

The Current Practices and Challenges of a Community Based Early Intervention Centre for ASD Children in Malaysia

Faizanah Abdul Alim Sidique¹, Madihah Khalid^{2*}, Aishah Hanim Abd Karim¹, Siti Rafiah Abd. Hamid¹, Shahrul Naim Sidek³, Ahmad Aidil Arafat Dzulkarnain⁴ & Hazlina Md Yusof³

¹Department of Educational Psychology, Faculty of Education, International Islamic University Malaysia, Kuala Lumpur, Malaysia

²Department of Curriculum and Teaching, Faculty of Education, International Islamic University Malaysia, Kuala Lumpur, Malaysia

³Department of Mechatronics Engineering, Faculty of Engineering, International Islamic University Malaysia, Kuala Lumpur, Malaysia

⁴Department of, Faculty of Allied Health Sciences, International Islamic University Malaysia, Kuantan Campus, Pahang, Malaysia

*Correspondence: Department of Curriculum and Instruction, Faculty of Education, International Islamic University Malaysia, Jalan Gombak, Kuala Lumpur, Malaysia. E-mail: madihahkhalid@iium.edu.my

Received: June 23, 2022

Accepted: August 17, 2022

Online Published: October 24, 2022

doi:10.5430/jct.v11n8p97

URL: <https://doi.org/10.5430/jct.v11n8p97>

Abstract

In Malaysia, Non-Governmental Organisations (NGOs) play important roles in establishing community-based early intervention programmes for children with autism spectrum disorder. However, there are limited understanding of how the intervention programmes may be used in community-based settings. This paper aims to explore the practices and challenges faced by the community-based intervention centres in Malaysia. A principal, 6 teachers, and a therapist from IDEAS Autism Centre were selected as participants in this study through purposive sampling. Five main themes were identified through thematic analysis: [1] Admission Requirement, [2] Teacher's Role, [3] Current Intervention Program, [4] Objectives and [5] Challenges. The results reveal that their curricula were self-designed through adaptation. This study provides a base to improve the community-based early intervention programmes.

Keywords: autism spectrum disorder, community-based, intervention, practices, challenges

1. Introduction

Autistic spectrum disorder (ASD) is characterized by impairments in social interaction and communication, along with restricted, repetitive, and stereotyped patterns of behaviour (American Psychiatric Association, 2013). ASD is diagnosed by clinicians based on symptoms, signs, and testing according to the Diagnostic and Statistical Manual of Mental Disorders-V, a guide created by the American Psychiatric Association used to diagnose mental disorders.

The Autism and Developmental Disabilities Monitoring (ADDM) Network was established in 2000 by the Centre for Disease Control (CDC) to track the incidence of developmental disabilities in children. CDC reported that the prevalence of ASD in the United States has steadily increased from 1 in every 150 children in 2012 to 1 in every 54 children as of 2016. Likewise, according to the same study by the CDC, ADDM Networks in Europe and Asia have found an equivalent increase in ASD diagnoses.

Specifically, prior to the conduction of the current study, there is no official registry for the number of individuals diagnosed with Autism in Malaysia. However, the World Health Organization (WHO) estimates that 1 in 160 children has ASD in Malaysia. The prevalence of autism among children below 4 years old was found to be 1.6 per 1000 in 2005 and is estimated to be close to 1.9 per 1000 in 2016 (Kassim & Mohamed, 2019).

The drastic rise in the worldwide prevalence of ASD is worrying because it is often difficult to provide intense and quality services due to budgetary constraints and problems in retaining staff with sufficient training and expertise in ASD intervention (Mandlawitz, 2002). Public programs have faced criticism and legal action from families who

were concerned that their children were not receiving appropriate services (Mandlawitz, 2002). There is a shortage of therapists to treat children with Autism (Zhang & Cummings, 2020).

According to Feline S. Y. Muhammad Feisol, the former chairman of the National Autism Society of Malaysia (NASOM) as reported by Murad (2019, September 15) in The Star online news portal, each year more Malaysian children are diagnosed with ASD, sparking demand for places in preschool or early intervention centres focused on autism ("More Kids Diagnosed with Autism", 2019). She highlighted that we need more government-run early intervention centres because private centres are very costly. Hence, it is difficult for parents from low to lower middle income or non-urban backgrounds to provide their autistic children with skilled assistance.

On the other hand, Datuk Dr Amar Singh, the adviser of the National Early Childhood Intervention Council (NECIC), as reported in the News Straits Times, dated 11 October 2019, stated that according to NECIC, Malaysia has a shortage of well-trained staff to provide children with reliable early intervention programs. For that reason, with insufficient funds and human capital, we need to reconsider how the nation tackles this pressing need for early childhood intervention services ("Effective practices in early intervention for children with autism", 2019).

Early intervention (EI) services are a variety of programmes designed specifically to assist and support children with developmental disabilities, or any other condition of health (World Health Organizations, 2012). One of these programmes includes community-based early intervention, which refers to interventions that are conducted in and are of relevance to the community. EI for Autism Spectrum Disorder (ASD) is typically delivered within the period of early childhood (American Psychiatric Association, 2013) and relies on early detection and diagnosis of ASD.

In Malaysia, community-based early intervention programmes for children with developmental disabilities have been established only quite recently through the efforts of NGOs (Non-Governmental Organizations). Despite their early involvement, the role of the NGOs in supplementing/ complementing special education programs for individuals with disabilities in Malaysia is commendable. In fact, the pioneers in the establishment of early intervention (EI) throughout the country have been the NGOs.

Through the initiation of these programmes, the belief that early intervention will make a difference in the growth and learning of ASD children has become more readily understood and embraced by the community. These socially validated interventions can be used to evaluate the existing autism curricula and develop necessary training for professionals, parents, and students to improve public school autism programmes. Although research has begun to show that community practitioners can be equipped with positive child outcomes in evidence-based behavioural interventions (Shire et al., 2017), far lesser studies have explored what children with ASD benefited from receiving the traditional early community interventions.

A variety of EI models are now available for children with ASD. Behavioural-based interventions have been the cornerstone of interventions for ASD, which are typically focused on the application of learning theories to foster skill development. Furthermore, developmental interventions involve supporting children's development and their interpersonal relationships (Prior et al., 2011). Specifically, interventions draw upon aspects of both behavioural and developmental science (Schreibman et al., 2015), and many draws upon different EI approaches rather than subscribing to one model of intervention. These are sometimes called 'eclectic interventions' which typically utilize a combination of treatment strategies, in which there are some evidence-based interventions (Prior et al., 2011).

According to the National Advisory Mental Health Council (2001), there is limited understanding of how these techniques may be used in community-based settings since there is insufficient research on community-based early intervention programmes for children with ASD. It indicates that there are discrepancies between research-based methods and community-based practices (Stahmer et al., 2011; Stahmer et al., 2015). According to Weisz et al. (1992; 1995), it is hypothesized that Community-Based Early Intervention programmes use a variety of interventions that differ considerably in their consistency and are not always based on research findings.

A study by Stahmer et al. (2015) examined the provider self-reports of the use of interventions in the community settings. The findings of this study revealed that community-based early intervention providers reported the use of both evidence-based and non-evidence-based techniques and indicated that they often combine and modify these techniques based on child, personal, and external factors on an ad hoc basis. However, they are frequently unsure about the evidence supporting their methods and lack sufficient training to apply even best practices that they recognise as necessary (Stahmer, Collings, & Palinkas, 2005). Furthermore, some previous studies reported that evidence-based interventions rarely make their way into community practices (Hess, Morrier, Heflin, & Ivey, 2008; Stahmer, Collings, & Palinkas, 2005).

On the other hand, even if programmes are based on treatment approaches that generate good results under the ideal

settings, community-based implementation shortcomings include the availability of qualified personnel as well as ongoing staff training, supervision, and retention (Perry & Ellett, 2008). These facts raise the question of whether efficacy can be demonstrated for less expensive, more sustainable programmes that incorporate important aspects such as parental participation, individualised systematic instruction, skill generalisation planning, and treatment integrity (McIntyre et al., 2007; Lord et al., 2015).

Therefore, it appears useful, interesting, and timely to further investigate these issues especially related to the education and experiences of teachers serving ASD children (Syriopoulou-Delli et al., 2012). Specifically, in psychology, health, and special education, the gap between research and practice is extensively established (Balas & Boren, 2000; Greenwood & Abbott, 2001; Williams & Beidas, 2018). To start bridging this gap, it is necessary to first understand the present status of regular therapeutic practices for young children with ASD in Malaysia. Many factors (for example, clinical expertise, adoption of evidence-based methods, geographic location, intervention dosage, and child characteristics) may be correlated to community-based intervention programmes outcomes. Hence, this paper provides an insight into the current state of community-based intervention centres in Malaysia.

2. Method

2.1 Setting and Participants

This study was conducted at IDEAS Autism Centre (IAC), Selangor, Malaysia. It was established in 2012 by the Institute for Democracy and Economic Affairs (IDEAS) Berhad. The centre provides early intervention care and education for children with autism (3-9 years old). Since the focus of this study is to acquire an in-depth understanding of the current intervention programmes used to train ASD children at the centre, this study used a grounded theory qualitative research with a case study research design. A case study is proven to be a suitable design for an applied field such as education to explore the processes, problems, and programmes to improve the system. According to Crowe et al. (2011), the case study approach allows in-depth, multi-faceted explorations of complex issues in their real-life settings. On the other hand, Atkins and Wallace (2012) claimed that case study provides in-depth details of the context allowing the researchers to draw similarities and differences to their own settings.

In choosing the participants for the study, purposive sampling was used to determine the centre with potential participants who are knowledgeable and experienced in handling autistic children. The main objective of purposive sampling is to focus on specific characteristics of a population that are of interest, which will enable the researcher to respond best to the research questions. Therefore, the researchers selected 1 principal, 6 teachers, and 1 therapist who are handling the early intervention for ASD children in the centre as the participants in the study.

The data were collected through a one-to-one interview with the principal and a focused group interview involving diverse participants which included the teachers and the occupational therapist. Overall, the discussion lasted for 55 minutes and provided wide information and viewpoints for the study which led to the triangulation of informants to strengthen the reliability and validity of the data. The semi-structured interviews explored the current goals and practices of autism educators, including the aspirations of teachers and therapist for their autistic children, their perspectives on the use of behavioural, social, and emotional skills in the teaching, curricula, and services at the centre's environments.

2.2 Interview Protocol

The main instrument used in this study was an interview protocol that consists of questions to answer the research questions. The instrument was content validated by a few lecturers involved in this study. The questions are as follows:

1. Can you share your background and experiences?
2. What are your roles in training the children?
3. Can you explain the current intervention program in your centre?
4. Are there any additional therapies provided and how frequent?
5. What is the purpose of the therapies?
6. What are the challenges in the current intervention programmes?

2.3 Thematic Analysis

Thematic analysis was used after the verbatim transcription of the audio recordings was conducted to interpret the interview results (Braun & Clarke, 2006). The data were closely examined by following the steps that included

familiarization of data, coding, generating themes, reviewing themes, defining the themes, and writing up. This research technique enables the researcher to gather in-depth information about the diverse opinions of the group of teachers and therapist.

3. Results

Analysis of the interview transcripts using initial open coding revealed five major themes related to the community-based intervention programmes to train autistic children in IDEAS Autism Malaysia. Figure 1 below shows major themes and subthemes that were revealed from the analysis of the interview transcript:

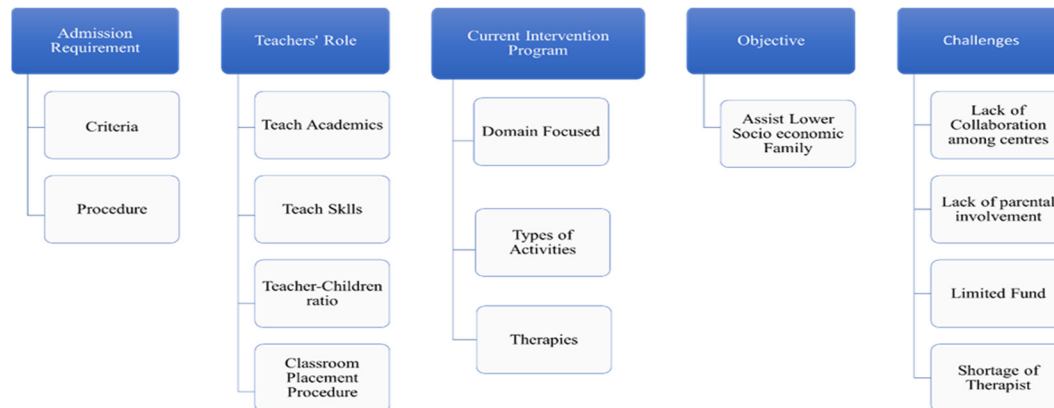


Figure 1. Summary of Themes and Subthemes Emerged from Interview Question

3.1 Theme 1: Admission Requirement

During the initial stage, children will be screened or given pre-assessment to identify their needs, strengths, and weaknesses in learning, behavioural, social and communication, and self-management skills. Subsequently, parents will be interviewed and reviewed on their eligibility to enrol their children at IDEAS Autism Centre.

3.1.1 Subtheme: Criteria

Only those parents with per capita income of less than RM1500 are allowed to enrol their children in the IDEAS Autism Centre. The principal of the centre described that:

If there are 4 children in a family and the household net income is RM6000, the per capita income will be RM1000. As long as it is RM1500 and below, they are eligible to apply and be sponsored by IDEAS (Principal)

On the other hand, only children between the age of 3 to 9 years old are accepted in the IDEAS Autism Centre.

3.1.2 Subtheme: Procedure

The children are not required to get an official diagnosis from the hospital because the diagnosis process will take as long as 1 to 3 years, as was explained by the principal below:

Since 2013, we see that the children must wait for the doctor's confirmation around 1 to 3 years.... because they can't afford to get the diagnosis done at a private hospital....so they must wait for the government hospital, so it will take time... (Principal)

Therefore, if there is a reference letter from a medical doctor stating that a child shows autism symptoms, the centre will accept the child because they do not want them to waste time as mentioned again by the principal:

We will accept the child first, as long as the child meets the criteria, shows autism symptoms regardless of the level of the severity... (Principal)

3.2 Theme 2: Teachers' Role

The IDEAS Autism centre hires 6 teachers and 1 occupational therapist. The teachers revealed that priority is given to teaching ASD children life-skills such as learning self-help, fine motor, and gross motor skills to prepare them to go to special classes in public schools known as Integrated National Curriculum School (PPKI). One of the teachers explained in the following statement:

I mostly teach self-help skills, gross motor skills, fine motor skills and academic (B1/DU21)

On the other hand, the occupational therapist (OT) conducts one to one therapy and group therapy according to a planned schedule.

OT does therapies one to one and also group for all the children at the centre... (B7/DU23)

The teachers further elaborated that there are 5 classrooms and 1 OT based classroom. The number of classrooms is further divided into 4 early learners' classrooms and 1 combined classroom for intermediate and advanced children as mentioned below:

Most of us are classroom teachers except Zara.... We have 6 classrooms out of which 5 are normal classrooms and 1 OT classroom (B3/DU27)

5 classrooms are divided into 4 classrooms for early learners, and 1 classroom where advanced and intermediate level children are combined (B6/DU29)

3.2.1 Subtheme: Teaching Academic Subjects

The teachers revealed that in the advanced and intermediate classrooms, other skills such as reading, writing, and counting are also emphasized because the children are prepared to be transferred to the Integrated National Curriculum Schools (PPKI). One of the teachers explained that:

In the advanced and intermediate class, we also focus on academic because the children are being prepared to transfer to go to the Integrated National Curriculum School (B3/DU35)

In addition, teachers also teach the syllabus from the Integrated National Curriculum School as mentioned below:

The age limit here is until 9 years old only...after that some will transit to Integrated National Curriculum Schools....so teachers here must also focus on covering the academic syllabus in the centre and the syllabus in the Integrated National Curriculum School also (B6/DU41)

The teachers further explained that in the academic-based classroom, the focus is on teaching literacy and numeracy as described below:

...reading, numeracy, writing... 3R (B1/49)

3.2.2 Subtheme: Teaching Skills

According to the teachers, for the early learners, the focus is more on teaching behaviour, social skills, soft skills, and motor skills. This is as explained below:

In the early learners' classes, the focus is more on teaching behaviour, social, soft skills, and motor skills (B6/DU41)

On the other hand, the advanced and intermediate classes also teach basic skills but the focus at this level is more on academic preparation as being explained below:

In the intermediate and advanced classroom, children learn the basic self-help skills and social skills apart from academic (B6/DU41)

3.2.3 Subtheme: Teacher-Children Ratio

In general, lower staff-to-child ratios are an indication of a higher-quality program because if a childcare provider is responsible for a smaller number of children, the staff will be more receptive and attentive to children's needs. The participants in this study revealed that the teacher-child ratio is lower for the early learners compared to intermediate and advanced classrooms as explained below:

Advanced combine with intermediate 1 teacher: 7 children because they are independent, understand instructions, more academic-based. If early learners, 1 teacher: 2 or 3 children... (B2/DU34)

3.2.4 Subtheme: Classroom Placement Procedure

Children who are accepted in IAC will have to sit for a full assessment. The duration of the full assessment is around one week. Based on the assessment, Individual Educational Plan (IEP) will be developed according to the child's learning needs. Parents will be called in to discuss the educational plan and to get their approval. The principal of the centre illustrated this process as below:

Each child is different from one another. So, when we develop IEP, we will invite the parents to discuss about their child's education plan for a duration of a year. So, once parents agree, parents will also give their feedback about their child's learning needs...once parents agree, they need to sign the IEP, I will also need to sign, the teachers and therapist that will be involved with the child also have to sign...once

signed, parents, therapist and teachers have to work hand in hand... (Principal)

Additionally, the children will be placed either in early learners' classrooms or advanced and intermediate classrooms according to their learning needs. This is as explained by one of the teachers below:

Teachers and the OT will conduct the assessment first before enrolling the children in order to know their level. So, when the child comes in we will place the child in the class that suits the child...we will observe the child if the child shows potential, he or she will be upgraded to higher class (B7/DU55)

3.3 Theme 3: Current Intervention Program

According to the principal, she has developed her own curriculum to be implemented in IDEAS Autism Centre. Her goal is that the module or curriculum that she developed could be used as a standardized curriculum throughout Malaysia. She specifically explained that:

We at IAC have our own curriculum. I have built a special curriculum for IDEAS Autism Centre and what we have in mind is, the module or curriculum should be adopted at the other centres throughout Malaysia because it suits our culture, compare to before where we depend more on to overseas based curriculum (Principal)

Similarly, the teachers who participated in this study clarified that the intervention program in the centre is planned according to the level of the class the child is in. Those who are in intermediate and advanced classes will be taught mainly academic subjects focusing on literacy and numeracy. These children are independent and able to manage themselves as elaborated below:

The children in the advanced and intermediate classes are able to manage themselves. So, we teach them more on academic skills...There are some children who are still weak in numeracy and literacy skills (B1/DU49)

The priority for early intervention is given to babies and toddlers where they are taught self- help skills such as toilet training, bathing, and getting dressed. One of the teachers explained as below:

Here, the training like behaviour skills, social skills, soft skills, motor skills are focused to early learners. For the advanced and intermediate class children who are mostly focused on academic, we also teach them to play and other basic things (B6/DU41)

3.3.1 Subtheme: Domains Focused

The principal explained that the intervention programmes implemented in IAC focused on teaching observation skills, imitation skills, motor skills, speech skills, receptive language skills, expressive language skills, self-management skills, living skills, social skills, and behavioural skills. One of the teachers said that there are 6 to 8 domains focused on their intervention programmes as she described below:

We have 6 domains: attending, listening, imitating, self-helping skills, social and feeling, pre-academic. What else? Receptive, expressive. Altogether 7 to 8 (B8/DU72)

3.3.2 Subtheme: Types of Activities

During morning circle time, mealtime, and after school time, children will be allowed to mingle around to promote their social and communication skills development. The principal of the centre mentioned that:

We never restrict the children when they are mingling with friends out of their classrooms. In the evening, while waiting for their parents to take them home, the children from different classes play together. As for the morning circle, there is a kind of morning exercise, then play near the playground. That's the time children will be socializing in IDEAS (Principal)

3.3.3 Subtheme: Therapies

According to the principal, several therapies can help children improve their abilities and reduce their symptoms as she mentioned below:

In terms of therapies, our children's therapeutic needs are speech therapy, occupation therapy and also behaviour therapy (Principal)

The principal further explained that all therapies are conducted at the centre. However, they cannot afford to hire a speech therapist and a behavioural therapist on a full-time basis. They are only able to provide therapies once in every two months. Nonetheless, the centre has an occupational therapist on a full-time basis. Therefore, only occupation therapies can be conducted regularly. Moreover, teachers reported that there are also additional therapies

provided in the centre to build children's self-confidence, improve their social skills, motor skills, and also expose them to the external environment. One of the teachers explained as below:

Here there is speech therapy, horse, swimming, outing, talking, watching movies. The therapy is performed either weekly or monthly. Twice a month, once for horse therapy with once for swimming or water therapy. Once every two months for outing. Speech therapy once a month (B7/DU63)

The objective is for student to have self-confidence, and social skills. To adapt to the external environment, motor skills (B1/DU68)

3.4 Theme 4: Objective

The principal of IDEAS Autism Centre (IAC) explained that the centre was established based on the need to provide therapies and quality care for children from lower-income families. She stated that:

So, since the beginning of the establishment of IDEAS Autism Centre, our target is to give intervention, therapies, and care to the Autistic children from the lower-income family, age 3 to 9 years old. they can't afford to obtain intervention and therapies from outside because it is expensive (Principal)

Additionally, the principal elaborated that the objective of IDEAS Autism Centre is to prepare the autistic children from the lower-income group to transit to the Mainstream National Curriculum Schools or Integrated National Curriculum Schools as she mentioned below:

Our objective is to prepare the children in order for them to be accepted in the National Curriculum Schools either in the mainstream classroom or the special education classroom...even though education for all is propagated, each child will have to go through the screening process (Principal)

3.5 Theme 5: Challenges

As a non-profit organisation (NGO), the IDEAS Autism Centre aims to help more children and communities depending on their needs. However, the principal said that they do not have strong connection with the Special Education Division, Ministry of Education except when they were invited to attend any short training or courses that the Ministry organise.

3.5.1 Subtheme: Lack of Collaboration among Centres

One visible challenge is that collaboration between the community-based centres is very limited because every centre is comfortable with their own curriculum or module. The principal of IDEAS Autism Centre explained:

For example, NASOM follows the module from USA if I am not mistaken...so they have their own staff training programs and they have their own syllabus....it is not easy for us to introduce our program....so it is difficult to cooperate with other centres" (Principal)

3.5.2 Subtheme: Lack of Parental Involvement

One of the IAC's goals is to avoid parents from being too dependent on the centre because the age limit for each child enrolled in IAC is only until 9 years old. Parents must get involved in educating and training their children to improve and/or influence the outcomes of their children with autism. However, the principal was quite disappointed that some parents are too dependent on the centre as she explained below:

Sometimes parents become too comfortable and too dependent on the centre... A to Z they are dependent on us. As for our goal, we don't want parents to depend on us solely...some parents are too busy. (Principal)

In line with the above situation, teachers who participated in this study also shared the same concern about the importance of parental involvement. One of the teachers explained the situation at length in the following statement:

Very important. Parents have to be there. The role of parents is very important. If parents give good cooperation, God willing, students will quickly improve greatly. If parents do not cooperate, the risk will be to the child also. The parents are like the backbone of the child. If parents do not cooperate; it will not happen, because there are cases from my own experience, near here, like, there are parents who are not cooperative. So, as can be seen, the child's achievement was declining. Decreasing. Examples like toilet training; in the centre we toilet train the child but when the child goes home, the parents don't cooperate or continue the toilet training at home, the child is allowed to wear diapers at home, so the child become confused (B8/DU142)

3.5.3 Subtheme: Limited Fund

IDEAS Autism centre heavily depends on funds from the corporate sector to support the children's education and welfare as mentioned below by the principal:

As an NGO, our challenge or main constraint is of course financial support...in the current economic situation, the corporate sectors are facing challenges... (Principal)

Additionally, the principal said it is a challenge to hire a qualified staff because the NGO cannot afford to offer a good remuneration package and benefit as compared to the government. Thus, it is very difficult to get a speech therapist because they demand a very high salary.

3.5.4 Subthemes: Shortage of Therapists

According to the principal, there are shortages of therapists in Malaysia especially speech therapists. Only a few universities produce speech therapists. However, there are many occupational therapists available because many universities and colleges offer courses related to occupational therapy. On the other hand, it is difficult to find a behavioural psychologist who understands autism as mentioned by the principal:

To get a real psychologist who understands the autistic children is difficult, that's why when I was still attached at NASOM, NASOM has many branches but there we only had one or two psychologists available so his or her capacity to help all the children is very limited (Principal)

Due to the shortage of therapists, the community-based early intervention centres in Malaysia are unable to accept all the applications from lower-income families to enrol their autistic children to the centres. The lower-income parents cannot afford to enrol their autistic children at the private centres as explained by the principal below:

It is the same anywhere, either National Autistic Society of Malaysia (NASOM), GENIUS Kurnia (An early intervention centre for autism children under Ministry of Education and Ministry of Health) or IDEAS Autism Centre, the children applying for admission must queue up.... because the charges in these centres are much cheaper compared to the private centres.... where the charges can be as high as RM1,300 to RM13,000 a month (Principal)

4. Discussion

This research was conducted to find out the views of the principal, teachers, and therapist at the IDEAS Autism Centre, a community-based intervention centre, about the programmes and practices implemented at their centre. This study provides valuable information on the programmes and practices carried out by a community-based early intervention centre for children with autism in Malaysia.

The IDEAS Autism Centre integrates the intervention programmes into a day-care setting which targets to teach self-help skills, communication skills, cognitive and social skills, as well as adaptive behavioural skills. The teacher-therapist then assesses the level of functioning of the child in relation to the intervention target and outline the steps required to teach these skills. The principal who manages the centre tends to choose more structured intervention programmes for babies and toddlers compared to the bigger children who are also being prepared academically for their transition to Integrated School. The participants in this study revealed that they make a variety of adaptations in their intervention programmes and practices.

The most prominent adaptation was using multiple techniques in a single programme by designing their own curriculum to address the needs of the children with limited resources and a lack of trained staff.

4.1 Limited Support from Local Authorities

Tamanna Patel, a Senior Researcher with the Education Unit at IDEAS released a media statement on the 11 December 2014, stating that "The government currently through the Ministry of Women, Family and Community Development, should simplify and incentivise the establishment of affordable early intervention special needs centres that cater to poor families". According to her, non-governmental organizations (NGOs) do most of the early intervention works and they are frequently overlooked for funding.

In the past and present, assistance continues to be channelled only to centres associated with state governments or projects under the Department of Social Welfare's umbrella (Patel, 2014, April 15).

In line with the above statement, the principal who participated in this study said that they do not have a strong connection with the Special Education Division, Ministry of Education, therefore the centre heavily depends on funding and grants from the corporate sectors. In this case, authorities need to take proactive steps to help

lower-income families with autistic children and community-based intervention centres to meet financial needs. Moreover, community-based intervention centres must be retained to allow lower-income families to get access to their services and reduce inequality in society.

4.2 Increase Parental Involvement

To effectively treat children with ASD, parents need to be included in the intervention efforts. Numerous benefits have been found in child and parent outcomes when parents are included in the treatment (Burrell & Borrego, 2012). In the Malaysia Education Blueprint (2013- 2025), Ganapathy (2016) more emphasis is now given to parental involvement in the education system.

Most of the participants in this study said that many parents push the responsibility to the teachers and therapist. However, the participants in this study also revealed that there are parents who are interested in their child's development, committed and very cooperative with the teachers and therapist, therefore their children's progress is very good compared to the children whose parents are not cooperative and supportive.

According to Hanafi and Taslikhan (2016), the reasons given for the low participation are that these parents have more than one job and have little time, energy or other resources required to actively participate in the care and education of their children outside the home. Additionally, this can be similar to what Chua (2015) reported that most parents in Singapore with children under ASD are not aware of how to participate actively in their children's learning process due to insufficient training.

Datuk Dr Amin Senin, the Education Director-General said that many studies have identified parent engagement as a critical factor influencing individual student success and the school environment itself (Education, 2018, March 25). In short, parents need to be aware that their engagement is crucial in promoting the developmental and academic growth of their children, especially those who are diagnosed with autism.

4.3 Need more Qualified Staff and Therapists

From the feedback given by the principal who participated in this study, it can be understood that one of her challenges is to educate a new staff who sincerely has a passion for special educational needs. The principal recommended that universities should give more exposure to the preservice teachers about the special educational needs and how to handle students with special educational needs. The obstacles in this programme are reported as inadequate expertise, knowledge, experience, and training in the early intervention programmes (Bari, Abdullah, Abdullah, & Yasin, 2016).

In the case of Malaysia, the early intervention services for special needs children do not have adequate speech therapists due to the lack of local teaching faculty, low student interest to register for this degree program, and lack of motivation and support from families to pursue this program (Ahmad, Ibrahim, Othman, & Vong, 2013).

According to the National Early Childhood Intervention Council (NECIC), an organization that emphasises training for early childhood educators, Malaysia has a deficit of well-trained personnel to provide quality early intervention services to children with disabilities (NST letters, 2019, October 11). Having well-trained staff is the key to ensuring good quality autism services, especially since people affected with autism generally tend to have higher support needs than other populations in terms of daily living as well as their mental and physical health (Dillenburger, et al., 2016).

4.4 Improve Collaboration

Besides NASOM and IDEAS Autism, several other non-profit and private organisations also run programmes or therapy for children with autism. Although the programmes for children with autism are provided by both the public and private sectors, these programmes are often separate and dispersed. The efficiency and usability of these facilities can be helped by greater collaboration between the two sectors. Collaboration provides opportunities for professional development through formal and informal learning from peers with diverse experiences and expertise (Wesley et al., 2001; Rush et al., 2003; Green et al., 2006; McWayne et al., 2008).

On the other hand, a multi-agency collaboration should be developed with other practitioners, researchers, policymakers, and early childhood professionals. It can contribute to new knowledge about the evidence-based intervention programmes and provide suitable training to the staff working with the ASD children to meet children's needs.

5. Conclusion

The findings in this study have enable to identify the challenges and limitations faced by the community-based intervention centres in Malaysia generally. The current practices and challenges highlighted in this paper might provide an insight to the local authorities to address the current provision gaps and enhance the services provided by the community-based intervention centres to the ASD children from the lower income family.

Acknowledgements

This project is supported by the Malaysian Ministry of Higher Education (MOHE) through Transdisciplinary Research Grant Scheme, (TRGS/1/2019/UIAM/02/4/4). We would like to thank the Malaysian Ministry of Higher Education for giving us the grant and for making this research possible.

References

- Ahmad, K., Ibrahim, H., Othman, B. F., & Vong, E. (2013). Addressing education of speech- language pathologists in the World Report on Disability: Development of a speech- language pathology program in Malaysia. *International Journal of Speech-Language Pathology*, 15(1), 37-41. <https://doi.org/10.3109/17549507.2012.757709>
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Arlington, VA: Author. <https://doi.org/10.1176/appi.books.9780890425596>
- Atkins, L., & Wallace, S. (2012). Interviewing in educational research. *Qualitative research in education*. SAGE publications.
- Balas, E. A., & Boren, S. A. (2000). Managing clinical knowledge for health care improvement. *Yearbook of medical informatics*, 9(01), 65-70. <https://doi.org/10.1055/s-0038-1637943>
- Bari, S., Abdullah, N. A., Abdullah, N., & Yasin, M. H. M. (2016). Early intervention implementation preschool special education students in Malaysia. *International Journal for Innovation Education and Research*, 4(6), 139-155. <https://doi.org/10.31686/ijer.vol4.iss7.569>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Burrell, T. L., & Borrego Jr, J. (2012). Parents' involvement in ASD treatment: What is their role? *Cognitive and Behavioral Practice*, 19(3), 423-432. <https://doi.org/10.1016/j.cbpra.2011.04.003>
- Chua, A. C. K. (2015). A triple-E framework on parental involvement of children with autism spectrum disorder in early intervention. *Development*, 30, 30.
- Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC medical research methodology*, 11(1), 1-9. <https://doi.org/10.1186/1471-2288-11-100>
- Dillenburg, K., McKerr, L., Jordan, J. A., & Keenan, M. (2016). Staff Training in Autism: The One-Eyed Wo/Man.... *International Journal of Environmental Research and Public Health*, 13(7), 716. <https://doi.org/10.3390/ijerph13070716>
- Education (2018, March 25). Parental Involvement, Vital Part of Learning. The Star Online. Retrieved from <https://www.thestar.com.my/news/education/2018/03/25/parental-involvement-vital-part-of-learning>.
- Ganapathy, M. (2016). Transformation of Malaysia's higher education system: Malaysia Education Blueprint (2015-2025). Bulletin of Higher Education Research. *National Higher Education Research Institute*, 5(1), 10-11.
- Green, L. W., & Glasgow, R. E. (2006). Evaluating the relevance, generalization, and applicability of research: issues in external validation and translation methodology. *Evaluation & the health professions*, 29(1), 126-153. <https://doi.org/10.1177/0163278705284445>
- Greenwood, C. R., & Abbott, M. (2001). The research to practice gap in special education. *Teacher Education and Special Education*, 24(4), 276-289. <https://doi.org/10.1177/088840640102400403>
- Hanafi, Z., & Taslikhan, M. B. (2016). Parental involvement: sharing what works for parents and childcare centres. *International Journal of Education and Research*, 4(12), 83-96.

- Hess, K. L., Morrier, M. J., Heflin, L. J., & Ivey, M. L. (2008). Autism treatment survey: Services received by children with autism spectrum disorders in public school classrooms. *Journal of autism and developmental disorders*, 38(5), 961-971. <https://doi.org/10.1007/s10803-007-0470-5>
- Kassim, A. B. B. M., & Mohamed, N. H. B. (2019). The global prevalence and diagnosis of autism spectrum disorder (ASD) among young children. *Southeast Asia Psychol. J.*, 7, 26-45.
- Lord, S. P., Sheng, E., Imel, Z. E., Baer, J., & Atkins, D. C. (2015). More than reflections: Empathy in motivational interviewing includes language style synchrony between therapist and client. *Behavior therapy*, 46(3), 296-303. <https://doi.org/10.1016/j.beth.2014.11.002>
- Mandlawitz, M. R. (2002). The impact of the legal system on educational programming for young children with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 32(5), 495-508. <https://doi.org/10.1023/A:1020502324718>
- McIntyre, L. L., Gresham, F. M., DiGennaro, F. D., & Reed, D. D. (2007). Treatment integrity of school-based interventions with children in the journal of applied behavior analysis 1991-2005. *Journal of Applied Behavior Analysis*, 40(4), 659-672. <https://doi.org/10.1901/jaba.2007.659-672>
- McWayne, C., Broomfield, M., Sidoti, J., & Camacho, N. (2008). Facilitators of and challenges to interagency collaboration: An early childhood perspective. *NHSA DIALOG*, 11(2), 90-109. <https://doi.org/10.1080/15240750802018398>
- Murad, D. (2019, September 15). More Kids Diagnosed with Autism. The Star Online. Retrieved from <https://www.thestar.com.my/news/nation/2019/09/15/more-kids-diagnosed-with-autism>
- National Advisory Mental Health Council (2001). Blueprint for Change: Research on Child and Adolescent Mental Health. A Report by the National Advisory Mental Health Council's Workgroup on Child and Adolescent Mental Health Intervention Development and Deployment. Bethesda, MD: National Institutes of Health/National Institute of Mental Health.
- NST letters (2019, October 11). Effective Practices in Early Intervention for Children with Autism. The New Straits Times. Retrieved from <https://www.nst.com.my/opinion/letters/2019/10/529117/effective-practices-early-intervention-children-autism>
- Patel, T. (2014, April 15). Policy Paper No 12: Malaysian education: What do the poor really want? Institute for Democracy and Economic Affairs (IDEAS). Retrieved from <https://www.ideas.org.my/publications-item/policy-paper-no-12-malaysian-education-what-do-the-poor-really-want/>
- Perry, R. E., & Ellett, A. J. (2008). Child welfare: historical trends, professionalization, and workforce issues. *Comprehensive Handbook of Social Work and Social Welfare, The Profession of Social Work*, 1, 143. <https://doi.org/10.1002/9780470373705.chsw001012>
- Prior, Margot, Roberts, Jacqueline, Rodger, Sylvia, Williams, Katrina, & Sutherland, Rebecca. (2011). A review of the research to identify the most effective models of practice in early intervention of children with autism spectrum disorders. H. Australian Government Department of Families, Community Services, and Indigenous Affairs. <https://doi.org/10.1037/e536872012-001>
- Rush, D. D., M'Lisa, L. S., & Hanft, B. E. (2003). Coaching families and colleagues: A process for collaboration in natural settings. *Infants & Young Children*, 16(1), 33-47. <https://doi.org/10.1097/00001163-200301000-00005>
- Shire, S. Y., Chang, Y. C., Shih, W., Bracaglia, S., Kodjoe, M., & Kasari, C. (2017). Hybrid implementation model of community-partnered early intervention for toddlers with autism: A randomized trial. *Journal of Child Psychology and Psychiatry*, 58(5), 612- 622. <https://doi.org/10.1111/jcpp.12672>
- Stahmer, A. C., Collings, N. M., & Palinkas, L. A. (2005). Early intervention practices for children with autism: Descriptions from community providers. *Focus on autism and other developmental disabilities*, 20(2), 66-79. <https://doi.org/10.1177/10883576050200020301>
- Stahmer, A. C., Rieth, S., Lee, E., Reisinger, E. M., Mandell, D. S., & Connell, J. E. (2015). Training teachers to use evidence-based practices for autism: Examining procedural implementation fidelity. *Psychology in the Schools*, 52(2), 181-195. <https://doi.org/10.1002/pits.21815>
- Stahmer, A. C., Schreibman, L., & Cunningham, A. B. (2011). Toward a technology of treatment individualization for young children with autism spectrum disorders. *Brain Research*, 1380, 229-239.

<https://doi.org/10.1016/j.brainres.2010.09.043>

Syriopoulou-Delli, C. K., Cassimos, D. C., Tripsianis, G. I., & Polychronopoulou, S. A. (2012). Teachers' perceptions regarding the management of children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 42(5), 755-768. <https://doi.org/10.1007/s10803-011-1309-7>

Weisz, J. R., Donenberg, G. R., Han, S. S., & Kauneckis, D. (1995). Child and adolescent psychotherapy outcomes in experiments and in clinics: why the disparity? *Journal of Abnormal Child Psychology*, 23, 83-106. <https://doi.org/10.1007/BF01447046>

Weisz, J. R., Weiss, B., & Donenberg, G. R. (1992). The lab versus the clinic: effects of child and adolescent psychotherapy. *American Psychologist*, 47, 1578-1585. <https://doi.org/10.1037/0003-066X.47.12.1578>

Wesley, P. W., & Buysse, V. (2001). Communities of practice: Expanding professional roles to promote reflection and shared inquiry. *Topics in Early Childhood Special Education*, 21(2), 114-123. <https://doi.org/10.1177/027112140102100205>

Williams, N. J., & Beidas, R. S. (2018). Navigating the storm: How proficient organizational culture promotes clinician retention in the shift to evidence-based practice. *PLoS One*, 13(12), e0209745. <https://doi.org/10.1371/journal.pone.0209745>

World Health Organization. (2012). Adolescent mental health: mapping actions of nongovernmental organizations and other international development organizations.

Zhang, Y. X., & Cummings, J. R. (2020). Supply of certified applied behavior analysts in the United States: Implications for service delivery for children with autism. *Psychiatric Services*, 71(4), 385-388. <https://doi.org/10.1176/appi.ps.201900058>

Appendix A

Summary of Themes and Subthemes Emerged From Interview Question

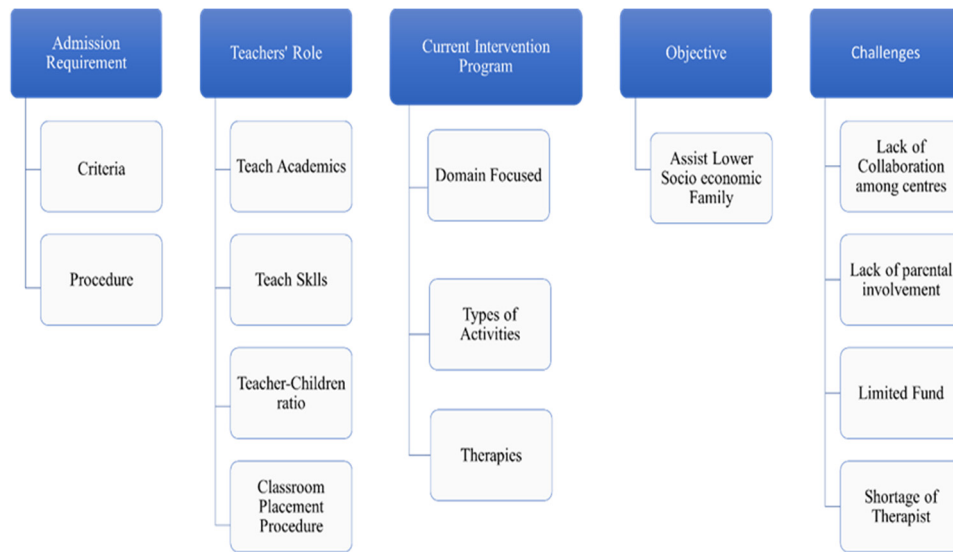


Figure 1. Summary of Themes and Subthemes Emerged from Interview Question

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).