ASHA American Speech-Language-Hearing Association

PERSPECTIVES

SIG 12

Clinical Focus

Bridging the Gap: Insights From Telepractice Augmentative and Alternative Communication Services in the Digital Age

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ABSTRACT

Purpose: The United States Society for Augmentative and Alternative Communication and the Patient-Provider Communication Network sought to quantify the impact of utilization of and access to telepractice for the provision of augmentative and alternative communication (AAC) services. The purpose of this article is to summarize findings from two surveys that explored the kinds of AAC services delivered remotely, barriers to AAC addressed through telepractice, and impact of the availability of remote AAC services on people with communication disabilities and their caregivers.
Method: The study team developed two online surveys: (a) for speech-language pathologists (SLPs) and (b) for individual AAC clients (or family members in the case of pediatric clients).
Results: Survey responses were obtained from 66 SLPs and 90 AAC clients/family members. Access to telepractice allowed clients/family members to overcome both access and financial barriers. Respondents indicated that the availability of AAC telepractice services reduced transportation barriers, increased access to services by appropriately trained clinicians, and improved the outcomes for individuals needing AAC.
Conclusions: Telepractice has made it possible for individuals with significant medical challenges, as well as those residing in areas lacking qualified providers, to receive services. Given that both clinicians and clients/families indicated that travel to receive services posed a significant barrier to access medically necessary treatment, the anticipated December 2024 end of Centers for Medicaid and Medicare Services' authorization of reimbursement for telepractice services will be detrimental to many needing AAC services.
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The American Speech-Language-Hearing Association (ASHA) has identified telepractice as a means of service delivery for speech-language pathologists (SLPs) and audiologists (https://www.asha.org/Practice-Portal/Professional-Issues/Telepractice/). ASHA uses the term "telepractice," as opposed to "telehealth," to include provision of services outside of health care settings, for example, via remote telecommunication methods. The COVID-19 coronavirus pandemic and its associated limitation on in-person contact necessitated the use of telepractice to ensure continuity of services for individuals needing the services of SLPs (https://www.asha.org/Practice/Telepractice-Services-and-Coronavirus/).

With the emergence of technologies to support telepractice in the assessment and treatment of individuals with communication disorders, SLPs have been able to reach individuals who might not otherwise have access to services. Simacek et al. (2021) discussed how telepractice offers numerous advantages, such as increasing access to

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services for families in remote areas, reducing travel time and costs, and allowing for more flexible scheduling. Additionally, telepractice can facilitate parent or caregiver involvement in the therapy process, which is crucial for the generalization of skills learned in therapy to everyday environments. Systematic reviews of the use of telepractice for a wide range of communication disorders have concluded that telepractice is an effective way to deliver services including augmentative and alternative communication (AAC; Hall et al., 2013; Weidner & Lowman, 2020).

More recently, as a consequence of the COVID-19 pandemic, a greater number of SLPs have had to rely on telepractice to provide services to individuals needing AAC. At the start of the pandemic in 2020, Biggs et al. (2022) used an online survey to examine SLPs' experiences using telepractice with children who use AAC systems/devices. They found that the uses of telepractice varied across settings (school based vs. nonschool based) as clinicians adapted their practices during the first couple of months of the pandemic. Mishra (2024) reported that remote delivery of AAC services was a "viable alternative to face-to-face instruction for children with autism spectrum disorders." These studies also indicated that SLPs faced challenges in adapting their practices and called for future research to understand how telepractice could be effectively used to provide AAC services.

With the expiration of the public health emergency declaration for COVID-19 (Telehealth.HHS.gov), as of December 31, 2024, Medicare will be ending all reimbursement for SLP telepractice services, including AAC services. The United States Society for Augmentative and Alternative Communication (USSAAC, http://www.ussaac.org), a national organization composed of AAC stakeholders from diverse professions as well as people who use AAC and their families, and the Patient-Provider Communication Network (PPCN), a coalition of health care providers, advocates, and organizations (http://www.patientprovidercommunication.org), have sought to quantify the impact of access to and utilization of telepractice services for AAC and to document what could be lost without the coverage benefit.

The purpose of this article is to summarize findings from two surveys conducted during 2023–2024 to explore the following questions with SLPs and individuals who use AAC and their family members:

1. What kinds of AAC services are delivered remotely?
2. What barriers to obtaining AAC services are addressed through the use of telepractice?
3. What is the impact of the availability of remote AAC services on people with communication disabilities and their caregivers?

Method

Study Design

Representatives from USSAAC's Research Committee and the PPCN used an iterative process to develop two surveys: (a) for SLPs to find out how telepractice was used to provide services to individuals needing AAC during the pandemic and (b) for individual clients (or family members in the case of pediatric clients) who had received AAC services. The study was approved by the University of Iowa institutional review board (#202310450).

Study Team

Our interdisciplinary team consisted of SLPs and patient advocates. All have recognized expertise in areas related to AAC. The team constructed both surveys using Qualtrics, a web-based software that allows users to create surveys and generate reports without having any previous programming knowledge.

Participant Recruitment and Data Collection

The study team disseminated the two surveys through announcements and links posted by USSAAC and the PPCN via social media, electronic mailing lists, and targeted e-mails. To limit duplication of responses, the announcement to clinicians asked that only one SLP complete the survey for each setting (e.g., clinic, university, school, private practice). Rather than having the study team receive contact information of service recipients, clinicians were asked to distribute the link to the survey for individuals/family members who received AAC services through their clinic or private practice. Both surveys were accessible from December 2023 through April of 2024, which reflects additional years of experience with telepractice services compared with the responses in the earlier report by Biggs et al. (2022).

Data Analysis

The clinician/SLP survey consisted of 23 items. The client/caregiver survey consisted of 14 items (see Supplemental Materials S1 and S2 for both surveys). Most items were presented as multiple-choice questions, with an option for respondents to provide an "other" response, and to specify what "other" entailed. Both surveys collected demographic information (e.g., geographical location, work setting/type of clinic, age of clients, number of SLPs employed at the respondents work setting) and information related to the types of AAC services provided/received via telepractice (i.e., AAC assessment, therapy, device training, and family member training).

Respondents to both surveys provided information about barriers to AAC services, such as transportation issues, and responded to questions about the impact of telepractice on AAC services. Finally, the client/caregiver survey used a 5-point Likert scale to assess respondent satisfaction with AAC services received through telepractice.

Responses to all survey items were tabulated from the Qualtrics raw data and are presented in the Results section and in Supplemental Material S3. Responses to the open-ended impact questions regarding telepractice were sorted into themes (the responses are available in Supplemental Material S3).

Results

Participants

A total of 66 SLPs responded to the clinician survey and 90 AAC clients/family members responded to the client survey. Since responses to individual survey questions were not obligatory, the number of responses to individual survey questions varied.

Figure 1 shows the geographic distribution of our sample. Fifty-seven (86%) of the SLPs who responded reported they practiced in 21 states. Of the 90 clients/family members who responded, 70 (78%) reported they resided in 28 states.

The SLPs who responded reported they represented approximately 316 SLPs who currently provide AAC services at their workplaces. They also reported providing AAC services to both pediatric clients (under the age of 22 years) and adult clients (over the age of 22 years).

As shown on the left side of Figure 2, 53 (80%) of the SLPs who responded indicated that they worked in five clinical settings (i.e., private practice [32%], nonprofit clinic [19%], school system [17%], hospital [17%], and/or university clinic [15%]). The right side of Figure 2 shows that of the 57 (63%) clients/family members who indicated where they

Figure 1. Geographical distribution reported by respondents. SLP = speech-language pathologist.

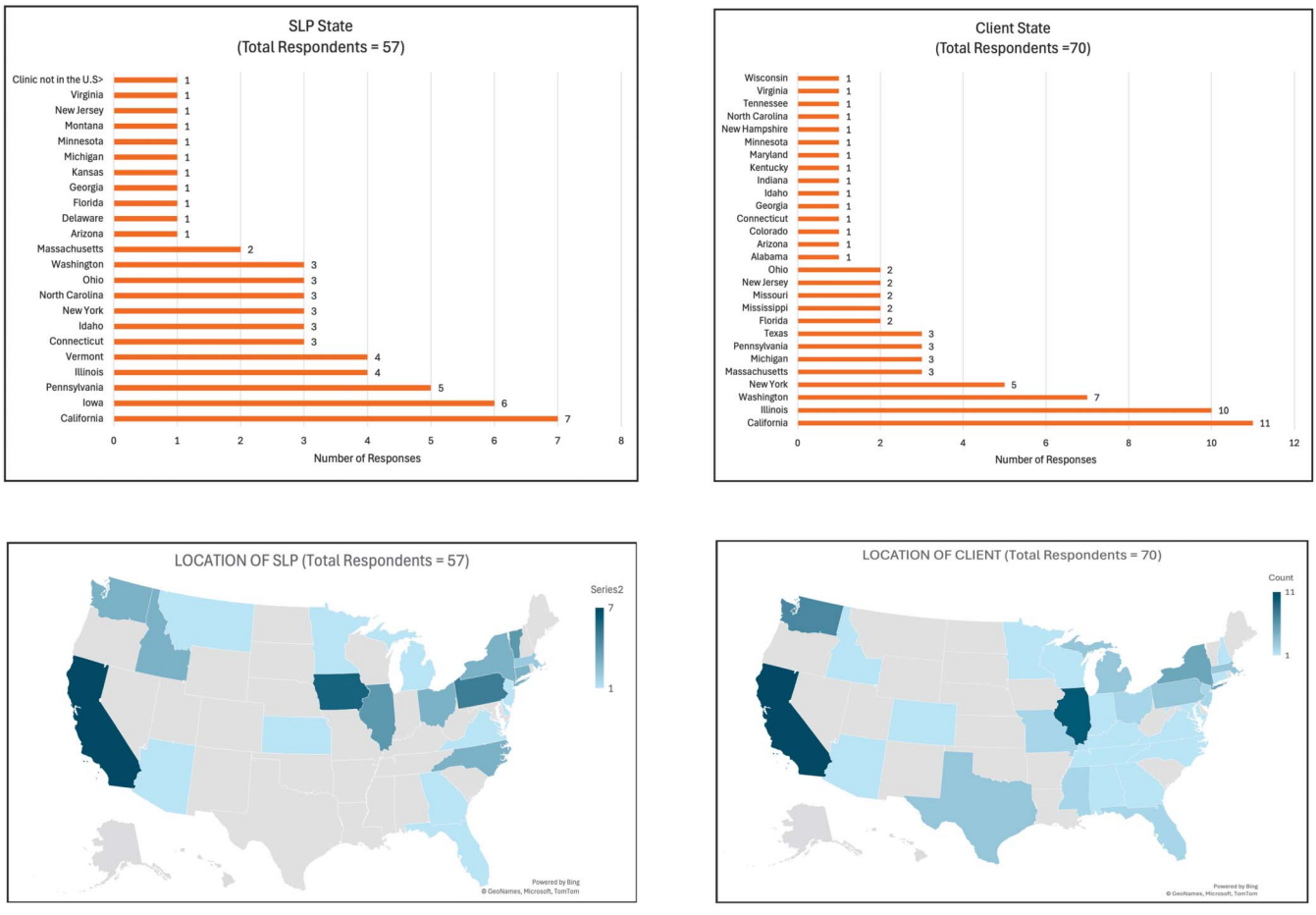
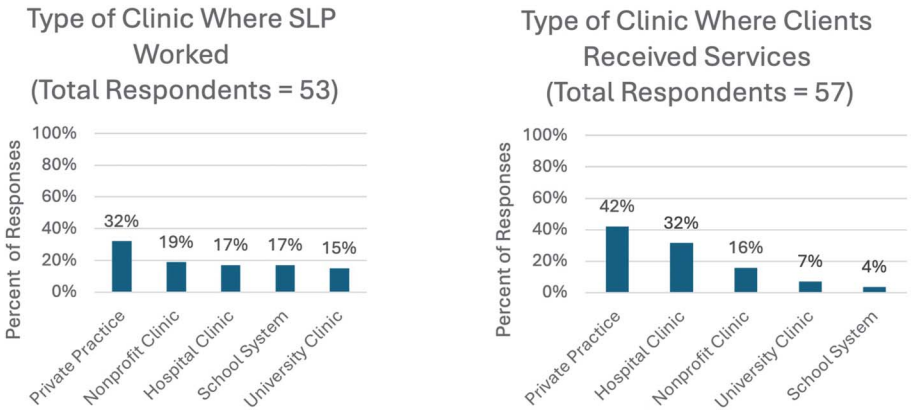


Figure 2. Types of clinical settings: where speech-language pathologists (SLPs) delivered and clients received services.



had received AAC services, 24 (42%) reported that they had received AAC services from a private practitioner, 18 (32%) in a hospital clinic, nine (16%) in a nonprofit clinic setting, and two (4%) within the school system. Of note was the large percentage of respondents from both groups who reported either delivering or receiving AAC services through a private practice. Figure 3 shows the annual number of clients who received AAC services through a clinic and/or client's home as reported by 45 (69%) of SLP respondents.

The central aim of the study was to explore and systematically document the demand for AAC services delivered through telepractice. In this section, we present data collected from both SLPs and clients/family members based on their experiences with AAC services via telepractice since 2022.

Of the 51 SLPs who reported providing AAC services via telepractice, most (78%) indicated that they had seen 25 or fewer AAC clients, 18% saw up to 75 clients via telepractice, and 2% saw more than 200 AAC clients (see Figure 4).

Both SLPs and clients/family members provided insights into the types of AAC services across the following key areas: AAC evaluations, AAC therapy, AAC device programming, and family member/caregiver training sessions. These findings are visually represented in Figures 5 and 6 (SLP responses) and Figures 7 and 8 (client/family member responses).

Service Provider (SLP) Responses

AAC evaluations. As shown on the left of Figure 5, of the 45 SLPs who responded, 89% reported conducting AAC evaluations via telepractice. Most SLPs (80%) reported performing fewer than 25 AAC evaluations annually, while 11% conducted between 26 and 100 evaluations. AAC evaluations are essential for optimizing communication outcomes across the lifespan.

AAC therapy. As shown on the right of Figure 5, approximately half of the SLPs (49%) reported conducting

Figure 3. Augmentative and alternative communication (AAC) services provided at home or clinic.

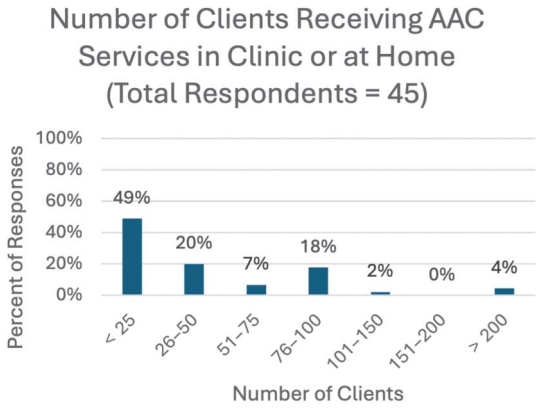


Figure 4. Augmentative and alternative communication (AAC) services provided via telepractice.

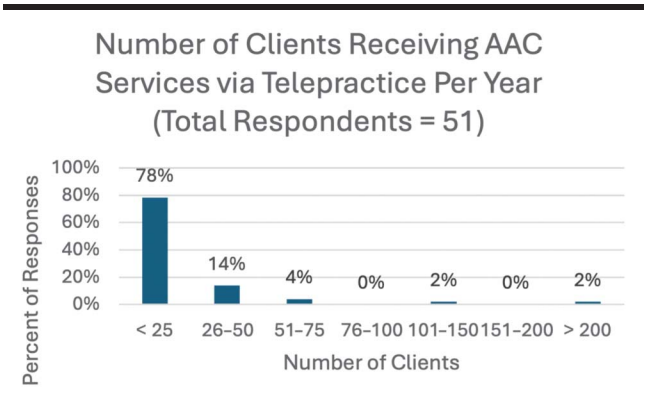
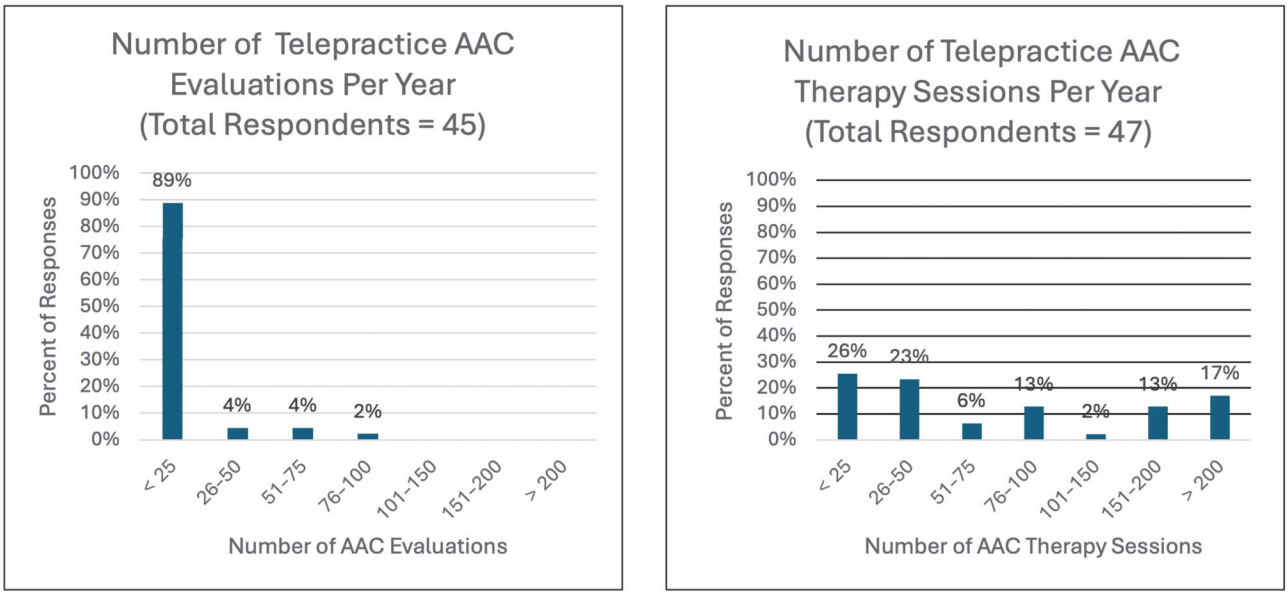


Figure 5. Augmentative and alternative communication (AAC) evaluations and therapy sessions via telepractice per year.



up to 50 AAC therapy sessions annually. An additional 32% of SLPs delivered more than 75 AAC therapy sessions per year. These results highlight the active involvement of SLPs in providing AAC therapy, emphasizing the importance of tailored interventions to enhance communication outcomes for individuals using AAC systems.

AAC device programming. Figure 6 illustrates that 46 SLPs actively engaged in AAC device programming, emphasizing the significance of individualized programming to address the unique communication needs of their clients. The frequency and importance of AAC device programming underscore the critical role it plays in effective communication.

Caregiver training. Additionally, caregiver training emerged as a pivotal factor in maximizing successful AAC device use. Among 43 SLPs, telepractice sessions specifically focused on training family members, caregivers, and support persons. Effective caregiver training contributes significantly to the successful utilization of AAC devices by individuals facing communication challenges.

Figure 6. Augmentative and alternative communication device programming and caregiver training sessions via telepractice per year.

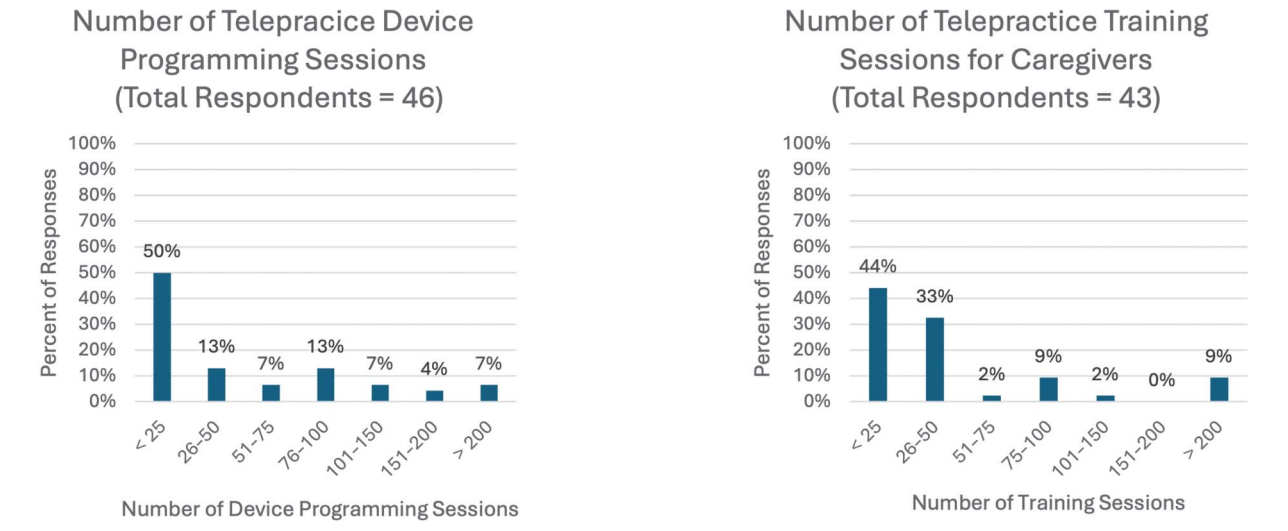
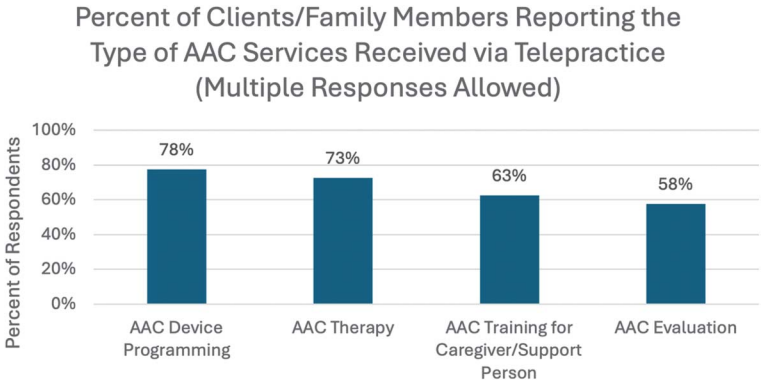


Figure 7. Clients/family members/caregivers: types of augmentative and alternative communication (AAC) services.



Client/Family/Caregiver Responses

The survey for clients/family members asked questions about the AAC services they had received via telepractice. Of the 55 who responded, 40 (73%) reported receiving AAC services via telepractice while 15 (27%) indicated they had not received AAC services through telepractice. As with the clinician survey, AAC clients and family members reported receiving four types of AAC services via telepractice: AAC evaluations, AAC therapy, AAC device programming, and AAC caregiver/support person training. Figure 7 illustrates that of the 40 clients/family members who responded, more than half reported that their sessions focused on AAC evaluations (23 of 40), AAC therapy (29 of 40), AAC device programming (31 of 40), and AAC caregiver/support person training (25 of 40). In contrast to responses from SLPs mentioned earlier, clients and their family members reported receiving a more balanced distribution of AAC services.

Overall satisfaction ratings for telepractice services were collected using a 5-point Likert scale, with 5 indicating the highest satisfaction. Most (95%) clients, family members, and caregivers indicated satisfaction ratings of 4 or 5, as shown in Figure 8, indicating they were satisfied or very satisfied with AAC telepractice services.

Barriers to AAC Services

We asked SLPs about funding sources for both pediatric and adult AAC services. We asked clients/family members why telepractice helped mitigate barriers their clients/family members faced. Finally, we asked both groups to identify barriers to AAC services specifically related to transportation issues.

SLPs reported that some of their clients had requested AAC services via telepractice. Multiple responses were allowed. Table 1 shows the percentage of SLPs who selected each of the reasons for why clients/family members seek AAC telepractice services.

Funding. SLPs also reported various funding sources paid for pediatric and adult AAC services. Figure 9 (left) shows the distribution of the four primary funding sources for pediatric services: Medicaid, third-party insurance, private pay, and schools. Additionally, Figure 9 (right) shows a distribution of the eight funding sources for adult services: third-party insurance, private pay, Medicaid, Medicare, Tricare, Veterans Administration, Vocational Rehabilitation, and Workers' Compensation. Our findings indicated that the primary funding sources for AAC services

Figure 8. Client/family member satisfaction with telepractice augmentative and alternative communication services.

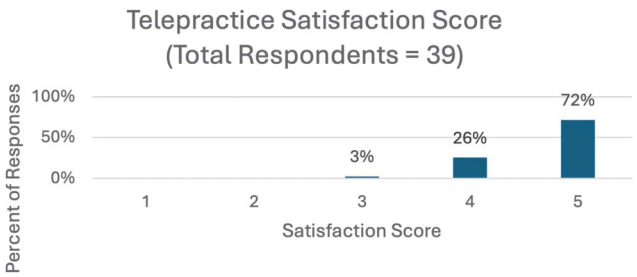


Table 1. Reasons clients/family members request augmentative and alternative communication (AAC) services via telepractice.

Reasons	% who selected
Lack of locally available qualified provider	17%
Availability of more caregivers/support persons who can contribute and be training at each AAC session in the home	13%
Ability to be evaluated or trained in the environment in which AAC systems will be utilized	11%
Lack of transportation in general	11%
Concerns that visits would be too long and require multiple trips rather than be broken into multiple, less fatiguing, shorter telepractice visits	10%
Concerns about the AAC client's fatigue level resulting from transportation	10%
Lack of adequate transportation to accommodate a wheelchair	9%
Lack of access to someone to accompany them to the clinic/office	7%
Availability of equipment to support, breathing, positioning, toileting, feeding, and administration of medications	7%
Other (e.g., illness, immunocompromised, hours available for therapy)	5%

Note. Multiple responses allowed (n = 38).

are third-party insurance, private pay, Medicaid, and Medicare. Historically individuals requiring AAC services have had to rely on multiple funding sources because not all services have been fully funded.

Transportation. Both the SLPs and clients/family members reported that transportation issues significantly impacted the ability of people who require AAC services to access the services that they need. SLPs reported that about 30% of their clients travel from 1 to 10 miles, 31% travel from 11 to 30 miles, 24% travel from 31 to 50 miles, 9% travel from 51 to 100 miles, and 6% travel more than 100 miles to their offices/clinics. More than half (61%) of clients/family members indicated that transportation was a barrier to receiving AAC services.

Among the transportation-related barriers reported by both groups of respondents were a lack of accessible transportation, travel-induced fatigue, travel-related costs, the need for an accompanying person, need for transportation methods that can accommodate a wheelchair, and medical conditions that prohibit travel. Table 2 shows the distribution of transportation-related barriers reported by AAC clients/family members (left) and by SLPs (right). Of note is the similarity between groups.

Client/Family Member Perspectives

Clients/family members were asked to rate how important it is for them to access AAC telepractice services. Using a Likert scale, with 1 being *not at all important* and 5 being *extremely important*, most (90%) clients/family members (44 of 49 respondents) indicated that they considered telepractice services either *very important* or *extremely important*. Only 4% (n = 2) of respondents ranked telepractice services as *not important at all* (see Figure 10).

Thirty-one of the clients/family members also provided specific information about how AAC telepractice services had impacted them. Their comments (see Supplemental Material S3) were categorized into seven themes as shown in Table 3, which provides a listing of the themes and number of comments that fit into each theme. The responses from nine of the clients/family members were categorized under more than one theme (e.g., improved outcomes and access).

Figure 9. Pediatric and adult client funding sources.

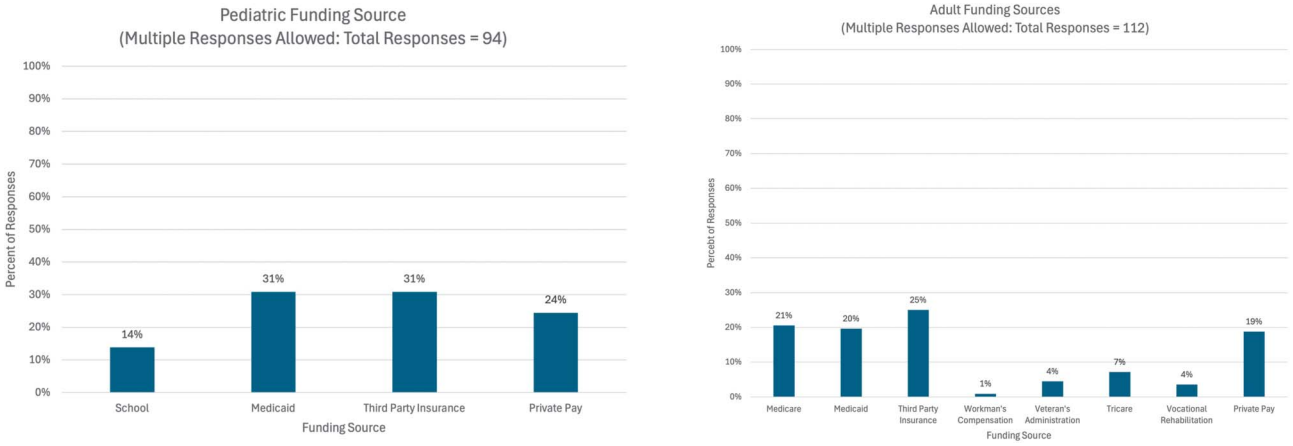


Table 2. Transportation-related barriers to augmentative and alternative communication services (multiple responses allowed).

Issues identified by clients/family members (*n* = 112)		Issues identified by SLPs (*n* = 127)	
Lack of accessible transportation	14%	Medical condition prohibits travel	22%
Cost of transportation	14%	Lack of accessible personal transportation	21%
Fatigue caused by travel	14%	Lack of accompanying person for travel	17%
Lack of accompanying person for travel	13%	Lack of accessible public transportation	14%
Medical condition prohibits	10%	Cost of transportation	13%
Lack of adequate transportation to accommodate wheelchair	7%	Cost of overnight stay	12%
Cost of overnight stay	3%	Other (e.g., lack of local providers, time and distance for client, time and distance for clinician, adverse weather, childcare)	7%
Availability of equipment to support, breathing, positioning, toileting, feeding, and administration of medications	3%		
Other (e.g., out of the area)	22%		

Note. SLPs = speech-language pathologists.

Clinician/SLP Perspectives

Thirty-two SLPs also provided comments about how being able to provide AAC services via telepractice has impacted their clients (see Supplemental Material S3). Their responses were categorized into 11 themes. Table 4 provides a listing of the themes and the number of respondent comments that fit into each theme. The responses of 21 of the respondents' comments were categorized under more than one theme.

As shown in Table 5, 30 of the SLPs also commented on the impact on their clinical practice of providing AAC services via telepractice (see Supplemental Material S3). Their comments were categorized into five themes. Twelve of the respondents' comments were categorized into more than one theme.

Summary and Conclusions

Our study provides the most current survey of the utilization and impact of AAC services provided via telepractice. Unlike the Biggs et al. (2022) study conducted early in the pandemic (2022), the responses to our surveys, from 60 SLPs and from 90 clients/family members indicate the availability of AAC services via telepractice has been received positively by clinicians and clients (see Tables 1–5).

Access to telepractice allowed clients/family members to overcome a range of access and financial barriers to obtaining AAC services. Given the geographical distribution of our survey respondents, our study sample includes areas in which some clients had to travel long

Figure 10. How important is having telepractice augmentative and alternative communication (AAC) services?

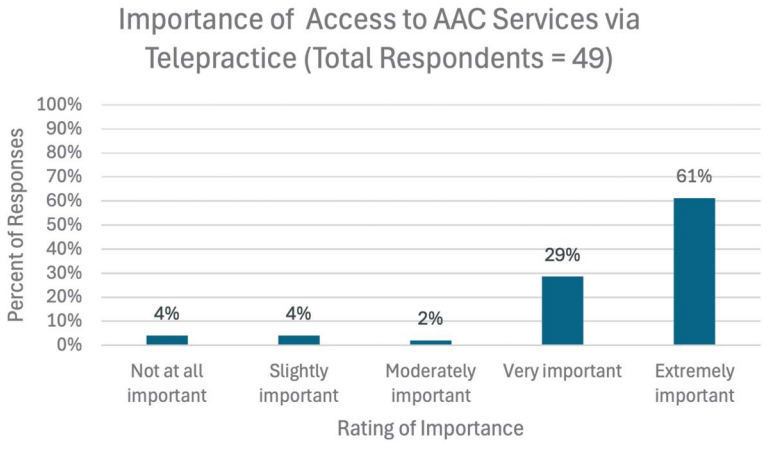


Table 3. Themes of clients/family members—impacts of receiving telepractice services (n = 31).

Theme	# of responses
Improved outcomes	15
Access to therapy/services	12
Reduced stress of having to travel	6
Helpful	2
Family involvement	2
No impact	2
Make life easier	1

distances to receive services and some SLPs were able to provide AAC services to clients who were unable to travel.

Both SLPs and clients/family members indicated that distance and travel time limited access to the range of AAC services, specifically AAC evaluation, AAC therapy, device programming, and caregiver training. The comments provided by clinicians (see Tables 3 and 5) and from clients/family members (see Table 4) suggest that the availability of AAC services via telepractice reduced the transportation barriers to receiving services, increased access to services by appropriately trained clinicians, and improved the outcomes for individuals needing AAC. For individuals living in rural areas, access to clinicians with expertise in AAC has been a challenge and may contribute to the overall geographical disparities in health care. As many of the individuals who need AAC services are medically fragile and immunocompromised, telepractice has made it possible for them to receive services. Continuing coverage for telepractice AAC services can allow us to reduce the disparities in care.

Table 4. Themes of speech-language pathologists—impacts on clients/family members receiving telepractice services (n = 32).

Theme	# of responses
Overcome travel barrier	12
Improved outcomes	12
Access to services	9
Improved caregiver involvement	4
More productive/efficient and effective sessions	3
Availability of qualified provider	3
Therapy in natural environment	3
Improved attendance	3
Overcome client stress/behaviors seen in clinic	2
Facilitates getting devices	1
Positive impact on clients	1

Table 5. Impacts on clinical practice of providing augmentative and alternative communication telepractice services (n = 30).

Theme	# of responses
Access to services	18
Improved outcomes	16
Increased caseload	6
Clinician satisfaction	1
Grad student training on use telepractice	1

While our clinician survey results indicated a wide range of payors (see Figure 8), many payors follow the Medicare guidelines. Nevertheless, the billing data obtained under a Freedom of Information Request from Centers for Medicaid and Medicare Services (CMS; see the Appendix) do provide important information about the negative impact (e.g., decline in evaluation and therapy sessions) of the pandemic on the provision of AAC services. The data also demonstrate that the availability of reimbursement for telepractice services may have mitigated the barriers clients faced regarding access to in-person services. Given that both clinicians and clients/families indicated that travel to receive services posed a significant barrier to access medically necessary treatment, the anticipated December 2024 end of CMS authorization of Medicare reimbursement for telepractice services will be detrimental to many needing AAC services.

Data Availability Statement

To access data supporting the results reported, please contact Richard R. Hurtig (richard-hurtig@uiowa.edu).

Acknowledgments

The authors wish to acknowledge members of the study team and United States Society for Augmentative and Alternative Communication and the Patient Provider Communication Network (PPCN.org). We appreciate and want to recognize the contributions of Tami Altschuler, Lewis Golinker, Jessica Gormley, Amy Roman, Rachel Santiago, and Wendy Quach.

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Appendix (p. 1 of 2)

Historical Data on Augmentative and Alternative Communication Services and Medicare Payments

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Utilizing the most recently available data obtained from the Centers for Medicaid and Medicare Services, we can see the number of Medicare reimbursed augmentative and alternative communication (AAC) evaluations and therapy from 2017 to 2022. Although the available data do not allow us to differentiate between face-to-face in-person services and telehealth services, we can assume that prior to the pandemic, the services were only provided in person and that the data for 2021 and 2022 include a combination of Medicare face-to-face in-person and telehealth services corresponding to the authorization of telepractice in response to the pandemic. Figure A1 provides the total Medicare AAC services provided over the 5-year period from 2017 to 2022. It is worth noting a steady increase prior to the pandemic and a dramatic drop of 33% in 2022 when many clinics and school systems were shut down. It may be possible to infer that the growth in AAC services since 2022 might be in part attributable to the availability of telepractice services. This is supported by the clinician and client telepractice survey results that indicated a substantial use of Medicare telepractice services.

Figures A2 and A3 provide the data for AAC evaluations (Code 92607) and AAC therapeutic services (Code 92609), respectively. Both show a decline in the respective services in 2020 and a gradual recovery in 2021 and 2022.

Figure A4 shows the Medicare payments for AAC services over the 5-year period from 2017 to 2022. There is an almost 25% decrease seen for 2020 and by 2022 the reimbursements had returned to the level seen in 2017.

Figure A1. Augmentative and alternative communication (AAC) services, 2017–2022.

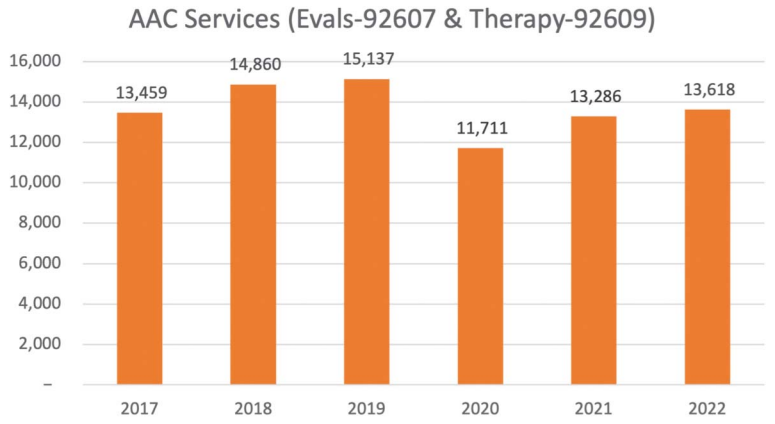
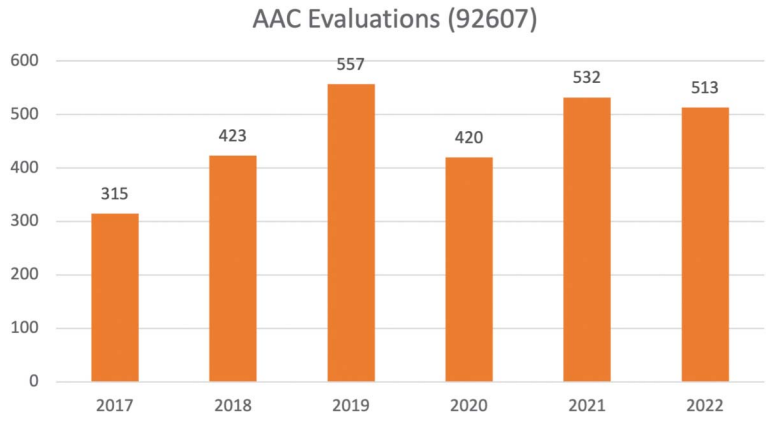


Figure A2. Augmentative and alternative communication (AAC) evaluations, 2017–2022.



Appendix (p. 2 of 2)

Historical Data on Augmentative and Alternative Communication Services and Medicare Payments

Figure A3. Augmentative and alternative communication (AAC) therapy, 2017–2022.

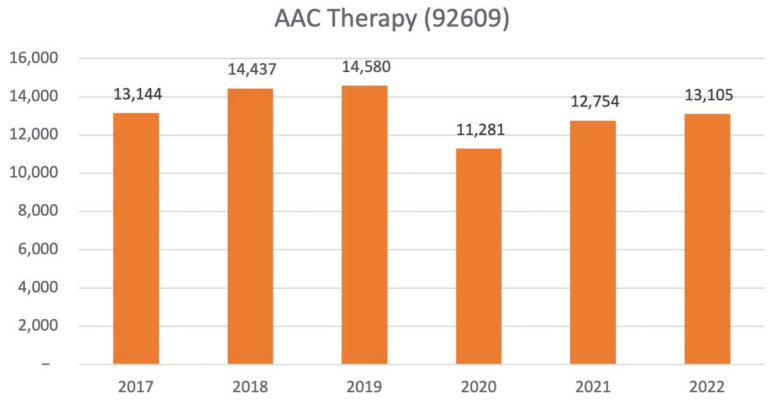


Figure A4. Medicare payments for augmentative and alternative communication (AAC) services, 2017–2022.