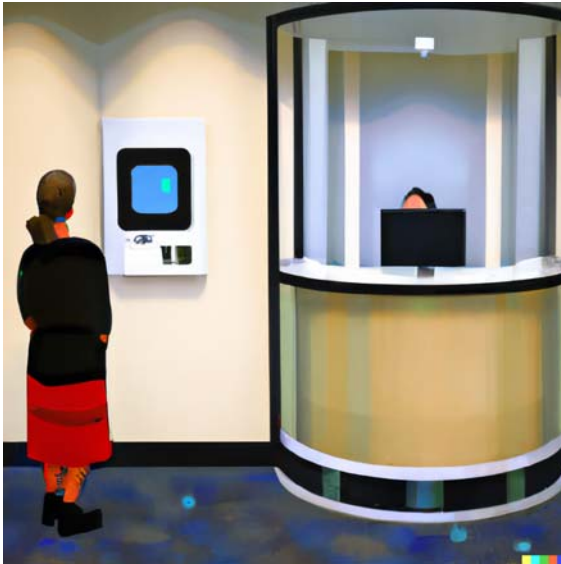


Expanding Audiology Services through Telehealth Enabled Partnerships

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Cover image by Dall-e. Digital art of person in a waiting room standing at a kiosk for remote teleaudiology consultation

Hearing loss is a widespread health condition affecting millions of people worldwide. Unfortunately, there is a severe shortage of formally trained hearing professionals to identify and treat the increasing needs. Audiologists and otolaryngologists are both involved in the diagnosis of hearing loss and balance disorders and their respective treatments. These professions have established a close and collaborative relationship over many decades to support the best possible patient-centered care and outcomes. Just like any medical physician, otolaryngologists can offer medical diagnoses and treatment plans. Meanwhile, audiologists are recognized for their capacity to provide audiological diagnoses and treatments that are specific to each patient's hearing and balance abilities, as well as personalized remediation measures. Unfortunately, access remains a major challenge for affected persons requiring unique solutions that involve partnering with multiple professions outside the audiology and hearing fields.

There are various professional partnerships (beyond audiology and otolaryngology) that have been formed to address quality of life and health issues in rural communities. For one, the South Africa Rural Health Conference brings together a diverse group of healthcare professions, activists, researchers, community members, and others with a passion for service provision in rural and underserved regions. Their reasoning is simple: many allied health professionals have overlapping patient bases with individuals who have hearing loss and/or communication disorders. Whilst otolaryngologists, speech-language pathologists, and on occasion general medical practitioners have been obvious partners, others we can look to in the South Africa model for rural health to widen our horizons in best patient-centered care include optometrists, ophthalmologists, podiatrists, pharmacists, and dentists.

These audiology partnerships offer abundant opportunity for value-added hearing services that are linked to audiologists.

Persons with hearing loss will inevitably seek services from allied health professionals other than audiologists, simply because symptoms experienced from one comorbidity may be affecting a patient's attention far more obviously than other symptoms (such as hearing loss). For example, people with diabetes are at a higher risk of hearing loss but may be focusing primarily on ambulating while in the presence of moderate to severe foot pain. Therefore, the slow and insidious nature of hearing loss has become a less obvious problem than the urgent need to ambulate and seek treatment from a podiatrist. Similarly, people with vision problems who visit an optometrist are likely to also be at an age where hearing loss is likely to become noticeable. As such, there are significant opportunities to recognize the natural overlap in patient bases between these allied health professionals and audiologists. It is not surprising, therefore, that combined practices of optometry and audiology have been growing rapidly with franchise examples like Specsavers and Boots UK.

Getting involved with telehealth

Audiology services can be extended by actively partnering with a number of other allied healthcare professionals. These partnerships can facilitate the provision of hearing screenings and other audiology services in a more convenient and accessible way to patients. Teleaudiology options can enable audiology practices to support allied health professions remotely with limited human resource requirements. COVID-19 accelerated teleaudiology options for remote self-testing can for example link to an audiologist asynchronously or even synchronously.¹ Examples of such technologies include free-standing kiosks or the use of a digital notepad or tablet with noise-canceling earphones to provide an accurate and rapid hearing screening test with results immediately rendered.¹⁻³ When partnering with the vast array of allied health professionals, audiologists will be the "go-to" professional who will ensure complimentary validated and appropriate hearing screening protocols for these settings. These kiosks can easily provide rapid automated hearing screening for patients in waiting rooms or dedicated quiet spaces. Such kiosks are currently available in a variety of allied health professionals' offices and are typically equipped with headphones, microphones, and computer software that allow patients to complete hearing screenings in a self-directed and private manner. Screening technologies for kiosk testing have been well-validated and include pure tone audiometry or speech-in-noise (e.g., digits-in-noise) screening tests³ with the necessary quality control features.

Patients who fail the screening can connect with the servicing audiology practice via the screening kiosk by making an appointment or potentially scheduling a live telehealth call to discuss the test results and next steps. A simple value-added teleaudiology screening service in partnership with a variety of allied health professions can yield mutual benefits for patients and professionals summarized as shown in table 1.

Table 1. Potential benefits of teleaudiology screening service in partnership with allied health professionals

Benefits	Description
Increased patient access	Teleaudiology screening services in non-traditional settings, such as pharmacies, podiatry, optometry/ophthalmology dental clinics and others can increase patient access to hearing healthcare, especially for those who may not have otherwise sought out audiological services.
Early detection and intervention	Screening can identify hearing loss early on, allowing for timely intervention and treatment.
Improved patient outcomes	Early detection and intervention can improve patient outcomes and quality of life. Patients with hearing loss who receive timely intervention are more likely to experience better communication, social participation, and cognitive function.
Hearing health promotion	Teleaudiology screening services can also be used as an opportunity to promote hearing health and raise awareness about the importance of hearing care. Partnering with allied health professionals can increase the reach of hearing health promotion efforts.
Collaborative care	Collaboration between audiologists and other healthcare providers, such as optometrists and podiatrists, can lead to improved patient care and outcomes. Allied health professionals can identify patients with hearing loss and facilitate referral for further evaluation and management.
Revenue generation	Teleaudiology screening services can be a source of revenue for both audiologists and partner healthcare providers. The service can attract new patients and potentially lead to additional services and sales.

Pharmacies are also a valuable partner in extending audiology services through the use of screening kiosks. Many pharmacies have private consultation rooms, which can be equipped with screening kiosks to offer hearing screenings and even hearing aid fitting consultations in areas where audiology access is limited. With the recent advent of over-the-counter (OTC) hearing aids seen in pharmacies to facilitate sales of OTC devices, there are many opportunities for audiologists to improve the quality of life for many individuals suffering from hearing loss. Audiology can provide value-added opportunity services directly linking individuals with a hearing health professional. Hearing screening kiosks have also emerged in optometry practices in partnership with OTC hearing aids.⁴ Audiology practices can provide similar services in partnership with optometry/ophthalmology and podiatry practices with the addition of a direct link to a professional.

Conclusion

Audiology services can be expanded through partnerships with allied health professionals, which can benefit patients, professionals, and the field of audiology as a whole. Teleaudiology options, such as the use of kiosks and tablets for rapid automated hearing screenings, can make audiology services more accessible and convenient for patients while also reducing human resource requirements. These partnerships can also promote hearing health awareness and provide value-added services to patients, such as hearing aid fitting consultations, hearing health promotion, and reducing stigma about hearing disabilities. As the healthcare landscape continues to evolve, audiology can continue to expand its reach and impact through strategic partnerships and teleaudiology innovations.

References

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