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Home education for children with autism spectrum disorder during the COVID-19 pandemic: Indonesian mothers experience

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ABSTRACT

This study aimed to explore the experiences of mothers and efforts in implementing home education for children with autism, during the COVID-19 pandemic in Indonesia. Five mothers were recruited as participants and interviewed online, as the data obtained were examined through the use of thematic analysis. Also, three main themes were shown, (1) Mothers' experience in implementing home education, as regards adaptability and burden of caregiving, (2) The constraints in home education implementation, as regards maladaptive behaviours of ASD and emerging negative emotions, (3) The efforts to alleviate barriers, as regards problem-focused and religious copings. Also, the implementation of home education during the pandemic was less than optimal, due to the increase in maladaptive behaviours of the autistic children, low adaptability, the burden of caregiving, and emerging negative emotions. Appropriate coping strategies were also observed to help mothers in alleviating the constraints to implementing home education and parenting stress.

1. Introduction

The massive impacts of the COVID-19 pandemic have forced both formal and informal sectors to cease their business activities, with the educational portion not an exception. One of the impacts of the COVID-19 pandemic, especially in the educational sector, is the closing of teaching and learning activities at schools, switching them to home education. Home education is an educational reform happening around the world, with parents educating their children in houses, and in various places except a school (Cahapay, 2020). Likewise, the learning for children with developmental disorders, such as autism spectrum disorders (ASD) was also conducted at home.

Autism spectrum disorders (ASD) is a neurodevelopmental disorders, characterized by difficulties with interests, activities, social communication and interaction, with restricted and repetitive behavioural patterns. By definition, the symptoms are present early on in development, as it affects daily functioning (American Psychiatric Association, 2013). The number of children with ASD in various countries keeps increasing, with the latest data showing a rapid increase to 1 in 59 (Centre for Disease Control and Prevention (CDC) (2018)), as the prevalence of children with autism in Indonesia was 1 in 50, in 2013 (Autism Service Centre Development in Indonesia, 2014). Children with this disorder experience difficulties in almost all aspects of their development (Karst & Hecke, 2012). They also have difficulties adapting to new environments/situations, especially during this pandemic (Espinosa, Metko, Raimondi, Impenna, & Scognamiglio, 2020). Besides that, they typically have several comorbidities, such as anxiety, learning disabilities, epilepsy, Down syndrome, immune system alterations, and more. These comorbidities present additional challenges to cope with during the COVID-19

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pandemic, making it more difficult for ASD children to receive the therapies they need, practice physical distancing, and adjust to disrupted daily routines (Eshraghi et al., 2020).

Many parents of children with disabilities are looking into home education as an alternative mode of teaching and learning, during the pandemic (Majoko & Dudu, 2020). Also, home education for children with special needs is more focused on parental roles (Jolly, Matthews, & Nester, 2013). Before the pandemic, the education for ASD children was typically conducted at schools, where the effectiveness of the educational program supports the needs of those affected, such as the availability of facilities and infrastructures, presence of human resources competent in their fields (teachers, therapists, psychologists), curriculum tailored to requirements, family involvement and collaboration, with assessment and evaluation (Roberts & Webster, 2020; Yarımkaya & Esentürk, 2020). When the COVID-19 pandemic hit the whole world, educational services for children with special needs, including ASD, was halted and replaced with home education. Several studies have also confirmed that home education is another alternative learning method for ASD children, during a pandemic (Cahapay, 2020; Espinosa et al., 2020; Majoko & Dudu, 2020). However, the implementation of home education presents its challenges, due to the fact that parenting children with ASD is more challenging, compared to teaching those without developmental issues (Narzisi, 2020).

1.1. Home education for children with autism spectrum disorders

Home education is an educational reform for countries around the world, where parents educate their children in their houses and in various places (Cahapay, 2020). It has also been increasingly practiced globally, especially in the United States of America, the United Kingdom, and Australia (Kidd & Kaczmarek, 2010). Some studies examining the importance of home education as an alternative means of learning for children with ASD showed its advantages, which includes: preventing children with ASD from becoming bully victims (D'Arcy, 2014); removing disordered children from public schools, due to complex difficulties with traditional educational programs, which provides them with more autonomy in terms of scheduling, settings, and curriculum topics (Mendoza, McKeithan, & Griswold, 2019); many children with ASD have average or above-average intellectual capabilities, which allows them to become academically and/or socially delayed, when schooled in a traditional education system (LePage & Courey, 2014); for some parents, home education is better than formal schooling, considering the various physical and mental disabilities ASD children possesses (Hurlbutt, 2011); the limited financial resources for school education require mothers to serve as the primary teachers for their children (Parsons & Lewis, 2010).

However, home education also has obstacles as confirmed by previous studies, which includes; the limited knowledge of parents about the condition of ASD children allows implementation of home education less than optimal (Luthra & Perry, 2011); ASD children display higher degrees of inappropriate behaviours, for example being more hyperactive and aggressive, less independent, with tantrums, due to lack of physical activities (Gregor et al., 2018); skilled assistance for the physical and educational needs of disordered children while at home, is also less than optimal (Narzisi, 2020); parents do not involve children in the assigning of homework (LaVesser & Berg, 2011).

The need for home education for ASD children during the pandemic was supported by [The National Disability Rights Network \(2020\)](#), which emphasized the importance of facilitating online learning, in order to meet the needs of those with disabilities. It is also hoped that children with disabilities should continue to receive education at home, through their parents. However, the implementation of this form of education during the COVID-19 pandemic has been less than optimal, due to various obstacles, including; the provision of the online intervention not being optimal (Cahapay, 2020); stressful family experience in caring for ASD children (Espinosa et al., 2020; Rose et al., 2020); difficult adaptability of parents to the sudden changes during the virus outbreak (Majoko & Dudu, 2020); inappropriate behaviours displayed by wards, due to lack of physical activities, while also engaging in high levels of stereotypy attitudes and problematic interactions with parents (Espinosa et al., 2020; Yarımkaya & Esentürk, 2020); the maintenance of online contacts between teachers and parents in monitoring children's development, during home education (Narzisi, 2020).

1.2. Education for children with developmental disorders in Indonesia

The seriousness of the Indonesian government regarding the rights of children with developmental disabilities, is based on the Constitution of the Republic of Indonesia, Article 31 paragraph 1, which stated that every citizen had the right to education (Sheehy & Budiyanto, 2014). In Indonesia, educational services for children with developmental disabilities are provided through, (1) special schools, where educational services for wards with special needs are made available, and (2) inclusive education systems, which allows disordered kids learn together with their healthy peers, at regular schools within the vicinity (Mangunsong, 2009).

As another alternative to the country's educational system in 2007, the government legalized home learning based on the Law of the Republic of Indonesia, Number 20 of 2003, concerning the National Education System. Furthermore, home education is an educational model, which places the family as the primary educator. The reason that underlies Indonesian parents' decision to select home education, has to do with confidence to carry out the educational practice for their disabled children, dissatisfaction with the formal school system, and the unhealthy social interactions experienced by their wards at schools (Purwaningsih & Fauziah, 2019).

The Indonesian government through the Ministry of Education and Culture, Directorate General of Basic Education, with the Directorate of Special Education and Services Development, has provided social assistance for the establishment of Autism Service Centres, to local governments at provincial and district/city level (starting in 2012). The purpose of establishing these Centres was to meet the need for facilities and infrastructure, for early identification, therapy, and educational services for children with ASD. In 2014 there were 28 Autism Service Centres, spread across major cities in Indonesia ([Autism Service Centre Development in Indonesia, 2014](#)). However, during the pandemic, both special and inclusion schools, with Autism Service Centres in Indonesia, were temporarily

closed with no definite limit, and replaced with home education. The Autism Service Centres’ assistance to facilitate home education included, providing information guides/tools, with online information services.

1.3. Current research

During the pandemic, the studies carried out in the Philippines, Zimbabwe, and Italy, by Cahapay (2020), Majoko and Dudu (2020), with Espinosa et al. (2020) on home education for ASD children, all focused on parental constraints. However, these three studies have not explained the role of coping strategies in minimizing the obstacles involved in the implementation of home education, during the pandemic. Therefore, this present study aims to explore parents’ experiences and constraints in implementing home education, while further exploring the coping strategies used by Indonesian parents, to complement the previous research. The study also aims to provide new information related to efforts carried out, regarding the implementation of home education by mothers in Indonesia, during the COVID-19 pandemic. Through a qualitative phenomenological analysis, this study sought to explore the implementation of home education by mothers of ASD children, during the COVID 19 pandemic in Indonesia. Based on the aforementioned reasons, this study explained more on the following research questions:

- 1 What did mothers of children with ASD experience in home education, during the COVID 19 pandemic?
- 2 What obstacles did they encounter in implementing home education?
- 3 How did they cope with those obstacles?

2. Methods

2.1. Research design

This research used a phenomenological qualitative approach, which aims to produce an accurate description of human life experiences, by placing forward what was experienced directly from a person (first-hand-experience) (Giorgi & Giorgi, 2003). This present study aimed to explore mothers’ experiences, constraints, and efforts, regarding the implementation of home education for ASD children.

2.2. Ethics and participants

This study involved mothers with ASD children at an Autism Special School in North Sumatra, Indonesia. During the COVID 19 pandemic period, the ASD children’s learning was switched to home learning with material supplied by teachers to students’ parents, through the WhatsApp group. With help from one of the teachers at the school, the institution leader allowed the researcher to collect data from mothers of ASD children. To obtain research participants willing to be involved in this study, the teacher contacted 12 mothers of ASD children through the use of a telephone, in order to sort out their willingness. With the same teacher’s help within a period of one week, 5 of the 12 contacted mothers indicated their willingness to be interviewed online, for data collection purposes. The five participants were recruited with the following criteria: (1) Having children diagnosed with ASD either by doctors, psychiatrists, or psychologists, through the use of a measurement tool, in order to detect child developmental disorders; (2) Being the biological mothers of children with ASD; (3) Taking care of their ASD children at home, instead of placing them in a special institution. All participants were parents whose children were registered as students at that school before the pandemic, and had also participated in the learning process at least for one year. Four participants came from a lower economic level, with an average monthly income of

Table 1
Sociodemographic Characteristic of the Participants.

| Sociodemographic characteristics | Participants | | | | |
|---|---------------------------|---------------------------|---|---------------------------|---|
| | A | B | C | D | E |
| Age of mother (year) | 28 | 31 | 42 | 35 | 43 |
| Education level | Undergraduate | Undergraduate | Senior High School | Senior High School | Senior High School |
| Marital status | Married | Married | Married | Married | Married |
| Occupation | Homemaker | Government employee | Homemaker | Homemaker | Homemaker |
| Income per month | IDR 1.2 million (low) | IDR 2.5 million (medium) | IDR 1.4 million (low) | IDR 1.3 million (low) | IDR 1.5 million (low) |
| Ethnicity | Bataknese | Acehnese | Javanese | Bataknese | Bataknese |
| Number of children | 2 | 2 | 3 | 2 | 4 |
| Family members (other than the ASD child) | Mother, father, 1 sibling | Mother, father, 1 sibling | Mother, father, 2 siblings, grandmother | Mother, Father, 1 sibling | Mother, father, 3 siblings, grandmother |
| Family status | Nuclear family | Nuclear family | Extended family | Nuclear family | Extended family |
| Age of ASD child (year) | 6 | 6 | 7 | 8 | 6 |
| ASD child's gender | Boy | Boy | Girl | Boy | Boy |

Notes. IDR = Indonesian Rupiah; Currency conversion: 1 USD = Rp. 14.000 (December 2020).

less than Rp. 1.5 million. They were placed on notice to discontinue their involvement in the research, when they become displeased to carry on with their participation. All five participants expressed their willingness to participate in this study, and completed an informed consent form, in order to indicate their voluntary participation. The procedures of data collection met up with the standard issued by the Research Ethics of the State Islamic University of North Sumatra, Indonesia (B.6321/ITK/ITK.V.1/KP.01.2/06/2020). (Table 1)

2.3. Procedures

This study was conducted for one month in July 2020, during the COVID-19 pandemic. At the first stage of this research (preparation stage), permissions were obtained, in order to collect data from the selected school and also conduct a study that complies with the Research Ethics Standard of the State Islamic University of North Sumatra, Indonesia. During the second stage (implementation stage), the five participants were contacted via WhatsApp, after their data were obtained from the school teacher. After the introduction, building a rapport, and explaining the objectives of the study, their agreement to become a participant in this research was analyzed. Afterwards, the informed consent form in a soft file via WhatsApp, was sent to each participant, in order for them to read, understand, sign, and return back to the researcher. After the whole process of agreement and clarification, the interview with each participant was conducted once for 60–90 min, on an online basis. The assistive devices included a smartphone for making calls via WhatsApp, with the audio-recorder facility used to record the online interview process, with the participants' permissions. Moreover, during the third stage (the data processing stage), the interview data collected were transcribed, and then analyzed.

2.4. Data collection

The home education experiences of mothers with ASD children were collected using online in-depth interviews. Just like a personal routine, an online interview typically requires participants to describe their thoughts and feelings about a particular subject (Salmons, 2014). The research tool in the form of an interview guide, contained a list of open-ended questions related to the experience of implementing home education, during the COVID 19 pandemic.

Table 2
Raw Data, Coding, Sub-Themes & Themes.

| Raw Data | Coding | Sub-Themes | Main themes |
|--|--|---|---|
| Before the pandemic, children were easier to manage, because the teachers at schools adequately disciplined them. Now, I have more difficulties, especially in teaching the children, because I still have to carry out the daily chores. It is not easy to adapt to this pandemic condition | 1 Difficulty in teaching the child at home 2 Self-adjustment | Adaptability | |
| It [home education] has not been maximal during this pandemic because I sometimes feel bored, stressed, and tired, not to mention that I have to complete my master's degree assignments and take care of household chores. I become bewildered, because my [ASD] son often does not want to study and prefers watching TV at home, while also becoming more hyperactive. Therefore I often get grumpy and hope that this COVID-19 pandemic passes soon, in order for him to go back to school | 1 Experiencing negative emotions 2 A lot of household chores and duties to do 3 The child does not want to study | The burden of caregiving | Mothers experience in implementing home education |
| I find it more difficult during the COVID-19 pandemic, because I don't know how to teach children at home. I lack knowledge about it. I am also inconsistent with teaching children. It's different when children study at school. There they obey the teachers, because they know how to discipline children. | 1 Lack of knowledge 2 The ASD child's condition | Increased maladaptive behaviors on the part of ASD children | |
| It is troublesome to take care of an ASD child during this pandemic, especially in terms of her study. She prefers watching TV and playing to studying. When forced, she throws tantrums. When I let myself busy thinking about my child's condition, I become stressed out. So there is not much time to be with my child, while the home education does not run optimally either. | 1 The ASD child's condition 2 The emerging stress | Emerging negative emotions (stress, on the part of mothers) | Constraints in home education implementation |
| I joined the WhatsApp group of fellow parents of autistic students. I received a lot of positive advice and tips that have helped me to stay positive | External support received | Problem-focused coping | |
| I only surrendered to God, because God has helped with everything. God bestowed him as my child, so I accept him as a gift. And I prayed a lot and tried hard for him to make progress for himself, day by day | 1 Getting closer to God 2 Praying and hoping on God | Religious coping | Efforts to alleviate constraints |
| To stay tough, I had to be patient a lot | 3 Being patient | | |

2.5. Data analysis

The interview information in this study were then imported into the qualitative data management program NVivo, for easy maintenance of data. Thematic analysis was further used, in order to identify, analyze, organize, describe, and report themes discovered within the dataset (Braun & Clarke, 2006). Through this analysis, understanding the experiences of participants in implementing home education, the obstacles encountered, and the efforts made to overcome these challenges during this pandemic, was analyzed. Following Widodo's (2014) stages in analyzing the interview data, recorded information was initially listened to repeatedly, in order to observe required themes or important points. Secondly, the interview transcript was written in a proper format, making the coding easier to do, while sorting and classifying important data, and also remaining focused on the details of the information. Afterwards, coding the initial raw data in the form of a table was carried out, in order to simplify the coded process (Table 2). The data coded were those already in the form of words or units of sentences, from the results of the interview. Thirdly, the interview transcripts were thoroughly checked and revised for transcription errors. When reading the text, avoiding subjectivity to focus on data transcription, interpreting the interview data, and discerning each word and sentence used by the participant were performed. This means that the transcribed interview data coming from the participants were subjected to coding, analyzing, and interpreting. The final step was sending the interview transcripts back to the participants via WhatsApp, for member checking, in order to allow the respondents provide feedback on the results of data interpretation. This was very important, due to the fact that participants were the source of data, as their voices were to be conveyed correctly. During the entire interview, both the authors and the respondents made use of Bahasa, Indonesia.

3. Findings

The findings of this study identified three main themes and six sub-themes, which were related to home education implementation by mothers with ASD children, during the COVID-19 pandemic in Indonesia, as detailed in Table 2.

3.1. Theme 1: mothers experience in implementing home education

3.1.1. Adaptability

The interviews with the five participants yielded important information, which related to mothers' experiences in implementing home education. During the COVID-19 pandemic, they inevitably had to adapt to the various changes, including the differences in their children's behaviours and daily routines, which had to with teaching at home and increasing household chores. The following participant's statement confirmed this result,

Before the pandemic, children were easier to manage, because the teachers at schools adequately disciplined them. Now, I have more difficulties, especially in teaching the children, because I still have to carry out the daily chores. It is not easy to adapt to this pandemic condition (A, WhatsApp interview, 12 July 2020)

However, this was not the case with one participant that had cared for an autistic child for nine years. The participant reported not feeling troubled, and had a fairly good adjustment in teaching children at home, during the pandemic. This was due to the fact that the participant had been used to directly teaching independence and academics to the ASD child, due to the high cost of therapy. After being diagnosed with ASD, the participant intensively taught the child at home, and also sent the ward to a special school for disordered children, in order to develop the child's potentials.

3.1.2. The burden of caregiving

The burden of carrying the role of being a mother was getting heavier because, in addition to teaching children to study at home, they also have to take care of other household tasks, such as cooking, washing, cleaning the house, and preparing children's needs, not to mention the low family income. The difficulties mothers encountered during the pandemic, created a burden of caregiving.

It [home education] has not been maximal during this pandemic because I sometimes feel bored, stressed, and tired, not to mention that I have to complete my master's degree assignments, and take care of household chores. I become bewildered because my [ASD] son often does not want to study and prefers watching TV at home, while also becoming more hyperactive. Therefore, I often get grumpy and hope that this COVID-19 pandemic passes soon, in order for him to go back to school (B, WhatsApp interview, 16 July 2020).

Four participants reported feeling more burdened in implementing home education, and became confused by changes in their children's behaviours, which were being described as maladaptive attitudes, such as hyperactivity, disobeying instructions, and impulsivity. Mothers were also overwhelmed by children's behaviours, and their lack of knowledge to teach them while studying from home was one of the factors triggering stress. These four participants were from low-income households, with a monthly income of less than 1.5 million Indonesian rupiahs (equivalent to 107 USD), with only 1 participant coming from a middle-class family. They were unemployed dedicated housewives, which made their husbands the only breadwinner for their families, thus making them (the mothers) responsible for taking care of all household chores, and the children. However, during the pandemic, their husbands' income decreased dramatically. Now, with their income only 50 % of the amount usually earned before the pandemic, they were unable to meet household needs for the whole month. During the pandemic, the sources of stress also became more varied, causing the mothers' parenting burden to increase.

3.2. Theme 2: obstacles faced

3.2.1. Emerging negative emotions

The participants raised several obstacles, both internal and external, in the implementation of home education. Internal constraints which included negative feelings and thoughts, such as anxiousness, anger, annoyance, and stressed were experienced by mothers while interacting with children at home, as the participants' lack of knowledge to teach children at home also a source of negativity. However, external constraints included the perceived lack of support on the mothers' part (blames from family members) and increase in the child's maladaptive behaviours, such as hyperactivity, tantrums, lack of focus, low willingness to learn.

It is troublesome to take care of an ASD child during this pandemic, especially in terms of her study. She prefers watching TV and playing, to studying. When forced, she throws tantrums. When I let myself busy thinking about my child's condition, I become stressed out. So there is not much time to be with my child, while the home education does not run optimally either (C, WhatsApp interview, 14 July 2020).

Until now, I am still often blamed by my husband's family for my sons condition. They think I am not serious about child-rearing, as his condition is not much improved. I feel so sad for being treated like that. I become stressed out (D, WhatsApp interview, 18 July 2020).

The difficulties mothers experienced in implementing home education were also influenced by the decline in family income during the pandemic. Four out of five participants are housewives, and they showed that the drop in their husbands' income during the pandemic affected their psychological conditions, resulting in them becoming irritable and stressed out.

I felt better before the COVID-19 pandemic, maybe because our economy was stable, his father's income was sufficient. Now the income from Grab drops. That's from the economic point of view. It also makes me sad and anxious at times. When is this difficult situation going to pass? My children have various needs to meet too (D, WhatsApp interview, 18 July 2020).

3.2.2. Increased maladaptive behaviors in ASD children

The five participants also explained more in details that the most felt obstacle in implementing home education was the change in their children's behaviours, due to the fact that they were increasingly difficult to control, as mothers also have to take care of their siblings and the household chores. Four participants stated that their limited knowledge about ways to interact with/teach children at home presented an obstacle as well. These obstacles exacerbated mothers' self-adjustment in implementing home education, therefore adversely affecting the quality of mother-child interactions.

I find it more difficult during the COVID-19 pandemic], because I don't know how to teach children at home. I lack knowledge about it. I am also inconsistent with teaching children. It's different when children study at school. There they obey the teacher, because they know how to discipline children (B, WhatsApp interview, 16 July 2020).

The stress was mainly elicited by the obstacles they encountered in providing education for their ASD children, which for the most part, should otherwise occur at school. These obstacles included the increased maladaptive behaviours their children displayed, mothers' lack of knowledge to teach and interact, lack of family income, inadequate time to teach the wards at home, high caregiving burden, and perceived shortage of support from their husbands or families.

3.3. Theme 3: the efforts to alleviate constraints

3.3.1. Problem-focused coping

Among mothers' efforts to alleviate constraints in implementing home education was seeking support, through the WhatsApp group of the autistic student parents community. They discovered that the support they obtained from this community was very instrumental in strengthening them psychologically, while also providing useful information on ways to care for children during the pandemic. The five participants also reported that the supports they received from teachers, helped them in teaching their children at home. This was carried out by the mothers submitting videos and photos about their children's learning outcomes to teachers that in turn, provides adequate feedback.

I joined the WhatsApp group of fellow parents of autistic students, and received a lot of positive advice and tips, which had helped me to stay positive (B, WhatsApp interview, 16 July 2020).

Two out of five participants also explored information and knowledge relevant to their children's conditions, through print media (e.g., books) and social media.

Honestly, I am confused about how to teach children at home, so in addition to discussing with the teacher online through WA [WhatsApp], I am also actively looking for information about caring for ASD children, especially during this pandemic, via Google (A, WhatsApp interview, 12 July 2020).

3.3.2. Religious coping

The five participants stated that a lot of prayer and patience was an effort to minimize the stress they felt, especially while teaching children at home, as it also made mothers stronger psychologically, in overcoming difficulties during the pandemic. Praying a lot and spending time alone for a while in their room was part of the mothers' attempt to control their feelings of resentment, anger, and stress elicited by the obstacles they encountered in implementing home education.

I only surrender to God because He has helped with everything. And I pray a lot and try hard for him, in order to make progress for himself, daily (D, WhatsApp interview, 18 July 2020).

Sometimes I become upset since he doesn't want to study and prefers watching TV instead, while also becoming more hyperactive. In order to stay tough, I had to be patient a lot (E, WhatsApp interview, 20 July 2020).

Even though difficulties were reported in carrying out home education during the COVID-19 pandemic, all participants believed that they should be able to survive the hardship, due to being optimistic that, like a storm, the pandemic is going to pass.

4. Discussion

The Covid-19 pandemic had switched formal educational system previously carried out conventionally at school to home education ("school from home"), requiring mothers to teach their children in their houses. The adaptability of parents to change, especially mothers, is the key to children's success in their education (Corcoran, Berry, & Hill, 2015). This study discovered that most of the participants admitted that the home education they had implemented for four months during the pandemic, had been less than optimal, due to mothers' lack of knowledge about how to effectively teach their children. However, the children were used to learning with teachers, while the mothers were less involved in their teaching at home. Various obstacles and difficulties related to carrying out the role of a mother, adversely affected the participants, including the experience parenting stress. Several studies have discovered that, compared to fathers, mothers were observed to have experienced more burden of care (Jones, Totsika, Hastings, & Petalas, 2013), which likely made them feel tired physically, and also psychologically (Cetinbakis, Bastug, & Ozel-Kizil, 2020), while being prone to experiencing depression and anxiety (Eyuboglu & Eyuboglu, 2020), with parenting stress (Gallagher & Whiteley, 2012).

The implementation of home education was less than optimal, partly due to the increased maladaptive behaviours of ASD children at home (Ludlow, Skelly, & Rohleder, 2012). Both behaviourally, emotionally, cognitively, and socially, children that have developmental disorders, such as ASD, differed significantly from those that are healthy. ASD is caused by neurodevelopmental disorders, which affects the brain function (American Psychiatric Association, 2013), often characterized by a frequent display of maladaptive behaviours, such as tantrums, aggressions, and hyperactivities. The results of previous studies further suggested that the causes of the increase in children's maladaptive behaviours were the mothers' lack of teaching knowledge (King, Zwaigenbaum, Bates, Baxter, & Rosenbaum, 2011), inadequate control over disordered wards' diet (Mari-Bauset, Zazpe, Mari-Sanchis, Llopis-González, & Morales-Suarez-Varela, 2014), and shortage of outdoor activities (Eshraghi et al., 2020). The increase in maladaptive behaviours of ASD children during lockdown, was one of the results of their less optimal learning at home (Espinosa et al., 2020).

While four participants reported experiencing negative self-adjustment, one participant had no adjustment issues in teaching and providing intense stimulation to her ASD child consistently. This does not only positively impact children's development progress, it also fosters warm parent-child interaction (Scudder et al., 2019). This result was in line with Kuczynski and De Mol's (2014) social relation theory, which stated that the parent-child relationship was two-way in nature, with parents' behaviours and conditions affecting the child, and vice versa. Such a relationship resulted in a transactional effect (Neece, Green, & Baker, 2012), due to the fact that the mother's attitude and treatment influenced that of the child. The severity of children's disorder and limitations also resulted in caregiving burdens and/or difficulties to mothers, in providing home education for their children. Mothers also feel tired, bored, impatient, and anxious, due to the fact that they have to take care of many other things as well. Ogston, Mackintosh, and Myers (2011), emphasized that mothers having ASD children, have greater caregiving responsibilities, therefore become more likely to suffer from child's problem behaviour-related stress (Depape & Lindsay, 2015). Furthermore, a life-long coping approach is required to care for ASD children (Shepherd, Landon, Taylor, & Goedeke, 2018). The increase in ASD children's maladaptive behaviours during the pandemic presented more difficulties to the parents in caring for them, which in turn made them vulnerable to parenting stress (Espinosa et al., 2020).

An effort mothers make to stay tough in uncertain situations was implementing some coping strategy. When someone is confronted with a stressful situation and immediately reacts, the reaction was called a coping response. The success of the coping process in each individual was affected by various factors. A positive coping occurs when individuals experience positive things in themselves, and are released from their stressful situations. Also, social support from the closest people, allowed mothers to do positive coping (Pepperell, Paynter, & Gilmore, 2018). In this study, when confronted with fatigue, boredom, and stress, mothers prayed more, became highly patient, relaxed by lying in bed, spent time alone, and joined discussions with fellow student parents in the WhatsApp group. Also, mothers used coping to protect themselves from stressful conditions (Sarafino & Smith, 2014). With appropriate coping strategies, mothers should be able to adapt to the difficulties encountered when caring for ASD children, during the COVID-19 pandemic. These difficulties related to dealing with their ASD children's maladaptive behaviors, the implementation of less optimal home education, decreased family income during the pandemic, taking care of very diverse household needs, and responsibilities with the ASD child's siblings. Appropriate coping strategies helped mothers adapt positively to such difficult situations, as they became more positive-minded and less stressed in carrying out their duties as child caregivers (Ruiz-Robledillo, De Andrés-García, Pérez-Blasco, González-Bono, & Moya-Albiol, 2014; Zablotsky, Bradshaw, & Stuart, 2013). Moreover, in this study, there were two types of coping strategies used by mothers to deal with the difficulties they encountered. These types of strategies were problem-focused and religious copings. The problem-focused coping strategies included stepping outside the house for a moment to relieve fatigue, seeking social support by participating in discussions with fellow ASD students' parents in the WhatsApp group, checking for information support by looking through print or social media, relaxation by lying in bed, and spending time alone in a room. However, the religious coping strategies included praying a lot, increasing worship practices, and being patient.

The results of this study differed from that of two previous studies on home education for ASD children, during the COVID-19 pandemic in the Philippines (Cahapay, 2020) and Zimbabwe (Majoko & Dudu, 2020), as regards coping strategies being used as

mothers' effort to minimize stress and difficulties encountered, while implementing home learning. The importance of coping strategy is the novelty of this present study. Coping is the process by which people manage the real or perceived discrepancy between the demands and resources being appraised in stressful situations (Sarafino & Smith, 2014). Lai and Oei's (2014), showed that the two coping strategies frequently used by parents of ASD children, were problem-focused and social support copings. Also, there were different coping strategies used by parents of ASD children, in the West and Asia. Asian parents tend to use collectivistic problem-focused coping strategies, such as seeking treatment and help from others (Chun, Moos, & Cronkite, 2006; Lin, 2015), getting family support (Pepperell et al., 2018), using religious coping (Das et al., 2017), praying (Huang & Zhou, 2016), being patient (Furrukh & Anjum, 2020), and reading the Quran to reduce anxiety (Habib, Prendeville, Abdussabur, & Kinsella, 2017). However, Western parents focus more on individualistic self-benefit, as they tend to use self-focused coping strategies, such as passive appraisal and avoidance (Sawang, Oei, & Goh, 2006; Tway, Connolly, & Novak, 2007). The difference in the mechanism of implementing coping strategies between Eastern and Western people lies in their cultures, as Easterners beliefs tend to be collectivistic and interdependent, with group norms being valued (Matsumoto, Yoo, & Fontaine, 2008; Pirju, 2015). For Asian families, the role of nuclear family support helped in increasing the happiness of parents in caring for ASD children (Samadi, McConkey, & Kelly, 2012), and the role of spirituality provided strength in enduring difficult times (Kwon, 2016). Given the benefits of using coping strategies in empowering the psychological condition of parents, during the last ten years, research on the role of this method in reducing parenting stress had been widely conducted (Hall & Graff, 2012; Lai, Goh, Oei, & Sung, 2015; Lutz, Patterson, & Klein, 2012; Seymour, Wood, Giallo, & Jellet, 2013). This research had also confirmed the importance of religious coping in helping mothers deal with sources of stress, especially in enduring with difficulties in implementing home education. Religion also had a significant role in managing stress, and like emotional support, it also provided direction/guidance, support and hope (Zinnbauer et al., 2015), increased patience (Subandi, 2011), and created happiness (Krok, 2014).

5. Limitations

Despite its contribution to providing new information regarding the implementation of home education for ASD children in Indonesia, this study had some limitations. Firstly, this study only involved mothers as the parent of ASD children, as the information regarding the implementation of home education is likely to be more comprehensive, when fathers are also involved as research participants. Secondly, this study used a qualitative approach, and was limited to the experiences of participants, as results were not generalized to the home education encounters of mothers caring for children with other types of special needs. In order to enrich the study results, the author suggests future research to involve more participants, while using a combination of quantitative and qualitative methods.

6. Conclusions

Due to several obstacles being encountered by mothers, it is not easy to carry out home education for ASD children during the pandemic in Indonesia. The obstacles being encountered includes dealing with child maladaptive behaviour, mothers' lack of teaching knowledge, and inadequate support for mothers, all of which caused them to experience parenting stress. Maladaptive behaviors such as hyperactivity (McStay, Dissanayake, Scheeren, Koot, & Begeer, 2014), poor adaptability (McConnell, Savage, & Breitkreuz, 2014), emotional problems (Huang et al., 2014), and poor social skills (Bitsika, Sharpley, & Bell, 2013), caused mothers to experience parenting stress, which in turn resulted in decreased quality of care (Corcoran et al., 2015). This was different from several countries, where parents have decided that home education was the right choice for ASD children, as it minimizes negative impact received by disordered wards studying in regular and inclusive schools (McDonald & Lopes, 2014). The various complexities of the problems encountered by mothers in caring for ASD children should be responded to immediately, in order for them (mother) to remain happy. For this purpose, several means have been devised, one of which is conducting online training on parenting with themes, such as how to improve parents' well-being (Jones et al., 2018), mindfulness (Singh et al., 2014), gratitude (Timmons & Ekas, 2018), and parental empowerment (Minjarez, Mercier, Williams, & Hardan, 2012).

CRedit authorship contribution statement

N.S. Daulay: Conception and design of study, acquisition of data, analysis and/or interpretation of data, Drafting the manuscript, revising the manuscript critically for important intellectual content, Approval of the version of the manuscript to be published.

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No potential conflict of interest was reported by the author.

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