Challenges Faced Among Speech Language Pathologist in Relation to Tele-therapy/Assessment

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Abstract

Telepractice is a telecommunication technology which is used by Speech Language Pathologist to deliver the services to the patient by connecting with clinician at a distance for assessment, management and counselling. As pandemic restrict people closeness telepractices open the way for assessment treatment and intervention. There is awareness among the professional to continue to deliver the service innovatively to the patients during pandemic. The present study aims to explore the challenges faced among SLPs in relation to tele assessment/therapy. The study mainly focuses on the issues faced by SLPs during telepractice and to compare the differences in the severity of issues faced by SLPs based on experience in telepractice. A self administrated questionnaire consists of twenty seven questions was developed to gather information from SLPs who are undertaking Tele mode of assessment and management. Statistical analysis is done to rule out the internal consistency of the questionnaire, the difference in difficulties faced among SLPs between Group I (0-1 year experience) and II (1-2 year experience). The results of this study showed that the experience matters lot for SLPs to practice with an ease using advanced aspects of technologies like telepractice involving assessment and management. Significant reduction in scores was found across the domains for SLPs with greater experience in telepractice.

Keywords: Telepractice, Speech Language Pathologist, pandemic, challenges.

Introduction:

Telepractice is the utilization of broadcast communications innovation to the conveyance of speech-language pathology and audiology professionals a way off by connecting clinician to customer or clinician to clinician for assessment, treatment, and additionally interview. According to American Speech-Language-Hearing Association (ASHA, 2005) “the application of telecommunications technology to deliver professional services at a distance by linking clinician to client, or clinician to clinician for assessment, intervention, and/or consultation” ASHA further expresses that telepractice might be utilized to defeat such obstructions as persistent distance to treatment areas, patient transportation hardships, disturbance of patient or relative plans for getting work done, and restricted accessibility of experts or potentially subspecialists in geographic districts. Telepractice shows potential to broaden clinical administrations to remote, provincial, and underserved populaces, and to socially and culturally assorted populaces(ASHA, 2005).

India has a populace of 1.34 billion (http://www.mospi.gov.in), with 1.8% of absolute populace assessed to have an incapacity (Rehabilitation Council of India, 2016). Interestingly, the Indian Speech and Hearing Affiliation (ISHA) (2015) gauges there are 2500 qualified SLPs and audiologists in India. These information show an exceptionally low proportion of potential administration recipients to accessible specialist organizations.
Techniques are expected to fulfill the assistance needs of people in India with correspondence issues.

According to one previous study (Mohan & Anjum, 2017) about awareness about telepractice in the field of audiology and speech-language pathology, 95.55% of Speech-Language Pathologists (SLPs) and Audiologists who offer face-to-face assessment/treatment knew that telepractice can be a type of administration conveyance. Notwithstanding, just 12.19% of the survey respondents are occupied with telepractice in India.

A review (Tucker, 2012) on the subjective perspective on SLPs on telepractice among those who practices in school setup revealed individual fulfilment and developing trust in their insight and abilities through giving speech and language assessment/treatment by the means of telepractice.

According to the recent research (Dial et al., 2019) strongest evidence was found for the utility of teletherapy as a treatment delivery medium in Primary Progressive Aphasia (PPA), a patient population that is widely considered to be underserved by speech-language pathologists.

A study (Salvo, 2013) was done on the administration of CELS 4 screening test through tele mode using Skype, revealed online screening can be considered as an alternative option to use when direct assessment is not applicable.

In a study (Taylor & Armfield, 2014) exploring the viability and adequacy of utilizing telehealth for pediatric speech and language assessment revealed that the promising factor for usage of telepractice include the reliability shown in the domains of assessment of oromotor skills, speech and language evaluation. Hence tele mode of practice is applicable for carrying out assessment.

Due to the COVID 19 pandemic, the utilization of the tele mode has been increased tremendously since the non-remote and physically fit category patients also got affected by restrictions. Additional research practice is necessary to rule out the effect that tele mode of assessment has on SLPs.

The present study aims to explore the challenges faced among SLPs in relation to tele assessment/therapy. Specifically the study objectives were: (a) to list out the issues faced by SLPs during telepractice; and (b) to compare the differences in the severity of issues faced by SLPs based on experience in telepractice.

**Method:**

**Research Design:**

A survey type of research design was adopted to investigate the feelings and difficulties of SLPs with experience telepractice.

**Participants:**

The participants taken for the study were SLPs having 0 - 2 years experience in telepractice. All participants were multilingual and all were fluent English speakers. Internet bandwidth
used for telepractice ranged from 10 Mbps to 20Mbps. Telepractice services were provided through Google meet, WhatsApp video calling or Skype call.

**Stimuli:**

**Phase I: Development of questionnaire**

A questionnaire was developed to gather information from SLPs who are undertaking tele mode of assessment and management. The plan of the questionnaire was depended on the difficulties of telepractice depicted in the telemedicine, telerehabilitation, and telespeech writing, alongside data from reviews finished by SLPs in past considers. Twentyseven closed ended questions were included. Each question is being scored on a 5 point rating scale in which 0 indicates complete disagreement and 4 indicates the complete agreement with the stated issue. The questions were divided into two sections. The first section contains the questions related to the assessment and therapy related issues (15 questions). The second section contain other related issues (12 questions). This developed questionnaire was given to five Speech-Language Pathologists for obtaining their feedback about it. These five judges were asked to rate the questions using the feedback questionnaire containing 12 parameters like simplicity, familiarity, arrangement etc. They were asked to judge each item and suggest modifications if required. These modifications were revised, and the validated questions were selected.

Ratings of judges, using “Feedback Questionnaire for Challenges faced among speech language pathologist in relation to tele-therapy/assessment” are tabulated in the table 1.0 below:

**Table 1: Results of the validation of the questionnaire**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Parameters</th>
<th>Very Poor</th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Simplicity</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Familiarity</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Arrangement</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Presentation</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Relevancy</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Complexity</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Flexibility</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Generalization</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Scope of practice</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Scoring Pattern</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Publications, outcomes and developers (Professional Background)</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
Phase II: Administration of the material

The participants were divided into two groups based on the year of experience in telepractice. Group I consists of 31 participants with 0 to 1 year experience and Group II consists of 37 participants with 1 to 2 years experience in telepractice. A link had been created for the questionnaire and shared with participants. Responses collected were kept very confidential. The participants are being analyzed over a period of three months.

Phase III: Analyses of responses

The scoring of each section was computed from the participants. A parametric statistical test (T Test) is being used to compare the difference in score between Group I and Group II across sections I and II of the questionnaire.

Result:

The aim of the study was to study the challenges faced among speech language pathologist in relation to tele-therapy/assessment.

Statistical analysis was done in two steps:

- Statistical analysis to rule out the internal consistency of the questionnaire.
- Statistical analysis to rule out the difference in difficulties faced among SLPs between Group I and II

Statistical analysis was conducted using SPSS version 17.0. Each of the categorical variables was described. Quantitative parameters were presented as mean, standard deviation and T test was administered. Sixty eight SLPs took part in the study included. Analyses of the parameters have been summarized in Tables 2 and 3.

Cronbach’s alpha test was administered for calculating the internal consistency and reliability of the questionnaire. The individual Cronbach’s alpha scores for Section I and II of the questionnaire were 0.880 and 0.81 respectively, which shows good levels of internal consistency. The overall Cronbach’s alpha score was obtained to be 0.903, revealed excellent overall internal consistency. The results of Cronbach’s alpha test are represented in Table 2.

Table 2: Cronbach’s alpha reliability test

<table>
<thead>
<tr>
<th>No of questionnaire</th>
<th>Cronbach’s alpha score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-15 (Assessment and therapy related issues)</td>
<td>0.880</td>
</tr>
<tr>
<td>16-27 (Other issues)</td>
<td>0.812</td>
</tr>
<tr>
<td>Tota score</td>
<td>0.903</td>
</tr>
</tbody>
</table>
Table 3: Descriptive analysis and T test results for group comparison

<table>
<thead>
<tr>
<th>Variables</th>
<th>Experience</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>Statistical inference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than 1 year</td>
<td>31</td>
<td>66.29</td>
<td>6.034</td>
<td>1.084</td>
<td>T value = 4.126 Df= 66, P&lt;0.05, Significant</td>
</tr>
<tr>
<td></td>
<td>1 to 2 years</td>
<td>37</td>
<td>58.43</td>
<td>9.045</td>
<td>1.487</td>
<td></td>
</tr>
<tr>
<td>Assessment and therapy related issues</td>
<td>Less than 1 year</td>
<td>31</td>
<td>53.42</td>
<td>4.595</td>
<td>0.825</td>
<td>T value = 7.856 Df= 66, P&lt;0.05, Significant</td>
</tr>
<tr>
<td></td>
<td>1 to 2 years</td>
<td>37</td>
<td>43.22</td>
<td>5.879</td>
<td>0.967</td>
<td></td>
</tr>
</tbody>
</table>

The mean and standard deviation of SLPs with less than one year experience (Group I, n=31) was obtained to be 66.29 ± 6.034 and of those with one to two years experience (Group II, n=37) was found to be 58.43 ± 9.045 for “Assessment and Therapy related issues” section.
The mean and standard deviation values of less than one year experience was 53.42±4.595 and one to two years experience was 43.22 ±5.879 for “Other Issues” section respectively. Significant difference (p < 0.05) in scoring had been noted between Group I and Group II across the two sections. Significant reduction in scores was found across the domains for SLPs with greater experience in telepractice.

**Discussion**

There are many studies done on the efficacy of tele management on various techniques. However, the issues faced by SLPs are not discussed yet.

The current questionnaire covers the areas of assessing Oral Peripheral Mechanism Examination (OPME), parental/ care giver involvement, the effectiveness of reinforcement, appropriate provision of therapy for children with multiple disabilities, handling clients with behavioral issues or hyperactivity from emerging tele practionaires. Other issues such as network connectivity, type of gadgets, mental health, and financial backup of the client played important role to effectives of therapy.

On comparing the scores of two groups across two sections of the questionnaire, statistically significant difference was noted. The results revealed that telepractice can be carried out with less difficulty with SLPs with greater experience. The present study is supporting the advancement of technology in the field of telepractice. The results of this study showed that the experience matters lot for SLPs to practice with an ease using advanced aspects of technologies, like telepractice involving assessment and management. This finding is similar to the study conducted by ASHA (2020) which revealed that school-based SLPs found teletherapy to be challenging. The present study was concentrated on the SLPs using telepractice in a broader platform than school based. The results contrast with Tucker (2012) who found that SLPs who were more experienced less interested in using teletherapy compared to SLPs with fewer years of experience. But the contradiction is because the study was concentrated on the interest aspect and not specifically on the difficulties faced by SLPs.

**Conclusions**

The present study showed that SLPs who had lesser experience showed more issues with tele-speech assessment and therapy. Most of the SLPs felt that they need to have more experience in delivering teletherapy. The accessories and facilities needed for tele practice is the major area of difficulty pointed out by the candidates. More researches has to be conducted to rule out the impact of experience in telepractice. The use of technology, training to be taken for telemode, collaboration with other SLPs, should consider in order to having a successful therapy.

**Reference:**


