categorical variables as percentages.

Independent-samples t tests were conducted to compare two independent groups, while one-way ANOVA was used for comparisons across three or more groups. Significant ANOVA results were followed by Bonferroni-adjusted post hoc tests. Associations between categorical variables were analyzed using chi-square (χ^2) tests. Statistical significance was set at $p < .05$.

Results

The study included 157 participants, consisting of 87 audiologists (73 female, 14 male) and 70 SLPs (60 female, 10 male). The demographic and professional characteristics of audiologists and SLPs participated in the study are presented in Table 1.

Table 1

Demographic characteristics of the participants

Variables	**Audiologists (*n*=87)** *n (%)*	**SLPs (*n*=70)** *n (%)*	**Total (*n*=157)** *n (%)*
Age (y) *M±SD, Min-Max*	28.0 ± 4.01 (22-44.75)	27.56 ± 4.25 (22.65-45.53)	27.80 ± 4.11 (22-45.53)
Gender			
Female	73 (83.9)	60 (59.3)	133 (84.7)
Male	14 (16.1)	10 (10.7)	24 (15.3)
Experience (years)			
≤ 3years	44 (50.6)	40 (57.1)	84 (53.5)
>3 years	43 (49.4)	30 (42.9)	73 (46.5)
Educational level			
Bachelor	47 (54.0)	44 (62.9)	91 (58.0)
Postgraduate	40 (56.0)	26 (37.1)	66 (42.0)
Master	30 (34.5)	24 (34.3)	54 (34.4)
PhD	10 (11.5)	2 (2.8)	12 (7.6)
Work setting			
Hospital	15 (17.2)	14 (20.0)	29 (18.5)
University	19 (21.8)	8 (11.4)	27 (17.2)
Private clinic	1 (1.1)	14 (20.0)	15 (9.6)
Special education center	16 (18.4)	33 (47.1)	49 (31.2)
Hearing aid clinic	17 (19.5)	-	17 (10.8)
not working	19 (21.8)	1 (1.4)	20 (12.7)

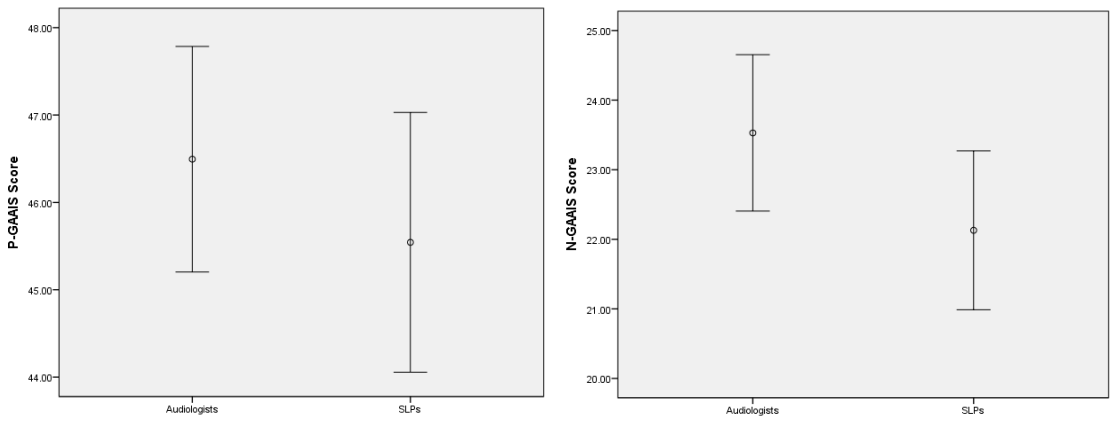
The mean age of participants was 27.80 ± 4.11 years, range between 22 and 45.5 years. Most participants worked in special education centers (n = 49, %31.2), had a bachelor's degree (n = 91, %58), and had three years or less of experience (n = 84, %53.5).

Statistical analyses revealed no significant differences between audiologists and SLPs in terms of age (Mann–Whitney U test, p = .25), gender (χ^2 test, p = .75), education level (χ^2 test, p = .11), and duration of professional experience (χ^2 test, p = .41).

In the GAAIS results, audiologists obtained an average score of 46.49 ± 6.05 (min: 30, max: 60) on the P-GAAIS subscale, and 23.52 ± 5.27 (min: 13, max: 37) on the N-GAAIS subscale. SLPs had a mean score of 45.54 ± 6.23 (min: 22, max: 59) on the P-GAAIS subscale and 22.12 ± 4.78 (min: 14, max: 40) on the N-GAAIS subscale. Independent samples t-tests revealed no significant differences between the two groups in P-GAAIS (p = .33) and N-GAAIS (p = .87) scores (Figure 1).

Figure 1

Comparison of the GAAIS Scores Between the Groups



Note. Mean scores on the positive (P-GAAIS) and negative (N-GAAIS) subscales are shown for audiologists and speech–language pathologists (SLPs). Error bars represent standard deviations. Higher scores indicate more positive attitudes.

In this study, we also examined the effects of education level, duration of experience, and workplace setting on attitudes toward artificial intelligence among audiologists and SLPs. For the comparison based on education level, participants were categorized into two groups—bachelor and postgraduate—due to the insufficient number of individuals holding a PhD. For the comparison based on the duration of Professional experience, they were categorized also into two groups: ≤ 3 years Professional experience, >3 years professional experience. In the comparison based on workplace setting, one audiologist working in a private clinic and one speech and language pathologist not working were excluded from the analysis to maintain group consistency (Table 2).

One-way ANOVA analyses indicated no significant differences in N-GAAIS and P-GAAIS scores among audiologists when grouped by education level, duration of professional experience, and workplace setting ($p>.05$). Similarly, in the group of SLPs, no significant differences were found in N-GAAIS and P-GAAIS scores based on education level or duration of professional experience ($p>.05$). However, a statistically significant difference was observed in P-GAAIS scores among SLPs based on workplace setting ($p=.01$). Post-hoc comparisons with Bonferroni correction indicated that this difference stemmed from the difference between the scores of those working in private clinics and those working in special education centers ($p=.007$, $p<.012$).

Table 1

Comparison of the GAAIS Scores Within the Group Based on Professional Characteristics

	P-GAAIS			N-GAAIS		
Variables	***M±SD***	***Min-Max***	***p***	***M±SD***	***Min-Max***	***p***
Education level						
Audiologists			0.33[a]			0.30[a]
Bachelor	45.91 ± 6.90	30-60		24.06 ± 5.79	13-37	
Postgraduate	47.18 ± 4.88	36-60		22.90 ± 4.58	15-35	
SLPs			0.84[a]			0.90[a]
Bachelor	45.43 ± 6.31	22-58		22.18 ± 4.89	14-40	
Postgraduate	45.73 ± 6.23	33-59		22.04 ± 4.70	14-35	
Experience						
Audiologists			0.27[a]			0.70[a]
≤ 3 years	45.80 ± 6.40	30-60		23.32 ± 5.35	13-37	
>3 years	47.21 ± 5.67	35-60		23.74 ± 5.25	13-37	
SLPs			0.62[a]			0.25[a]
≤ 3 years	45.23 ± 6.24	22-58		22.18 ± 4.89	14-40	
>3 years	45.97 ± 6.31	36-59		22.04 ± 4.70	14-35	
Workplace setting						
Audiologists			0.62[b]			0.20[b]
Hospital	47.06 ± 3.21	42-53		22.13 ± 4.71	13-32	
University	47.57 ± 5.36	36-58		22.15 ± 4.52	16-31	
Special education center	44.68 ± 5.86	34-58		22.87 ± 3.64	15-29	
Hearing aid clinic	45.76 ± 7.80	30-60		25.29 ± 5.95	15-37	
Not working	47.21 ± 7.07	31-60		25 ± 6.57	13-37	
SLPs			**0.01**[b]			0.64[b]
Hospital	45.36 ± 5.47	39-54		22.50 ± 3.61	15-28	
University	49.50 ± 6.78	41-59		21.25 ± 5.01	14-30	
Private clinic	48.43 ± 3.48	43-57		21.14 ± 3.37	17-28	
Special education center	43.27 ± 6.54	22-58		22.85 ± 5.55	17-40	

Note. [a] independent samples t test; [b]one-way ANOVA; bold indicates statistically significant difference

Discussion

The literature indicates that AI has the potential to revolutionize the health sector by enhancing the efficacy of a wide range of procedures, including patient care and administration work (Schepman & Rodway, 2020). In the practice of audiologists and SLPs, the effectiveness of AI has been shown by applications that have demonstrated clinical value in the fields of

assessment, diagnosis, and rehabilitation (Aggarwal et al., 2025a). The effectiveness and use of AI in healthcare is contingent on the collaboration between the professionals and the technologies they employ. Rony et al. (2024) stated that the effectiveness and use of AI in healthcare are dependent on the collaboration between professionals and the technologies they employ. For this collaboration, they highlighted the importance of assessing the level of familiarity healthcare professionals had with AI concepts and their perceptions of its integration into their daily routines. In light of this information, the current study was conducted to find out the perspectives of audiologists and SLPs regarding AI and to describe their perspectives in accordance with their occupational characteristics.

The demographic profile of audiologists and SLPs consisted mainly of young people, predominantly of the female gender. In their occupational profiles, the majority had a bachelor's degree, worked in a special education center, and had less than three years of experience. According to the analysis, the demographic and occupational features of the two groups were similar.

In the GAAIS score comparison between the groups, we found no significant difference between their N- and P-GAAIS scores. It is well established that audiology and speech-language therapy are interrelated fields that share common goals and often work collaboratively to address communication disorders (Warren et al., 2024). It was thought that this factor could explain the similarity in the groups' attitudes towards AI. We were unable to find any study in the literature that compared the attitudes of audiologists and SLPs toward AI, which would have enabled us to the findings of this study. Our review indicates that the existing studies primarily focus on identifying the areas in which AI is applied within the fields of audiology and speech-language therapy. However, we identified two studies that examined the general attitudes of audiologists and SLPs toward AI. These two studies, conducted by Aggarwal et al., investigated

different groups: one examined the perspectives of audiologists and SLPs employed in clinical settings (Aggarwal et al., 2025a), while the other explored the viewpoints of academicians in audiology and speech-language therapy regarding the use of AI (Aggarwal et al., 2025b). The findings of the first study revealed that most audiologists and SLPs were convinced that AI would improve, revolutionize, and facilitate audiology and speech-language therapy services. Similarly, the second study indicated a positive attitude toward the use of AI tools among academicians in audiology and speech-language therapy. Considering that the highest score on the P-GAAIS is 60, our findings indicate that audiologists and SLPs had a predominantly positive attitude toward AI, consistent with previous study findings.

This study also examined the attitudes of audiologists and SLPs in relation to their professional characteristics. Specifically, we investigated the impact of duration of experience, level of education, and workplace setting on attitudes toward AI. Our findings indicated that these professional characteristics did not have a statistically significant effect on audiologists' attitudes toward AI. For SLPs, neither experience nor education level influenced their attitudes; however, the workplace setting did have an effect. The lack of significant difference between the attitudes toward AI according to the educational level or duration of professional experience is somewhat surprising, given the general assumption that higher education and longer experience may promote openness to innovation. However, previous studies have yielded mixed results in this regard. For example, Kaya et al. (2024) reported that education level was not a significant predictor of technology adoption (Kaya et al., 2024) , whereas other studies found a positive correlation between advanced degrees and favorable attitudes toward AI (Habib et al., 2024). Similarly, while some literature suggests that more experienced professionals may be more resistant to change due to entrenched routines (Trenerry et al., 2021), others indicate that experience brings confidence and openness to adopt new technologies when

adequate training is provided (Kumi et al., 2024). This inconsistency highlights the importance of considering both personal and contextual factors when examining technology acceptance across different workplace settings. For example, in the present study, no significant difference was found in audiologists' attitudes toward AI based on workplace setting. However, a notable difference emerged among SLPs; specifically, SLPs working in private clinics exhibited more favorable attitudes toward AI than those employed in special education and rehabilitation centers. This finding is consistent with previous research suggesting that organizational context plays a crucial role in shaping professionals' openness to adopting new technologies (Boyacı & Söyük, 2025). One possible explanation is that private clinics may have greater access to technological resources, training opportunities, or institutional motivation to adopt innovative tools such as AI. In contrast, professionals working in special education centers may face institutional or infrastructural barriers that hinder the integration of AI-based technologies into clinical practice. To date, there have been no studies specifically examining differences in audiologists' and SLPs' knowledge and attitudes regarding AI based on workplace setting. Another potential explanation is that the number of participants in each group may have been insufficient for a meaningful comparison of attitudes toward AI based on the workplace settings. Therefore, the underlying reasons remain unclear, and further research is warranted to better understand these dynamics, which may support more equitable and effective AI integration across diverse practice environments.

This study provides valuable insights into the perspectives on AI among audiologists and SLPs. However, it also has certain limitations. A key limitation of the present study lies in the use of the GAAIS, which assesses participants' general attitudes toward AI but does not specifically address their professional perspectives within audiology and speech-language therapy. While the findings provide valuable initial insights, it is important to acknowledge that

the scale does not capture detailed information about which AI applications professionals use in their clinical practice, the frequency of use, or the contexts in which these technologies are employed. Therefore, future research should focus on field-specific investigations that explore the adoption, utilization patterns, and perceived effectiveness of AI tools among audiologists and SLPs. Such targeted studies will be crucial for identifying the strengths and limitations of AI integration within these professions and for informing the development of tailored AI applications that meet the unique needs of clinical practice. Additionally, the absence of a formal sampling method constitutes another limitation, potentially affecting the representativeness and generalizability of the results. Future studies should employ rigorous and systematic sampling strategies to ensure a more representative sample of audiologists and SLPs. Utilizing such methods would enhance the generalizability and external validity of the findings. Additionally, increasing sample size and diversifying participant recruitment across different regions can further improve the representativeness of the data and provide a more comprehensive understanding of AI adoption and attitudes within these professions.

As conclusion, the findings of this study highlight that audiologists and SLPs generally had similar and positive attitudes toward AI. These results indicate that AI may serve as a significant reference for promoting its adoption and increasing its use within the fields of audiology and speech-language therapy. In this context, it is suggested that positive attitudes toward AI should be reinforced, and that the effective and evidence-based integration of AI technologies into clinical practice should be actively encouraged.

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