



Western Washington University
Western CEDAR

WWU Honors College Senior Projects

WWU Graduate and Undergraduate Scholarship

Spring 2021

Zooming In on Teletherapy: The Benefits and Challenges of Virtual Speech, Language, and Aural Therapies

Brianne McCaslin
Western Washington University

Follow this and additional works at: https://cedar.wwu.edu/wwu_honors



Part of the [Health Communication Commons](#), and the [Speech and Rhetorical Studies Commons](#)

Recommended Citation

McCaslin, Brianne, "Zooming In on Teletherapy: The Benefits and Challenges of Virtual Speech, Language, and Aural Therapies" (2021). *WWU Honors College Senior Projects*. 482.
https://cedar.wwu.edu/wwu_honors/482

This Project is brought to you for free and open access by the WWU Graduate and Undergraduate Scholarship at Western CEDAR. It has been accepted for inclusion in WWU Honors College Senior Projects by an authorized administrator of Western CEDAR. For more information, please contact westerncedar@wwu.edu.

**Zooming in on Teletherapy:
The Benefits and Challenges of Virtual Speech, Language, and Aural Therapies**

Brianne N. McCaslin

Advised by Kimberly Peters

Western Washington University

Abstract

The purpose of this study is to examine the advantages and disadvantages of teletherapy in the field of communication sciences and disorders. Previous research has been conducted on this subject regarding teletherapy for individuals in rural areas, or those with mobility challenges, that would normally not have access to in-person therapy. However, this study is important in furthering this research because clients are now required to attend teletherapy sessions in response to the new guidelines surrounding our global pandemic. To collect data, three surveys were distributed: the first to clients and their families who were the recipients of teletherapy services, the second to clinicians and returning graduate students, and the third to first year graduate students who were the providers of teletherapy services at Western Washington University's Speech-Language-Hearing clinic. Peoples' experiences with teletherapy compared to in-person therapy sessions were assessed, providing a surface-level description of the perceived effectiveness of virtual compared to traditional therapy, and benefits and challenges encountered. Results indicated mixed reviews, depending on the individual and their situation. Possible solutions to problems and future projections regarding teletherapy are discussed. This study is not comprehensive, but is meant to highlight some of the broader themes on the strengths and weaknesses of teletherapy. Further research needs to be conducted.

Keywords: Teletherapy, speech/language therapy, aural rehabilitation, Covid-19 pandemic

Zooming in on Teletherapy: The Benefits and Challenges of Virtual Speech, Language, and Aural Therapies

Teletherapy is therapy executed over electronic live video interactions through programs such as *Zoom*, *Skype*, or *Microsoft Teams*. In speech/language therapy and aural rehabilitation, the goals of diagnosing, treating, and working with patients towards achieving the best possible outcomes are the same for teletherapy as for in-person therapy services. However, therapy activities may need to be modified to account for the virtual instead of face-to-face environment.

Before the Covid-19 pandemic, teletherapy was primarily used as a more accessible alternative to in-person therapy for clients living in rural areas who could not attend due to distance from a clinic (Hines et al., 2019), or for clients who could not participate in traditional therapy sessions due to mobility challenges (Kurland et al., 2018). Teletherapy was also used as a cost-effective and time-effective way to provide services to people who needed it when there were shortages of speech-language pathologists and audiologists (Mohan et al., 2017; Navarro et al., 2018, Ruiter et al., 2016). Overall, teletherapy was broadly seen as a viable alternative when in-person therapy could not be conducted.

Research published within the five year span leading up to the pandemic stated that teletherapy was acceptable, feasible, and equally as effective as traditional therapy (Dial et al., 2019; Fairweather et al., 2016; Kurland et al., 2018; Pennington et al., 2019). Researchers commonly stated that, “both telehealth and in-person participants made significant and similar outcomes” (Wales et al., 2017, p. 1). However, studies of teletherapy were limited. The available research mentioned benefits such as increased access for clients, and greater learning opportunities for clinicians (Cassel & Hadley Edd, 2016). Challenges identified included

technology issues, decreased communication/rapport, and engagement difficulties (Kurland et al., 2018; Pennington et al., 2019).

While some clinics may be offering covid-compliant in-person therapy sessions, the Speech-Language-Hearing Clinic at Western Washington University has continued to provide all therapy services remotely. It is no longer a choice given to people who may benefit from it due to long commutes or disability; clients and clinicians alike are required to engage with teletherapy. This study is a collection of three related surveys. The purpose is to examine the perceived effectiveness, benefits, and challenges of teletherapy during the Covid-19 pandemic at WWU's Speech-Language-Hearing Clinic. Clients', families', clinicians', and graduate students' perspectives were taken into consideration.

Methods

Three Google Forms surveys were created and distributed through the department chair and the administrative services manager to different populations within the Communication Sciences and Disorders Department at Western Washington University. The surveys were sent via email along with a recruitment script and an attached flier. Before distribution, the surveys were reviewed and approved by WWU's Institutional Review Board (Exempt, Category 2, Protocol #4118EX21). One survey was sent to clients and family/caregivers of clients, one survey was given to clinicians and second-, third-, and fourth-year graduate students (individuals who had likely delivered traditional therapy before teletherapy), and the final survey was given to first-year graduate students (individuals who had likely never provided in-person therapy before teletherapy). Participants could choose whether or not to take the survey, and agreed to the terms outlined in an informed consent script on the first page of the form before proceeding. Each survey asked between two and four broad demographic questions, five to six questions on

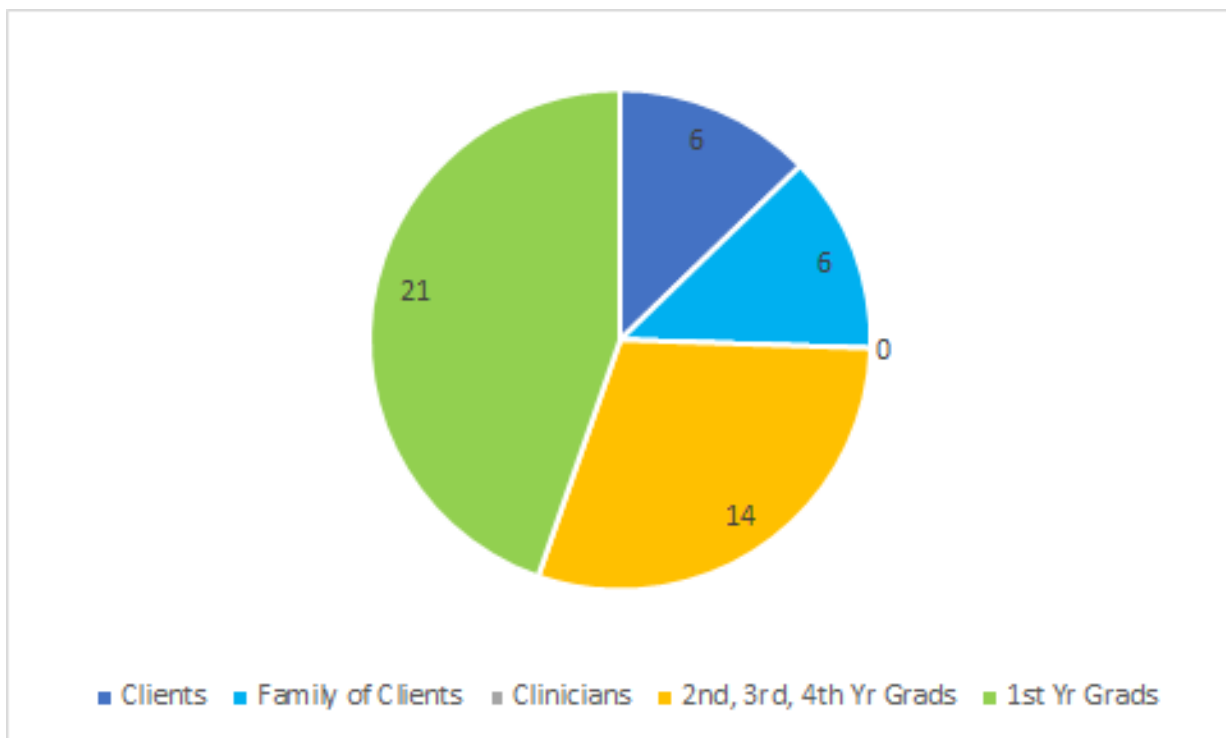
the perceived effectiveness of teletherapy, and four open-ended questions about any advantages or setbacks experienced in receiving or delivering teletherapy services. The surveys were not linked to any identifying information. See appendix for survey questions.

Respondents also had the option to receive a \$5.00 Amazon e-gift card for their participation in the study. The link appeared after participants had submitted their responses (on the last page of the survey) and took individuals to a separate form, where they could provide their email to receive the incentive. Survey answers were not linked to participants' emails in any way.

12 clients and families, 14 2nd, 3rd, and 4th year graduate students, and 21 1st year graduate students participated in this study.

Figure 1

Participants



Note. Number of each participant type, out of the total 47 survey respondents.

Results

Client/ Family Teletherapy Survey

The first survey was distributed to clients, family members, and caregivers of clients. The first couple of questions attempted to collect broad, non-identifying demographic information. Half of respondents were family members or guardians of a child receiving therapy services at WWU's Speech-Language-Hearing Clinic and the other half were clients themselves. 66.7% of individuals attended in-person therapy at WWU before starting teletherapy, and 33.3% had only ever done teletherapy.

The next section of questions was aimed to assess the participants' perceived effectiveness of teletherapy versus in-person therapy. 41.7% of individuals remembered being excited to start teletherapy, while 8.3% did not want to do teletherapy, and 50% were not sure. After beginning, 50% of people did like teletherapy, 8.3% did not, and 41.7% were unsure. Two-thirds of participants felt that they were making good progress in their communication, while one-third said that they were making fair progress. No one felt as though they were making poor progress. 58.3% of respondents perceived teletherapy to be as effective as in-person therapy, and 41.7% felt like teletherapy was less effective. No participants thought virtual therapy was more effective than traditional therapy. After the pandemic passes, 25% of individuals would choose to do teletherapy again, 41.7% would want to switch back to in-person, and 33.3% said that it would depend on their circumstances. Overall, 58.3% of clients and families said that they prefer in-person therapy, while 41.7% indicated that they prefer teletherapy.

Finally, a few open-ended questions were asked to examine individuals' experiences with teletherapy. Paraphrased benefits were:

- Convenience: takes less time out of the day and can attend wherever *Zoom* is available
- Accessibility: for people with physical disabilities and families with chaotic schedules
- Efficiency: able to cover more subject matter in a short period of time
- Structure of session: technology is engaging for therapy
- Safety: helped clients and families feel secure during the pandemic, while still being able to do therapy

Challenges included:

- Technology issues: trouble setting up the program, power outages, unstable internet connection, unclear speech (especially hard for cochlear implant users), digital lag
- Limitations: group therapy is very difficult because everyone talks over each other
- Disconnect: less personal relationship/connection
- Structure of session: more formal, less engaging

Clinician/ 2nd, 3rd, 4th Year Graduate Student Teletherapy Survey

The second survey was sent to clinicians and second-, third-, and fourth-year graduate students. 100% of respondents of this survey were returning WWU graduate students who currently provide teletherapy services. 42.9% of participants were providers of only speech/language therapy, 28.6% only provided aural rehabilitation, and 28.6% did both. 28.6% of individuals worked solely with pediatric clients, and 71.4% worked with both children and adults. The majority (92.9%) of individuals who took this survey provided in-person services at WWU before starting teletherapy, but one person had only done teletherapy.

Before the pandemic, only one respondent felt excited to start teletherapy, while 35.7% were not excited, and 57.1% were not sure how they felt. During the pandemic, three people enjoyed teletherapy and only one did not like it, while the other 71.4% said it depends. All but

one respondent (92.9%) said that they have seen improvements in the communication of the majority of their clients over the course of teletherapy. 64.3% perceived virtual methods of therapy to be as effective as in-person, while 35.7% felt like it was less effective. No one responded that teletherapy was more effective than traditional therapy. After the pandemic, 92.9% of individuals reported wanting to continue teletherapy for some clients, while 8.7% would prefer to continue for all clients. Surprisingly, 0% said that they would want to do in-person therapy for all clients. Overall, 85.7% of continuing graduate students preferred in-person therapy, while 14.3% could not decide between the two.

Benefits mentioned were:

- Client comfort: clients are more comfortable at home and participate more, better for the behavior of clients who need routines/regulation
- Convenience: less commuting, more time available, more flexibility in scheduling
- Accessibility: for rural families and people with unreliable transportation
- Graduate student learning: increased preparedness to use teletherapy in the future
- Involvement: increased parent/caregiver involvement
- Generalization of skills: therapy techniques translate well into home practice/daily life
- Increased attendance: people don't miss sessions as often (due to sickness, snow, vacation, etc)
- Creativity: made clinicians more creative in planning and executing sessions for virtual therapy

A summary of encountered difficulties included:

- Technology issues: poor internet connection, lagged time between cue, behavior, and feedback, poor acoustic signals (makes it difficult to distinguish between speech sounds),

difficult to figure out *Zoom* at first

- Limitations: on activities, resources, and materials available, decreased number of clients seen due to stricter clinical supervision requirements, difficult to model certain techniques, cannot see what a client is reading or writing, cannot demonstrate care/maintenance of cochlear implants and hearing aids, less hands-on, cannot use tactile cues or active tasks for kinesthetic learners, less access to paralinguistic and nonlinguistic information
- Disconnect: difficult to build rapport, different social norms and expectations in online settings
- Time consuming: more time spent planning for sessions
- Structure of session: less control over therapy environment, harder to manage client's behavior, hard to engage children and maintain attention on therapy tasks
- Inequalities: lower income families have less access to internet

1st Year Graduate Student Teletherapy Survey

The third survey was sent to first year graduate students. 90.5% of respondents had only ever provided teletherapy, while 9.5% of participants had provided both in-person and teletherapy. 71.4% of the students were in the speech-language pathology program, while 28.6% were a part of the audiology program at WWU. 61.9% of individuals who took this survey worked with both children and adults, 14.3% only did therapy with adults, and 23.8% only saw pediatric patients.

28.6% of respondents felt excited to start teletherapy before its onset, while 42.9% did not want to do teletherapy, and the remaining 28.6% were not sure. After providing teletherapy services, 28.6% of participants liked teletherapy, only 4.8% did not, and 66.7% had mixed

feelings. 38.1% of this group of first year graduate students felt like they were learning the same amount through teletherapy as they would have through in-person therapy, 23.8% did not feel this way, and 38.1% were not sure. 52.4% of people felt prepared to work with a client in person, while 47.6% did not (only 1 participant difference). After the pandemic passes, 90.5% of participants said they would like to continue teletherapy for some clients, while only one person each (4.8%) said they would only like to do traditional therapy, or would only like to do teletherapy. Almost all 1st year graduate students that completed the survey (95.2%) believed that there are pros and cons to teletherapy and in-person therapy, while one individual thought that in-person is overall better.

Summarized benefits included:

- Client and clinician comfort: people are more comfortable in their own home, less anxiety and stress leads to more talking, more learning, and increased generalization of skills to daily life
- Convenience: no commute, more flexible for scheduling, less cancellations, less disruption to normal family routines
- Accessibility: able to provide services to a wider range of people, closed captioning option on *Zoom* is helpful for people with hearing loss, easier for people with mobility/ transportation issues
- Graduate student preparedness: learning to be flexible and adaptable and growing in teletherapy skills makes clinicians more thoughtful and intentional when planning for sessions, more clinical supervision for feedback
- Involvement: parents are more involved because they are in the room
- Structure of session: taking data is more discrete, can refer to notes/resources during the

session, no clean up, increased productivity, engaging (children love computer games)

Reported challenges included:

- Technology issues: sound is distorted and delayed through *Zoom* (especially difficult for people who are hard of hearing), *Zoom* cuts out fricatives such as /s/ because it is trying to reduce noise (hard to hear certain speech sounds), bad wifi, screen fatigue, computer distractions, internet accessibility issues, technology is difficult for some older individuals or people with cognitive challenges
- Limitations: have to make your own materials/activities, difficult to assess client understanding, visual and physical cues are harder to give, harder to model certain techniques, cannot administer norm-referenced tests, impossible to do audiologic evaluations, cannot troubleshoot or do listening checks of hearing aids or cochlear implants, even harder for AAC users/nonverbal individuals to communicate, cannot control client's behavior/environment
- Disconnect: difficult to build rapport/connections with client, turn-taking in conversation is hard to read
- Time consuming: preparing for sessions takes a lot more time
- Structure of session: fewer interactive activities, hard to maintain attention of young children
- Graduate student learning: have not been able to use any actual equipment, counseling/interviewing skills are behind, simulations do not accurately represent how clients will react, do not know what materials to use when in-person therapy reemerges

Discussion

Data Findings

Overall, the results from all three surveys indicated that there were mixed opinions on teletherapy and in-person therapy. When given the option, the majority of participants selected “not sure” or “it depends” as their answer. Participants easily stated both pros and cons of each delivery method to the open-ended questions. All three groups said that increased attendance, convenience, and accessibility were strengths of teletherapy, and that technology issues, therapy limitations, attention/engagement problems, and disconnect between client and clinician were challenges.

One interesting finding showed a disconnect between the perceived effectiveness of teletherapy and its outcomes. On the clinician/ 2nd, 3rd, 4th year graduate student survey, the majority of respondents stated that they thought teletherapy was either equally as effective or less effective than in-person therapy. However, most participants also indicated that they had seen improvements in their clients’ communication. If most clients improved through the use of teletherapy, it is odd that more clinicians would rate it as less effective. This disconnect may be due to people enjoying teletherapy less. For example, 1st year graduate students who did not like teletherapy were more likely to feel like they were learning less through teletherapy than they would have in-person. Enjoyment may influence perceived effectiveness, even if research data shows they are equally effective modes.

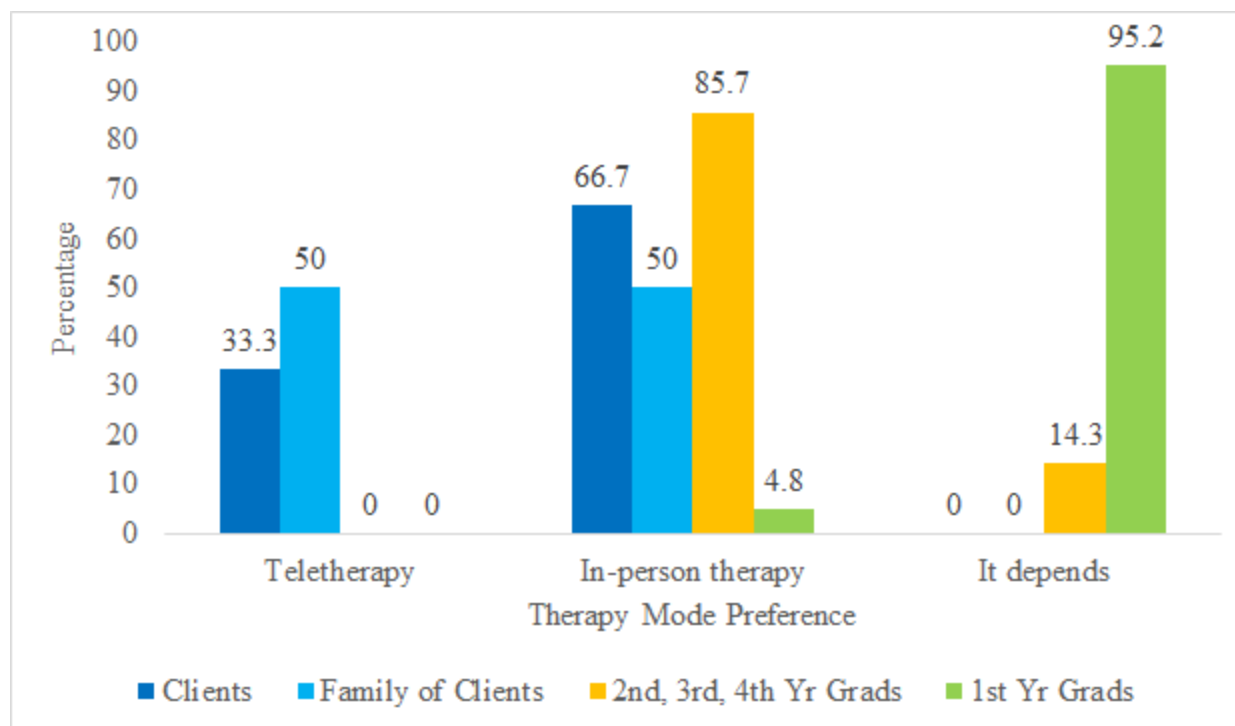
Unsurprisingly, clients and families that rated themselves as making fair progress were more likely to rate teletherapy as less effective, and would definitely choose to switch back to in-person therapy given the chance. They also preferred in-person therapy over teletherapy. On the other hand, people who said they were making good progress rated teletherapy as equally effective. These individuals said they would stick with teletherapy even after the pandemic, or

that it depends on their circumstances. There was no correlation between their responses and therapy mode preference.

Overall, clients and families were strongly opinionated when it came to preferred mode of therapy. Outcomes showed a relatively even split between a preference for teletherapy versus in-person therapy, while no one chose the “it depends” option. 2nd, 3rd, and 4th year graduate students leaned heavily towards a preference for in-person therapy. A few respondents said it depends, and no one chose teletherapy. The 1st year graduate students had the largest number of people choose the “it depends” option, while only one individual preferred in-person therapy. Families may have leaned more strongly one way or the other because they are the ones participating in therapy, and they know what feels best to them. Returning graduate students, having already been experienced with in-person therapy, may have found it harder to suddenly switch to teletherapy, because in-person is what they had been trained in and felt more comfortable doing. This may be why 2nd, 3rd, and 4th year graduate students preferred in-person therapy more, even though they could still see pros and cons to each since the majority of them said they would want to continue teletherapy for some (but not all) clients after the pandemic ends. Since first year graduate students had not been trained in-person, they may have been able to see the pros and cons of teletherapy more easily. However, since new graduate students had never experienced in-person therapy, their answers were based on how it “seemed,” rather than the actual reality of traditional therapy. Future research may need to assess these individuals’ stances on teletherapy versus in-person therapy next year, after they have had the chance to fully experience and be trained in traditional therapy as well.

Figure 2

Preferred Mode of Therapy by Participant Type



Note. The percentage of respondents who preferred each therapy mode, according to participant type, in response to the survey questions “Which do you prefer?” and “Which do you think is better?”

Research conducted during the pandemic concurred with the previous research and the results of this study. However, this study took a slightly different focus than the research available. For instance, this study was unique because it attempted to examine the perspectives of clinicians in training, not just certified clinicians like the research available. Studies indicated that teletherapy is cost-effective, accessible, convenient, and equally as effective as in-person therapy (Volter et al., 2021). Nonetheless, there are still many challenges needing to be overcome such as internet outages, legal/government concerns, and skepticism among users (Leochico et al., 2020).

Limitations

Due to the anonymous nature of this study, it could not account for people taking the surveys more than one time, which may have affected the results. There was one individual who provided their email to receive an e-gift card twice, but there is insufficient evidence to conclude that they also took the surveys twice. Additionally, the study was specifically aimed at clients, families, clinicians, and graduate students who attend and work at Western Washington University's Speech-Language-Hearing Clinic. Since the study took place at just one specific clinic, and the sample size was small, results cannot be generalizable. Further research will need to be conducted.

Conclusion

Although this was a small study and the results cannot be generalized to the world outside of WWU, there are some key points to take away. First, a lot of respondents enjoyed teletherapy for various reasons and others disliked teletherapy for various other reasons. Some clients were reported to do better in teletherapy, while others could not stay engaged on a computer. Some types of diagnoses and treatments could be done well via video chat, others were impossible. Due to this mix of opinions, effectiveness, and viability, it is impossible to accurately predict who and what teletherapy will work for. The goodness of fit for teletherapy should be assessed on a case-by-case basis and provided for those whom clinicians and families judge can benefit from it, while also providing in-person therapy as an option for those who would gain more from that. Hybrid options, such as just using teletherapy for screening potential clients, or to follow up on progress of previous treatment, and using in-person therapy for the main bulk of diagnosing and treating, may also be possibilities to consider. With continuous learning and improvement of virtual methods over this last year, and people perceiving certain

advantages from virtual but not traditional therapy, it seems as though teletherapy will be around for much longer than just the pandemic.

Second, teletherapy will need to continue to improve and adapt. Many clinicians and graduate students expressed concerns about the lack of resources available for teletherapy. Clinicians were required to build their own materials and create their own slideshow presentations for every single session, which was very time consuming and frustrating. More clinician resources will need to be created and made available to mimic the “materials room” most clinicians have access to during traditional therapy. As more enticing virtual activities emerge, attention and engagement issues may simultaneously improve. In addition to treatment, there is a lack of norm-referenced tests available to do virtually for diagnosing individuals. More resources will need to be created in this area as well. Finally, the American Speech and Hearing Association requires that all graduate student-led teletherapy sessions are 100% clinically supervised, compared to the 25% necessary for in-person sessions. This means that students are not able to see as many clients, and therefore get less valuable learning experience. ASHA will need to address some of these issues. As teletherapy becomes more widely used, it is necessary for government agencies to continue to adapt with it (Mohan et al., 2017).

Third, communication and building rapport between client and clinician was a big challenge reported both in this study and in previous research. Extra graduate school and clinician training specific to teletherapy may be needed. Putting extra emphasis on taking the time to create strong relationships could be a potential solution to this feeling of disconnect (Hines et al., 2019). It could also resolve with time as people adapt more and more to virtual modes of communication. More research may need to be conducted on the most effective ways to approach this.

In conclusion, most people found both advantages and disadvantages to teletherapy. This study, as well as future research, will be useful in identifying more benefits and challenges, which can be used to improve teletherapy as well as in-person therapy in the field of communication sciences and disorders. Teletherapy may be around forever now. It will be an interesting and exciting venture to see how this will play out over time through the rest of the pandemic, and beyond.

References

- Campbell, J., Theodoros, D., Russell, T., Gillespie, N., & Hartley, N. (2019). Client, provider and community referrer perceptions of telehealth for the delivery of rural paediatric allied health services. *The Australian Journal of Rural Health, 27*(5), 419-426.
<https://doi.org/10.1111/ajr.12519>
- Cassel, S.G., & Hadley Edd, A.J. (2016). A pedagogical note: Use of telepractice to link student clinicians to diverse populations. *International Journal of Telerehabilitation, 8*(1), 41-48.
<https://doi.org/10.5195/ijt.2016.6190>
- Dial, H.R., Hinshelwood, H.A., Grasso, S.M., Hubbard, H.I., Gorno-Tempini, M.L., & Henry, M.L. (2019). Investigating the utility of teletherapy in individuals with primary progressive aphasia. *Clinical Interventions in Aging, 14*, 453-471.
<https://doi.org/10.2147/CIA.S178878>
- Fairweather, G.C., Lincoln, M.A., & Ramsden, R. (2016). Speech-language pathology teletherapy in rural and remote educational settings: Decreasing service inequities. *International Journal of Speech Language Pathology, 18*(6), 592-602. doi: 10.3109/17549507.2016.1143973
- Hines, M., Bulkeley, K., Dudley, S., Cameron, S., & Lincoln, M. (2019). Delivering quality allied health services to children with complex disability via telepractice: Lessons learned from four case studies. *Journal of Developmental and Physical Disabilities, 31*(5), 593-609. doi: 10.1007/s10882-019-09662-8
- Kurland, J., Liu, A., & Stokes, P. (2018). Effects of a tablet-based home practice program with telepractice on treatment outcomes in chronic aphasia. *Journal of Speech, Language, and Hearing Research, 61*(5), 1140-1156. doi: 10.1044/2018_JSLHR-L-17-0277

- Leochico, C.F.D., Espiritu, A.I., Ignacio, S.D., & Mojica, J.A.P. (2020). Challenges to the emergence of telerehabilitation in a developing country: A systematic review. *Frontiers in Neurology, 11*, 1007. <https://doi.org/10.3389/fneur.2020.01007>
- Mohan, H.S., Anjum, A., & Rao, P.K.S. (2017). A survey of telepractice in speech-language pathology and audiology in India. *International Journal of Telerehabilitation, 9*(2), 69-80. <https://doi.org/10.5195/ijt.2017.6233>
- Navarro, E., González, P., López-Jaquero, V., Montero, F., Molina, J.P., & Romero-Ayuso, D. (2018). adaptive, multisensorial, physiological and social: The next generation of telerehabilitation systems. *Frontiers in Neuroinformatics, 12*, 43. doi:10.3389/fninf.2018.00043
- Pennington, L., Stamp, E., Smith, J., Kelly, H., Parker, N., Stockwell, K., Aluko, P., Mohammed, O., Brittain, K., & Vale, L. (2019). Internet delivery of intensive speech and language therapy for children with cerebral palsy: A pilot randomised controlled trial. *BMJ Open, 9*(1), E024233. doi: 10.1136/bmjopen-2018-024233
- Ruiter, M.B., Rietveld, T.C.M., Hoskam, V., & van Beers, M.M.A. (2016). An exploratory investigation of e-REST. Teletherapy for chronically aphasic speakers. *International Journal of Telerehabilitation, 8*(1), 21-28. <https://doi.org/10.5195/ijt.2016.6191>
- Völter, C., Stöckmann, C., Schirmer, C., & Dazert, S. (2021). Tablet-based telerehabilitation versus conventional face-to-face rehabilitation after cochlear implantation: Prospective intervention pilot study. *JMIR Rehabilitation and Assistive Technologies, 8*(1), E20405. doi:10.2196/20405
- Wales, D., Skinner, L., & Hayman, M. (2017). The efficacy of telehealth-delivered speech and language intervention for primary school-age children: A systematic review.

International Journal of Telerehabilitation, 9(1), 55-70.

<https://doi.org/10.5195/ijt.2017.6219>

Appendix

Client/ Family Survey Questions

Which statement describes you best?

- I am a family member/ guardian of a child currently receiving teletherapy services at WWU's Speech and Hearing Clinic.
- I am a family member/ caregiver of an adult currently receiving teletherapy services at WWU's Speech and Hearing Clinic.
- I am currently receiving teletherapy services at WWU's Speech and Hearing Clinic myself.

Did you or your child attend in-person therapy sessions before starting teletherapy?

- Yes, I did in-person therapy at WWU.
- Yes, I did in-person therapy at a different location.
- No, I have never done in-person therapy.

How did you feel about teletherapy before starting?

- I was excited to start teletherapy.
- I did not want to do teletherapy.
- Not sure

How do you feel about teletherapy now?

- I like teletherapy.
- I do not like teletherapy.
- It depends.

How do you feel about your progress in teletherapy?

- I am making good progress in my communication.

- I am making fair progress in my communication.
- I am making poor progress in my communication.

How would you rate the effectiveness of teletherapy?

- More effective than in-person therapy.
- As effective as in-person therapy.
- Less effective than in-person therapy.
- I have nothing to compare it to; I have only done teletherapy.

After the pandemic passes, would you choose to participate in teletherapy again?

- Yes, I would choose teletherapy.
- No, I would choose to switch back to in-person therapy.
- It would depend on my circumstances.

Which do you prefer?

- I prefer teletherapy.
- I prefer in-person therapy.
- Does not apply.

Why do you prefer your choice indicated above?

What are some benefits you have experienced from teletherapy, but not from in-person therapy?

What are some difficulties you have experienced from teletherapy, but not from in-person therapy?

Please write any other thoughts about teletherapy not already addressed on this survey.

Clinician/ 2nd, 3rd, 4th Year Graduate Student Survey

Which describes you best?

- I am a clinician who currently provides teletherapy at WWU's Speech and Hearing Clinic.
- I am a 2nd, 3rd, or 4th year graduate student who currently provides teletherapy at WWU's Speech and Hearing Clinic.

What type of services do you provide?

- Speech/ Language
- Aural (Re)habilitation
- Both

What age groups do you work with?

- Pediatric
- Adult
- Both

Did you provide in-person services before starting teletherapy?

- Yes, at WWU.
- Yes, at a different location.
- No, I have only done teletherapy.

How did you feel about teletherapy before starting?

- I was excited to start teletherapy.
- I did not want to do teletherapy.
- Not sure

How do you feel about teletherapy now?

- I like teletherapy.
- I do not like teletherapy.

- It depends.

Have you seen improvements in the speech/ language/ hearing of the majority (50% or more) of your clients since the start of teletherapy?

- Yes
- No

How would you rate the effectiveness of teletherapy?

- More effective than in-person therapy.
- As effective as in-person therapy.
- Less effective than in-person therapy.
- I have nothing to compare it to; I have only done teletherapy.

After the pandemic passes, would you consider continuing teletherapy?

- Yes, I would continue teletherapy for all clients.
- Yes, I would continue teletherapy for some clients.
- No, I would only do in-person therapy.

Which do you prefer?

- I prefer teletherapy.
- I prefer in-person therapy.
- Does not apply

Why do you prefer your choice indicated above?

What are some benefits you have experienced in providing teletherapy services, but not in-person therapy?

What are some difficulties you have experienced in providing teletherapy services, but not in-person therapy?

Please write any other thoughts about teletherapy not already addressed on this survey.

1st Year Graduate Student Survey

Which best describes you?

- I am a 1st year graduate student at WWU who has provided both in-person therapy and teletherapy.
- I am a 1st year graduate student at WWU who has only provided teletherapy.

Which program are you a part of?

- Speech-Language Pathology
- Audiology

What age groups do you work with?

- Pediatric
- Adult
- Both

How did you feel about teletherapy before starting?

- I was excited to start teletherapy.
- I did not want to do teletherapy.
- Not sure

How do you feel about teletherapy now?

- I like teletherapy.
- I do not like teletherapy.
- It depends.

Do you believe you are learning the same amount through teletherapy as you would have through in-person therapy?

- Yes
- No
- Maybe/ Not sure

How do you feel about working with a client in-person?

- I feel prepared to be with a client in-person.
- I do not feel prepared to be with a client in-person.

After the pandemic passes, would you consider continuing teletherapy?

- Yes, I would like to continue teletherapy for all clients.
- Yes, I would like to continue teletherapy for some clients.
- No, I would like to do in-person therapy.

Which do you think is better?

- Teletherapy
- In-person therapy
- There are pros and cons to each.

Why did you choose your answer above?

What are some benefits you have experienced in providing teletherapy services?

What are some difficulties you have experienced in providing teletherapy services?

Please write any other thoughts about teletherapy not already addressed on this survey.