

**“Parents are the first tutors of their child”: Parents' Perception of Responsibility on
Practicing Speech-Language Home Program during COVID-19 Lockdown**

Abstract

Background and objectives: Some families faced difficulties accessing speech therapy in some areas of Malaysia and/or during the COVID-19 lockdown. Therefore, parent-mediated intervention could be one of the ways to solve this issue, as it has been proven to effectively improve communication skills among children with communication disorders. Hence, a Mandarin parental guidebook comprising a series of language stimulation activities was developed to explore the perception of parents of children with communication disorders, ranging from 3 to 6 years old, regarding the feasibility of (1) conducting speech-language home programs and (2) using a home-based parental guidebook as a tool to deliver a speech-language home program.

Design, Setting and Participants: Semi-structured interviews were conducted with nine Malaysian parents of child(ren) with communication disorders, who fulfilled the inclusionary criteria. Parents had attempted the speech-language home program by using the guidebook prior to the interview. The participants were subjected to 45-minute to 1-hour interviews. The interviews were audio or video-recorded for verbatim transcription. Thematic analysis was used for data interpretation.

Results: Four main themes were identified: (1) “*Golden Period*”: a guidebook to deliver speech-language home program, (2) perception of the speech-language home program among parents of children with communication disorders, (3) challenges faced by parents when

practicing speech-language home program, and (4) suggestions for improvements: parent's needs. The themes informed the perspective of parents towards the user experience of the parental guidebook, the feasibility of the speech-language home program and their recommendations. Overall, participants conveyed positive responses on the parental guidebook.

Conclusions: Malaysian parents face difficulties in accessing speech therapy due to limited numbers of SLTs, geographical barriers, financial constraints, availability of facilities, etc. Findings could assist SLTs in adopting a family-centered approach in their service delivery thus increasing the cost-effectiveness of their service delivery.

Keywords: home program; parental guidebook; communication disorders; early intervention

INTRODUCTION

In recent years, a shift across allied health services from a medical model of service provision to a social model has taken place (Carroll, 2010). In this model, parental involvement is embraced in all aspects of intervention, with the entire family being considered as the client rather than just the child (Law et al., 2017; Moeller et al., 2013). First, parents play an active role in determining a child's developmental needs, and they are ultimately the first assessors of a language disorder (Harding et al. 2024). In fact, the role of parental assessment is deemed valid and valuable in clinical practice (Mancilla-Martinez et al. 2016). Second, parents' prominent role in their child's social, academic, and linguistic development is crucial (Lara & Saracostti, 2019; Tárraga et al., 2018; Indrayani & Jember, 2016; El Nokali et al., 2010), as improvement is a result of the dynamic interaction between the child's family, environment, and behavior (Luebben & Royeen 2010). Compared to the clinical setting, parental involvement in the natural environment has been shown to enhance the generalization of skills, such as language skills, emergent literacy skills, and social skills in the daily routine (Vrinda & Kunnath, 2023; Nair et al., 2014).

Parental involvement plays a crucial role in parental training focused on enhancing communication during parent-child interaction activities in therapy sessions. Research has shown that parent-mediated intervention can effectively improve socio-communication and language skills among children with communication disorders (Roberts & Kaiser, 2011; DeVeney et al., 2017; Tosh et al., 2017; Suttora et al., 2021) and improve parents' self-efficacy in stimulating the language development of their children due to a positive parent-child interaction (Dag et al., 2021; Zwitterlood-Nijenhuis et al., 2023). Several studies have reported positive results for parents engaging in home activities in language development and communication skills

(Buschmann et al., 2009, 2015; Gibbard et al. 2004; Baxendale & Hesketh, 2003; Wake et al., 2013; Kruythoff-Broekman et al., 2019). In a meta-analysis of studies on parent-implemented interventions in language, Roberts and Kaiser (2011) showed that parent-implemented interventions had overwhelmingly positive effects on receptive and expressive language skills, receptive and expressive vocabulary, expressive morphosyntax, and rate of communication. Parent training also had a positive impact on parent–child interaction (Roberts and Kaiser, 2011).

Crucially, parental training has been extended to the home environment through parental speech-language home programs. The COVID-19 pandemic has rapidly promoted the expansion of online and home-based methods of speech therapy, with generalised satisfaction among patients (Tenforde et al. 2020). Speech-language home programs are a mode of service delivery designed to help children with communication disorders improve their communication skills at home with the assistance of parents under the guidance of a speech-language therapist (SLT) (Namasivayam et al., 2018). As its name suggests, the home program capitalizes the parent-child interaction to optimize speech and language intervention outcomes (Chu et al., 2018). If provided with sufficient intensity and adequate guidance from the SLT, home-based therapy has proven to be an efficient strategy for the child, as shown in a recent systematic review on the effects of speech-language home programs (Tosh et al., 2017). It comes with benefits, including ease of accessibility (Enderby et al., 2001) and overcoming issues such as the often-reported shortage of SLTs (Mohan et al., 2017). Home programs can “supplement” institutional speech therapy sessions, aiding in generalizing skills from one setting to another (Vrinda & Kunnath, 2023; Nair et al., 2014).

Despite the crucial role of parents in speech-language home programs, few studies report on parents’ perception, satisfaction and willingness of involvement in home programs, as

reported in a systematic review by Tosh et al. (2017). Overall, the studies included reported satisfaction with the service parents received and a positive attitude towards the model. A qualitative study conducted by Sugden et al. (2019) involving six parents whose children had received speech therapy in the past year acknowledged parents' responsibility in implementing the home program, but expressed the need for guidance from SLTs. Davies et al. (2017) have highlighted that parents often possess a unique perception of their role in intervention, which may differ from that of SLTs. This discrepancy could be attributed to factors such as available time, confidence in the task, and perception of the associated benefits (Justice et al., 2015). A study conducted by Melvin et al. (2019) among parents of children with special needs found that the information available on developmental delays was generally scarce. Among the factors hampering home-based training, some studies report insufficient time for home-based training when balancing the demands of busy family life (Hoover-Dempsey et al., 2005; Smidt et al., 2020), as well as a sense of frustration deriving from the child not succeeding in the exercises (Goodhue et al., 2010; Sugden et al., 2019; Smidt et al., 2020). Some studies report a need for validation and support from professionals during home programs (Camden et al., 2020; Creen et al., 2024), to the point of requiring continuous coaching from trained personnel (Lord et al., 2018), and of explicit instructions to feel more at ease (Smidt et al. 2020). Overall, the perception of parents regarding their roles and level of involvement in supporting their children's development through home program remains unclear.

In Malaysia, several challenges arise in direct, individual, clinic-based delivered therapy for families of children with communication disorders, including a shortage of SLTs in the territory and a lack of appropriate assessment and intervention tools to cater to different needs (Chu et al., 2019). A shortage of qualified SLTs, with as little as 1:491 SLT to patient ratio, gives

rise to limited capacity to handle the caseloads and speech therapy appointments as long as 6 months after the first assessment (Chu et al., 2019), which is problematic for early intervention (Fathi Othman, & Abdul Aziz, 2019). Moreover, families in Malaysia face different challenges in accessing speech therapy, including factors such as geographical barriers, financial constraints, and availability of facilities (Smith et al., under review). The situation was further exacerbated by the COVID-19 pandemic, which led the Malaysian government to impose lockdowns starting March 18, 2020. As a result, children were prohibited from engaging in outdoor activities and attending interventions during the lockdown period, leading to parents lacking clear guidance in supporting their children's communication skills. Even if children were allowed to attend therapy sessions, parents were generally not involved during the lockdown. Consequently, SLTs were unable to provide parental training with the home program.

Despite the potential benefits of home programs for speech therapy, this model has been explored very limited in Malaysia, and its feasibility may, in fact, be hampered by the need for support from SLTs throughout the process to provide parental training with the home program, which is usually conducted during the one-to-one session. However, the need for SLT intervention may be reduced through parental training programs, which could serve as a successful optional treatment module in the country. The current study aimed to explore the perception of parents of children with communication disorders on the feasibility of (1) conducting speech-language home programs and (2) using a home-based parental guidebook as a tool to deliver a speech-language home program.

METHODS

A Mandarin parental guidebook containing a series of language stimulation activities was developed to train parents to conduct essential communication skills therapy at home by offering step-by-step instructions. This guidebook was aimed at parents of children aged 3 to 6 years old with communication difficulties. The choice to target families of children of that age was driven by the prevailing practice in Malaysia, where children are typically referred to as SLTs around that age. Therefore, at the time of designing the guidebook, it targeted the most frequent users of childcare facilities in Malaysia.

Nine parents (9) of child(ren) with communication disorders participated in this study. The inclusion criteria were: (a) Malaysian parents of child(ren) with communication disorders, (b) child(ren) ages between 3-6 years old, (c) had received the parental guidebook that was developed in the current study, and (d) cognitively able to participate in an interview. The exclusion criteria were (a) parents who could not read and speak Mandarin and (b) had no access to phone calls, chat applications, or online conferencing platforms. There were two parents of children with Autism Spectrum Disorders, five parents of children with speech and language delays, and two parents of children with Global Developmental Delays. Six of the nine participants had attended or were currently attending speech therapy. All parents received a parental guidebook before participating in the study. The demographic data of each participant was shown in Table 1.

A Mandarin parental guidebook comprising 12 language stimulation activities was developed by four trained speech-language pathology undergraduate students under the guidance of a senior SLT. Some of the language stimulation strategies were adopted from *It takes two to talk-The Hanen program for parents* (Pepper & Weitzman, 2004) and written in the guidebook.

Common goals (e.g., turn taking, expanding sentences, asking for repetitions to repair conversation) for children with communication disorders are also included in the guidebook. The guidebook consisted of an introduction (e.g., speech therapy, common goals, and language stimulation strategies) and 12 activities which were mainly play-based (e.g., puzzle, reading a book, matching game, playing with dolls, Mr Potato, blowing bubble, singing a song, etc). It took 5 to 10 minutes to carry out each activity. Each example of an activity guided parents to create opportunities for language stimulation. Templates of certain activities were provided for the parents. Each activity was explained in a step-by-step manner on how to start the activities and how to respond to the child. Readers are welcome to contact the corresponding author directly through email to receive a soft copy of the guidebook.

The guidebooks were distributed to parents whose children attended speech therapy services in collaboration with the Malaysia Association of Speech and Hearing (MASH). Parents who were willing to participate in the study would scan the QR code embedded in the book and fill out their contact details after reading the guidebook. Parents who did so were contacted by a member of the team for further information on the purpose of the study and informed consent. The study was approved by the National University of Malaysia research ethics board (JEP-2020-698).

Table 1. Demographic data of each participant

ID	Parents	Age of his/her child(ren)	Diagnosis	Currently receiving or had received speech therapy before?
-----------	----------------	--------------------------------------	------------------	---

S1	Mother	3 years old	Autism Spectrum Disorder	Yes
S2	Mother	4 years old	Autism Spectrum Disorder	Yes
S3	Mother	5 years old	Global developmental delay	Yes
S4	Mother	3 years old	Speech and language delay	Yes
S5	Father	6 years old	Global developmental delay	Yes
S6	Mother	2 years old	Speech and language delay	Yes
S7	Mother	4 years old	Speech and language delay	No
S8	Mother	3 years old	Speech and language delay	No
S9	Mother	3 to 4 years old	Speech and language delay	No

A topic guideline comprising a series of open-ended questions was designed by the second author and validated by the third author, a certified SLT working at a university in Malaysia. These exploratory key questions focused on the feasibility of speech-language home programs among the parents of child(ren) with communication deficits and their views towards the effectiveness of the parental guidebook as a tool to facilitate the communication skills of the children (see Appendix A).

All interviews were conducted in Mandarin by the second author, a fluent Mandarin speaker and a Year 4 trained SLT student. The interviewer was trained to conduct the interviews by the third author, as aforementioned, a certified SLT, who has 12 years of experience in qualitative studies. The interviewer applied the strategies of summarizing, reflecting, and restating to establish shared understanding during the interview. In order to achieve coherence in the conversation, the interviewer also used prompting techniques to elicit spontaneous yet relevant responses. The objective and procedures of the interview were reemphasized to the parents prior to the interview.

Nine interviews were conducted via online conferencing applications (Zoom and Google Meet). The conversations were audio (n=1) or video-recorded (n=8). None of the interviews was conducted physically due to the restriction of movement control order during the COVID-19 pandemic. The duration of each interview ranged from 45 minutes to 1 hour. Audio recordings of the interviews were transcribed by the second author. Accuracy was cross-checked by another SLT undergraduate who reviewed 10% of all audio and corresponding transcripts.

The transcriptions of audio recordings were analyzed following the outline of six phases of the thematic analysis model (Braun & Clarke, 2006). Criteria for the integrity of qualitative research were addressed during each phase of the thematic analysis. The first author led the

analysis, conducting consensus coding with the second and third authors at each of the six stages of the process. The first author familiarized herself with the transcriptions by reading and rereading them. This provided her with a general overview of the subjective experiences of the participants. Ideas and recurring data were identified and coded manually. Related codes were then collated into categories and potential themes and sub-themes were generated. The categorized data were refined and re-coded into patterns which were to be indicative of meaningful themes. To ensure rigor and agreement of the data, the co-authors reviewed and refined the codes, categories, and themes at regular research meetings until a consensus was reached. All the themes were discussed in the discussion section and served as the basis for the results reported here. Comments or remarks made by participants that resonated with the themes were noted and attributed to the participant's identifier in the result section. Since not all members of the research team are fluent speakers of Mandarin, the data were translated into English by the second author, a bilingual speaker of Mandarin and English. During this process, the author paid close attention to the sentence structure, word choice, and idiomatic expressions of both languages to ensure the nuances of the original language could be conveyed accurately and maintain fidelity to the original meaning. Some dialectal variations were also found during the translation process, the second author had discussions with the first and third authors from different dialects backgrounds to identify the appropriate linguistic representations in English. It is generally believed that the selection of a particular translation strategy should align with the epistemological stance of the researchers. Doing so is likely to enhance the credibility and quality of the research, resulting in qualitative findings that accurately reflect the perspectives of the participants (Helmich et al., 2017).

Results

Four themes were derived from the interviews with parents of child(ren) with communication disorders (Table 2). Quotes are provided in this paper by the parents in colloquial Mandarin, which are reported verbatim. However, translations from the Mandarin language were reported in standard English, with an * at the beginning of the quote. Considering all participants were bilingual or trilingual, interviews were conducted in their native language, Mandarin, and approximately 95% of the responses were in Mandarin. Some sentences comprised a blend of English and Mandarin, a common occurrence in daily conversations in Malaysia. In the event of code-switching, the interviewer would use Mandarin to steer the participants back on track.

Peer debriefing (Creswell, 2003) was conducted to report credibility. This involved using an independent peer-reviewer (fifth author) in two stages. During the first stage, the fifth author created its list of open codes by coding a subset of the participant transcripts. Following this, a list of open codes created by the third author was given to the fifth author, and the two lists were compared. In cases where the research team disagreed or new codes were proposed, thorough discussions were held until an agreement was reached. This procedure ensured that the emerging codes appropriately represented the data and suggested additional codes that might have been overlooked. During the second stage, the fifth author concurred with 92% of the third author's coding and category allocation, and once more, disagreements were resolved through discussion.

Table 2: Themes and subthemes from parents.

Themes	Subthemes	Coded extracts (n)
“Golden Period”: a guidebook to deliver speech-language home program	Guidebook provides hints for new parents to learn	7
	about speech and language development	
	“They will feel fun”: Games and toys are easily accessible and with detailed guidance	6
	Helpful Information given in Guidebook	7
Perception of the speech-language home program among parents of children with communication disorders	“Parents are the first tutors of their child”:	9
	parents' perception of responsibility on practicing speech-language home program	
	Factors affecting the parents’ perceived responsibility for practicing home program	9
	“Home program can help to save time and money”: benefits of the home program	9
Challenges faced by parents when practicing speech-language home program	Other responsibilities as a mother	6
	Child’s inability to do these activities	8
	Unsure of how to engage their child in a therapeutic activity	3

	<i>“I did not know if I have achieved the target”:</i>	4
	Unsure about the goal of the activity	
<hr/>		
Suggestions for	Provide video demonstration of these activities	9
improvements:	Physical guidance from an SLT	9
parent’s needs	Ways to track the child’s progress	6

Theme 1: “Golden Period”: A guidebook to deliver speech-language home program

This guidebook aimed at parents of children with communication difficulties between ages of three to six, as this is the golden time to improve the overall development of the child. Some participants understood the importance of the “golden period” in speech and language development and the importance of being trained to help their children at this point. For example, S6 reported the importance of “*help(ing) him during the golden period. Otherwise, his learning ability will be affected. If his imitation is not good, his learning ability is not good as well”. One of the participants (S4) also stated that the guidebook is useful for new parents who may miss the golden period to teach their kids to talk: “*(it is a) good guideline for parents, especially those who are new parents. Without this guideline, they may not know how to teach their kids and then miss the early stage where their kids should start to talk”. S2 also mentioned that if the golden age was missed, the gap her child needed to bridge became even larger.

All the suggested toys or activities in the parental guidebook were meant to be easily accessible to the parents, as reported by six out of nine respondents. For example, “*I have bought most of the toys stated in the book. I did not expect I could play with some of the toys

with my kids” in S9 and “*Oh, there are 12 of them? What I meant to say was that I have probably bought about 60% of the things for him to play with” in S2. If parents have easy access to toys and activities, they are more likely to do the suggested programs at home. Therefore, S3 and S4 proposed to obtain the materials or activity packs so that their role was only to conduct the activity, as quoted “*To provide an activity pack, such as clay. If you can provide the material regularly, I think we can attempt your suggested activities’ (S3).

The guidebook content provided parents with insight into speech therapy and communication disorders. Seven out of nine respondents commented that they could refer back to the book to obtain information on types of games, procedures of playing the games, guidance, and examples of responses from the child during the play. One of the examples given by S8 was that the guidebook provided ideas on how to use a variety of sentences to stimulate the children’s language development, as one participant notes: “*I think the book provides a detailed explanation of the gameplay and even includes the entire method. It is great that the book provides such detailed information,” which was further supported by S6, who commented on the additional information provided by the guidebook:

**It can help me to understand more about the problem of language delay and its solutions, as this book provides me with all the information about speech therapy for children. Moreover, this book contains a variety of speech activities tailored to children’s needs, which allow parents to help their children at home.*

Theme 2: Perception of the speech-language home program among parents of children with communication disorders

The speech-language home program can be a “supplement” to the institutional speech therapy session. The progress of therapy is accelerated by creating more opportunities for a child

to practice communication skills outside the therapy session. The reason was further elaborated by S9 who stated that:

**When we bring our children to see the professional, it's only for 45 minutes, but we spend more time with them at home. Of course, if we can do better at home to help them, especially during this time when we all stay at home, we should definitely try our best to do so.*

Due to the upbringing environment of the children and the intimacy, all participants agreed that parents have the responsibility to conduct the speech-language home program. The sense of responsibility among parents was portrayed as below: “*Parents are the first teachers or role models in the kid’s life” (S4), “*Parents also need to teach. It's not as simple as just giving money to settle things. Both sides need to learn as well” (S5).

**During the clinic session, the child may be taught by a teacher they are not familiar with and then forget what they learned during the session when they reach home. Therefore, it is best for us as parents to practice with them every day. (S3)*

However, there are factors that hinder the feasibility of the home program, such as the attitude of an individual and determination:

**It's also about not having an instructor telling me that I need to complete these tasks in four weeks and then give an oral report on my child's progress. Without that pressure, I tend to procrastinate. After reading this book, I feel like I want to do it, but at the same time, I don't want to. (S9)*

The mental health of parents was impacted when certain parents conducted the speech-language home program in a rigid manner by trying to simulate the therapist-lead session at home. “*I feel stressed with the home program and think that it must be done for 30

minutes...I feel relaxed when I know the home program is for 5 minutes” (S6). Two participants embraced the positive perceptions toward the home program, “*Don't treat it as a task. Naturally talking to the child every day, do not aim that you can teach him to master the concept within a day” (S4) and “*short duration of activities but repeat in different times” as suggested by S5.

The speech-language program was perceived to be time-saving and economical. It also helped parents understand the communication abilities of their children. “*I think a home program can help to save time and money” (S8). S7 also stated the benefit of doing the home program as she could see the progress, “*by doing the home program, we can see his progress more easily.” A more specific example was given by S3, who said, “*When I teach him individual words and use hand gestures, I need to repeat them every day for him and then he would use them. I think parental modeling is very important.” However, S9 did not agree on the benefit of saving time and money. Instead, she valued the progress her child made after completing the home-based program.

**When it comes to time, I don't think I'll save any because I still need to spend time with him. As for money, I also don't think I'll save any because I still need to take him for therapy sessions. The only benefit I see is that it will help my child make progress. (S9)*

Theme 3: Challenges faced by parents when conducting speech-language home program

Currently, most Malaysians are working parents. They needed to shoulder other responsibilities as mothers, as stated by S2: “*I do what I can because, after all, I am tired when I come back (from work), so I cannot do everything. and S1:

**Because I have a job, it's a bit difficult for me to focus on my child when I get home, as I also have an older son who needs care. I have to focus on my older son's studies, so the time I can spend with my younger son is limited to around 15-30 minutes.*

Although taking care of siblings was a challenge for parents when conducting the home program, S8 would let siblings play together as part of the home program, “*In the afternoon, he may take some toys and play with his elder brother.” Even if the parents were able to conduct the home program, they found it difficult to optimize language stimulation activities due to the child’s inability to do these activities and parents unsure of how to engage their children in a therapeutic activity. Their children might not have engaged in activities with their parents because of their patience and compliance. “*Taking turns, he still doesn't have the patience for it, and it also depends on his mood. Sometimes he can, sometimes he can't” (S1) and “*He doesn't sit quietly; he runs around. I have to lock him in the room for an hour to teach him” (S5). The child’s low compliance with the activities had affected the parents’ persistence in conducting the home program, as they did not know how to react to their child: “*your child may not want to cooperate, and then you may feel tired. For example, he may struggle or resist when you try to prompt him to do something during therapy. Then you feel difficult to persist” (S8).

All of the participants who did not attend speech therapy sessions (n=3) faced the challenge of engaging their children in a therapeutic activity:

**When he is playing with his lego, he does not like me to touch the toys. He will topple the lego sets if i tell him to put here and there. He will turn to another side and play alone. I'm totally clueless. (S7)*

**This is not a difficult task, but it is hard to do the two-way interaction. You may interact with the kids directly but when the kid did not give the desired responses, I don't know how to respond to the changes and then stuck there. (S8)*

Besides, S2 was worried about teaching wrong information to her child, probably due to uncertainty about the goal of the activity, “*To be honest, when I teach, I am afraid of teaching incorrectly, afraid that he might get wrong information”. As each child's level and development were different, parents also faced difficulties on whether their child had made any improvement after completing the activities in the guidebook:

**I did do these activities but after that, I am unsure of the outcomes of the activities I was doing with her and what she should be learning from the activities. Even though I was following along with the activities, she seemed to remain the same afterwards. (S7)*

Theme 4: Suggestions for improvements: parent's needs

Although the guidebook was beneficial to parents, some aspects could be complementary through visual representation. All participants had suggested providing the demonstration in video format or through physical guidance, especially when the child was non-compliant during the activity. S6 reported, “*We are clueless (by looking at the book). We can only realize what to do after demonstrations. Video demonstration makes us feel confident to do it, and encourages us to attempt the activities”. S8 also further explained that,

*“*Because the book is written in a perfect way, it may seem easy, but in reality, when you interact with a child, it may not be possible to follow the book. Having a video of when the therapist encounters situations where the child doesn't cooperate with you, how do you deal with the situation, may be helpful.”*

S4 even suggested putting all the videos in a WhatsApp group by stating,

*“*YouTube video would be good. You can create a WhatsApp and add the parents. They can access the video when you share the link in the group. Sometimes, we tend to be lazy when it comes to reading, I would prefer watching videos. It is rather fast.”*

By scrutinizing the guidebook alone is insufficient, hence some parents opined that the engagement of a SLT was necessary to acquire more skills.

*“*It (the guidebook) is good guidance but still needs a professional speech-language therapist to guide the mom. Even if we can't go to a centre now, we can still do a video call. The speech-language therapist can teach the mom a simple activity and give her hints or guidelines on areas that need improvement.” (S1)*

An overview of the habilitation trajectory and rationales in the guidebook could provide parents with a clearer direction in conducting speech-language home programs. Thus, ways to understand the stages or progress of the children were recommended, as shown by “*...putting the developmental milestone so that the parents can know the child’s level and if the child has progressed” (S6) and “*you should add expected and future goals in the book. Then the parents will know if they have achieved the goals and what are the next goals” (S9). S3 would like to have someone check on her child’s progress by saying “*is it possible for the home program to be quarterly, where someone can come up or go to the clinic to see if the child is making progress?”

DISCUSSION

The current study aimed to explore the perception of parents of children with communication disorders regarding the feasibility of (1) conducting speech-language home programs during lockdown and (2) using a parental guidebook as a tool to deliver a

speech-language home program. From the finding, four main themes were identified: (1) “Golden Period”: a guidebook to deliver speech-language home program, (2) perception of the home program among parents of children with communication disorders, (3) challenges faced by parents when practicing home program, and (4) suggestion for improvements: parent’s needs.

The development of the parental guidebook was considered beneficial by the parents involved in the study, with the most positive outcomes being saving time and money through reduced frequency of therapy sessions physically as well as better parent understanding on their children’s current level. Parents felt a heightened sense of autonomy as a result of convenient access to the toys and flexibility in choosing the activities attached to detailed guidelines, which is in turn linked to a potential increase in parental motivation (Deci & Ryan, 2000; Smidt et al., 2020).

However, some challenges remain that are primarily linked to time management within the family. Consistent with previous studies (Hoover-Dempsey et al., 2005; Smidt et al., 2020), this study found that parents’ self-perceived resources and time can influence parental involvement in the home program, increasing levels of stress due to high demanding home programs set by the parents. As a result, a short duration of daily activity (e.g., five minutes) and a fixed routine may be helpful.

Another challenge reported by parents was the child’s inability to perform home-based activities. Consequently, parents felt frustrated, tired, and demotivated after conducting the activities, in line with previous research (Goodhue et al., 2010; Sugden et al., 2019; Smidt et al., 2020). Although this guidebook provided parents with detailed guidance, some parents were unsure of the goals of each activity and the action if their children’s progress reached a plateau

stage. All participants who did not attend speech therapy sessions were also unsure of how to engage their children in therapeutic activities. This indicated that the parental guidebook can be a “supplement” to the institutional speech therapy session, but not to substitute the sessions. Hence, some parents would like to have physical guidance from a SLT on areas of improvement from the parental side and strategies for home program. This echoes findings on parents requiring validation and support from professionals during the course of the intervention (Lord et al., 2018; Camden et al., 2020; Creen et al., 2024).

In light of the diverse experiences and unique challenges faced by parents, it is evident that a ‘one-size-fits-all’ approach may not be effective for all families. Our findings highlight the need for individualized and tailored support to ensure successful implementation of the activities. Specifically, direct training and coaching should be adapted to meet the specific needs, challenges, and goals of each family. By employing different strategies and considering cultural differences, such as personalized coaching sessions and customized resources, we can better support parents in overcoming obstacles and achieving their objectives for home practice. Additionally, our study indicates the importance of providing parents with tools to understand their children’s progress and learning outcomes. This could include demonstration videos of suggested activities and strategies for managing challenging moments, which would further enhance parental engagement and effectiveness.

LIMITATIONS AND RECOMMENDATIONS

Findings of the present study were limited to a small sample of participants and may not necessarily represent the views of all the parents of children with communication disorders in Malaysia or in other countries. Although this parental guidebook was aimed at children aged 3–6

years, no screening or assessment of language skills was conducted before or after the study. Future studies that focus on measuring the effectiveness of speech-language home programs in pre- and post-study designs are suggested to guide clinicians in conducting parent-mediated interventions with this parental guidebook. In the present study, participants explained their difficulties in conducting the home program and provided suggestions on how to improve the parental guidebook. Future studies should also focus on developing strategies to deal with the challenges faced by parents and revising a more comprehensive parental guidebook by including suggestions given by the participants.

The current study was a collection of parents' perceptions of speech-language enhancement in children with different communication disorders, but no feedback specific to each communication disorder was found. Future research should explore whether the use of parental guidebooks has different outcomes in parents' perceptions, depending on the type of communication disorder experienced by the child.

CONCLUSION

This study showed that the parental guidebook is an innovative approach that could potentially increase the cost-effectiveness of conventional speech therapy services. Although the speech-language home program was perceived as beneficial in terms of cost-effectiveness, time efficiency, and parents' better understanding of the language development of their children, there were challenges due to parental and child factors.

The parental guidebook provided sufficient information to the parents but there were some areas of improvement to reach greater satisfaction, i.e., providing physical or video demonstrations, including physical guidance from a SLT, and adding ways to track a child's

progress. This guidebook can be a good resource for supporting families who have difficulty accessing SLT services. Future research is needed to further enhance the quality of this guidebook based on the comments given by the participants. This guidebook can be used as a guideline to develop a similar medium for the practice of other allied health professions.

ACKNOWLEDGEMENT

This research was supported in part by the British Council (NN-2022-013, registered at UKM).

Acknowledgements are stated in the author list.

KEY MESSAGES

1. A study involving semi-structured interviews among nine Malaysian parents of child(ren) with communication disorders, was conducted to examine the feasibility and effectiveness of a parental guidebook; and to explore their perception of the feasibility of conducting speech-language home programs.
2. Parents' perceptions of their involvement in supporting their children's development through a home program, which was introduced to overcome barriers in accessing speech therapy in Malaysia, particularly during the COVID-19 pandemic, remained unclear.
3. Four main themes were identified, including the parental guidebook on supporting children's development during the golden period, benefits of speech-language home programs, challenges encountered, and parents' recommendations.
4. The parental guidebook can be used as a supplement to face-to-face speech therapy sessions.

5. The parental guidebook represents an innovative approach that could potentially increase the cost-effectiveness of conventional speech therapy services.

REFERENCES

- Baxendale, J., & Hesketh, A. (2003). Comparison of the effectiveness of the Hanen Parent Programme and traditional clinic therapy. *International Journal of Language & Communication Disorders*, 38(4), 397–415.
<https://doi.org/10.1080/1368282031000121651>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Buschmann, A., Jooss, B., Rupp, A., Feldhusen, F., Pietz, J., & Philippi, H. (2009). Parent based language intervention for 2-year-old children with specific expressive language delay: a randomised controlled trial. *Archives of Disease in Childhood*, 94(2), 110–116.
<https://doi.org/10.1136/adc.2008.141572>
- Buschmann, A., Multhauf, B., Hasselhorn, M., & Pietz, J. (2015). Long-term effects of a parent-based language intervention on language outcomes and working memory for late-talking toddlers. *Journal of Early Intervention*, 37(3), 175–189.
<https://doi.org/10.1177/1053815115609384>
- Camden, C., Dostie, R., Heguy, L., Gauvin, C., Hudon, C., Rivard, L., & Gaboury, I. (2020). Understanding parental concerns related to their child's development and factors influencing their decisions to seek help from health care professionals: Results of a qualitative study. *Child: Care, Health and Development*, 46(1), 9–18.
<https://doi.org/10.1111/cch.12731>
- Carroll, C. (2010). “It’s not everyday that parents get a chance to talk like this”: Exploring parents’ perceptions and expectations of speech-language pathology services for children

- with intellectual disability. *International Journal of Speech-Language Pathology*, 12(4), 352–361. <https://doi.org/10.3109/17549500903312107>
- Dag, N. C., Turkkan, E., Kacar, A., Dag, H. (2021). Children’s only profession: Playing with toys. *Northern Clinics of Istanbul*, 8(4), 414–420.
<https://doi.org/10.14744/nci.2020.48243>
- Chu, S. Y., Khoong, E. S. Q., Ismail, F. N. M., Altaher, A. M., & Razak, R. A. (2019). Speech-language pathology in Malaysia: Perspectives and challenges. *Perspectives of the ASHA Special Interest Groups*, 4(5), 1162–1166.
https://doi.org/10.1044/2019_PERS-SIG17-2019-0005
- Chu, S. Y., Mohd Normal, S. N., McConnell, G. E., Tan, J. S., & Joginder Singh, S. K. (2018). Challenges faced by parents of children with autism spectrum disorder in Malaysia. *Speech, Language and Hearing*, 23(4), 221–231.
<https://doi.org/10.1080/2050571x.2018.1548678>
- Creen, J., Kennedy-Behr, A., Donkin, R., & Verdonck, M. (2024). Understanding parent engagement in advanced allied health single session therapy for children with developmental and behavioural disabilities. *Child: Care, Health and Development*, 50(1), e13148, 1–11. <https://doi.org/10.1111/cch.13148>
- Creswell, J. W. (2003). Research design: Qualitative, quantitative, and mixed methods approaches (2nd ed.). Thousand Oaks, CA: Sage.
- Davies, K. E., Marshall, J., Brown, L. J., & Goldbart, J. (2017). Co-working: Parents’ conception of roles in supporting their children’s speech and language development. *Child Language Teaching and Therapy*, 33(2), 171–185. <https://doi.org/10.1177/0265659016671169>

- Deci, E. L., & Ryan, R. M. (2000). The “What” and “Why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
https://doi.org/10.1207/S15327965PLI1104_01
- DeVeney, S. L., Hagaman, J. L., & Bjornsen, A. L. (2017). Parent-implemented versus clinician-directed interventions for late-talking toddlers: A systematic review of the literature. *Communication Disorders Quarterly*, 39(1), 293–302.
<https://doi.org/10.1177/1525740117705116>
- El Nokali, N. E., Bachman, H. J., & Votruba-Drzal, E. (2010). Parent involvement and children’s academic and social development in elementary school. *Child Development*, 81(3), 988–1005. <https://doi.org/10.1111/j.1467-8624.2010.01447.x>
- Enderby, P., Campbell, R., Roulstone, S., Peters, T., & Glogowska, M. (2001). Evidence based practice: Seeking the whole truth. *Speech and Language Therapy in Practice*, 8, 8-10.
- Fathi Othman, B., & Abdul Aziz, N. A. (2019). Piloting teletherapy for children with hearing loss in Malaysia. *Jurnal Pendidikan Bitara UPSI*, 12, 35–46.
<https://doi.org/10.37134/bitara.vol12.sp.4.2019>
- Gibbard, D., Cogan, L., & MacDonald, J. (2004). Cost-effectiveness analysis of current practice and parent intervention for children under 3 years presenting with expressive language delay. *International Journal of Language & Communication Disorders*, 39(2), 229–244.
<https://doi.org/10.1080/13682820310001618839>
- Goodhue, R., Onslow, M., Quine, S., O’Brian, S., & Hearne, A. (2010). The Lidcombe Program of early stuttering intervention: mothers’ experiences. *Journal of Fluency Disorders*, 35(1), 70–84. <https://doi.org/10.1016/j.jfludis.2010.02.002>

- Harding, S., Kelić, M., Ulfssdottir, T., Baena, S., Feilberg, J., de López, K. M. J., Klatte, I. S., Lyons, R., Mantel, T. C., Novogrodsky, R., Rodriguez-Ortiz, I. R., & Zajdó, K. (2024). Rearing a child with a language disorder: parents experiences with speech and language therapy services in 10 countries. *Journal of Public Health*.
<https://doi.org/10.1007/s10389-024-02264-5>
- Helmich, E., Cristancho, S., Diachun, L., & Lingard, L. (2017). ‘How would you call this in English?’ Being reflective about translations in international, cross-cultural qualitative research. *Perspectives on medical education*, 6, 127-132. <https://doi.org/10.1007/s40037-017-0329-1>.
- Hoover-Dempsey, K. V., Walker, J. M. T., Sandler, H. M., Whetsel, D., Green, C. L., Wilkins, A. S., & Closson, K. (2005). Why do parents become involved? Research findings and implications. *The Elementary School Journal*, 106(2), 105–130.
<https://doi.org/10.1086/499194>
- Indrayani, N. & Jember, I. (2016). Language Development at Early Childhood. *International Conference on Education (IECO) Proceeding*, 1, 279–289.
- Justice, L. M., Logan, J. R., & Damschroder, L. (2015). Designing caregiver-implemented shared-reading interventions to overcome implementation barriers. *Journal of Speech, Language, and Hearing Research*, 58(6), S1851–S1863.
https://doi.org/10.1044/2015_JSLHR-L-14-0344
- Kruthoff-Broekman, A., Wiefferink, C., Rieffe, C., & Uilenburg, N. (2019). Parent-implemented early language intervention programme for late talkers: parental communicative behaviour change and child language outcomes at 3 and 4 years of age.

International Journal of Language & Communication Disorders, 54(3), 451–464.

<https://doi.org/10.1111/1460-6984.12451>

Lara, L., & Saracostti, M. (2019). Effect of Parental Involvement on Children's Academic Achievement in Chile. *Frontiers in Psychology*, 10(1464), 1–5.

<https://doi.org/10.3389/fpsyg.2019.01464>

Law, J., Dennis, J. A., & Charlton, J. J. (2017). Speech and language therapy interventions for children with primary speech and/or language disorders. *Cochrane Database of Systematic Reviews*. <https://doi.org/10.1002/14651858.CD012490>

Lord, C., Rapley, T., Marcroft, C., Pearse, J., & Basu, A. (2018). Determinants of parent-delivered therapy interventions in children with cerebral palsy: A qualitative synthesis and checklist. *Child: Care, Health and Development*, 44(5), 659–669.

<https://doi.org/10.1111/cch.12592>

Luebben, A. J., & Royeen, C. B. (2010). An acquisitional frame of reference. In P. Kramer & J. Hinojosa (Eds.), *Frames of reference for pediatric occupational therapy* (3rd ed., pp. 461–488). Philadelphia: Lippincott Williams & Wilkins.

Mancilla-Martinez, J., Gámez, P. B., Vagh, S. B., & Lesaux, N. K. (2016). Parent reports of young Spanish–English bilingual children's productive vocabulary: A development and validation study. *Language, speech, and hearing services in schools*, 47(1), 1–15.

https://doi.org/10.1044/2015_LSHSS-15-0013

Melvin, K., Meyer, C., Ryan, B. (2019). “We don't know what we don't know”: Providing information about communication to families of children with Down syndrome. *Child Care Health Dev.*, 45(3), 423–432. <https://doi.org/10.1111/cch.12658>

- Moeller, M. P., Carr, G., Seaver, L., Stredler-Brown, A., & Holzinger, D. (2013). Best practices in family-centered early intervention for children who are deaf or hard of hearing: An international consensus statement. *Journal of Deaf Studies and Deaf Education*, 18(4), 429–445. <https://doi.org/10.1093/deafed/ent034>
- Mohan, H. S., Anjum, A., & Rao, P. K. S. (2017). A survey of telepractice in speech-language pathology and audiology in India. *International Journal of Telerehabilitation*, 9(2), 69–80. <https://doi.org/10.5195/ijt.2017.6233>
- Nair, M. K. C., Russell, P. S. S., George, B., Prasanna, G. L., Bhaskaran, D., Leena, M. L., Russell, S., & Mammen, P. (2014). CDC Kerala 9: Effectiveness of low intensity home based early intervention for autism spectrum disorder in India. *The Indian Journal of Pediatrics*, 81(S2), 115–119. <https://doi.org/10.1007/s12098-014-1474-8>
- Namasivayam, A. K., Jethava, V., Pukonen, M., Huynh, A., Goshulak, D., Kroll, R., & van Lieshout, P. (2018). Parent-child interaction in motor speech therapy. *Disability and Rehabilitation*, 40(1), 104–109. <https://doi.org/10.1080/09638288.2016.1243165>
- Pepper, J. & Weitzman, E. (2004). *It Takes Two to Talk®: A practical guide for parents of children with language delays* (2nd ed.). Toronto: The Hanen Centre.
- 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))
- Smidt, K. B., Klevberg, G. L., & Oftedal, B. F. (2020). Home programme to improve hand function for children with bilateral cerebral palsy: Beneficial but challenging. *Physical & Occupational Therapy In Pediatrics*, 40(4), 410–422. <https://doi.org/10.1080/01942638.2020.1711842>

- Smith, G., Verdon, S., Chu, S. Y., Razak, R., Aziz, A. M., Chow, D., Rusli, Y.A., Pham, B., Pratomo, H. & Garraffa, M. (under review). Current practices and challenges in speech and language therapy of children with DLD in Southeast Asia Region: a comprehensive survey.
- Sugden, E., Munro, N., Trivette, C. M., Baker, E., & Williams, A. L. (2019). Parents' experiences of completing home practice for speech sound disorders. *Journal of Early Intervention*, 41(2), 159–181. <https://doi.org/10.1177/1053815119828409>
- Suttora, C., Zuccarini, M., Aceti, A., Corvaglia, L., Guarini, A., & Sansavini, A. (2021). The effects of a parent-implemented language intervention on late-talkers' expressive skills: The mediational role of parental speech contingency and dialogic reading abilities. *Frontiers in Psychology*, 12(723366), 1–14. <https://doi.org/10.3389/fpsyg.2021.723366>
- Tárraga García, V., García Fernández, B., & Ruiz-Gallardo, J. R. (2018). Home-based family involvement and academic achievement: a case study in primary education. *Educational Studies*, 44(3), 361–375. <https://doi.org/10.1080/03055698.2017.1373636>
- Tenforde, A. S., Borgstrom, H., Polich, G., Steere, H., Davis, I. S., Cotton, K., ... & 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>
- Tosh, R., Arnott, W., & Scarinci, N. (2017). Parent-implemented home therapy programmes for speech and language: a systematic review. *International Journal of Language & Communication Disorders*, 52(3), 253–269. <https://doi.org/10.1111/1460-6984.12280>

- Vrinda, R., & Kunnath, S. K. (2023). A pilot study to evaluate the effectiveness of parent mediated group intervention program for developmental language disorders. *Clinical Archives of Communication Disorders*, 8(2), 47–56.
<https://doi.org/10.21849/cacd.2021.00486>
- Wake, M., Tobin, S., Levickis, P., Gold, L., Ukoumunne, O. C., Zens, N., Goldfeld, S., Le, H., Law, J., & Reilly, S. (2013). Randomized trial of a population-based, home-delivered intervention for preschool language delay. *Pediatrics*, 132(4), e895–e904.
<https://doi.org/10.1542/peds.2012-3878>
- Zwitserslood-Nijenhuis, M. A., Wiefferink, C. H., & Gerrits, E. (2023). A randomized study of parent- versus child-directed intervention for Dutch toddlers with DLD. *International Journal of Language & Communication Disorders*, 58(5), 1768–1782.
<https://doi.org/10.1111/1460-6984.12901>

Appendix A

1. What do you understand about home-based speech and language activities? (您对居家言语治疗活动有什么了解?)
2. Do you think parents have a role in speech therapy? (您觉得父母在幼儿言语治疗中扮演什么角色?)
3. What are the advantages of having home-based speech and language activities? (您觉得居家言语治疗为您带来什么好处?)
4. Do you face any difficulties in doing speech and language activities with your child? (您在进行居家言语治疗活动时遇见什么困难吗?)
5. Is the guidebook an appropriate medium or a reference to deliver the suggested activities? Do you have any suggestions? (您觉得透过这本指南书传达父母一些居家言语治疗活动，是否适合或方便？您是否有其他建议?)
6. Any other information you would like to include in the guidebook?) 你是否觉得有任何额外的资讯需要被纳入言语治疗手册里?)