

ORIGINAL ARTICLE

Parents' Experiences in Using Telehealth to Carry Out Parent-Mediated Intervention Program for Children with Autism Spectrum Disorder (ASD) During the Pandemic Covid-19

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ABSTRACT

Introduction: Telehealth has a significant potential to complement and replace the traditional service paradigm. It can expand access to the interventions for children with ASD, particularly during the pandemic COVID-19. This study aimed to explore parents' experiences to carry out parent-mediated intervention (PMI) programs for their children with ASD via telehealth. **Methods:** This qualitative study used an Interpretative Phenomenological Analysis approach. We conducted online individual semi-structured in-depth interviews with seven parents of children with ASD who had experienced using telehealth to carry out PMI programs for children with ASD during the pandemic COVID-19 in Malaysia. The interviews lasted between 30 and 40 minutes. All interviews were transcribed into verbatim transcripts. The transcripts were coded, categorised, and summarised by two analysts. **Results:** Four superordinate themes emerged from the analysis, namely; (i) Adapting with Telehealth; (ii) Challenging but Rewarding; (iii) Supports; and (iv) Hopes and Inner Drives. Despite the implementation challenges, essential experiences reported included the inner motivation and satisfaction in using telehealth services. **Conclusion:** Generally, parents of children with ASD have positive attitudes towards telehealth and regard it as opportunities and initiatives to further provide treatments for their children despite the restrictions during the pandemic. All participants emphasised the importance of implementing the PMI program to meet the intervention needs of ASD children. These findings highlight the parents' lived experiences of carrying out the PMI program at home with ASD children using telehealth during the pandemic and provide a catalyst for further research to deliver better services for children with ASD.

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INTRODUCTION

Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterised by atypical social and behavioural interactions (1). Despite its importance, providing comprehensive intervention is challenging in managing children with ASD due to limited access to healthcare

professionals, facilities, funding, and time (2). Training the parents to deliver the home-based therapy remains a cost-effective method in ensuring the adherence towards the intervention is maintained and continues to provide the beneficial outcome. However, in order to ensure an effective outcome of such home-based interventions, these parents should receive continuous support and assistance from professionally trained healthcare professionals. This continuous supervision ensures the child's and parents' needs are fulfilled. Thus, the appropriate strategies can be administered timely in

assisting the child's development and, at the same time, promoting general wellness (3).

The first COVID-19 outbreak in Malaysia was detected on January 24th, 2020, among travelers returning from the affected countries (4). As one of the mitigation strategies, the government has enforced a partial lockdown known as the Movement Control Order (MCO) to control and prevent the virus from spreading (5). Several restrictions were enforced that have affected many economic, governmental, non-governmental, and healthcare sectors, including the closure of many centres that provides early intervention program specifically for children with ASD.

Given these enforced restrictions, GENIUS Kurnia, as one of the well-known early intervention programs in the country, has taken a proactive step by initiating a parent-mediated intervention (PMI) via telehealth program to ensure continuous therapies can be administered to the children with ASD during the pandemic of COVID-19 (6,7). PMI has been shown to be an effective evidence-based strategy by training the parents to be familiarized and efficient to deliver therapy to their children (6,7). Telehealth is defined as telecommunications technology connecting service providers with clients to provide professional services remotely (8). PMI via telehealth program is highly recommended as one of the interventions that can be adopted during the pandemic COVID-19. Improvements in parental knowledge, intervention fidelity, social behaviour, and communication skills of children with ASD were reported in recent reviews (9,10).

Three approaches that have been described in telehealth are synchronous, asynchronous, and hybrid. All these three approaches have been applied by GENIUS Kurnia during the pandemic COVID-19. The synchronous approach is described as the therapist and client interacting in real-time via video and audio. Asynchronous teleintervention occurs when information, such as video, pictures, or audio files, is recorded and transmitted through technology between therapist and client without direct interaction between them. This approach is known as "store and forward." In a condition where both methods are combined, it's called hybrid telehealth, which provides both benefits of the synchronous and asynchronous approaches. Telehealth increases access to rehabilitation treatments, lessens the waiting time, and reduces the healthcare burden for those with limited resources by enabling the parents or the caregivers to participate actively in the intervention process. Telehealth has been applied in various clinical and research settings with different demographics, diseases, and population characteristics that have been proven reliable and effective (11).

In the era of information and technologies (ICT); and the internet of things (IoT), most Malaysians have leveraged

and moved on to adopt online distance learning despite their socioeconomic status, especially when the pandemic strikes (12). Telehealth is one of the examples that integrates communication technologies to provide continuous health-related services remotely across geographical barriers in real-time (8,13). It is accessible at any time and location, which requires inexpensive equipment to connect and maintain interactive sessions and allows the real-time exchange of information (14). Hence, telehealth is widely adopted to provide communication, social, emotional, and academic skills to children with ASD via computerized software programs, video conferencing, and virtual 3D interactive programs (16,17).

Due to MCO enforced by the government, approximately 90% of the children with ASD from the whole GK program could not follow physical face-to-face real-time sessions. Their parents must carry out home-based PMI with assistance from a therapist using telehealth, but many parents complained of stress during this period and having difficulties carrying out PMI. Telehealth enhances clinical support in local communities, but the users experienced some difficulties including setting up the equipment (11). Moreover, a study reported that mothers with ASD children have depressive symptoms after getting involved in the traditional PMI program with more hours spent per week (18). PMI program may be helpful to provide a more intensive program to the children with ASD that is also associated with the improvements in the quality of life of the family (19,20), but has indirectly put so much stress and burden on parents. Besides, the implementation of PMI program using telehealth is still new in Malaysia. Thus, this study aimed to explore the experience of parents to carry out PMI programs for their children with ASD during the pandemic COVID-19 via telehealth.

MATERIALS AND METHODS

Interpretative phenomenological analysis (IPA) was employed in this qualitative study. IPA highlights a positive psychology lens of wellbeing, giving participants a chance to express views about strength, wellness, and quality of life. IPA recommends in-depth analysis of data obtained from one or more individuals. This study included parents of children with ASD who have different socio-demographic characteristics, then the accounts are studied in-depth successively. IPA allows the author to look for divergent and convergent data patterns across cases. Several studies have shown that IPA can be applied in research on the parent of children with ASD (21-25). This approach allows us to explore parents' life experiences in the Malaysian context to unveil a deep understanding of how parents of children with ASD perceive telehealth usage as a delivery method of PMI (26).

Participants

Seven participants have been recruited in this study. This qualitative study has been conducted at the GK program, Pusat Pendidikan Awal Kanak-Kanak (Integrasi) GENIUS. We deployed the purposive sampling strategy. The study participants were the parents of children with ASD who have experience utilizing therapist-assisted telehealth in delivering PMI to their children remotely at home during the COVID-19 pandemic. To prevent bias selection, the participants who fulfilled the inclusion criteria were selected randomly from the program list name. The inclusion criteria were: 1) parents of children with ASD who have used telehealth in carrying out PMI during MCO and 2) Good proficiency in English or Malay language. The exclusion criteria was; 1) Poor cognitive performance.

Data Collection Procedures

The data were collected using online in-depth individual semi-structured interviews. The information sheet was given to patients, and the nature of the study was explained to patients. Written consent was obtained upon patients' agreement. The interview sessions were conducted by first author (FSS) within thirty to forty minutes duration. This one-to-one interview was guided by a set of semi-structured questions. These questions consist of various open-ended questions focused on parents' experiences with some prompts to assist the participants. The semi-structured interview questions were piloted before the first participant was interviewed. The interviews were digitally audio-recorded. The recorded audio was verbatim transcribed. Field notes were also recorded and kept for data analysis purposes. The interview process continued until data saturation was achieved, that is, a point reached during data collection when no new themes or issues arose within a category of data. A copy of the transcribed data was sent out to the participants for their content verification.

Data Analysis

Data were analysed using an interpretive phenomenological analysis that emphasises individuals' living experiences of real phenomena (27). The analysis was carried out as described by Smith et al. (27). All authors contributed to the data analysis and have experience treating children with ASD. The second author (KI) and the last author (AZ) have experience conducting qualitative studies. FSS transcribed all interviews into verbatim transcripts before the member checking took place. FSS and AZ analysed the data independently, and the findings were constantly debriefed and discussed with the entire research team to achieve consensus. Data analysis was initiated as soon

as an interview is completed to enhance credibility and a fresh perspective about the participants' experience. Initial codings were noted and shared with the first and last author. The authors employed few strategies in ensuring the trustworthiness or rigour of the study (28). To obtain the benefits akin to "triangulation of analyst," two research team members analyzed the data separately and compared the findings. Finally, themes were developed by a mutual agreement between all the team members. Reflexivity was applied throughout the research process (29,30).

Data Analysis

This study was approved by the UiTM Research Ethics Committee reference number REC/04/2021 (UG/MR/246). Approval to conduct the study was also granted from Director of Genius Kurnia, reference number KURNIA.600-8/2/2.

RESULT

Seven participants participated in this study. The participants were five mothers and two fathers of children with ASD aged between 25 and 40 years old. One participant has two children with ASD, while the rest has only one. All participants were married. The majority are Malays and Muslims, while the rest are Chinese Buddhist, Hindu Indian, and Iban Christian. A pseudonym identified each participant to maintain anonymity. The demographic characteristics of the participants are summarized in Table 1. The interview of each participant was carried out only once; no further amendment or additional information was required after the member checking.

Four main themes emerged from the analysis, namely (1) Adapting with Telehealth; (2) Challenging but Rewarding; (3) Needs and (4) Hopes & Inner Drives. Details of the themes and sub-themes are depicted in Figure 1.

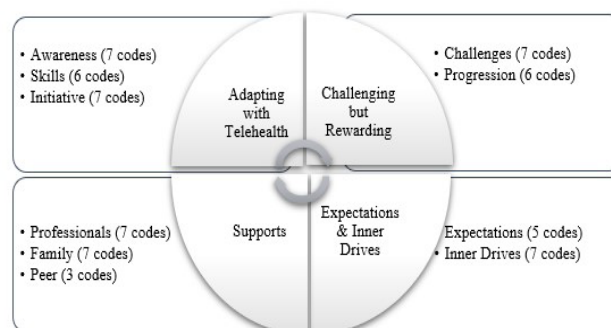


Figure 1: Emergent of Themes and Subthemes

Table 1: Participants' Description

Pseudonyms	Sex	Age	Race	Religion	Education Level	Profession	Marital Status	Household Size	Household Income	No. Of Child	No. Of Child With ASD
Zaid	M	26-40	Malay	Islam	Degree	Private Sector	Married	4	RM10k>	2	1
Zali	M	26-40	Malay	Islam	Tertiary	Government	Married	5	RM4k-RM6k	3	1
Cindy	F	26-40	Chinese	Buddha	SPM	Self-employed	Married	5	RM4k-RM6k	3	2
Calla	F	26-40	Iban	Christian	SPM	Government	Married	>5	RM6k-RM8k	3	1
Siti	F	26-40	Malay	Islam	Degree	Housewife	Married	>5	<RM4k	4	1
Nina	F	26-40	Malay	Islam	Degree	Housewife	Married	3	RM4k-RM6k	1	1
Rita	F	26-40	Indian	Hindu	Tertiary	Self-employed	Married	>5	RM4k-RM6k	3	1

Note: M-Male, F-Female

Theme 1: Adapting with Telehealth

The first theme that emerged from the analysis is adapting to telehealth. This theme encompassed how participants adapt to this alternative telehealth approach in delivering PMI to their children. Three subthemes were identified under this theme: (1) parent's awareness, (2) parent's skills, and (3) parent's initiatives towards PMI. Parents described that telehealth is the best feasible alternative to ensure that children with ASD are on track with their therapy when the country was put to a locked-down due to the pandemic. Parents were left with no other options but were quickly required to adapt to this new norm. Their level of awareness, skills, and initiative to carry out PMI at home was commendable. The highly volatile pandemic forced the parents always to be prepared to carry out PMI utilizing the telehealth approach. All participants have positive attitudes towards telehealth and highlighted that it became more manageable after becoming familiar with it.

Sub-theme 1.1: Parents' Awareness

All participants highlighted the importance of implementing PMI utilizing telehealth. They expressed concern that their child's development may regress if the intervention is not carried out. Two fathers mentioned:

Usually, I will collect all the home programs first, later when I have free time, and I will do it with my child. Sometimes, I don't have the resources to carry out the intervention. So, I modified using available materials at home to fit the objective of the home-based program. (Zaid).

If I didn't carry out the home program, he would have behavioural problems that are difficult to control. The ongoing telehealth session kept him occupied with activities, and he became more manageable. So, it's necessary. (Zali)

All the participants were able to describe their children's level of performance and ability. One mother expressed:

Because the child has grown up, the approaches and intensity of the home-based program were different. It's not like when he was little. We only did the basic interventions when he was 3 to 4 years old. It's not like that now (Cindy)

Participants also deeply understand the needs and goals of the child's intervention. They emphasized that children with ASD need a supportive environment that helps them stay calm as the surroundings influence their behavior. As described by one mother,

During the home program session, everyone [including his siblings] will sit at the coffee table to do their educational tasks. We switched off the TV. (Rita)

Subtheme 1.2: Parents' Skills

Most participants pointed out that telehealth can be carried out much easier if they were creative to modify the home-based program given to the child using the available materials and tools at home. One father described that,

There was a time when I had to do an intervention for my child. He needs to transfer the ABC puzzle from one point to another while crawling on the mat. But I don't have that ABC puzzle, so I replaced it with the McDonald figurine sets. The important thing is to achieve the objective of the intervention (Zaid)

Children grow and learn well in a supportive and calm environment. However, creating an environment to simulate the therapy center at home is very difficult. In this case, parents play a vital role in ensuring the child's behavior remains controlled and complying with the routine schedule that has been set. Participants used

different strategies such as rewards or involving other siblings to motivate the child with ASD. One father stated:

There's an activity when I have to involve his siblings. For instance, makings a sandwich with his brother. He could follow what his brother did until both of them ate the sandwiches. (Zali)

However, sometimes participants have no choice and let the child skip the intervention to avoid tantrums and other behavioral issues. As voiced by one mother, If we forced her, she went on a rampage and cried till the end of the session (Siti)

Subtheme 1.3: Parent's Initiative

Parent's initiatives are the main factor contributing to the implementation of PMI. These initiatives could overcome all the challenges and strains while carrying the PMI. Most of the participants often incorporate PMI as a part of the family routine. One father explicit explain that,

I need to change my family routine. Every family member will have the same activities. I also involved his older sister during the intervention for help (Zaid)

One participant shared that she carried out PMI with her child at night because she is required to work as a healthcare professional during the day. The majority of participants admitted that performing PMI is stressful and very challenging. However, they make it as a must, later the challenges would gradually fade away once the children have adapted to it. Other participants' initiatives included getting help, advice, and feedback from the therapist pertaining to the intervention plan, performing the PMI using available resources, getting help from a spouse or other family members, and getting additional information from other resources. One mother exemplified that,

My husband works according to a shift schedule. The schedule is not fixed. Sometimes during the day, sometimes at night. Therefore, I usually carry out the home-based program during weekends, so I will have an extra hand to carry out the therapy. (Rita)

Theme 2: Challenging but Rewarding

The second theme that emerged from the analysis is challenging but rewarding. This theme describes the challenges and the benefits of the PMI program. Two subthemes have emerged from this theme: (1) Challenges. (2) Progression. All participants in this study faced many challenges in performing telehealth with their children. However, all of them displayed a positive attitude and have successfully implemented the PMI program with their children. Most of them highlighted that they were willing to sacrifice anything for their children. It is because their child's improvement is a big

reward for them. One mother shared:

I feel so happy when I see my son can speak. Now, he can say three words. Mom, I want... (Nina)

Subtheme 2.1: Challenges

One participant claimed that the main challenge in performing PMI via telehealth was when parents' unreadiness to spend their time with their children. Moreover, the situation was also contributed by their child's stereotypical behaviors. For a child with ASD, he/she has established the mindset/routine that home is a relaxing place and should be free from any activities. As mentioned by one mother below,

In their mind, a home should not have any ongoing therapy activities. At the therapy center, he shows good character but will behave differently at home. (Cindy)

Similarly, another participant described that her child had no behavioral issue in completing handwriting activities at the therapy center; however, she behaved differently while finishing the similar activity at home. One mother claimed:

The therapist said she behaved well at the therapy center. She followed all the instructions. But at home, oh God. If I ask her to do the home program, it's full of dramas. (Siti)

One participant also stressed that parents with other younger children would have more difficulties conducting PMI, especially if the child with ASD is the eldest. This mother revealed:

She is the eldest one. She has younger siblings who need more attention, so it wasn't easy to implement the home-based program. As a parent, it is very stressful to manage all the chores. (Siti)

More care and attention are needed when the parents have younger children. The parents would need more hands to manage the other younger children. As expressed by this mother,

The home program had to be carried out at night if her father was working during the day. I only can implement the PMI when their father is at home to take care of the younger siblings. (Siti)

Most of the participants shared similar challenges to implement PMI via telehealth. These challenges include time constraints, distractions from the surroundings, having more than one child to take care of at home, limited available resources, and financial problems. One participant reported that among the main challenges of conducting the PMI was when the family members have different strategies in dealing with their child's

challenging behaviors. The child would be confused and quickly escape from the home-based program activities. Nina shared the main challenge for her was the lack of understanding of her spouse of their child's condition, and all the PMI programs entirely were relied on her. The pressure was higher, especially when she also suffered from a health issue. One mother voiced:

Every time I implement the home program with my child, I need to remind him (spouse) for help. (Nina)

Subtheme 2.2: Progression

When the government announced the MCO in March 2020, parents were worried about their child's progression. Children with ASD may regress if the intervention is not continued. Most of the participants felt more relieved after implementing home-based PMI programs via telehealth during the past MCO period. One mother described that,

Before this, I was totally lost and didn't know what to do with my child. By participating in the PMI program, there is a light at the end of the tunnel... the therapist in charge gave a clear explanation to me, and now, my child's development is getting better. (Nina)

However, one participant admitted that her child's toilet training deteriorated throughout the MCO because of environmental factors. This mother shared that,

My daughter will find her younger brother's diaper, although she is already toilet trained. She will wear that diaper by herself. (Siti)

Theme 3: Support

This theme encompasses the supports in implementing the PMI program via telehealth. The support received by parents who implement PMI is an added value that can ensure successful outcomes. The support that participants receive when implementing PMI can help maintain its daily implementation's consistency. Parent who gets the appropriate support will feel calmer, composed, less stressed, and increase their motivation to do the best for their child. The subordinate themes reveal that all participants received different supports throughout the telehealth process during the MCO.

Subtheme 3.1: Professional Support

All the participants received professional support from therapists via telehealth during the implementation of the PMI program. One father emphasized that,

When my child has reached one development stage level, I don't know what to do next. The therapists guide me on the next steps. (Zaid)

A few participants admitted that the therapist's involvement in PMI has helped them a lot. Along with detailed written materials, they emphasized that video is

preferred to guide parents in carrying out PMI. As shared by one mother,

I still didn't understand how to implement intervention even after reading the module. But after watching the video, it is crystal clear. I think parents will understand better if the video is provided together with the written materials. (Nina)

Another participant also emphasized the same thing when her child cooperated better if he was able to recognize the person inside the video. This mother stated that,

When I said to my son, "see, your therapist was talking to you," He looked at me, then sat down and watched until the video ended. (Cindy)

Participants also highlighted those webinars related to implementing specific interventions are helpful for parents. Furthermore, one participant reported the critical need for therapists to provide ongoing support for parents in conducting PMI. He added that individualized guidance or personal consultations might help parents get more specific and clearer information to ensure effective intervention can be provided to the child. One mother exemplified:

During the consultation session, the therapist explained the steps one by one. For example, maybe my son is bored using the alphabet flashcards alone. So, the therapist suggested that I can make the intervention fun with a jumping session using alphabet flashcards. (Nina)

Subtheme 3.2: Family Support

Another much-needed matter for parents to carry out the PMI program at home is support from family members, especially from spouses. All participants acknowledged; the PMI is complicated if it is carried out alone. One mother shared that,

Family cooperation is essential. If many people can handle her, I will feel much better. But if everyone is not willing to share the responsibility, it is difficult for me to face it alone. (Siti)

One participant stated that she needs emotional support from her spouse. Emotional support is vital for her to stay strong and motivated in carrying out PMI with her child at home. She revealed that,

I need emotional support from my husband. I'm afraid if my emotion become unstable, I'll get angry at my child (Calla)

Several participants confirmed that the involvement of other family members could ease the implementation of the PMI program. One mother described that,

My eldest son helps me a lot. I am very relieved. He is only eight years old. But he helps me a lot. (Rita)

Subtheme 3.3: Peer Support

Some participants get support by sharing their problems with colleagues and peers who also have a child with ASD to gain psychological and emotional support. One mother stated that,

I asked him [my peer], "how do you handle your child's tantrum?". So, he shares tips with me. "You can do... like this... like this..." (Nina)

Some of them get support from parent support groups such as the "Autisme Malaysia" online social media. As mentioned by one father,

Through the Facebook group, many people share their experiences and feelings. So, I read their views or experiences in implementing interventions with their children. (Zaid)

One participant also admitted her child received interventions from two different therapy centers. It was an advantage for her because she got additional supports for her daughter. She gets a better guide in implementing the PMI from two points of view. This mother said that,

The therapist provided my child with physical and obstructive activities in therapy center A. In therapy center B, they gave home-based programs of more handwriting and pre-academic activities. (Siti)

Theme 4: Hopes and Inner Drives

The fourth theme emerged from the analysis is hopes and inner drives towards the PMI program. All participants in this study highlighted those parents are the primary advocators with high hopes for their children with ASD. They thoroughly understood the importance of consistently carrying out the PMI program and hoped for improvement in their child. They were relentlessly committed to home-based PMI via telehealth but were concerned about its sustainability. Three parents shared that,

Exhaustions didn't stop me. There is no excuse for me to stop the home-based program. I hope he can be independent one day. So, I will do my best for the sake of my child. (Zaid)

I'm so tired because I need to work during the day and focus on the intervention with her at night. But it wouldn't stop me. I've a certain target for her to achieve. (Calla)

This pandemic made me feel so stressed. When I see his face, I felt that I need to focus on him because this home-based program is important for him. Then, I felt less stressful. (Rita)

Subtheme 4.1: Hopes

All the participants expected a fruitful result after consistently working hard to carry out the PMI program for their children. Most of them hoped to see their child to be independent and able to manage their self-help skills. One father mentioned:

I want to see him be independent in his activity of daily living. He will be seven years old and enter primary school next year. So, I hope he can manage himself. (Zaid)

All the participants put expectations to see their child's self-help skills development. One mother said,

I want my child to grow up like other kids. I am not hopeful for her to be an intelligent student. But at least, she could achieve my certain expectation for her. (Calla)

Most of the participants were working parents, yet they could still carry out the PMI home-based program. Some participants were willing to carry out the PMI program at night as they had to work as healthcare personnel in health facilities during the day. One mother revealed that,

I have no problem implementing the home program with my daughter. I hope that my child will show some progress. (Calla)

The hopes and expectations shown by these parents of children with ASD proved that they were willing to take active roles as therapists at home by religiously committing to this PMI program.

Subtheme 4.2: Inner Drive

Some participants shared the inner drives that motivate them to implement the PMI program. The internal drive comes from accepting that the child is a gift from God. They realize that it is their responsibility to ensure a good life for their child. As mentioned by two fathers that,

He was born with this condition. He is a gift from God to me, and I need to take good care of him. (Zaid)

He is a trust from God to me. I will do whatever the best for him (Zali)

DISCUSSION

This study aimed to explore parents' experiences to carry out PMI programs for their children with ASD during the pandemic COVID-19 via telehealth. The use of telehealth in delivering home-based PMI is becoming more widespread and popular due to restrictions imposed to curb the spread of the COVID-19 virus (15,16,31). In this pandemic phase, telehealth has become the only core

business of therapists to help children with ASD develop their skills and prevent deterioration of their condition (11). The findings of this study showed that most participants who carried out the PMI program through telehealth have a good experience and positive attitude towards it. The parent highlighted that they consistently observed their child's continuous development after implementing the PMI program. During the initial phase of the implementation, all participants admitted that they did not have enough knowledge and skills to conduct the PMI program. However, after receiving guidance from the therapist and experiencing the PMI program, they felt its implementation is feasible, adaptable, and adoptable. Past studies have shown that parents can learn methods to conduct evidence-based interventions for their children with fidelity (32,33). Parents in this study reported that an evidence-based approach should be utilized to assist the development of children's skills set and promote good behaviors (32,34).

Similarly, with the findings of other previous studies, this study highlights the benefits of implementing the PMI program to children with ASD (32,34). The majority of participants shared the good progress of their children. Only one participant shared his son's compliances skills and behaviors regressed at the beginning of the MCO because of the lack of skills in conducting PMI at home. Thus, this study highlights the importance of parents' skills in fulfilling the role of a therapist at home to promote the child's skills development (33,35).

Therapists' guidance increases parental involvement in implementing the PMI program (36). The therapist's guidance is vital in ensuring the parents obtain correct information regarding the child's developmental stage, appropriate goal and plan, reflection on previous treatment, and planning the subsequent interventions for the child. All participants in this study emphasized the critical need for a therapist's guidance in carrying out a home-based program with children. The findings of this study are consistent with previous studies, where support from therapists increases parental involvement in the implementation of interventions for their children as a whole (37,38). At the same time, the coaching component in expanding the use of evidence-based interventions among parents is the most critical aspect in implementing parent training (39,40). Additionally, all participants agreed that the telehealth approach was the best approach to maintain adherence towards the therapy for their child during the pandemic (11).

The therapists usually use the asynchronous telehealth method after considering the time constraints experienced by the parents (36). They opt for this option based on the capability of parents to carry out PMI programs according to their time availability. A study reported that providing instructional activities may allow parents to learn according to their free allocated times, such as before or after work or when

their children are asleep (36). However, most of the participants suggested the hybrid telehealth method and hoped for more frequent one-to-one online sessions with therapists. They feel more confident to continue the PMI programs after getting professional consultations from the therapist. The findings of this study showed that having an extra hand from family members is a good indicator for participants' satisfaction and compliance in implementing the PMI program. It may be because they have additional assistance and can devote more time to conducting the interventions with their child (33,41).

This study provides some implications for delivering the services for children with ASD and their families. Parents of children with ASD need good emotional and psychological support from family members to carry out the PMI program. They also need a continuous guidance from the therapists to implement the PMI during the pandemic. Resources from video and written materials are required to enhance parents' understanding of implementing the home program. Most parents are willing to take the responsibility to fulfil the role of a therapist for their child at home. Therefore, they require adequate knowledge and skills to be empowered to them. This study also emphasized the benefits of the PMI program via telehealth. Indirectly, the use of telehealth in implementing PMI programs increases the parents' fidelity or compliance. Thus, this telehealth program is recommended to be implemented as a new alternative approach in delivering therapy for children with ASD in Malaysia.

This study used a group of parents who had experienced implementing PMI using telehealth during the COVID-19 pandemic. Bias may occur, especially when involving findings on partner's commitment as this study did not involve spouse during the interview session. Participants of this study were recruited from one of the centres for children with ASD in Malaysia. Thus, the findings of this study might not be transferable to other settings. This study highlights the benefits of PMI programs via telehealth. However, it might potentially be anecdotal claims from the parents of children with ASD, as its implementation is still considered new in Malaysia. Therefore, studies on the effectiveness of PMI via telehealth in the Malaysian context are warranted in future studies.

CONCLUSION

This study explores parents' life experiences of children with ASD in implementing the PMI programs via telehealth throughout the MCO period. All participants emphasized the importance of fulfilling the role of a therapist for their children at home. They acknowledged the need for telehealth as an alternative approach to continuously provide therapy to improve skills, knowledge and ensure adherence to therapy for their

children. This study also highlights the importance of ongoing support and guidance from professionals, family members, and peers to conduct evidence-based interventions in the vicinity of the home.

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