



Parental satisfaction with speech and language therapy: a comparison of teletherapy and face-to-face delivery

Draženka Blaži^{a*}, Antonija Blaži Ostojić^{b**}, Anita Holjevac^{b***}

^a University of Zagreb, Faculty of Education and Rehabilitation Sciences, Zagreb, Croatia

^b Centre for Speech-language pathology and rehabilitation "Blaži", Zagreb, Croatia

Introduction. During the COVID-19 pandemic in 2020, when strict lockdown measures disrupted the traditional delivery of rehabilitation services, online therapy (teletherapy) became the primary mode of service provision. Over time, a number of advantages associated with online therapy became evident. **Objectives.** The aim of this study was to examine whether parental satisfaction with speech and language therapy differs depending on the mode of delivery - online or face-to-face - and whether satisfaction with teletherapy is related to the child's age and diagnosis. **Methods.** The sample included 77 parents of children receiving speech and language therapy (age range: 2;06–14;11) with a range of diagnoses including Developmental Language Disorder, Autism Spectrum Disorder, and others. Data were collected using an anonymous questionnaire comprising 12 statements assessing satisfaction with each mode of therapy delivery ($\alpha = .71$). **Results and Conclusion.** The findings indicated that online therapy was rated positively by the majority of respondents, with 94.8% reporting overall satisfaction. A statistically significant difference in satisfaction was found across therapy delivery modes ($\chi^2(2) = 23.66, p < .001, \eta^2 = .29$), with participants attending exclusively online therapy reporting the highest satisfaction scores. Significant positive correlations were found between satisfaction and both the duration ($r = .41, p < .001$) and frequency ($r = .66, p < .001$) of teletherapy attendance. No statistically significant differences were found with respect to the child's age ($r = .12, p = .298$) or diagnostic group ($\chi^2(2) = 0.66, p = .720$). Given the exploratory nature and methodological limitations of the study, findings should be interpreted with caution.

Keywords: online therapy, speech and language therapy, parental satisfaction, age, diagnosis

Correspondence: Draženka Blaži, drazenka.blazi@erf.unizg.hr

* <https://orcid.org/0009-0005-9852-1908>

** <https://orcid.org/0000-0001-9894-9940>

*** <https://orcid.org/0009-0000-2132-1450>

Introduction

The rapid development of digital technologies over the past two decades has significantly shaped the delivery of healthcare and rehabilitation services, including speech and language therapy, particularly through the use of remote digital platforms for assessment and intervention (ASHA, 2023; John et al., 2023; Reynolds et al., 2016). Although online therapy, or teletherapy, has been developing within speech and language therapy for some time, the COVID-19 pandemic played a key role in accelerating its widespread adoption in everyday clinical practice (Fong et al., 2021; Tenforde et al., 2020), as it became a necessary alternative to traditional face-to-face service delivery.

In this context, teletherapy enabled the continuity of intervention during lockdown periods, while also creating opportunities to improve access to speech and language services more broadly, particularly for individuals living in rural or underserved areas (Fitzpatrick et al., 2025; Kollia & Tsiamtsiouris, 2021). As a result, teletherapy is increasingly recognised as a sustainable model of service delivery beyond emergency situations. It has also been well received by service users, as it reduces the time and financial demands associated with travelling to in-person sessions (Cason, 2014; Kollia & Tsiamtsiouris, 2021; Mashima & Doarn, 2008).

A growing body of research (Grogan-Johnson et al., 2013; Sutherland et al., 2017; Wales et al., 2017), including meta-analyses (Molini-Avejonas et al., 2015; Weidner & Lowman, 2020), suggests that outcomes achieved through teletherapy are comparable to those of traditional approaches. Online speech and language therapy has been shown to be an effective alternative across a range of clinical areas, including speech and language disorders and autism spectrum conditions, provided that certain conditions are met. These include adequate technical resources, well-structured interventions, and appropriate support for both children and their parents (Fromm & McKenna, 2025).

However, despite evidence supporting its effectiveness, the quality of speech and language services cannot be evaluated solely on the basis of objective treatment outcomes. As noted by King et al. (2004) and Rosenbaum et al. (1998), service quality must also be considered from the perspective of users' subjective experiences, particularly those of parents. In paediatric speech and language therapy, parents play a central role in the therapeutic process. As active partners, they support the implementation of therapy activities, help maintain continuity in the home environment, facilitate the generalisation of learned skills, and provide valuable feedback on their child's progress (Law et al., 2019; Roberts & Kaiser, 2011). Parental satisfaction is a complex and multidimensional construct, encompassing factors such as accessibility of services, quality of communication with the therapist, clarity of information provided, involvement in decision-making, and perceived effectiveness of the intervention. These factors may be influenced by the child's age, type of difficulty, individual characteristics, as well

as the family's socio-economic background and previous therapy experience (Al Awaji et al., 2024; Bailey et al., 2006; Jeglinsky et al., 2012; Pickard et al., 2016). In this context, the quality of the therapeutic relationship and parents' perceptions of the therapist's competence emerge as strong predictors of satisfaction (Jeglinsky et al., 2012; King et al., 2004).

Previous research on parental satisfaction with remotely delivered speech and language and related services has produced mixed findings. Some studies (Dunst et al., 2007; McLeod & Baker, 2017) suggest that higher levels of parental satisfaction are associated with greater parental involvement, better adaptation to therapy, increased child engagement, and more favourable therapy outcomes. In the context of teletherapy, additional factors may influence satisfaction, including the reliability of technology and internet connection, users' digital skills, the suitability of therapy materials for online delivery, the child's level of engagement during sessions, and the level of support provided by the therapist (Camden & Silva, 2021; Dharmar et al., 2013).

Many studies report high levels of parental satisfaction, particularly regarding flexibility, accessibility, and continuity of care (Crutchley & Campbell, 2010; Fairweather et al., 2016; Little et al., 2018). Parents also highlight the benefits of therapy taking place in the child's familiar home environment, which may support the functional use of newly acquired skills (Sutherland et al., 2018). At the same time, parents report certain challenges associated with teletherapy, such as technical difficulties, reduced quality of interaction between the child and therapist, and increased demands on parents during the therapy process (Eikelboom & Atlas, 2020; Fong et al., 2021; Khantapasuantara et al., 2025).

Despite the growing number of studies in this field and the increasing interest in remote service delivery, there remains a lack of research that systematically examines parental satisfaction in the post-pandemic context, particularly within European and regional settings. In addition, relatively few studies have explored in detail the specific factors that contribute to positive or negative parental experiences in online speech and language therapy. Such insights are essential for improving service quality, adapting interventions to family needs, and developing guidelines for effective teletherapy practice.

In line with the above, the aim of this study was to examine parental satisfaction with online speech and language therapy received by their child compared with traditional face-to-face therapy, and to explore the relationship between factors such as the child's age and diagnosis and parents' evaluation of the quality of online services.

The following research questions were formulated:

1. What are parents' attitudes towards online speech and language therapy (teletherapy)?
2. Are there differences in parental satisfaction depending on the mode of service delivery (online vs. face-to-face therapy)?

3. Is parental satisfaction with teletherapy related to the duration and frequency of attending online therapy?
4. Does parental satisfaction with teletherapy differ according to the child's age?
5. Does parental satisfaction with teletherapy differ according to the child's diagnosis?

Based on these research questions, 5 hypotheses were set:

H1: The majority of parents will express positive attitudes towards online speech and language therapy (teletherapy).

H2: There will be no statistically significant difference in parental satisfaction between online (teletherapy) and traditional face-to-face speech and language therapy.

H3: There will be a statistically significant positive relationship between parental satisfaction with teletherapy and both the duration and frequency of online therapy attendance.

H4: There will be a statistically significant relationship between the child's age and parental satisfaction with online speech and language therapy.

H5: There will be statistically significant differences in parental satisfaction with online speech and language therapy with regard to the child's diagnosis.

Method

Participants

The clinical sample was purposive, recruited from a single speech therapy and rehabilitation centre in Zagreb. It consisted of 77 parents of children receiving speech and language therapy who had been involved in online therapy for at least two months, either currently or in the past. Participants were recruited via a Google Forms questionnaire.

Within the overall sample, 53 participants had experience with teletherapy during the COVID-19 lockdown in Croatia, lasting approximately two months, while 24 participants engaged in teletherapy at a later stage, following the pandemic. All participants and their children had experience with both online therapy and traditional face-to-face therapy.

The children receiving therapy ranged in age from 2;06 to 14;11 years, with the largest proportion (49%) falling within the 8;00 to 11;11 age range. The reported diagnoses included a wide range of diagnostic labels, capturing the heterogeneity of the sample: Developmental Language Disorder, Phonological Disorder, Articulation Disorder, Reading and Writing Disorder, Fluency Disorder, Childhood Apraxia of Speech, Dysarthria, Social (Pragmatic) Communication Disorder, and Autism Spectrum Disorder. The most prevalent diagnoses in the sample were Developmental

Language Disorder (26%), Autism Spectrum Disorder (21%), Social (Pragmatic) Communication Disorder (17%), and Reading and Writing Disorder (14%).

At the time of data collection, the majority of participants (90%) were still actively engaged in speech and language therapy, either through teletherapy or face-to-face sessions.

Participation in the study was voluntary and conducted in accordance with established ethical research standards. Participants were informed that the data would be analysed at the group level, ensuring anonymity, and that they could withdraw from the study at any point without consequences. At the beginning of the questionnaire, participants were provided with a brief explanation of its purpose, its contribution to research, and information about the researchers conducting the study. Prior to participation, all respondents provided informed consent. Ethical approval for the study was obtained from the Ethics Committee of the speech and language therapy centre in which the research was conducted.

Materials and Procedure

The questionnaire used in this study was specifically designed for the purposes of the research. Individual items were developed through a three-step process: (1) a systematic review of the literature examining parental satisfaction with online speech and language therapy, (2) an analysis of previously existing instruments and questionnaires used in related research, and (3) the clinical experience of both the researchers and the speech and language therapists employed at the centre in which the research was conducted. The resulting items are grounded in previous empirical research (Gray et al., 2024; Khantapasuantara et al., 2025; Little et al., 2023; McGill et al., 2021; Pickard et al., 2016; Reynolds et al., 2016; Tenforde et al., 2020, etc.). The questionnaire consisted of two sections. The first section collected general information about the child, including age, diagnosis, current mode of therapy (face-to-face or teletherapy), duration of speech and language therapy, duration of teletherapy (current or past), and frequency of therapy attendance on a weekly or monthly basis.

The second section comprised 12 closed-ended statements assessing parental satisfaction and attitudes towards teletherapy. Responses were recorded in a dichotomous format (Yes/No).

The construct “parent satisfaction” is grounded in the family-centred care paradigm and is defined as a multidimensional measure encompassing perceived therapy effectiveness, service availability and practicality, parental involvement, technical dimension, and evaluation of therapeutic materials. Methodologically, it is predominantly measured using Likert scales with open-ended questions or, in a smaller number of cases, dichotomous scales as in the study by Tenforde et al. (2020). Crutchley and Campbell (2010), Al Awaji et al. (2024), and Fromm and McKenna (2025) highlight the simplicity of the dichotomous format as a key factor in promoting parental engagement and improving response clarity and quality. Additionally,

Callegaro et al. (2015) report that the Yes/No format increases response accuracy and reduces cognitive effort without substantially compromising data validity.

Data were collected via a questionnaire that parents could complete either in person at the centre or online via a Google Form, with the link distributed by email. The research was conducted from March 2025 to June 2025.

Data Analysis

The data were analysed using IBM SPSS Statistics 27.0. Descriptive statistics were used to summarise the data, including the calculation of response frequencies for individual items.

Non-parametric tests were applied to examine differences between groups, given the nature of the data. Specifically, the Kruskal-Wallis test was used to assess the significance of differences across groups based on the variables of interest. In addition, Spearman's rank correlation coefficient was calculated to examine associations between parental satisfaction and selected variables.

To assess the internal consistency of the questionnaire and determine the extent to which the 12 items measured the same underlying construct, inter-item correlations were calculated alongside Cronbach's alpha coefficient.

Results

Descriptive analysis of the data, based on the frequency of responses to individual questionnaire items, indicated that for the majority of statements (N = 8 out of 12), more than 50% of respondents expressed a positive attitude towards teletherapy. In contrast, for the remaining four items, fewer than 50% of respondents reported a positive attitude (see Table 1).

Table 1

Descriptive data on parents' attitudes towards online therapy: frequencies of responses to individual questionnaire items across all variables

ITEM	RESPONSE	FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
My child and I prefer online therapy to face-to-face therapy	No	59	76.6	76.6	76.6
	Yes	18	23.4	23.4	100.0
There is no difference in usefulness between online and face-to-face therapy if delivered by a trained professional	No	41	53.2	53.2	53.2
	Yes	36	46.8	46.8	100.0

ITEM	RESPONSE	FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
Preparing for online therapy requires more time than preparing for face-to-face therapy	No	20	26.0	26.0	26.0
	Yes	57	74.0	74.0	100.0
Presentations and materials used in online therapy are more engaging than printed materials	No	43	55.8	55.8	55.8
	Yes	34	44.2	44.2	100.0
I like the presentations and materials used in online therapy	No	3	3.9	3.9	3.9
	Yes	74	96.1	96.1	100.0
I like that online therapy can be received at home	No	10	13.0	13.0	13.0
	Yes	67	87.0	87.0	100.0
I like that I can attend the therapy as a parent	No	10	13.0	13.0	13.0
	Yes	67	87.0	87.0	100.0
Internet connection was often a problem during online therapy	No	51	66.2	66.2	66.2
	Yes	26	33.8	33.8	100.0
Using the online platform for therapy is simple	No	6	7.8	7.8	7.8
	Yes	71	92.2	92.2	100.0
Online therapy is equally valuable as face-to-face therapy	No	41	53.2	53.2	53.2
	Yes	36	46.8	46.8	100.0
I am satisfied with online therapy services	No	4	5.2	5.2	5.2
	Yes	73	94.8	94.8	100.0
Do you have any concerns regarding the online therapy your child receives?	No	62	80.5	80.5	80.5
	Yes	15	19.5	19.5	100.0

As shown in Table 1, for the statement *“My child (and I) prefer online therapy to face-to-face therapy”*, the majority of participants (76.6%) selected “No”, indicating that face-to-face therapy remains the preferred option for most respondents, or that both modes are viewed as equally acceptable.

For the statements *“I believe there is no difference in usefulness between online and face-to-face therapy if delivered by a well-trained professional”* and *“Online therapy is equally valuable as face-to-face therapy”*, responses were more evenly distributed (53.2% disagreed and 46.8% agreed), suggesting that a proportion of participants still perceive face-to-face therapy as more beneficial.

Despite these responses, a high level of overall satisfaction with online therapy was reported. Specifically, 94.8% of participants agreed with the statement *“I am satisfied with online therapy services”*, while the majority (80.5%) indicated that they had no concerns regarding the online therapy their child receives.

Several aspects of online therapy were rated positively by most respondents. For example, 87% agreed with the statement *“I like that I can attend the therapy as a parent”*. Similarly, 92.2% reported that using the online platform was straightforward, and 96.1% expressed a positive view of the presentations and materials used in online therapy.

However, opinions were more divided regarding the comparative attractiveness of materials, with 55.8% disagreeing with the statement *“Presentations and materials used in online therapy are more engaging than printed materials”*, and 44.2% agreeing. Another clearly positive aspect of online therapy was the possibility of receiving services at home, with 87% of participants endorsing the statement *“I like that online therapy can be received at home”*.

In order to compute an overall satisfaction score, inter-item correlations and Cronbach's alpha coefficient were used to assess the internal consistency of the questionnaire. This step was necessary to determine whether responses to the 12 items could be meaningfully combined into a single composite measure.

The analysis indicated that Item 3 (*“Preparing for online therapy requires more time than preparing for face-to-face therapy”*) did not correlate with the remaining items. This item reflects parents' perceptions of the therapist's workload rather than their satisfaction with the therapy itself, and was therefore excluded from the composite score. Its removal improved internal consistency.

Similarly, Item 8 (*“Internet connection was often a problem during online therapy”*) differed conceptually from the other items. It can be interpreted as a contextual factor that may influence the experience of online therapy, rather than a direct indicator of satisfaction. This item showed little to no correlation with the remaining items and was also excluded from further analysis. Its exclusion did not reduce the internal consistency of the scale.

Following these adjustments, Cronbach's alpha coefficient was calculated for the remaining 10 items measuring parental satisfaction, yielding a value of $\alpha = .71$, indicating acceptable internal consistency.

The total score was computed as the sum of responses across the 10 items, with Item 12 reverse-coded (Yes = 0, No = 1). The possible score range was from 0 to 10. Figure 1 and Table 2 present the distribution of scores within the sample. The distribution was negatively skewed, indicating generally high levels of satisfaction with online therapy ($M = 6.99$, $SD = 2.04$), with responses tending towards the higher end of the scale.

Figure 1

Distribution of responses in the study sample

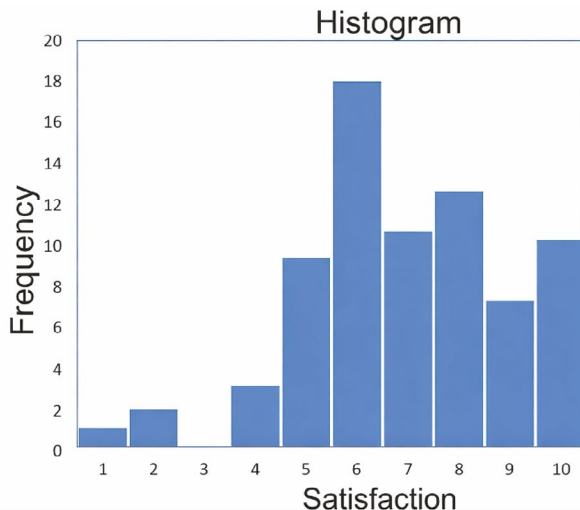


Table 2

Distribution of parental satisfaction with online therapy in the study sample

VARIABLE	N	MIN	MAX	M	SD
Parental satisfaction with online therapy	77	1.00	10.00	6.99	2.04

With regard to the research question examining whether differences exist in parental satisfaction depending on the mode of service delivery (online/teletherapy versus traditional face-to-face therapy), the Kruskal–Wallis test revealed a statistically significant difference in satisfaction, with a large effect size ($\chi^2(2) = 23.66$, $p < .001$, $\eta^2 = .29$) (see Table 3).

Post hoc pairwise comparisons indicated that the group of participants whose children primarily attended online therapy reported significantly higher levels of satisfaction with teletherapy compared to the other two groups. In

contrast, no significant difference was found between the group whose children primarily attended face-to-face therapy and the group receiving a combined form of therapy (see Table 4).

Table 3

Mean ranks of satisfaction with teletherapy across therapy delivery modes and results of the Kruskal-Wallis test

THERAPY MODE		N	MEAN RANK
SATISFACTION	Face-to-face therapy	40	29.50
	Online therapy	18	59.97
	Combined therapy	19	39.13
	Total	77	
SATISFACTION			
CHI-SQUARE X ²	23.662		
DF	2		
P	.000		

Table 4

Post hoc pairwise comparisons across therapy delivery modes

COMPARISON	TEST STATISTIC	SE	Z	P	ADJUSTED P
Face-To-Face Vs. Combined	-9.63	6.15	-1.57	.117	.352
Face-To-Face Vs. Online	-30.47	6.26	-4.86	<.001	<.001
Combined Vs. Online	20.84	7.26	2.87	.004	.012

The third research question examined the relationship between parental satisfaction with online therapy and both the duration and frequency of teletherapy participation. Correlations between variables were calculated using Spearman's rank correlation coefficient.

As shown in Table 5, the correlation between satisfaction with online therapy and the overall duration of children's involvement in speech and language therapy was not statistically significant ($r = -.20, p = .083$), although it suggested a trend whereby participants whose children had been in therapy for a longer period reported slightly lower satisfaction with online therapy. Similarly, the correlation between satisfaction and the general frequency of therapy attendance was not significant ($r = -.14, p = .214$).

In contrast, a statistically significant positive correlation was found between satisfaction with online therapy and the duration of teletherapy participation ($r = .41, p < .001$). A strong positive correlation was also observed between satisfaction and the frequency of attending online therapy ($r = .66, p < .001$).

Furthermore, with regard to the relationship between the child's age and parental satisfaction with online therapy, Table 5 indicates that no statistically significant association was found, suggesting that age did not play a meaningful role in shaping parental satisfaction with teletherapy.

Table 5

Spearman correlations (r_s) between parental satisfaction with online therapy and duration and frequency of participation in speech and language therapy

VARIABLE	r_s	P	N
Age	.12	.298	77
Frequency of therapy (overall)	.14	.214	77
Duration of therapy (overall)	-.20	.083	77
Duration of participation in online therapy	.41**	< .001	77
Frequency of online therapy	.66**	< .001	77

The next research question examined the relationship between the child's diagnosis and parental satisfaction with online therapy. Given the heterogeneity of diagnoses, all reported conditions were grouped into three broader categories: communication disorders (Social (Pragmatic) Communication Disorder and Autism Spectrum Disorder), language disorders (Developmental Language Disorder, Phonological Disorder, and Reading and Writing Disorder), and speech disorders (Articulation Disorder, Fluency Disorder, Childhood Apraxia of Speech, and Dysarthria).

A Kruskal–Wallis test (see Table 6) indicated that there was no statistically significant difference in parental satisfaction with online therapy across the three diagnostic groups ($\chi^2(2) = 0.66, p = .72$).

Table 6

Mean ranks of parental satisfaction with online therapy across diagnostic groups and results of the Kruskal-Wallis test

DIAGNOSTIC GROUP		N	MEAN RANK
SATISFACTION	Communication disorders	29	41.47
	Language disorders	31	38.16
	Speech sound disorders	17	36.32
	Total	77	
SATISFACTION			
CHI-SQUARE X^2	.657		
DF	2		
ASYMP. SIG.	.720		

a. Kruskal Wallis Test

b. Grouping Variable: Diagnostic Group

Discussion

The aim of this study was to examine parental satisfaction with online speech and language therapy (teletherapy) among those who had experience with both teletherapy and traditional face-to-face intervention. In addition, the study explored the relationship between factors such as the child's age, duration of therapy involvement, and diagnosis, and parents' evaluations of the quality and satisfaction with online services.

Both quantitative and qualitative analyses of the findings indicate that the majority of respondents expressed positive attitudes towards online speech and language therapy. The questionnaire used in this study demonstrated acceptable internal consistency, suggesting that it provided a reliable measure of parental satisfaction. Overall, high levels of satisfaction with online therapy were observed. It should also be noted that the high overall satisfaction scores may partially reflect a ceiling effect, whereby the limited response range of the dichotomous format reduces the ability to detect finer gradations in satisfaction and may thus inflate the apparent proportion of satisfied respondents. However, it should be noted that for four out of the twelve items, between 53% and 76% of respondents expressed a preference for traditional face-to-face therapy.

These findings are consistent with those reported by Passalacqua and Perlmutter (2022) and Lam et al. (2021), who found that, despite generally positive attitudes towards teletherapy, parents often continue to prefer face-to-face intervention. Interestingly, Lam et al. (2021) also reported that children themselves (of primary school age) showed a preference for online therapy. It should be highlighted here that the sample in our study was highly heterogeneous - in terms of diagnoses, the age of service users, and the time of enrolment in and duration of involvement in online therapy, and it is precisely this heterogeneity of participants' experiences that may have contributed to the variability in the results obtained. This ambivalence (high overall satisfaction with teletherapy alongside a persistent preference for face-to-face intervention) should not be dismissed as a mere descriptive characteristic of the sample. Rather, it may reflect a nuanced parental perception of teletherapy as a viable yet supplementary modality, accepted for its convenience and accessibility, but not yet fully equivalent to in-person therapy in the eyes of caregivers. This finding warrants further investigation, particularly regarding the specific aspects of therapy that parents associate with each delivery format.

Furthermore, the results of the present study indicated no statistically significant difference in overall parental satisfaction depending on the mode of service delivery (online versus face-to-face). This finding is in line with previous studies (Chaudhary et al., 2021; Gray et al., 2024; McGill et al., 2021), which similarly reported comparable levels of satisfaction between traditional and online therapy formats.

Notably, participants whose children attended therapy exclusively or predominantly online reported even higher levels of satisfaction and more positive attitudes towards teletherapy. This finding is consistent with the results of Hassan et al. (2023), who found no significant differences in satisfaction between groups receiving exclusively online therapy and those receiving hybrid services, except for socio-demographic factors. In their study, participants with lower incomes reported less favourable attitudes towards teletherapy compared to those with higher incomes.

In the present study, no significant association was found between satisfaction with online therapy and the overall duration of involvement in speech and language therapy. However, the observed trend suggests that participants whose children had been engaged in therapy for longer periods were somewhat less favourable towards teletherapy. At the same time, the findings indicate that exposure to online therapy plays an important role: greater familiarity and experience with teletherapy were associated with more positive attitudes. In this case, a significant role is certainly played by the self-selection effect among participants who used online therapy exclusively, which may in itself imply a predisposition towards, and satisfaction with, this form of receiving speech and language therapy, as well as by the effect of adaptation or habituation to this type of therapy, which results precisely from prolonged exposure to teletherapy. This is supported by findings reported by Little et al. (2023), who noted that longer engagement in teletherapy is linked to higher levels of satisfaction, while previous experience with traditional therapy does not appear to have a substantial negative impact on perceptions of teletherapy.

Although the present study did not find a significant relationship between the child's age and parental satisfaction, this finding may be interpreted in several ways. Age is often considered an important factor influencing parental satisfaction, particularly through its association with the level of parental involvement in the therapeutic process. A meta-analysis by Vanderauwera et al. (2026) suggests that parents' role in teletherapy changes depending on the child's age. For younger children, parents tend to be more actively involved in therapy implementation, and their satisfaction is influenced by the clarity of instructions and the perceived burden. In contrast, for older (school-aged) children, parents are less directly involved, and their satisfaction is more closely linked to therapy outcomes. The authors also highlight a paradox in early intervention, whereby parents of younger children may report both the highest and the lowest levels of satisfaction, depending on these factors. Qualitative insights from the present study support this observation, as a wide range of satisfaction levels was observed across all age groups. It should be emphasised that in our study, age was not a controlled variable in the analysis of the results, and we therefore present the findings with caution, as research shows that a child's age may indeed influence the level of parental involvement and satisfaction.

Alwyahya et al. (2025) reported that over 80% of participants (including both service users and caregivers) expressed high levels of satisfaction with teletherapy, while also noting that diagnosis may play an important role. In contrast, the findings of the present study did not reveal statistically significant differences in satisfaction across diagnostic groups. Although this result was somewhat unexpected and contrary to the initial hypothesis, it may be explained by the broad grouping of heterogeneous diagnostic categories into three overarching groups (communication, language, and speech sound disorders). This categorisation may have obscured more specific differences that could emerge if individual diagnoses were analysed separately. Therefore, even in the case of our attempt to homogenise the groups by creating three superordinate categories of disorders, we interpret these results with caution as well, since we cannot speak of strong homogeneity of the groups with regard to diagnosis, and the absence of differences in satisfaction with online therapy among our participants may be the result of this manner of grouping participants rather than of genuine group homogeneity.

It is certainly important to note that future studies should analyse individual clinical entities separately, as grouping diagnoses into three categories may conceal specific differences.

Limitations

Although the findings of this study are largely consistent with previous research, several limitations should be acknowledged, which limit the generalisability of the results. First, it should be noted that this is a clinical sample recruited from a single speech and language therapy centre. Furthermore, the sample includes a wide range of diagnostic categories subsequently grouped into three broader clinical categories to facilitate statistical analysis. While this approach enables group-level comparisons, it may simultaneously obscure specific differences between individual clinical entities. Additionally, age was not controlled for in the analyses, although it may represent a relevant confounding variable given the broad age range of the children in the sample (2;06 -14;11 years) and its potential influence on parental involvement and satisfaction ratings.

Second, participants were exposed to a single, standardised teletherapy model, which may not reflect variations in service delivery across different settings. It is possible that including participants from multiple centres would yield somewhat different results.

Third, the psychometric properties of the questionnaire were not examined in detail prior to its use, and the instrument was not subjected to formal validation procedures. Although internal consistency was assessed using inter-item correlations and Cronbach's alpha, these indicators should

be interpreted with caution given the dichotomous response format (Yes/No), which reduces response variability and may diminish the discriminative power of the instrument. Accordingly, the questionnaire should be considered a preliminary scale in the initial phase of empirical application, and the findings interpreted with appropriate caution.

Furthermore, some participants reported on their experiences with online therapy during the COVID-19 pandemic, while others reported on experiences in the post-pandemic period. This difference may affect satisfaction ratings, since during the pandemic this was the only possible way of providing the service - that is, the default framework - whereas after the pandemic it was a matter of choice. Given that in this study we did not control for the time at which participants began online therapy, and we have no clear answer as to whether online therapy and, consequently, satisfaction or dissatisfaction with it, was the only option or a matter of choice, this can be considered a limitation of this study. It should also be noted that some responses were retrospective, which, owing to the passage of time, may likewise be considered a limitation.

Conclusion

The present study explored parental satisfaction with online speech and language therapy (teletherapy) in a clinical sample of parents whose children had experience with both teletherapy and traditional face-to-face intervention. Given the exploratory and descriptive nature of the study, the findings should be interpreted as preliminary and not generalised beyond the specific sample and context examined.

The results of this study suggest that the majority of participants expressed positive attitudes towards teletherapy and reported high levels of overall satisfaction. At the same time, a notable proportion of participants indicated a preference for traditional face-to-face therapy, highlighting the importance of offering both modalities where possible. Participants whose children attended teletherapy exclusively or predominantly reported higher satisfaction scores, which may reflect a self-selection effect or an adaptation and habituation process resulting from prolonged exposure to online therapy. These findings are consistent with previous research, though they should be interpreted with caution given the limitations of the sample and instrument.

No statistically significant associations were found between parental satisfaction and the child's age or diagnostic group, although these null findings may be partly attributable to the heterogeneity of the sample and the broad grouping of diagnostic categories rather than to genuine group homogeneity.

Based on the findings of this study, teletherapy may represent a potentially useful modality in speech and language therapy for families with access to appropriate technological resources and sufficient support from their

therapist. However, given the limitations of this study, including the convenience sample recruited from a single centre, the use of a preliminary and unvalidated instrument, and the exploratory design, more robust conclusions regarding the effectiveness or equivalence of teletherapy relative to face-to-face intervention cannot be drawn at this stage. Future research with larger, more diverse samples, validated measures, and controlled designs is needed to further examine the conditions under which teletherapy may best serve the needs of children and their families.

References

- Al Awaji, N. N., Al-Taleb, S. M., Albagawi, T. O., Alshammari, M. T., Sharar, F. A., & Mortada, E. M. (2024). Evaluating Parents' Concerns, Needs, and Levels of Satisfaction with the Services Provided for ASD Children in Saudi Arabia. *Journal of multidisciplinary healthcare*, 17, 123–146. <https://doi.org/10.2147/JMDH.S447151>
- American Speech-Language-Hearing Association. (n.d.-a). *Teletherapy (Practice Portal)*. <https://www.asha.org/practice-portal/professional-issues/telepractice/>
- Bailey, D. B., Bruder, M. B., Hebbeler, K., Carta, J., Defosset, M., Greenwood, C., ... Barton, L. (2006). Recommended outcomes for families of young children with disabilities. *Journal of early intervention*, 28, 227–251.
- Callegaro, M., Murakami, M. H., Tepman, Z., Henderson, V. (2015). Yes–no Answers versus Check-all in Self-Administered Modes: A Systematic Review and Analyses. *International Journal of Market Research*, 57(2), 203–224. <https://doi.org/10.2501/IJMR-2015-014a>
- Camden, C., & Silva, M. (2021). Pediatric Telehealth: Opportunities Created by the COVID-19 and Suggestions to Sustain Its Use to Support Families of Children with Disabilities. *Physical & occupational therapy in pediatrics*, 41(1), 1–17. <https://doi.org/10.1080/01942638.2020.1825032>
- Cason, J. (2014). Telehealth: a rapidly developing service delivery model for occupational therapy. *International journal of telerehabilitation*, 6(1), 29–35. <https://doi.org/10.5195/ijt.2014.6148>
- Chaudhary, T., Kanodia, A., Verma, H., Singh, C. A., Mishra, A. K., & Sikka, K. (2021). A Pilot Study Comparing Teletherapy with the Conventional Face-to-Face Therapy for Speech-Language Disorders. *Indian journal of otolaryngology and head and neck surgery: official publication of the Association of Otolaryngologists of India*, 73(3), 366–370. <https://doi.org/10.1007/s12070-021-02647-0>
- Crutchley, S., & Campbell, M. (2010). TeleSpeech Therapy Pilot Project: Stakeholder Satisfaction. *International journal of telerehabilitation*, 2(1), 23–30. <https://doi.org/10.5195/ijt.2010.6049>
- Dharmar, M., Romano, P. S., Kuppermann, N., Nesbitt, T. S., Cole, S. L., Andrada, E. R., Vance, C., Harvey, D. J., & Marcin, J. P. (2013). Impact of critical care telemedicine consultations on children in rural emergency departments. *Critical care medicine*, 41(10), 2388–2395. <https://doi.org/10.1097/CCM.0b013e31828e9824>
- Dunst, C. J., Trivette, C. M., & Hamby, D. W. (2007). Meta-analysis of family-centered helping practices research. *Mental retardation and developmental disabilities research reviews*, 13(4), 370–378. <https://doi.org/10.1002/mrdd.20176>

- Eikelboom, R. H., & Atlas, M. D. (2020). Telehealth in audiology and speech pathology. In H. Eren, & J. G. Webster (Eds.), *The E-Medicine, E-Health, M-Health, Telemedicine and Telehealth Handbook*, 539–560. CRC Press.
- 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. <https://doi.org/10.3109/17549507.2016.1143973>
- Fitzpatrick, E. M., Grant, A. C., & King, T. (2025). Impact of Virtual Care on Speech-Language Services. *International journal of language & communication disorders*, 60(6), e70145. <https://doi.org/10.1111/1460-6984.70145>
- Fong, R., Tsai, C. F., & Yiu, O. Y. (2021). The Implementation of Telepractice in Speech Language Pathology in Hong Kong During the COVID-19 Pandemic. *Telemedicine journal and e-health: the official journal of the American Telemedicine Association*, 27(1), 30–38. <https://doi.org/10.1089/tmj.2020.0223>
- Fromm, C., & McKenna, M. (2025). Learning from caregivers: Insights into pediatric speech and language services delivered via telepractice during COVID-19. *Journal of Communication Disorders*, 118, 106577, 1–15. <https://doi.org/10.1016/j.jcomdis.2025.106577>
- Grogan-Johnson, S., Schmidt, A. M., Schenker, J., Alvares, R., Rowan, L. E., & Taylor, J. (2013). A Comparison of Speech Sound Intervention Delivered by Telepractice and Side-by-Side Service Delivery Models. *Communication Disorders Quarterly*, 34(4), 210–220. <https://doi.org/10.1177/1525740113484965>
- Gray, R., Michael, D., Hoffmeister, J., Lunos, S., Zach, S., Butcher, L., Weinstein, D., & Misono, S. (2024). Patient Satisfaction with Virtual vs In-Person Voice Therapy. *Journal of voice: official journal of the Voice Foundation*, 38(5), 1088–1094. <https://doi.org/10.1016/j.jvoice.2022.03.011>
- Jeglinsky, I., Autti-Rämö, I., & Brogren Carlberg, E. (2012). Two sides of the mirror: parents' and service providers' view on the family-centredness of care for children with cerebral palsy. *Child: care, health and development*, 38(1), 79–86. <https://doi.org/10.1111/j.1365-2214.2011.01305.x>
- John, A., Potapova, I., Escobedo, A., Combiths, P., Barlow, J., & Pruitt-Lord, S. (2023). Using Evidence-Based Practice in the Transition to Telepractice: Case Study of a Complexity-Based Speech Sound Intervention. *Perspectives of the ASHA special interest groups*, 8(4), 799–811. https://doi.org/10.1044/2023_persp-22-00197
- Khantapasuantara, K., Wangudom, T., Kuakun, N., Boonmee, P., Narathong, P., Samruajbenjak, R., & Kamonsitichai, W. (2025). A Comparative Study of Parental Opinions on In-Clinic Speech Therapy and Telepractice. *Research Medical Journal*, 48(3), e272383. <https://doi.org/10.33165/rmj.48.03.e272383>
- King, S., Teplicky, R., King, G., & Rosenbaum, P. (2004). Family-centered service for children with cerebral palsy and their families: a review of the literature. *Seminars in pediatric neurology*, 11(1), 78–86. <https://doi.org/10.1016/j.spen.2004.01.009>
- Kollia, B., & Tsiamsiouris, J. (2021). Influence of the COVID-19 pandemic on telepractice in speech-language pathology. *Journal of prevention & intervention in the community*, 49(2), 152–162. <https://doi.org/10.1080/10852352.2021.1908210>
- Law, J., Charlton, J., & Asmussen, K. (2019). *Language as a child wellbeing indicator*. London: Early Intervention Foundation.
- Little, L. M., Pope, E., Wallisch, A., & Dunn, W. (2018). Occupation-Based Coaching by Means of Telehealth for Families of Young Children with Autism Spectrum Disorder. *The American journal of occupational therapy: official publication of the*

- American Occupational Therapy Association*, 72(2), 7202205020p1–7202205020p7. <https://doi.org/10.5014/ajot.2018.024786>
- Little, C. C., Russell, S., Hwang, C., Goldberg, L., Brown, S., Kirke, D., & Courey, M. (2023). Applications of Telemedicine in Speech-Language Pathology: Evaluation of Patient Satisfaction. *The Laryngoscope*, 133(4), 895–900. <https://doi.org/10.1002/lary.30303>
- Mashima, P. A., & Doarn, C. R. (2008). Overview of telehealth activities in speech-language pathology. *Telemedicine journal and e-health: the official journal of the American Telemedicine Association*, 14(10), 1101–1117. <https://doi.org/10.1089/tmj.2008.0080>
- McGill, M., Siegel, J., & Noureal, N. (2021). A Preliminary Comparison of In-Person and Telepractice Evaluations of Stuttering. *American journal of speech-language pathology*, 30(4), 1737–1749. https://doi.org/10.1044/2021_AJSLP-19-00215
- McLeod, S., & Baker, E. (2017). *Children's speech: An evidence-based approach to assessment and intervention*. Boston, MA: Pearson Education.
- Molini-Avejonas, D. R., Rondon-Melo, S., Amato, C. A., & Samelli, A. G. (2015). A systematic review of the use of telehealth in speech, language and hearing sciences. *Journal of telemedicine and telecare*, 21(7), 367–376. <https://doi.org/10.1177/1357633X15583215>
- Pickard, K. E., Wainer, A. L., Bailey, K. M., & Ingersoll, B. R. (2016). A mixed-method evaluation of the feasibility and acceptability of a telehealth-based parent-mediated intervention for children with autism spectrum disorder. *Autism: the international journal of research and practice*, 20(7), 845–855. <https://doi.org/10.1177/1362361315614496>
- Reynolds, A. L., Vick, J. L., & Haak, N. J. (2009). Telehealth applications in speech-language pathology: a modified narrative review. *Journal of telemedicine and telecare*, 15(6), 310–316. <https://doi.org/10.1258/jtt.2009.081215>
- Roberts, M. Y., & Kaiser, A. P. (2011). The effectiveness of parent-implemented language interventions: a meta-analysis. *American journal of speech-language pathology*, 20(3), 180–199. [https://doi.org/10.1044/1058-0360\(2011/10-0055\)](https://doi.org/10.1044/1058-0360(2011/10-0055))
- Rosenbaum, P., King, S., Law, M., King, G., & Evans, J. (1998). Family-Centred Service: A Conceptual Framework and Research Review. *Physical & Occupational Therapy In Pediatrics*, 18(1), 1–20. https://doi.org/10.1080/J006v18n01_01
- Sutherland, R., Trembath, D., Hodge, A., Drevensek, S., Lee, S., Silove, N., & Roberts, J. (2017). Telehealth language assessments using consumer grade equipment in rural and urban settings: Feasible, reliable and well tolerated. *Journal of telemedicine and telecare*, 23(1), 106–115. <https://doi.org/10.1177/1357633X15623921>
- Sutherland, R., Trembath, D., & Roberts, J. (2018). Telehealth and autism: A systematic search and review of the literature. *International journal of speech-language pathology*, 20(3), 324–336. <https://doi.org/10.1080/17549507.2018.1465123>
- Tenforde, A. S., Borgstrom, H., Polich, G., Steere, H., Davis, I. S., Cotton, K., O'Donnell, M., & Silver, J. K. (2020). Outpatient Physical, Occupational, and Speech Therapy Synchronous Telemedicine: A Survey Study of Patient Satisfaction with Virtual Visits During the COVID-19 Pandemic. *American journal of physical medicine & rehabilitation*, 99(11), 977–981. <https://doi.org/10.1097/PHM.0000000000001571>
- 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>

- Vanderauwera, J., Vanden Bempt, F., D'haenens, W., Leysen, H., Leclercq, A. L., & Van Eerdenbrugh, S. (2026). The effectiveness of telepractice for speech-language pathology intervention with children younger than 12 years: A meta-analysis. *Journal of telemedicine and telecare*, 1357633X261426068. Advance online publication. <https://doi.org/10.1177/1357633X261426068>
- Weidner, K., & Lowman, J. (2020). Telepractice for Adult Speech-Language Pathology Services: A Systematic Review. *Perspectives of the ASHA Special Interest Groups*, 5(1), 326–338. https://doi.org/10.1044/2019_PERSP-19-00146

Zadovoljstvo roditelja logopedskom terapijom: poređenje teleterapije i pružanja usluga licem u lice

Draženka Blaži^a, Antonija Blaži Ostojić^b, Anita Holjevac^b

^a *Univerzitet u Zagrebu, Fakultet za edukaciju i rehabilitaciju, Zagreb, Hrvatska*

^b *Centar za logopedsku patologiju i rehabilitaciju „Blaži”, Zagreb, Hrvatska*

Uvod: Tokom pandemije COVID-19 2020. godine, kada su stroge mere zaključavanja poremetile tradicionalno pružanje rehabilitacionih usluga, onlajn terapija (teleterapija) postala je primarni način pružanja usluga. Vremenom je postao očigledan niz prednosti povezanih sa onlajn terapijom. *Cilj:* Cilj ove studije bio je da se ispita da li se zadovoljstvo roditelja logopedskom terapijom razlikuje u zavisnosti od načina pružanja usluga – onlajn ili licem u lice – i da li je zadovoljstvo teleterapijom povezano sa uzrastom i dijagnozom deteta. *Metod:* Uzorak je obuhvatio 77 roditelja dece koja primaju logopedsku terapiju (starost: 2,06–14,11) sa nizom dijagnoza, uključujući razvojni jezički poremećaj, poremećaj iz autističnog spektra i druge. Podaci su prikupljeni pomoću anonimnog upitnika koji je obuhvatao 12 izjava kojima se procenjuje zadovoljstvo svakim načinom sprovođenja terapije ($\alpha = .71$). *Rezultati i zaključak:* Rezultati su pokazali da je većina ispitanika pozitivno ocenila onlajn terapiju, pri čemu je 94.8% prijavilo ukupno zadovoljstvo. Statistički značajna razlika u zadovoljstvu pronađena je u različitim načinima sprovođenja terapije ($\chi^2(2) = 23.66$, $p < .001$, $\eta^2 = 0.29$), pri čemu su učesnici koji su isključivo pohađali onlajn terapiju prijavili najviše rezultate zadovoljstva. Značajne pozitivne korelacije pronađene su između zadovoljstva i trajanja ($r = .41$, $p < .001$) te frekvencije ($r = .66$, $p < .001$) ($r = 0.41$, $p < .001$) i učestalosti ($r = .66$, $p < .001$) pohađanja teleterapije. Nisu pronađene statistički značajne razlike u odnosu na uzrast deteta ($r = 0.12$, $p = 0.298$) ili dijagnostičku grupu ($\chi^2(2) = 0.66$, $p = 0.720$). S obzirom na istraživačku prirodu i metodološka ograničenja studije, nalaze treba tumačiti sa oprezom.

Ključne reči: onlajn terapija, logopedska terapija, zadovoljstvo roditelja, uzrast, dijagnoza

PRIMLJENO: 15.04.2026.
REVIDIRANO: 09.06.2026.
PRIHVACENO: 10.06.2026.