Comparison of Video Conferencing Services (Google Meet and Zoom) Based on Perception of Speech Language Pathologists on Tele-Rehabilitation

Archita Kumari, Master in Audiology and Speech Language Pathology, (MASLP), Senior Research Fellow, Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
kumari.archita1108@gmail.com

Abhilash Ghadei, Master in Audiology and Speech Language Pathology II year (MASLP II year), Dr. S.R. Chandrashekhar Institute of Speech and Hearing, Bengaluru
abhilashvisu22@gmail.com

Suresh T., M.Sc. (Speech and Hearing), Research Co-Ordinator; Associate Professor, Dr. SRC BNGRC, Research Center; Dr. S.R. Chandrashekhar Institute of Speech and Hearing, Bengaluru
drsrc.suresh@speechear.org

Srividya A, Ph.D., M.Sc. (Speech and Hearing), Research Officer, Associate Professor, Dr. SRC BNGRC, Research Center; Dr. S.R. Chandrashekhar Institute of Speech and Hearing, Bengaluru
drsrc.srividya@speechear.org

Abstract

The situation arose by Coronavirus disease (COVID 19) facilitated tele practice as an option for assessment and management of communication disorders for a speech language pathologist (SLP). Tele practice allows accessibility to remote areas, individuals not having access to face to face services especially due to restriction introduced by COVID 19 situation like social distancing and self-isolation. The study aimed at comparing the use of online platforms (Google Meet and Zoom) for tele-rehabilitation, by SLPs in India. A qualitative comparative research design using a validated questionnaire as a tool was used to collect the data. The questionnaire was validated by five experienced SLPs who had offered both face-to- face and tele practice services. Aspects like audio-video quality, ease of Usage for clinician and clients, privacy option, overall satisfaction was analyzed. This questionnaire was made available to SLPs who have been using

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online platforms (Google Meet and Zoom) for tele-rehabilitation. 10% of total number of SLPs practicing tele services were the target sample (Fosgate, 2009). The questionnaire was delivered to the respondents on an online form through social media and emails. The results revealed that on aspects of tele services, quality of interaction zoom was preferred whereas for basis of security and technical aspects, google meet was preferred. For quality of audio and video, both Google Meet and Zoom received similar rating. The results help us understand the choices of SLP's based on the factors.

Keywords: Tele-practice, Speech Language Pathologist, tele therapy, SarsCov2 pandemic, Zoom, Google Meet, video conferencing service, COVID 19.

Introduction

The rapid spread of the COVID pandemic in 2019-20 had caused many psychological consequences for society as a whole. These effects are widespread in all regions of the world and population age, with specific symptoms in specific social groups such as the general population Cao, et al. (2020); Boldrini, Lomoriello, Corno, Lingiardi, and Salcuni, (2020); Castellini, Rossi (2021); Nowicki, et al. (2020); Pablo, et al. (2020).

For a layman, pandemic added an additional burden to existing health needs, especially in the provision of speech therapy and hearing services. This, coupled with the restrictions on physical contact and social proximity enforced by government agencies to curb the spread of the infection, made the online delivery of speech and language therapy an urgent alternative to face-to-face treatment. Treatment services treated as others (Inchausti et al., 2020). In India, the Indian Speech and Hearing Associations (ISHA) invited audiologists and speech therapists to provide professional services via digital devices during the pandemic. This suggestion helped in continuation of therapy and assessment services for all communication disorders.

Among many clinicians, tele therapy was viewed as a less authentic and less effective form of approach (Weinberg, 2020) and among the general public, there was limited knowledge on this treatment option and concerns about a possible drop in treatment quality relative to in-person therapy (Apolinário-Hagen et al., 2017). Despite this, there was evidence in favor (van der Vaart, et al. (2014). Documenting the effectiveness of this mode of treatment as equivalent to in-person treatment, especially during large-scale health emergencies (Backhaus et al., 2012). Research has shown that these interventions are registering good success for a variety of social groups and clinical conditions (Inchausti et al., 2020). During the current pandemic, in response to the need for flexible and prompt clinical care (Duan and Zhu, 2020), online interventions have become widely used (American Psychological Association, 2020). The online platforms are widely used

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now just not for therapy but for professional meetings, students for online calls and for just casual group video calls as well. Many effective online platforms are available which are used for therapy like Google Meet, Zoom and Microsoft Teams. (Singh, Aswathi, 2020)

Zoom is one of the most popular video conferencing apps (Singh, Aswathi, 2020). It reportedly has over 200 million daily users, but it is plagued with a huge number of security and privacy issues which they are trying to fix with regular updates. But it's still one of most preferred video conferencing platforms due to its ease of use. Zoom has great features like supporting 100 video participants and allowing 49 videos on screen. Also, it has extremely good features like screen sharing, screen recording, team chats and searchable history.

Similarly, Google Meet is another much known universal platform. According to Google, the cloud-based video-conferencing service caters to two million new users every day. The service can handle larger meetings with up to 250 participants per call, live streaming for up to 100,000 viewers within a domain and can record meetings on Google Drive for later broadcast. Google is also enabling free access to various video conferencing and communications tools all G Suite customers globally (Sevilla, Mag 2020).

For providing tele therapy primarily these two platforms are used in maximum number of institutions and clinics (https://toptelehealthcompanies.org/). Zoom Video Communications enables Health Insurance Portability and Accountability Act (HIPAA) compliance, which lays out privacy and security standards that project the confidentiality of patient health information during tele therapy. Zoom offers multi-layer security with encryption by default and never has access to PHI (patient healthcare information) (Earon,2021). 61% of patients in the U.S. plan to access healthcare in person and virtually moving forward (Zoom-Qualtrics Research, 2021).

Similarly Goggle Meet also enables HIPAA compliance and empowers healthcare workers to deliver care virtually, while also keeping them safe by minimizing unnecessary contact so popular amongst clinicians for tele health care. Google Meet for Tele health takes advantage of Google Cloud's secure-by-design infrastructure to help protect your data and safeguard privacy.

Though both platforms are secure, user friendly, provide cloud-based storage for documentation, the choice of SLP's for them to be used as a platform for tele services depends on experiences client based and other variables like availability with the client too. In the study we aimed to compare Google Meet and Zoom as online platforms for tele-rehabilitation by SLPs in India. It highlights the comparison of features and aspects in both platforms by SLP's for tele-practice as per their needs.

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Method

The study was designed to obtain qualitative data about the perspective of SLPs for using goggle meet and zoom platforms for online therapy. The study was conducted between May to July 2021 and the study sample included at least 10% of total number of SLPs practicing tele services in India who were all registered in Rehabilitation council of India (RCI) and who were practicing speech therapy. A purposive sampling technique was used which included ASLP practice nor indulged in tele therapy along with experience in face to face therapy.

Inclusion and Exclusion Criteria for Participating in This Study

The participants who have been taking/taken at least five sessions of tele-therapy using the google meet and zoom platform where chosen for the study. They should be either bachelors or masters qualified in audiology and speech language pathology meeting the standards of the RCI. The participants should have registered under RCI with having a valid RCI number. Participant without RCI registration were not recruited.

The data collection tool used was a questionnaire, which was content validated by five experienced speech language pathologist who had experience in providing both face to face and online SLP services. The questionnaire was digitized to google form in English language. The participants were requested fill in the form and submit them online to avoid direct contact, which is the primary route of COVID-19 transmission

As part of ethical considerations, the participants were informed about the process, need and purpose of the study. Only participants who provided the informed consent which was made available as part of the form, were included in the study. The participant confidentiality was maintained.

The domains of the questions covered in the questionnaire were as follows:
- ❖ EASE OF USE FOR CLINICIAN: How easy is this tele rehabilitation platform for you, as a clinician, to set up and use with respect to creating and sending meeting link, understanding, and using platform's features?
- ❖ EASE OF USE FOR CLIENTS: How easy is this tele rehabilitation platform for your clients (based on their review), to set up and use with respect to joining meeting link, understanding, and using platform's features?
- ❖ AUDIO QUALITY: How would you rate the overall audio quality (clarity of sound, voice breaks, naturalness of speaker's voice, lagging of audio with respect to video) of this tele rehabilitation platform when you use it?
- ❖ VIDEO QUALITY: How would you rate the overall video quality (clarity of video, lagging of video with respect to audio) of this tele rehabilitation platform when you use it?

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- ❖ QUANTITY OF PLATFORM FEATURES: How would you rate this tele rehabilitation platform based on quantity of features provided? (Example: Client/Clinician login, visibility of clinician's video while sharing the screen, text chat, screen sharing, remote control, video background, caption, screen recording, whiteboard, Emoji reactions, screen pin).
- ❖ QUALITY OF PLATFORM FEATURES: How would you rate this tele rehabilitation platform based on the quality of each features provided? (Example: Client/Clinician login, visibility of clinician's video while sharing the screen, text chat, screen sharing, remote control, video background, caption, screen recording, whiteboard, Emoji reactions, screen pin).
- ❖ SECURITY AND PRIVACY OPTIONS: How would you rate this tele rehabilitation platform based on the security and privacy options? (Example: Permission to join meeting, share screen, chat, rename themselves, unmute themselves and start video; remove participants).
- ❖ USUAGE OF NETWORK DATA: How would you rate this tele rehabilitation platform based on the amount of network data consumption?
- ❖ USAGE RESTRICTION: How would you rate this tele rehabilitation platform based on the usage restriction on mobile phone when compared with laptop?
- ❖ CONS: How would you rate this tele rehabilitation platform based on the degree or number of problems noticed while using these platforms? (Example: Battery consumption, heating of device, slowing of device).
- ❖ OVERALL SATISFACTION: How would you rate this tele rehabilitation platform based on the overall satisfaction for tele rehabilitation?
- ❖ OTHER COMMENTS: Please share other comments and personal reviews for these two online tele health platforms (Google meet and zoom).

The participant had to rate each question on a 5-point Likert scale as mentioned in questionnaire (5 being the best performance and 1 being the worst performance).

The outcome of the study will evaluate, different aspects that were chosen by the participants maximally for each platform. Histogram will be prepared for each aspect based on the responses. If some aspects were chosen similarly for both the platforms that will be mentioned.
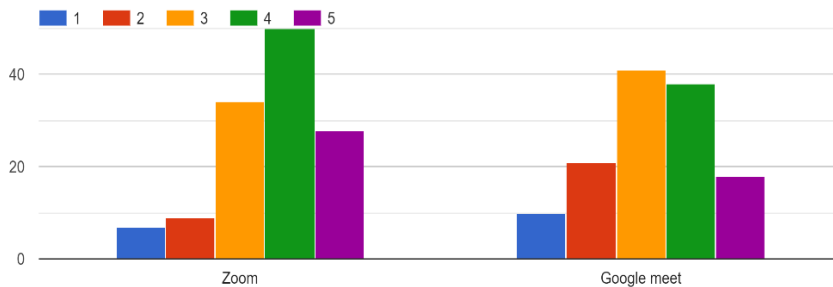
Results

Due to this pandemic era, every field including speech therapy was facilitated online. This resulted clinical practitioners to use media/platforms like Zoom, google meet, What's app, Facebook, facetime etc. To estimate the most commonly used platforms, Zoom and Google meet the study was formulated. The results of different domains of usage has been discussed with bar charts and percentage of responses for 120 responses obtained.

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Ease of Use for Clinician

Based on the Figure 1 below, the video conferencing platform that was perceived as the easier was zoom platform as compared to google meet. The total number of participants choosing highest rating (4,5) for zoom were 78 participants i.e., 65% whereas for google meet were 56 participants i.e., 46.66%.

Figure 1. Distribution of the ratings of participants based on the scale of 1—5 for the ease of use for clinician

1. EASE OF USE FOR CLINICIAN: How easy is this tele rehabilitation platform for you, as a clinician, to set up and use with respect to creating and sen...link, understanding and using platform's features?
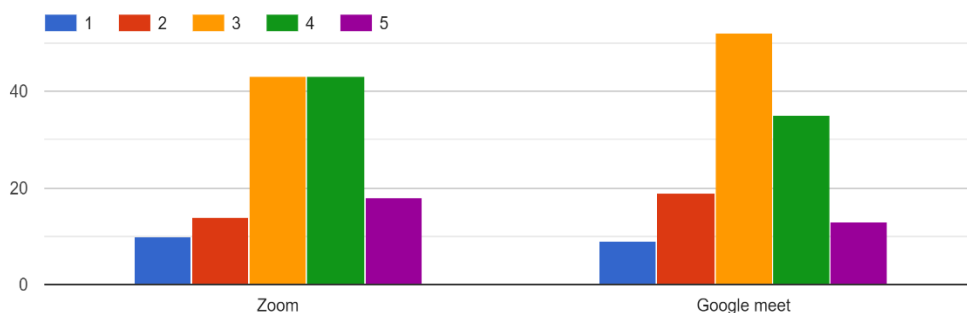

Ease of Use for Clients

Based on Figure 2 below, the video conferencing platform that was perceived as the easier was zoom platform as compared to google meet. The total number of participants choosing highest rating (4,5) for zoom were 61 participants i.e., 50.83% whereas for google meet were 48 participants i.e., 40%.

Figure 2. Distribution of the ratings of participants based on the scale of 1-5 for the ease of Use for clients

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2. EASE OF USE FOR CLIENTS: : How easy is this tele rehabilitation platform for your clients (based on their review), to set up and use with respect to ... link, understanding and using platform's features?
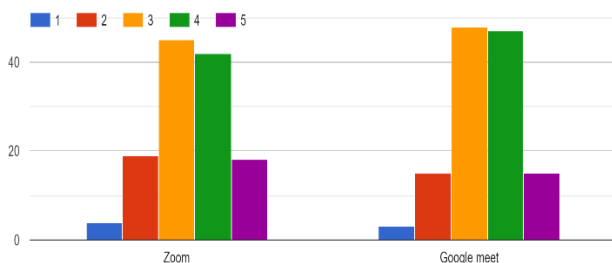

Audio Quality

Based on Figure 3 below, the audio quality in both the video conferencing platforms were identical. The total number of participants choosing highest rating (4,5) for zoom were 60 participants i.e., 50% whereas for google meet were 62 participants i.e., 51.66%.

Figure 3. Distribution of the ratings of participants based on the scale of 1-5 for audio quality

3. AUDIO QUALITY: How would you rate the overall audio quality (clarity of sound, voice breaks, naturalness of speaker's voice, lagging of audio wit...f this tele rehabilitation platform when you use it?
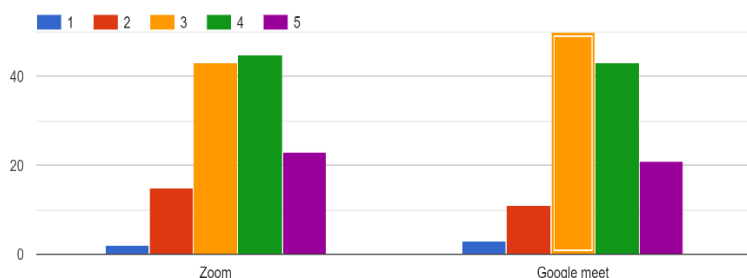

Video Quality

Based on Figure 4 below, the audio quality in both the video conferencing platforms were identical. The total number of participants choosing highest rating (4,5) for zoom were 68 participants i.e., 56.66% whereas for google meet were 64 participants i.e., 53.33%.

Figure 4. Distribution of the ratings of participants based on the scale of 1-5 for video quality

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4. VIDEO QUALITY: How would you rate the overall video quality (clarity of video, lagging of video with respect to audio) of this tele rehabilitation platform when you use it?
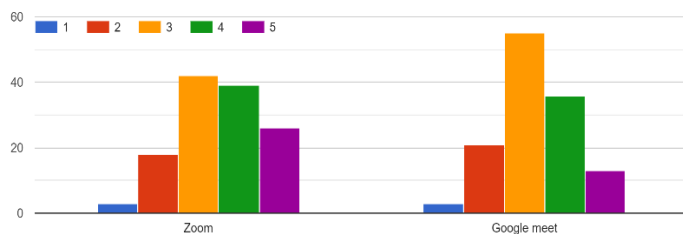
Quantity of Platform Features

Based on Figure 5 below, the video conferencing platform that was perceived to have higher number of features was zoom platform as compared to google meet. The total number of participants choosing highest rating (4,5) for zoom were 65 participants i.e., 54.16% whereas for google meet were 49 participants i.e., 40.83%.

Figure 5. Distribution of the ratings of participants based on the scale of 1-5 for Quantity of platform features

5. QUANTITY OF PLATFORM FEATURES: How would you rate this tele rehabilitation platform based on quantity of features provided? (Example: Client...ecording, whiteboard, Emoji reactions, screen pin)
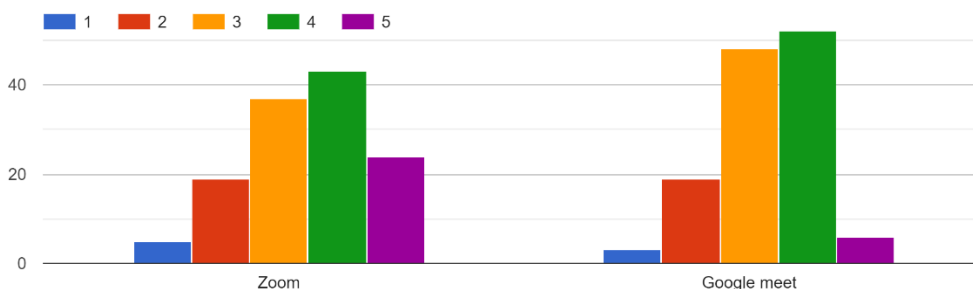
Quality of Platform Features

Based on Figure 6 below, the video conferencing platform that was perceived to have highest quality was zoom platform as compared to google meet. The total number of participants choosing highest rating (4,5) for zoom were 67 participants i.e., 55.83% whereas for google meet were 58 participants i.e., 48.33%.

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Figure 6. Distribution of the ratings of participants based on the scale of 1-5 for quality of platform features

6.QUALITY OF PLATFORM FEATURES: How would you rate this tele rehabilitation platform based on the quality of each features provided? (Example: C...cording, whiteboard, Emoji reactions, screen pin)
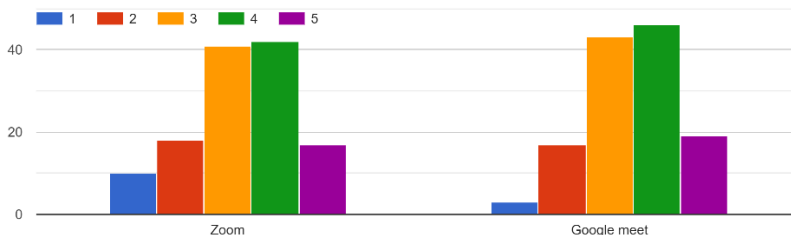
Security and Privacy Options

Based on Figure 7 below, the video conferencing platform that was perceived to have maximum security was google meet as compared to zoom platform. The total number of participants choosing highest rating (4,5) for zoom were 59 participants i.e., 49.16% whereas for google meet were 65 participants i.e., 54.16%.

Figure 7. Distribution of the ratings of participants based on the scale of 1-5 for security and privacy options.

7. SECURITY AND PRIVACY OPTIONS: How would you rate this tele rehabilitation platform based on the security and privacy options? (Example: Permis... themselves and start video; remove participants)
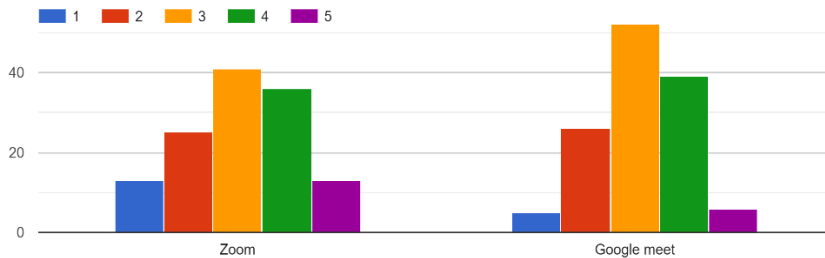
Usage of Network Data

Based on Figure 8 below, the video conferencing platform that was perceived to consume least amount of data consumption was zoom platform as compared to google meet. The total number of participants choosing highest rating (4,5) for zoom were 49 participants i.e., 40.83% whereas for google meet were 45 participants i.e., 37.5%.

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Figure 8. Distribution of the ratings of participants based on the scale of 1-5 for usage of network data

8. USUAGE OF NETWORK DATA: How would you rate this tele rehabilitation platform based on the amount of network data consumption?
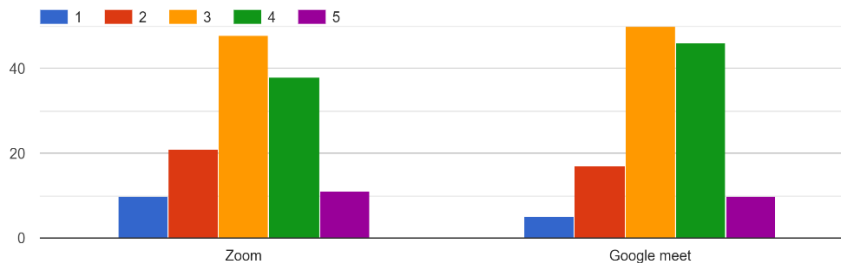
Usage of Restriction

Based on Figure 9 below, the video conferencing platform that was perceived to have minimum user restrictions was google meet as compared to zoom platform. The total number of participants choosing highest rating (4,5) for zoom were 49 participants i.e., 40.83% whereas for google meet were 56 participants i.e., 46.66%.

Figure 9. Distribution of the ratings of participants based on the scale of 1-5 for usage restriction

9. USAGE RESTRICTION: How would you rate this tele rehabilitation platform based on the usage restriction on mobile phone when compared with laptop?
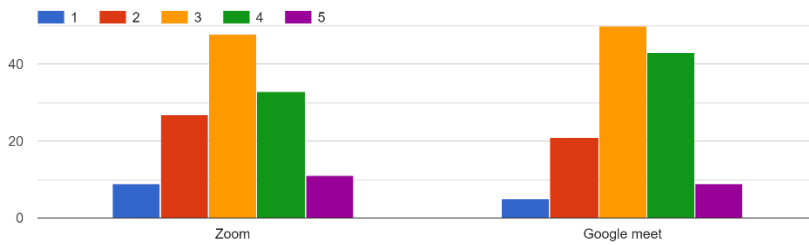
Cons

Based on Figure 9 below, the video conferencing platform that was perceived to have minimum cons was google meet as compared to zoom platform. The total number of participants choosing highest rating (4,5) for zoom were 44 participants i.e., 36.66% whereas for google meet were 52 participants i.e., 43.33%.

Figure 9. Distribution of the ratings of participants based on the scale of 1-5 for cons

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10. CONS: How would you rate this tele rehabilitation platform based on the degree or number of problems noticed while using these platforms? (Ex...onsumption, heating of device, slowing of device)

Overall Satisfaction

Overall satisfaction was higher for zoom than goggle meet. The total number of participants choosing highest rating (4,5) for zoom were 62 participants i.e., 51.66% whereas for google meet were 52 participants i.e., 43.33%.

In *Other Comments* Section

Some participants preferred zoom over google meet on basis of ease of usage and features provided. Some participants preferred google meet over zoom on the basis of security and privacy concern, less usage restriction and Easy login for clients and clinicians. Few participants equally preferred both platforms (google meet and zoom). Very few participants preferred using other video conferencing platforms (WhatsApp, Microsoft teams and Skype) over google meet and zoom.

Discussion

The study was designed to explore different aspects which change the preferences while choosing an online platform for Zoom and Google meet for providing speech and language therapy virtually. Both of the platforms claim to have highly advanced features which will enhance the experiences for tele-consultation for medical and para medical services, our analysis from the responses tried explored the level of acceptance and agreement of the claimed features during online speech and language therapy. On aspects of tele services and quality of interaction, zoom was preferred for reasons of ease of use and features available in both platforms. For quality of audio and video, both received similar rating. On certain technical aspects (minimum usage of network data, minimum usage restriction, minimum number of cons), participants preferred google meet over zoom. However, on numbers zoom had higher number of participants preferring it for network data. On Security and privacy aspects, google meet was preferred more than Zoom.

Zoom for healthcare (2021) also claims that Zoom is highly accepted by healthcare professionals for virtual health consultation due to a highly recommendable features like high

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audio and video quality, easy in operating, etc. 61% of patients in the U.S. plan to access healthcare in person and virtually moving forward using zoom platform. (Zoom-Qualtrics Research, 2021).

Rianto, Apriyanto, Amri, Yeni, Ridwan (2021) in their study explored a list of advantages of Zoom Cloud Meeting like Large space capacity that is, it usually has a large number of participants. It also supports best video and sound quality which enables a presentation of clear video and voice quality. Consequently, it makes easier when communicating. Zoom also have a variety of exciting features, Like users can record and save videos during the meeting, brighten their facial skin tone, change the background as desired, and schedule online meetings. The quality of audio and video along with other features also reported in the current study. It supports presentations, the users can present material files to other participants. Both participants and presenters can scribble on the presentation to make it easier to deepen the material. Some other features like video on/off feature which will maintain their privacy without disrupting the system of a meeting and its also available on a wide variety of devices including Android phones, iPhones, PCs, or laptops.

Rianto, Apriyanto, Amri, Yeni, Ridwan (2021) also discussed a list of disadvantages for zoom online platform like, other language is not available as it uses English to be pretty tricky for those who do not understand English, but it is not a severe problem because the users can realize English sentences well by utilizing Google Translate. There also reported wasteful quota while using zoom. Usually, applications that display videos will consume more quotas. Likewise, at Zoom Cloud Meeting, it is not surprising if the internet package will decrease significantly after holding a video conference session, similar findings also explored in the current study. Evidence from the study also reported that it is less safe for the users. Recently, the Zoom cloud meeting application has become the centre of attention due to the leaking of user data to the public. Instead of storing its users' personal details, this application even disseminates sensitive data such as faces, user locations, and user login hours. (Pulsa Seluler, 2021). The current study also reported that for security issues zoom was less chosen over google meet.

A list of advantages also reported by some previous studies like, the creation and updating of Google Meet, which is much more exciting and offers the best features than its predecessor, the classic Google Hangouts, here are some advantages that Google Meet offers (Rianto, 2019):

It assists workers and employees to hold meetings wherever they are by using video calls. It has a unique and functional interface with a light and fast size, prioritizing efficient management, easy to use (user friendly) that can be followed by all participants. The users can invite meeting participants and share features. (Serbi, 2020) responses of the questionnaire also explores similar responses from the speech therapist's aspects.

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Some of the participants reported disadvantages also mentioned by the previous studies like, no data saving feature by which the internet data is drained a lot while doing video conferencing or online using the Google Meet application. Also, there is a need of a Stable Internet network which often happens when conducting video conferences. With unstable internet, then the video often delays or pauses. However, this is not only felt when conducting online meetings in the Google Meet application, but also it may occur in other video conferencing applications.

In Google Meet not all features are free though its available for free, but not entirely facilities to conduct a full-service video conference or online meetings on Google Meet, the users have to pay more. To use certain features, the users must pay and subscribe to or buy a Google Suite package with a fee determined by Google. (Rahayu, 2020).

Conclusion

The coronavirus pandemic differs from one country to another, but for the clinical service environment, it is extremely important to take measures aimed at providing effective therapeutic opportunities even though in online mode. Appropriate technical knowledge along with choosing an appropriate platform for proving speech and language therapy in virtual mode which will be suitable for both clinicians as well client, is an important factor for establishing the efficacy of therapeutic outcomes. Post covid, the extent of using online platform has been marked a logarithmic growth for providing various clinician services. Not only speech therapist other professionals like occupational therapists, physiotherapists, psychotherapists, etc. have relied on online mode for providing services, the outcome of online mode of therapy can be affected by many factors like clients and clinicians' knowledge for operating the virtual platform, features in the platform so that various activities can be practiced by the therapist taking specific goals, network availability etc. So, choosing an overall platform which can fulfill the need of clients as well as clinician is a much-needed concern now. Although a list of platforms is available in internet for fulfilling the purpose of tele consultation for various clinical services, clinician's dominant platforms for providing speech therapy are Zoom and Google Meet. This study aimed at comparison of google meet and zoom online platforms for tele-rehabilitation, by SLPs in India. It highlights the comparison of features and aspects in both platforms by SLP's for tele-practice as per their needs.

On aspects of tele services and quality of interaction, zoom was preferred for reasons of ease of use and features available in both platforms. For quality of audio and video, both received similar rating. On certain technical aspects (minimum usage of network data, minimum usage restriction, minimum number of cons), participants preferred google meet over zoom. However, zoom had higher number of participants preferring it for network data. On Security and privacy aspects, Google Meet was preferred more than Zoom.

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This study will help the budding Speech Language Pathologists to select a better platform for telerehabilitation as per their needs as it highlights the comparison of features, pros and cons between both the platforms. The level of acceptance of various technical domains by SLPs in two widely used online platforms (Zoom and Google meet) has been explored in the current study, which will be helpful to enhance the idea and attitude of both clinician and client.

Future Directions
- The study can be extended to other aspects of speech therapy like AAC in tele mode.
- Cost of data consumption, bandwidth charges are not specified in this study and can be taken up in further study.
- Respondents from poor network coverage areas (Rural areas, Hilly regions) are not specifically included in this study and can be taken up for further studies.
- Other video conferencing platforms can be also compared following the methodologies of the current study.

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References

Adipat, S. (2021). Why Web-Conferencing Matters: Rescuing Education in the Time of COVID-19 Pandemic Crisis. *Frontiers in Education*, *6*. https://doi.org/10.3389/feduc.2021.752522

Al-Maroof, R. S., Alshurideh, M. T., Salloum, S. A., AlHamad, A. Q. M., & Gaber, T. (2021). Acceptance of Google Meet during the Spread of Coronavirus by Arab University Students. *Informatics*, *8*(2), 24. https://doi.org/10.3390/informatics8020024

Al-Maroof, R. S., Salloum, S. A., Hassanien, A. E., & Shaalan, K. (2020). Fear from COVID-19 and technology adoption: the impact of Google Meet during Coronavirus pandemic. *Interactive Learning Environments*, 1–16. https://doi.org/10.1080/10494820.2020.1830121

Alfadda, H. A., & Mahdi, H. S. (2021). Measuring Students' Use of Zoom Application in Language Course Based on the Technology Acceptance Model (TAM). *Journal of Psycholinguistic Research*. https://doi.org/10.1007/s10936-020-09752-1

Almendingen, K., Morseth, M. S., Gjølstad, E., Brevik, A., & Tørris, C. (2021). Student's experiences with online teaching following COVID-19 lockdown: A mixed methods explorative study. *PLOS ONE*, *16*(8), e0250378. https://doi.org/10.1371/journal.pone.0250378

==
Language in India www.languageinindia.com **ISSN 1930-2940 22:5 May 2022**
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Apa itu Zoom dan Cara Menggunakannya %%sep%% %%sitename%% | Dailysocial. (n.d.). Dailysocial.id. Retrieved May 9, 2022, from https://dailysocial.id/post/apa-itu-zoom

Aplikasi Google Meet, Apa Saja Kelebihan dan Kekurangannya? (2020, July 24). Galuh.ID. https://galuh.id/aplikasi-google-meet/

Archibald, M. M., Ambagtsheer, R. C., Casey, M. G., & Lawless, M. (2019). Using Zoom Videoconferencing for Qualitative Data Collection: Perceptions and Experiences of Researchers and Participants. *International Journal of Qualitative Methods*, *18*(1), 1–8. https://doi.org/10.1177/1609406919874596

Boldrini, T., Schiano Lomoriello, A., Del Corno, F., Lingiardi, V., & Salcuni, S. (2020). Psychotherapy During COVID-19: How the Clinical Practice of Italian Psychotherapists Changed During the Pandemic. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.591170

Butnaru, G. I., Niță, V., Anichiti, A., & Brînză, G. (2021). The Effectiveness of Online Education during Covid 19 Pandemic—A Comparative Analysis between the Perceptions of Academic Students and High School Students from Romania. *Sustainability*, *13*(9), 5311. https://doi.org/10.3390/su13095311

Hacker, J., vom Brocke, J., Handali, J., Otto, M., & Schneider, J. (2020). Virtually in this together – how web-conferencing systems enabled a new virtual togetherness during the COVID-19 crisis. *European Journal of Information Systems*, *29*(5), 1–22. https://doi.org/10.1080/0960085x.2020.1814680

IDCloudHost, M. (2020, April 22). *Mengenal Google Meet: Fitur, Keunggulan, dan Cara Menggunakannya*. IDCloudHost. https://idcloudhost.com/mengenal-google-meet-fitur-keunggulan-dan-cara-menggunakannya/

Karl, K. A., Peluchette, J. V., & Aghakhani, N. (2021). Virtual Work Meetings During the COVID-19 Pandemic: The Good, Bad, and Ugly. *Small Group Research*, 104649642110152. https://doi.org/10.1177/10464964211015286

Kershaw, M. E., Lupien, S. P., & Scheid, J. L. (2021). Impact of Web-Based Meeting Platform Usage on Overall Well-Being among Higher Education Employees. *European Journal of Investigation in Health, Psychology and Education*, *11*(2), 372–381. https://doi.org/10.3390/ejihpe11020028

==
Language in India www.languageinindia.com **ISSN 1930-2940 22:5 May 2022**
Archita Kumari, Abhilash Ghadei, Suresh T. and Srividya A.
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Knie, K., Schwarz, L., Frehle, C., Schulte, H., Taetz-Harrer, A., & Kiessling, C. (2020). To zoom or not to zoom - the training of communicative competencies in times of Covid 19 at Witten/Herdecke University illustrated by the example of "sharing information." *GMS Journal for Medical Education*, *37*(7), Doc83. https://doi.org/10.3205/zma001376

Mancinelli, E., Gritti, E. S., Schiano Lomoriello, A., Salcuni, S., Lingiardi, V., & Boldrini, T. (2021). How Does It Feel to Be Online? Psychotherapists' Self-Perceptions in Telepsychotherapy Sessions During the COVID-19 Pandemic in Italy. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.726864

Mengulas Sejarah Aplikasi Zoom Cloud Meeting - Gubuk Pintar. (n.d.). Www.gubukpintar.com. https://www.gubukpintar.com/2020/04/sejarah-aplikasi-zoom.html

Mishra, Dr. L., Gupta, Dr. T., & Shree, Dr. A. (2020). Online Teaching-Learning in Higher Education during Lockdown Period of COVID-19 Pandemic. *International Journal of Educational Research Open*, *1*(1), 100012. https://doi.org/10.1016/j.ijedro.2020.100012

Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). Advantages, Limitations and Recommendations for online learning during COVID-19 pandemic era. *Pakistan Journal of Medical Sciences*, *36*(COVID19-S4). https://doi.org/10.12669/pjms.36.covid19-s4.2785

Rianto, B., & Sidik, A. (2019). WEBSITE PENYEDIAAN INFORMASI RUMAH KONTRAKAN KAB.INHIL. *Jurnal Intra Tech*, *3*(2), 26–34. https://www.journal.amikmahaputra.ac.id/index.php/JIT/article/view/49

Setyawan, A., Aznam, N., Paidi, P., Citrawati, T., & Kusdianto, K. (2020). Effects of the Google Meet Assisted Method of Learning on Building Student Knowledge and Learning Outcomes. *Universal Journal of Educational Research*, *8*(9), 3924–3936. https://doi.org/10.13189/ujer.2020.080917

Sidpra, J., Gaier, C., Reddy, N., Kumar, N., Mirsky, D., & Mankad, K. (2020). Sustaining education in the age of COVID-19: a survey of synchronous web-based platforms. *Quantitative Imaging in Medicine and Surgery*, *10*(7), 1422–1427. https://doi.org/10.21037/qims-20-714

Souheyla, B. (2022). Google Meet during COVID 19 Pandemic: When Teachers Raise the Challenge. *Arab World English Journal*, *2*, 169–182.

===
Language in India www.languageinindia.com **ISSN 1930-2940 22:5 May 2022**
Archita Kumari, Abhilash Ghadei, Suresh T. and Srividya A.
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Speech Language Pathologists on Tele-Rehabilitation   156

https://doi.org/10.24093/awej/covid2.11

Subiantoro, S., & Sardiarinto, S. (2018). PERANCANGAN SISTEM ABSENSI PEGAWAI BERBASIS WEB Studi Kasus: Kantor Kecamatan Purwodadi. *Swabumi*, *6*(2). https://doi.org/10.31294/swabumi.v6i2.4868

van der Vaart, R., Witting, M., Riper, H., Kooistra, L., Bohlmeijer, E. T., & van Gemert-Pijnen, L. J. (2014). Blending online therapy into regular face-to-face therapy for depression: content, ratio and preconditions according to patients and therapists using a Delphi study. *BMC Psychiatry*, *14*(1). https://doi.org/10.1186/s12888-014-0355-z

Video Communications in Healthcare. (n.d.).https://explore.zoom.us/docs/doc/Video_Communications_in_Healthcare.pdf

Wajib Tau! Kelebihan dan Kekurangan Aplikasi Zoom Cloud Meeting. (2020, May 15). Pulsa Seluler. https://pulsaseluler.com/blog/kelebihan-dan-kekurangan-aplikasi-zoom/

Zoom Phone for Healthcare. (n.d.).https://explore.zoom.us/docs/doc/Zoom-Phone-Healthcare.pdf

Zoom vs. Microsoft Teams vs. Google Meet: Which Top Videoconferencing App Is Best? (n.d.). PCMAG. https://www.pcmag.com/news/zoom-vs-microsoft-teams-vs-google-meet-a-videoconferencing-face-off.

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Language in India www.languageinindia.com **ISSN 1930-2940 22:5 May 2022**
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Comparison of Video Conferencing Services (Google Meet and Zoom) Based on Perception of
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