



**IMPLEMENTATION OF PARENT-ASSISTED CHILDREN'S FRIENDSHIP  
TRAINING TO ADDRESS SOCIAL SKILLS, FRIENDSHIP QUALITY AND  
LONELINESS IN CHILDREN WITH AUTISM SPECTRUM DISORDER**

By

**ONG SING YEE**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra  
Malaysia, in fulfilment of the Requirements for the Degree of Doctor of  
Philosophy**

**August 2022**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in  
fulfilment of the requirement for the degree Doctor of Philosophy

**IMPLEMENTATION OF PARENT-ASSISTED CHILDREN'S FRIENDSHIP  
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**August 2022**

**Chair: Professor Samsilah binti Roslan, PhD**  
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The implications of social skills intervention on peer acceptance, friendship quality, and loneliness among children with autism spectrum disorder (ASD), which remains under-examined, must be thoroughly explored. Although CFT collectively addresses social etiquette and behavioural rules, the percentage of parents with ASD children adopting this strategy is under 25%. The CFT administration and scholars in collectivist countries (Malaysia) relatively disregard parents' perceptions and experiences.

This mixed-method study gathered data with a one-group pre-post-test design through questionnaires pre- and post-intervention. Thirty ASD participants (three females and 27 males) between seven to 12 years old were selected through criterion sampling with inclusion and exclusion criteria. Their subjective views were qualitatively obtained. A semi-structured interview was conducted in a focus group comprising six mothers and two fathers (post-intervention). Concurrently, a 12-session parent-assisted CFT was performed for children and parents. Lessons were practised in multiple settings after each 60 minute-session with parental supervision and guidance.

Data analysis with a paired sample t-test revealed statistical significance for social skills based on parent evaluation ( $t(29) = -4.01, p = .000; d = 0.88$ ). Teacher evaluation [ $t(29) = -4.12, p = .000; d = 0.85$ ], friendship quality - disengage [ $t(29) = 4.97, p = .000; d = 0.92$ ], and friendship quality - conflict [ $t(29) = 4.33, p = .000; d = 0.92$ ] reflected statistically significant differences in pre- to post- parent-assisted CFT. No statistical significance was identified for friendship quality-engage [ $t(29) = -0.14, p = .891; d = 0.92$ ] and loneliness [ $t(29) = 0.40, p = .693; d = 0.06$ ].

Parents' initial CFT experiences were thematically analysed. The parents, who initially hesitated to conduct this training, experienced learning, awareness, and adjustment processes and specific barriers: time commitment, inadequate resources, personal challenges, invited parents' rejection, and insufficient time and practice for weekly task completion. The social and physical complexities resulting from collectivism were resolved through facilitation, advocating the importance of CFT, and support. Quantitative and qualitative data were reported narratively with contiguous approaches during interpretation and reporting.

The ASD children experienced social skills (friendship-building) through parent-assisted CFT. These play-based skills, which teach social (friendship-building) and step-by-step CFT techniques with trainers' and parents' support, parallel socio-cultivist Vygotsky's Zone of Proximal Development (Vygotsky, 1987) and the frameworks underpinning Model of Skills Components Underlying Overt Behaviour (Furman, 1984) and Process-oriented Approach (Taylor & Asher, 1984).

The outcomes characterised parents' experiences and processes during the CFT sessions for stakeholders to aid parental participation and ASD children's successful friendship development. Parent-assisted CFT implications on improved social skills, disengagement, and conflict behaviour in friendship quality are also empirically supported. Locally, parent-assisted CFT did not influence ASD children's engagement behaviour, friendship quality, or loneliness reduction.

Overall, parent-assisted CFT is a reference for evidence-based intervention to address social competence deficiencies among Malaysian ASD children and their parents' psychological process, challenges, and adjustments to complete parent-assisted CFT. Stakeholders should also address ASD children's social abilities and parental engagement in CFT to customise parent-assisted CFT-based programmes, tools, and activities and improve Malaysian ASD children's life quality.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia  
Sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**PELAKSANAAN LATIHAN PERSAHABATAN KANAK-KANAK DENGAN  
BANTUAN IBU BAPA TERHADAP KEMAHIRAN SOSIAL, KUALITI  
PERSAHABATAN DAN KESEPIAN KALANGAN KANAK- KANAK AUTISME**

Oleh

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Implikasi intervensi kemahiran sosial terhadap penerimaan rakan sebaya, kualiti persahabatan, dan kesepian dalam kalangan kanak-kanak dengan gangguan spektrum autisme (ASD) adalah masih kurang dikaji, dan mesti diterokai dengan teliti. Walaupun CFT secara kolektif menangani etika sosial dan peraturan tingkah laku, peratusan ibu bapa dengan anak-anak ASD yang mengamalkan strategi ini adalah di bawah 25%. Pelaksanaan CFT dan kajian-kajian di negara-negara kolektivis (Malaysia) secara relatifnya tidak menghiraukan persepsi-persepsi dan pengalaman-pengalaman ibu bapa.

Kajian kaedah campuran ini telah digunakan untuk mengumpulkan data dengan reka bentuk pra-pasca ujian satu kumpulan menggunakan soal selidik pra dan pasca intervensi. Tiga puluh peserta ASD (tiga perempuan dan 27 lelaki) berumur antara tujuh hingga 12 tahun telah dipilih melalui persampelan kriteria dengan kriteria *inclusion* dan *exclusion*. Pandangan-pandangan mereka telah diperolehi secara kualitatif. Temu bual berbentuk separa berstruktur telah dijalankan dalam kumpulan fokus yang terdiri daripada enam orang ibu dan dua orang bapa (pasca intervensi). Pada masa yang sama, CFT 12 sesi yang dibantu ibu bapa (*parent-assisted CFT*) dilakukan untuk kanak-kanak dan ibu bapa. Pembelajaran diamalkan dalam pelbagai tetapan selepas setiap sesi 60 minit di bawah pengawasan dan bimbingan ibu bapa.

Data telah dianalisis dengan ujian t sampel berpasangan mendedahkan bahawa terdapat statistik yang signifikan untuk kemahiran sosial berdasarkan penilaian ibu bapa ( $t(29) = -4.01, p = .000; d = 0.88$ ), penilaian guru [ $t(29) = -4.12, p = .000; d = 0.85$ ], kualiti persahabatan - *disengage* [ $t(29) = 4.97, p = .000; d = 0.92$ ], dan kualiti persahabatan - konflik [ $t(29) = 4.33, p = .000; d = 0.92$ ] menunjukkan

perbezaan statistik yang signifikan untuk pra hingga pasca CFT yang dibantu oleh ibu bapa. Tiada statistik yang signifikan dikenal pasti untuk persahabatan kualiti-penglibatan [ $t(29) = -0.14, p = .891; d = 0.92$ ] dan kesepian [ $t(29) = 0.40, p = .693; d = 0.06$ ].

Pengalaman-pengalaman awal ibu bapa dengan CFT telah dianalisis secara tematik. Ibu bapa yang pada mulanya teragak-agak untuk menjalankan latihan ini, telah mengalami proses pembelajaran, mendapat kesedaran, dan proses penyesuaian ketika menghadapi halangan-halangan tertentu: komitmen masa, kekurangan sumber-sumber, cabaran-cabaran peribadi, penolakan ibu bapa yang dijempit, dan masa serta latihan yang tidak mencukupi untuk menyelesaikan tugas mingguan. Masalah sosial dan fizikal yang terhasil daripada kolektivism telah diselesaikan melalui fasilitasi, advokasi kepentingan CFT, dan sistem-sistem sokongan. Data kuantitatif dan kualitatif telah dilaporkan secara naratif dengan pendekatan bersebelahan semasa tafsiran dan pelaporan.

Kanak-kanak ASD mengalami kemahiran sosial (pembinaan persahabatan) melalui CFT yang dibantu ibu bapa. Kemahiran berasaskan permainan yang mengajar teknik CFT sosial (pembinaan persahabatan) secara langkah demi langkah dengan sokongan jurulatih dan ibu bapa, selari dengan sosio-kultur *Vygotsky's Zone of Proximal Development* (Vygotsky, 1987) dan rangka kerja berasaskan *Model of Skills Components Underlying Overt Behaviour* (Furman, 1984) dan *Process-oriented Approach* (Taylor & Asher, 1984).

Hasil kajian telah mencirikan pengalaman-pengalaman ibu bapa dan proses-proses semasa sesi CFT untuk pihak-pihak berkepentingan bagi membantu penyertaan ibu bapa dan kejayaan pembangunan persahabatan anak-anak ASD. Implikasi CFT yang dibantu ibu bapa terhadap peningkatan kemahiran sosial, *disengagement*, dan tingkah laku konflik dalam kualiti persahabatan juga telah disokong secara empirikal. Di dalam negara, CFT yang dibantu ibu bapa tidak mempengaruhi tingkah laku penglibatan kanak-kanak ASD, kualiti persahabatan, atau pengurangan kesepian.

Secara keseluruhan, CFT yang dibantu oleh ibu bapa adalah sebagai rujukan untuk *evidence-based intervention* bagi menangani kekurangan kecekapan sosial dalam kalangan kanak-kanak ASD di Malaysia dan proses psikologi ibu bapa mereka, cabaran-cabaran, serta proses penyesuaian yang dihadapi ibu bapa untuk melengkapkan CFT yang dibantu ibu bapa. Pihak berkepentingan juga harus mengambil kira kebolehan sosial kanak-kanak ASD dan penglibatan ibu bapa bagi merangka program-program, alat-alat pembelajaran dan aktiviti-aktiviti berasaskan CFT yang dibantu ibu bapa sekaligus meningkatkan kualiti hidup kanak-kanak ASD Malaysia.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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## LIST OF ABBREVIATIONS

ASD	Autism Spectrum Disorder
CFT	Children's Friendship Training
NGO	Non- governmental organizations
MOH	Ministry of Health
MWFCD	Ministry of Women, Family and Community Development
MOE	Ministry of Education (MOE)
LSDQ	Loneliness and Social Dissatisfaction Questionnaire
QPQ	Quality Play Questionnaire
SSIS- RS	Social Skills Improvement System Rating Scales
UPM	University Putra Malaysia
MREC	Ethics Committee and Medical Research Ethics Committee Malaysia
USA	United States of America
PPKI	Special Education Integration Programme
M- CHAT	Modified Checklist fo ASD in Toddlers
SBBS-2	School Social Behaviour Scales- 2
RCT	Randomized control trial
SRS	Social responsiveness scale (SRS)
SSToM	Social Skills and Theory of Mind Intervention
SST	Social Skills Training
LACA	Louvain Loneliness Scale
PDD –	NOS Developmental Disorder-Not Otherwise Specified
ADD	Attention Deficit Disorder

ADHD	Attention Deficit Hyperactivity Disorder
PPI	Inclusive Education Programme
SCT	Single-Case Study
RCT	Randomized Control Trial
ZPD	Zone of Proximal Development
SSIS	Social Skills Improvement System
IQ	Intelligent Quotient
NPT	Non-pharmacological Treatment
TSSA	TRIAD Social Skill Assessment
PEERS	Programs for the Education and Enrichment of Relational Skills
TD	Typical Developed
UCLA	University of California, Los Angeles
ODD	Oppositional Deficit Disorder
PMII	Parent- mediated Intervention

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

This chapter includes the present study's background and the statement of the problem. It is followed by the general and specific objectives, research questions and hypotheses. Next, this chapter discusses the significance and limitations of the present study. Last but not least, terms are explained conceptually and operationally.

### 1.2 Background of the Study

Autism spectrum disorder (ASD) is a neurodevelopmental disorder that affects two critical aspects of a child's development: social communication and interaction and confined, repetitive patterns of behaviour and interest (Hyman et al., 2020). Its symptoms, capabilities, and attributes can appear in varied combinations and different levels of severity. It is sometimes diagnosed as early as 18 months or younger based on deficits and significant impairment in social, communication, repetitive behaviours, and fixated interests (American Psychiatric Association, 2013). Three levels of ASD are identified in DSM 5 (Carrington et al., 2014) with different levels of support needed: individuals with ASD level 1 need only required support, individuals with ASD level 2 required considerable support, and individuals with ASD level 3 required weighty support.

Early diagnosis has shown to bring about more constructive outcomes for individuals with ASD (Elder et al., 2017); however, ASD is frequently underestimated, and systems are frequently unprepared to assist these individuals, resulting in a paucity of treatment alternatives (Mogavero, 2019). There is no exception in Malaysia, too; however, there is no systemize and extensive data on ASD as not all of those diagnosed with ASD are registered under one roof (Asia- Pacific Development Center on Disability, 2019). Ministry of Health (MOH), Ministry of Education (MOE) and Ministry of Women, Family and Community Development (MWFCD) were the government agencies that assisted the ASD community (Khairuddin et al., 2020).

As the global population of children with ASD grows, concerns regarding their neurocognitive and behavioural deficits grow (Gary & Rubin, 2015; Hahler & Elsabbagh, 2015). Based on the recent research done by the Ministry of Health (MOH) on children of 18 to 36 months in the usage of Modified Checklist for ASD in Toddlers (M-CHAT), it is to be estimated that at least 1.6 in 1000 children in Malaysia is ASD (Asia- Pacific Development Center on Disability, 2019).

Children with ASD's social skills deficiencies significantly impede social relationships (Parritz & Troy, 2014; Rumney & MacMahon, 2017). It is evident when people wish to interact with others but perceive themselves as socially confined due to shallow friendships and a lack of social skills, including social opportunity (Petrina et al., 2014, 2016). Social skills deficits can contribute to social failures such as school failure (Butterworth et al., 2014) and missing school (Totsika et al., 2020), thus representing a crucial area for early intervention (Shuai & Lin, 2020). As mentioned earlier regarding the social skills deficits related to ASD and its implication, there is an urgency to address of negative consequences that occurred through developing social competency interventions (Shuai & Lin, 2020; Wolstencroft et al., 2018).

Friendship is characterised among children as a stable intimate, and affective connection between peers in which they interact socially and affectionately (Maunder & Monks, 2019). Children with ASD have challenges building friendships as a social skill, as their conception of friendship focuses more on companionship than intimacy or attachment (Petrina et al., 2017). As a result, these children have a unique viewpoint on friendship quality. The natural development and transmission of peer etiquette frequently involves good and consistent peer connections and learning from best friends (Elizabeth A Laugeson et al., 2014). When participating in non-competitive activities with friends, children with ASD exhibited a lower quality of friendship than children without ASD (Bauminger-Zviely & Agam-Ben-Artzi, 2014). Clinicians acknowledge that supporting these ASD children with inadequate social skills and friendships presents a difficulty (Cook et al., 2018). In addition, friendship-building programmes for children with ASD tend to emphasise their social abilities rather than develop and train them (Brady et al., 2020).

Loneliness is defined as an individual personal response when their social desire with others is not fulfilled, which can be described in both social cognitive qualities (being left out) and emotional qualities (sadness, worries, unease, emptiness) (Kasari & Sterling, 2014). Children with ASD, in the age of 8 to 17 described loneliness as no one to play with and no one is around, and they experienced a higher level of loneliness than those typical children (Zeedyk et al., 2016). Loneliness among these children is reported to negatively affect their self-worth (Mazurek, 2014), depression and increase their social anxiety (Kwan et al., 2020; Mazurek, 2014). Due to their social limitation and incompetence in having friends (Zeedyk et al., 2016). This situation can be improved if these children are accepted, have more friends, and remain friends with others (C. Kasari & Sterling, 2014). With that, a friendship-making programme needs to teach these children the skills in friendship building, which help reduce loneliness.

In the previous programme for children with ASD, those who received social skills training showed marginally significant and lasting increases in social competence (Jonsson et al., 2019). Even though multiple studies on children with ASD have identified cognitive and verbal problems (Moran et al., 2015),

preliminary studies explore the specific deficits associated with forming and sustaining friendships (Silverman et al., 2017). In addition, the effectiveness of social function intervention on peer acceptance, close friendship outcomes, and loneliness in children with ASD in Malaysia has not been thoroughly evaluated.

MOE reported 10,541 children with ASD study in mainstream schools with specific classes dedicated to students with special needs (Special Education Integration Programme, PPKI); 725 children with ASD enrolled in mainstream schools that integrate one to five students with special needs into mainstream classes (Inclusive Education Programme, PPI) and 148 children with ASD study in special schools cater all students have disabilities (Asia- Pacific Development Center on Disability, 2019). Social skills training (SST) are being introduced in their learning subjects namely '*Pendidikan Sains, Sosial dan Alam Sekitar*' and '*Pengurusan Kehidupan*'. However, they are only being trained to know, communicate with people at public places, and explain scenarios in public places such as markets (Bahagian Pembangunan Kurikulum, 2018), bus stations (Bahagian Pembangunan Kurikulum, 2016).

They are only introduced to know their friends in their Year 3 syllabus (Kementerian Pendidikan Malaysia, 2017). Based on the Malaysian government school curriculum, there are limited friendship skills introduced in the syllabus when these children need to spend at least 40% of their time in a year at school. These children needed the necessary social skills to integrate into their peers and communicate with adults in schools.

Frankel and Myatt (2003) state that their manualized parent-assisted Children's Friendship Training (CFT) focuses on friendship building. Field testing on over 1,000 children with ASD and other problems in diverse research and clinical settings has demonstrated its usefulness (Frankel et al., 2007, 2010; Frankel & Whitham, 2011). Their parents' guidance help children with ASD understand the fundamental social rules (Ashman et al., 2017). Consequently, parent-assisted CFT incorporates components that address social etiquette and specific behavioural rules applicable in peer-group contexts, facilitating these children's understanding of their social surroundings. Parent-assisted CFT parent-structured and supervised playdates can assist a child with his or her reputation among peers and create close friendships (Oono et al., 2013).

Parents are vital to their children's intervention since they spend most of their time caring for them (Burrell & Borrego, 2012; Moroz, 2015). Parents' participation in the intervention can substantially affect the treatment's outcome (Chaidi & Drigas, 2020). They can provide specialists with essential information and are recognized as effective interventionists (Susilana & Herlina, 2017). Additionally, they share the same cultural background to enhance the effect of the intervention (Susilana & Herlina, 2017). They can understand their children better and provide crucial information for intervention (Chaidi & Drigas, 2020). Parental participation, whether direct or indirect, affects the efficacy of an

intervention (Susilana & Herlina, 2017). Their experience may appear to be essential factors in the successful intervention of children with ASD (Chaidi & Drigas, 2020). Their experience may appear crucial to the effective intervention of children with ASD. Not only do their experiences matter, however. For school-aged children with ASD who are still under parental supervision, the parents are the ones who administer these interventions. Another element to evaluate is the difficulties they encountered during the implementation of the intervention and how they overcame the intervention implementation, given that most parents in Malaysia lack such information (Teo & Lau, 2018). Consequently, while discussing the efficacy of this intervention on the children depicted in the picture, consider the following: The intervention should also address the obstacles and tactics faced by parents to increase the implementation success rate.

Frankel and Myatt (2003) found that involving parents in this intervention could help children with ASD regulate their friendships. Ladd et al. (1993, 1996) proposed this idea. In this intervention, parents are responsible for integrating, assisting, supervising, and resolving issues for their children, all while fostering friendships. Understanding their experience in this intervention allows the therapist to provide enough support to the parents to optimise supporting their children in making friends.

### **1.3 Statement of the Problem**

Autism spectrum disorder (ASD) children struggle with a deficiency in social skills more than anything else (Bellini et al., 2014). They lack the appropriate social skills to establish peer relationships (Carrington et al., 2014). Consequently, they are more prone to be bullied at school than average children and other children with special needs (Campbell et al., 2017; Zablotsky et al., 2014). Campbell et al. (2017) observed that 58.7% of children with ASD were bullied at school, compared to 37.5% of typical children. This deficiency also impacts a child's psychological problems in the long run (Kerns et al., 2020). To address these challenges, social skills interventions that address social skills deficiencies are required.

Friendship acts as a psychological buffer for children by providing emotional support (Crompton et al., 2020). Unfortunately, children with ASD have difficulty establishing relationship with their peers (Mendelson et al., 2016). They have fewer friends and lower friendship quality than their typical peers (Bauminger-Zviely & Agam-Ben-Artzi, 2014; Petrina et al., 2014). Instead of engaging with their peers, they choose to interact with adults (Bauminger-Zviely & Agam-Ben-Artzi, 2014). Friendship building acquires particular social skills such as conversational skills (Muller et al., 2016), sportsmanship skills (Glugatch et al., 2021), peer group entry skills (Ellingsen et al., 2017). Instead of the focusing these children on learning the common social skills, there is a need to coach children with ASD in cultivating friendships through intervention.

While children with ASD desire friends, they have difficulty making and maintaining them (Feldhaus et al., 2015). They then suffer from loneliness at a higher rate than their average counterparts (Ee et al., 2019). Loneliness has a long-term detrimental effect on these children's psychological well-being (Loades et al., 2020). They are more prone to experience increased social isolation, increased social anxiety, and feelings of despair, as Schiltz et al. (2021) reported in a recent study. Friendship skill intervention is necessary to aid these children in developing friendships, which is considered to help them feel less lonely (Kasari & Sterling, 2014).

As a child with ASD age, isolation aggravates their deficits in weaknesses in peer etiquette. Consequently, effective interventions must be tailored to their specific requirements. The parent-assisted CFT is one ecologically valid way to improve friendship-building among children with ASD. Researchers investigated parent-assisted CFT as a friendship-building intervention (Frankel et al., 2010; Frankel & Myatt, 2003; Laugeson et al., 2009). It has not been utilised and tailored specifically for children with ASD in Malaysia's cross-cultural environment (Ting et al., 2014). In Malaysia, there is a potential that no one has considered as an empirical evidence-based study.

Less than 25% of parents with an autistic kid use parent-mediated interventions (Barnett, 2018). In Malaysia, parents of children with ASD still lack awareness regarding intervention for their children with ASD (Chu et al., 2020). Hence, they need the skills coach their children with ASD to make and keep their friends in daily settings. Nonetheless, parents-assisted CFT can teach the parents and children with ASD to seek out chances for engagement with peers their own neurotypical age, thereby developing a social network for themselves (Moore-Dean et al., 2016).

Parents' tenacity in mastering evidence-based intervention strategies and implementing them to increase their child's social competence has been shown in studies (Freeman et al., 2015; Wetherby et al., 2014). However, not all research has discovered significant benefits on child outcomes (Althoff et al., 2019). Nonetheless, parent-assisted CFT has numerous advantages, such as increased generalisation in school settings (Frankel et al., 2010; Frankel & Myatt, 2003; Laugeson et al., 2009). Additionally, a rise in the frequency of play dates for children with ASD has been reported (Frankel et al., 2010; Mandelberg, Laugeson, et al., 2014). Their common social skills, particularly self-control and assertiveness, have improved (Frankel et al., 2010; Mandelberg, Frankel, et al., 2014). Meanwhile, their friendship quality regarding conflict and problem behaviour has reduced substantially (Frankel et al., 2010; Mandelberg, Laugeson, et al., 2014). The level of loneliness declined among these children (Frankel et al., 2010; Mandelberg, Laugeson, et al., 2014).

Parents have a crucial part in their ASD children's intervention, which affects the outcome of the intervention (Chaidi & Drigas, 2020; Susilana & Herlina, 2017).



Frankel & Myatt (2003) acknowledged that integrating parents into parent-assisted CFT could help children with ASD manage their social relationships.

In this intervention, parents are responsible for integrating, assisting, supervising, and offering solutions for their children during friendship development. Prior research has primarily evaluated the efficacy of CFT without considering the parents' perspectives, including their concerns, experiences, and difficulties in implementing this programme. For example, obstacles such as insufficient time to be allocated to attend intervention (Moroz, 2015; Piskur et al., 2012), a busy work schedule (Tully et al., 2017), and public responses when their children are practising the intervention-learned skills (Piskur et al., 2012) hinder the parents' implementation of the intervention. The parents' concerns, experiences and challenges are frequently disregarded by CFT administration and researchers, particularly in environments with collectivist cultures, such as Malaysia. With such insights obtained, it can be served as preliminary data to look at parent-assisted CFT from a more holistic perspective.

In contrast to collectivist cultures, parents in Malaysia viewed themselves as essential components of an inclusive and interrelated totality that included their family, profession, nation, and religion (Triandis, 2001a). They practise collectivism, the strong impact of family beliefs, and societal responsibilities; these will have significant ramifications for parents parenting a child with ASD (Shorey et al., 2021). According to a previous study, Southeast Asian parents of children with ASD are more likely to encounter stigmatization. They exhibit higher depressive symptoms than Western or European parents (e.g., Chan & Lam, 2017; Ting, Yiting, & Chunli, 2018). In addition, there is evidence that stigma develops differently in individualist versus collectivist, group-oriented societies (e.g., Papadopoulos, 2021). Yeo and Lu (2012) found that a cultural component of ASD children in Malaysia predicted parental stress and psychological distress. To properly examine CFT from the parent's perspective, Daley and O'Brien (2013) and Freeth et al. (2013) contend must include cultural considerations. Qualitative methods can be explored to explain and explore more fruitful experiences and opinions of the lived experience of people with ASD and their stakeholders especially their parents involved in friendship-building intervention (van Schalkwyk & Dewinter, 2020).

Considering the children who participate in the parent-assisted CFT during the sessions and the parents who participate throughout the sessions in evaluating this intervention is necessary. Consequently, it is essential to include children and parents in this study. First, it is vital to investigate the effect of parent-assisted CFT on friendship quality, the social skills of children with ASD, and its impact on loneliness among these children to improve their quality of life in Malaysia. In addition, it is salient to explore the experiences of Malaysian parents who assisted in implementing CFT by attending 12 sessions with their ASD children, as their concerns, experiences, challenges, and steps taken are typically overlooked.

## 1.4 Research Objective

The key purpose of this study is to determine the effect of parent-assisted Children's Friendship Training (CFT) as a strategy to improve social skills and friendship quality and reduce loneliness among children with ASD in Malaysia and understand parents' perspectives of their participation in parent-assisted CFT.

The specific objectives of the study are as below:

1. To describe children with ASD's demography, adaptive level in communication and socialization domain, the problem they faced in school and their play skill, playdate and play quality before their participation in parent-assisted CFT and also their parents demography.
2. To determine the effect of parent-assisted CFT on improving social skills of children with ASD.
3. To determine the effect of parent- assisted CFT on improving friendship quality of children with ASD.
4. To determine the effect of parent-assisted CFT on reducing loneliness of children with ASD.
5. To describe parents' initial concerns and their experience through their involvement in parent-assisted CFT.
6. To determine parents' challenges in implementing parent-assisted CFT and the steps taken to overcome the challenges

## 1.5 Research Hypothesis and Research Question

In order to address the objectives of this study, three hypotheses and three research question are developed. The three hypotheses are as follow:

- H<sub>1</sub>:** There is a significant improvement in the social skills of children with ASD after going through parent-assisted CFT.
- H<sub>2</sub>:** There is a significant improvement in the friendship quality of children with ASD after going through parent-assisted CFT .
- H<sub>3</sub>:** There is a significant reduction in loneliness of children with ASD after going through parent-assisted CFT.

For Objective 1, **RQ<sub>1</sub>** is developed.

**RQ<sub>1</sub>**: What are the children with ASD's demographic data, their adaptive level of communication and socialization domain, the problem they faced in school, their playdate, play skill and play quality and their parents' details before their participation in parent-assisted CFT?

Next, **RQ<sub>2</sub>** and **RQ<sub>3</sub>** are developed to achieve objective 5.

**RQ<sub>2</sub>**: What are the initial concern of parents when they first joined parent-assisted CFT?

**RQ<sub>3</sub>**: What are the parents' general experience throughout the involvement in parent-assisted CFT?

Finally, **RQ<sub>4</sub>** and **RQ<sub>5</sub>** are developed to address objective 6.

**RQ<sub>4</sub>**: What are the challenges the parents face implementing the parent-assisted CFT?

**RQ<sub>5</sub>**: What are the steps the parents taken to overcome the challenges in implementing parent-assisted CFT?

## **1.6 Significance of the Study**

One of the significant issues faced by children with ASD is social impairment, where they have difficulties making friends with their peers. With that, the present study helps children with ASD in Malaysia improve their social skill and friendship quality thus reducing their loneliness. It empowers them with the skills to improve their quality of life in the long run.

Next, parents have always been the first person to take care of their children. They are the ones who have always been struggling with how to educate and prepare their children to survive and to be more independent. The present study documents the parents' experience in assisting, monitoring, and supervising their children with ASD to improve their friendship skills daily at natural settings (school, home, and playground).

Also, it provides an evidence-based intervention on ecologically valid friendship skills training framework and practices. On top of that, the study provides a theoretical framework by introducing Parents to the parent-assisted CFT Framework. These frameworks allow the parents, clinical psychologists, interventionists, special needs educators, counsellors in special needs schools and people working with special needs children to improve these children in making and keeping friends in the Malaysian context.

Past studies have focused on early intervention for pre-school-aged children with ASD in Malaysia. It addresses the scarcity of research on social skill training (SST) for school-aged children with ASD in Malaysia. Hence, the finding of the present study outcome allows us to understand social skills, friendship quality and loneliness among school-aged children with ASD in Malaysia. The current study basis This study also prepares the researcher to explore the social communication deficits and social expectations of school-aged children with ASD.

### **1.7 Limitation of the Study**

The present study has limitations. First, the generalizability of this study is narrow to ASD children living in Malaysia's *Klang* Valley. Thus, the sample may select does not represent children with ASD in other regions of Malaysia.

Second, this study is focused only on children with mild and moderate ASD, and the findings may not be applied to children with severe ASD.

### **1.8 Conceptual and Operational Definition of the Terms**

#### **Implementation**

Conceptual Definition: According to the Lea and Bradbery (2020), the term "implementation" describes the process of beginning to use a plan or system.

Operational Definition: In the present study, implementation refers to applying the parent-assisted CFT in order to answer the six objectives as stated in section 1.4.

#### **Parent-assisted Children's Friendship Training (CFT)**

Conceptual Definition: Parent-assisted Children's Friendship Training (CFT) refers to the intervention initiated by Frankel and Myatt (2003) to teach special needs children on friendship building skills.

Operational definition: In the present study, parent-assisted CFT consisting of 12 sessions is used to teach parents and children with ASD in Malaysia how to make and keep friends.

## **Loneliness**

Conceptual definition: Loneliness refers to the children as young as five- or six-years old feeling unhappy and isolated when they have no one to play with (Asher & Paquette, 2003).

Operational definition: In this study, the indicator of loneliness is gathered from The Loneliness and Social Dissatisfaction Questionnaire (LSDQ). It is used to ascertain children level of loneliness. The child answers this questionnaire with adult assistance. The higher the scores indicate higher loneliness.

## **Friendship Quality**

Conceptual definition: According to Frankel and Myatt (2003), the friendship developed through a successful playdate in a dyadic relationship, where two children made the appointment to play in each other home. Their level of support, togetherness or disagreements in the children's dyadic relationship is defined as friendship quality (Locke et al., 2010).

Operational definition: In this study, the friendship quality is measured using the Quality of Play Questionnaire (QPQ), which comprises three dimensions: Engage, Disengage and Conflict. The parents observe the playdate behaviour of their children to complete this questionnaire. The higher the scores indicate, the higher the Engage, Disengage and Conflict Behaviour in friendship quality.

## **Social Skills**

Conceptual definition: Gresham and Nagle (1980) and Gresham and Elliot (1984) defined social skills as socially recognized and learnt actions that permit the individual to communicate with peers to achieve the desired result and avoid rejection. Based on Frankel and Myatt (2003), friendship might promote continuous learning on social skills.

Operational definition: In this study, social skills are measured using Social Skills Improvement System Rating Scales (SSS – RS), which comprises seven dimensions: Communication, Cooperation, Assertion, Responsibility, Empathy, Engagement and Self-Control. The parents and teachers evaluate the social skills portrayed by the children to complete this questionnaire. The higher the scores indicate, the higher the Communication, Cooperation, Assertion, Responsibility, Empathy, Engagement, and Self-Control in social skills.

## **Children with Autism Spectrum Disorder (ASD)**

Conceptual Definition: Children is defined as young people under the legal age of 18 years old, as stated in The United Nations Children's Emergency Fund (UNICEF) article 1 (UNICEF, 1989). Meanwhile, Autism Spectrum Disorder (ASD) is considered a developmental disorder distinguished by three significant impairments of an individual in social functioning, language and communication and atypical behaviours and interests (Mash & Wolfe, 2019; Parritz & Troy, 2014).

Operational definition: In this study, children with ASD refer children who are at the age of 7 to 12 years old during the period of intervention, with diagnosis indicating of ASD by medical specialists, Level 1 in DSM-5 (Carrington et al., 2014); or Autistic Disorder, Asperger Syndrome, Pervasive Developmental Disorder (Not Otherwise Specified) (PDD-NOS) in DSM IV-TR (American Psychiatric Association, 2000).

### **1.9 Chapter Summary**

The next chapter shall review literature related to the construct. This chapter provided a summary of the current study's introduction, problem statement, research objectives, and hypotheses. This chapter then analyses the significance and limitations of the current study. The conceptual and operational context explains each term used in the present study. The following chapter will review the relevant literature.

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