AN EXPLORATION OF SEXUALITY COMMUNICATION BETWEEN PARENTS AND THEIR ADOLESCENT CHILDREN WITH AUTISM SPECTRUM DISORDER (ASD)

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Abstract:

Parents are the primary source of sexuality education for their adolescent children on the autism spectrum. However, parents' sexuality communication with their children are lacking due to their fears and uncertainties. Consequently, children's lack of sexuality knowledge may result in them becoming victims of abuse or be falsely accused of inappropriate behaviours. Hence, this study aimed to explore Malaysian parents' experiences and challenges in sexuality communication with their autistic children. To achieve the objectives of this study, six parents of autistic adolescents who were recruited via purposive sampling from Perakparticipated in an interview. The collected data was analysed and interpreted using thematic analysis. The study found that parents covered protective and prohibitive sexuality topics, which were presented using visual aids and teachable moments. Although the parents did not encounter any challenges in their sexuality communications as they had not initiated conversations on complex sexuality topics, their autistic adolescents' lack of understanding and two-way communication created challenges in parent-child sexuality communication. This study adds to the body of literature on parent-child sexuality communication, especially Malaysian parents' communications. Findings on parents' challenges and capabilities, or lack thereof, provides valuable information to tailor interventions to increase parents' self-efficacy and frequency in sexuality communication.

Keywords: parent-child sexuality communication, autism spectrum disorder, adolescents, qualitative, Malaysia

Introduction

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental disorder that impairs one's everyday functioning by affecting one's ability to form reciprocal social communication interaction, and by the presentation of restricted and repetitive patterns of behaviours and interests (American Psychiatric Association [APA], 2013). Although the social, behavioural, and cognitive development of adolescents (ages 10-19 years; World Health Organization [WHO], n.d.) with ASD can be significantly delayed, autistic adolescents reach puberty and experience sexual typically interests similar developing to adolescents(Tulloch & Kaufman, 2013). However, their ASD symptoms and deficits influence their understanding of the concepts of sexuality (DeWinter et al., 2016; Nicholas & Blakeley-Smith, 2010), while learning deficits associated with ASD can lead to inappropriate behaviours

(Travers & Tincani, 2010, as cited in Wolfe, 2018). Sexuality can be defined by the concepts involved, which include "physical development (e.g. hormonal changes, physical maturation) and sexual behaviour (e.g. masturbation, intercourse, sexual contact), sexual knowledge, desire and interest, emotional attachment, attitudes, identity, and sexual orientation" (WHO, 2002, as cited in Holmes et al., 2015).

In Malaysia, there is a lack of school-based sexual education as the topic of sexuality is still considered a taboo (Mutalip& Mohamed, 2012). The Malaysian government has updated its sexuality education curriculum (i.e., Reproductive Health and Social Education curriculum, 2011), but schools still continue to limit their lessons to only include reproductive health to promote abstinence, essentially to prevent premarital sex and its consequences, while other important information pertaining to safe sex and contraception is left out of the curriculum altogether (Ghani & Awin, 2020, as cited in Shah et al., 2021). This practice of abstinence-only education is not special to Malaysia, asit is alsogenerally practised in some Muslim-majority (Ghani & Awin, 2020; Khan et al., 2020) and Asian countries (Leung et al., 2019). The sociocultural and religious constrains in Malaysia limits sexuality education to school science subjects and sex within the Islamic context, while the conservative nature of teacher-student relationship restricts communication of accurate and diverse sexuality information (Khalaf et al., 2014; Talib et al., 2012). Thus, parents become an important source of sexuality education for their children.

Parent-child sexuality communication is a predictor of adolescents' initiation of sexual activity and safer sexual behaviour (Othman et al., 2020; Widman et al., 2015), decreased sexual risk behaviour (Ballan, 2012), and improved sexual decision making skills (Holmes et al., 2015). However, parents of adolescents with ASD hesitate to engage in parent-child sexuality communications for various reasons. Consequently, due to the lack of knowledge and understanding of sexuality, adolescents with ASD are in greater danger of being exploited or abused as they have difficulties in identifying dangerous situations and interpreting the intentions of others. For example, autistic individual's social-emotional deficits impede their ability to recognize emotions or facial expressions which would help them distinguish safe from unsafe (e.g. deceptive) individuals (Edelson, 2010). Besides that. these adolescents are and accused of inappropriate misunderstood behaviours that are considered intrusive to others, unknowingly, eventually causing them to be subjected to legal repercussions (Nicholas & Blakeley-Smith, 2010). For instance, they have observedadolescents who have "touched another person's legs and nylons, smelled or stroked someone's hair, played with skin that wrinkles and even licked people's arms or faces", due to their sensory interest, and even those who"unzip their pants on the way to the public bathroom, or stand immediately next to someone at the urinals".

In Malaysia, studies on parent sexuality communication and education with their typically developing adolescent children have been conducted (Abdullah et al., 2020; Ah et al., 2014; Ismali& Hamid, 2016). However, to date, not many studies have been done to explore sexuality

communication between parents and their adolescent children with ASD in Malaysia, or for that matter any other forms of developmental issues. It can be surmised that the sensitive nature of the topic of sexuality coupled with the conservative nature of the Malaysian community has led to the lack of studies on this topic. Due to the lack of research in this area, this study will be able to fill the knowledge gap that exists and further enhance the understanding of the parents' experiencein their communication of sexuality with their adolescent children with ASD in Malaysia.

Thus, the present study aims to explore the sexuality communication between parents and their adolescent children with ASD in Malaysia. Specifically, the present study aims to, explore the experiences of sexuality communication between parents and their adolescent children with ASD in Malaysia, understand the challenges parents face in their sexuality communication with their adolescent children with ASD, identify the ways adolescent's ASD symptoms create challenges for parents in parent-child sexuality communication in Malaysia, and determine the techniques used by parents to present sexuality communication to their adolescent children with ASD in Malaysia.

Literature Review ASD and Sexuality

Sexuality development during adolescences begins after an adolescent reaches puberty and gains sexual maturation (Dewinter et al., 2016). Byers et al. (2013), Holmes and Himle (2014), and Lestari et al. (2021) identified that individuals with ASD reach puberty and desire, pursue, and engage in sexual relationships and behaviours similar to their typically developing peers. Autistic adolescents are also interested in the opposite sex, and partake in self-stimulating sexual behaviours, and romantic behaviours (Lestari et al., 2021). Dewinter et al. (2016) reported that adolescent boys with high functioning autism and their neurotypical peers showed similar experiences with masturbation, orgasms, and use of the internet for sexualityrelated means, but differed slightly in their experiences with partnered sexual encounters (kissing, petting, manual, oral, penile-vaginal, and anal sex), with fewer boys with ASD compared to their non-ASD peers having experience in that area. Taken together, such studies confirm that although there are differences in the sexual experiences of the ASD and non-ASD population, sexuality is indeed a part of normal development of adolescents with ASD as it is for their peers.

However, studies have also shown that ASD symptoms and deficits influence an individual's understanding of the concepts of sexuality, personal what behaviours boundaries. and acceptable/non-acceptable and public/private. Deficits in social communication and social interaction can give rise to psychosexual problems, for example, excessive or public masturbation and excessive interest in sexuality. This could be because individuals with ASD have difficulties adapting their behaviours to social situations, thus giving rise to socially unacceptable behaviours (Dekker et al., 2015), as well as the lack of social understanding to determine which behaviours are deemed appropriate in public or private places, ways to practice personal hygiene and protect themselves from being exploited, as well as understanding personal space and social cues (Ballan, 2012; Gabriels et al., 2007, as cited in Kalyva, 2010, Nicholas & Blakeley-Smith, 2010).

The lack of verbal and nonverbal communication abilities of individuals with ASD can cause problems when there is a need to formulate and articulate questions regarding sexual development and sexual activity, thus depriving the accessibility of information needed to understand normative sexual behaviours (Attwood et al., 2014, as cited in Brown et al., 2018). Besides that, the tendency of individuals with ASD to perform repetitive, restricted, and stereotyped behaviors (APA, 2013), could lead to excessive masturbation, which can become a problematic behaviour in social situations and harmful when it becomes a compulsive or ritualistic behaviour, and when inappropriate objects are used for sexual stimulation resulting in self-harm (Kalyva, 2010).

A study by Hellemens et al. (2007) on a sample of autistic male adolescents, observed several sexual behaviours that were influenced by the boys' autistic features. Some boys experienced sexual urges when they encountered lingerie, leading to masturbation, while others reported fascination with hair causing them to stare and stroke the hair, or look very closely at others' heads and faces. Although this did not cause sexual excitement, behaviours like this can cause problems in social interactions. Thus, these evidences support that deficits and characteristics distinct to individuals with ASD interfere with the understanding of sexuality concepts, and influence the ability to develop appropriate social judgments of acceptable and unacceptable socio-sexual behaviours.

Parent-child Sexuality Communication

The results of Holmes and Himle's (2014) quantitative study of parent-child sexuality communication with adolescents with ASD, parents reported to have covered some, but not all, sexuality-related topics. The topics include "privacy and private body parts, types of touch that okay/not okay, hygiene, and public/private discussion, and male puberty", while forgoing topics of "sexuality in general (sexual activities other than intercourse), symptoms of STDs, contraceptives, asking someone on a date, making decisions about sex, and ways to prevent unwanted behaviours and outcomes". Likewise, a study among female adolescents with ASD showed that parents covered more basic topics such as privacy, identifying sexually abusive behaviour, hygiene, and menstruation, but left out many important topics related to relationships, sexual health, and sexuality in general, especially for adolescents with intellectual functioning deficits (Holmes et al., 2019).

When it comes to parent-child sexuality communication with adolescents with ASD, parents report uncertainties about appropriate sexuality topics, the right time and means to cover the topics with their children, or avoid initiating conversation altogether as they worry about their children's ability to comprehend these topics and the influence such topics might have on their behaviour (Ballan, 2012; Nichols & Blakeley-Smith, 2010). Similarly, Lestari et al. (2021) identified that parents of autistic adolescents were uncertain in ways to handle their adolescents' emerging sexual developments and desires. Hence, other than initiating conversations to educate their children and addressing their sexual activities the parents resorted to forbidding them from carrying out any and all sexual activities.

Mackin et al. (2016) discovered that parents believed that they were the best persons to provide accurate sexuality information depending on their autistic children's varying needs and level of understanding, but felt uncomfortable and uncertain when it came to communications on gender specific sexuality topics between parents and children of the opposite gender. Although most parents in this study were open to having sexuality communication with their children, some parents stated their embarrassment and lack understanding of sexuality issue to be a barrier in their sexuality communication. This was also

reported by mothers in the study by Kürtüncü and Kurt (2021), who reported to face difficulties in intelligibly explaining puberty and marriage to suit their autistic sons and daughters understanding.

Additionally, Ballan (2012) discovered that although the majority of parents of autistic children expressed their desires to communicate sexuality topics with their children, they were apprehensive as they feared their children might not understand what was being spoken about, misinterpret it, or would be unable to appropriately apply the sociosexual knowledge and skills learned. This was partly due to the children's lack two-way communication. Besides that, some parents were also uncertain about the right time to initiate such conversations with their children whose chronological age did not match their emotional and behavioural maturity, and some even worried about their children's reaction upon learning about sexuality, such as becoming fixated on a sexual topic potentially leading to socially or sexually inappropriate repetitive language, mannerisms, and behaviours. Thus, parents revert to mainly addressing sexuality topics of safety, such as prevention of sexual abuse and social acceptance. Although unsure if information was being provided in a logical way, the aim to protect their children from abuse drove the parents teach their children to be careful of strangers, about their private parts and touching, and when to say no, while, sexuality topics of social and sexual behaviours such as dating, sexual intercourse, and birth control were not communicated (Ballan, 2012).

Similarly, parents in Mackin et al.'s (2016) and Nichols and Blakeley-Smith's (2010) study also stated their fears of their children being sexually exploited or abused. This was due to autistic children's characteristics to be overly trusting, always wanting to please people, and their tendency to understand things by its literal meaning. Parents in both studies also expressed concerns of their children's behaviours being misinterpreted or their children unintentionally performing offensive sexual behaviours, due to lack of their understanding acceptable/nonacceptable behaviours, social cues and boundaries. As such, parents focused on themes of safety (Nichols & Blakeley-Smith, 2010) and covered sexual health related topics that would increase their children's ability to form healthy relationships, learn ways to protect themselves, and reduce negative consequences of sexual activity (Mackin et al., 2016). These topics included that on

puberty, consequences of sexual behaviours, protection, and social norms and rules. However, topics such as pornography, fetishisms, and sex trafficking, were avoided due to their worries of children fixation tendencies and lack of understanding of such concepts.

In short, due to parent's characteristics such as their uncertainties, fears, and lack of competence, their engagement in parent-child sexuality communication is limited. This then causes their children to lose the opportunity to receive important information regarding sexuality, which could be useful for them if not now, in their future.

Techniques Used in Parent-child Sexuality Communication

Parent-child sexuality communication should be continuous, from childhood until early adulthood, where parents make use of everyday teachable moments, such as when watching a love scene in a movie to start conversations and provide about information various sexuality topics (Eastman et al., 2006), rather than have just one "talk" about "the birds and the bees" (Ashcraft & Murry, 2017). Other moments parents can take advantage of are when their children are doing school work related to sexuality topics or when parents see their children socializing with the opposite sex, to start these conversations (Santa Maria et al., 2014). This is important as it increases the likelihood of the child to retain information and retrieve accurate knowledge to be applied in various situations, as required (Ashcraft & Murry, 2017).

Parents took advantage of activities related to hygiene, for example "bath time", to teach children correct names of body parts and personal boundaries, which tends to lead to discussions on self-esteem, attraction, and social acceptance (Ballan, 2012). On the contrary, parents in the study by Holmes et al. (2019) mostly used verbal communication, while others used visual aid, such as "pictures or drawings, pamphlets, books, and videos", and skill-based techniques, such as "video modelling and social stories", especially for adolescents with lower intellectual functioning. Parents used visual and skill-based techniques mainly for topics on female puberty, menstruation, private body parts, pregnancy or reproduction, and friendship. Similarly, Mackin et al. (2016) identified that the majority of parents used verbal and informal conversations to speak about sexuality with their children, while the rest used a combination of verbal communication and visual materials. For example, one mother used step-by-step visual instructional aides to teach her nonverbal son about masturbation. It included pictures showing him how to remove his underwear, put them in a bin, and to change into a clean new one.

Social Cognitive Theory

The social cognitive theory (SCT) explains "psychosocial functioning in terms of a triadic reciprocal causation" whereby, the components of personal (cognitive, affective, and biological events), behavioural, and environmental factors, depend, on and interact with each other bidirectionally, determining motivation behaviour (Bandura, 1986, as cited in Bandura, 1999). Self-efficacy is an important element of personal factor (Wood & Bandura, 1989), and a key determinant of behaviour is the outcome expectation (i.e. individual's expected consequence of performing a behaviour; Sutton, 2001). By foreseeing the possibility of a desired outcome, an individual regulates his/her behaviour and takes on the courses of action that is most likely to produce positive outcomes and rejects those that bring unwanted outcomes (Bandura, 2001). Mothers in Pryde and Jahoda's (2018) study were fearful of the negative consequences (i.e. increased sexual desires and problematic sexual behaviours) of providing detailed sexuality information to their sons, thus, focused on educating them about general topics of acceptable behaviours and appropriate touch.

Strong self-efficacy beliefs increase the likelihood of a behaviour directed towards a desired outcome. and a successful outcome will in turn also increase one's self-efficacy. Self-efficacy and behavioural outcome can be developed and modified based on the social influences of the environment (Bandura, 1989). Environmental factors that encourage parents' sexuality communication behaviour can be in terms of social support, encouragement, and resources received by parents (DiIorio et al., 2006), or parents' concern of their child with ASD being misunderstood as sexual predators or being exploited by the society (Bandura, 1990, as cited in Holmes et al, 2016), while conversations can be discouraged by certain community norms (Eastman et al., 2006). Besides that, children's characteristics such as their age, physical development, curiosity, and involvement in sexuality acts as environmental indications for parent to determine if sexuality communication is needed (Ritchwood et al., 2017).

Past studies have shown that parent's perceived self-efficacy gives rise to parent-child sexuality communication with adolescents with ASD. Holmes et al. (2019; 2016; Holmes & Himle, 2014) reported that "parent rating of how effectively they felt they could communicate with their child about sexuality predicted total number of sexuality topics covered". Studies have also identified that parents' self-efficacy and positive outcome expectations can be increased by participating in support groups and sexuality training programs to improve their skills as sexuality educators, as well as by receiving resources and information from experts in the field, parent-child increasing sexuality thus, communication (Ballan, 2012; DiIorio, Resnicow, 2000; Dilorio, Dudley, et al., McCarty, &Denzmore, 2006; Nichols & Blakeley-Smith, 2009).

Methodology

A qualitative phenomenological research design is used to obtain descriptions and understanding of a particular group of participants' lived experiences surrounding a phenomenon (Creswell & Creswell, 2018).

A total of six parentswere selected through purposeful samplingmethod based on the inclusion criteria, (i) Malaysianparents to childrenwith a diagnosis of ASD, as adolescence (10-19 years old) is the time for puberty (sexual maturation), which has a range of onset of 8 to 15 years old (National Research Council & Institute of Medicine, 1999), (ii) have experienced sexuality communication with their children, to ensure accurate portrayal of their experience, challenges faced, and techniques used. These adolescents must have a clinical diagnosis of ASD by medical practitioners such licenced clinical psychologists, psychiatrists, or paediatrician in a manner consistent with the DSM-5 definition (Dai et al, 2014: Nicholas & Blakeley-Smith, 2010).

Sixmothers of adolescent children (ages 13 to 17 years) with ASD participated in the interviews. The severity of participants' children's autism are mild or high functioning. Based on the mothers' sharing, it was identified that all the children had some form of social communication and interaction deficits. Table 1 below describes the participants' details.

Table 1Participants' details

Participant	Participant's	Participant's	Child's	Child's	Child's
	age	occupation	gender	age	ASD
					severity
1	42	Music teacher	Son	14	Mild
					autism
2	43	Homemaker	Son	16	Mild
					autism
3	38	Lecturer	Daughter	13	Mild
					autism
4	43	Administrator	Son	15	Mild
					autism
5	50	Radiographer	Son	13	Mild
					autism
6	52	Teacher	Daughter	17	Mild
					autism

Research Procedure

A number of autism centres were contacted to obtaintheir recommendations on parents of adolescents enrolled in their programmes who fit the inclusion criteria. Details of the study and inclusion criteria were broadcasted on Malaysian based autism groups on social networking sites (SNS), simultaneously. In this study, participants were contacted directly by the researcher for telephone interviews, and were given additional information about the study when they volunteered themselves. Prior to scheduling interviews with each parent, they were asked a series of screening questions to determine their eligibility.

Prior to commencing each interview, participants were emailed a participation information letter and informed consent, and were required to sign the consent form as proof of agreement to the interview and their data being collected.

A total of 31 guide questions were developed to collect data of parents experience in sexuality communication with their children with ASD. Semi-structured interviews were used to collect information from the research participants. The interview questions were, thus, adapted from a quantitative measure on parent-child sexuality communication. This measure was the Online Sexuality Survey (Holmes &Himle, 2014), adapted from previous studies on this topic (Beckett et al. 2009; Koller2000; Nichols & Blakeley-Smith 2010; Travers &Tincani 2010; Wolfe et al. 2009) which

was used to design the interview questions on the sexuality topics covered by parents. Other interview questions on the essence of sexuality communication, as well as those regarding the challenges parents face in their sexuality communication and ways children's symptoms create challenges in their understanding of sexuality, also questions regarding the techniques used to present the sexuality information, were all developed based on the research questions and literature review of this study.

To ensure the data saturation, the interviewer investigated the topic of interest with the respondent until there was nothing left to add. For example, this was done by using questions at the end of the interview such as 'Is there anything else you would like to add?' or 'Do I need to know anything other than what I have asked you?' This is done to ensure that *saturation* has been achieved: that there is nothing else to add to the topic of interest. Whereas for the credibility, the researchers used the triangulation of sources. The participants were interviewed at different points in time, and different compare the participants with perspectives.

The collected data was analysed using thematic analysis for identifying, analysing and reporting recurring patterns within the data collecting, which were categorised as distinct themes under which the relevant portions of information belong (Braun & Clarke, 2006). For themes to be extracted from the data, detailed information was required; the

purpose of the extracted themes was to successfully answer the research questions posed in this study.

Results

The Experiences of Sexuality Communication between Parents and Their Adolescent Children with ASD

This study found three themes such as sexuality topics covered by parents with their children; parents' comfortability in sexuality communication; and resources for sexuality communication.

Sexuality topics covered by parents with their children. The participants were found to have covered more general sexuality topics of (i) protective behaviours, (ii) unacceptable sexual behaviours, (iii) puberty, and (iv) privacy, with their adolescent children with ASD.

Protective behaviours. All six mothers, no matter their children's level of understanding or interest in sexuality, reported to have explained to their children about parts of their body that they should not let other people touch, as means to protect themselves.

"When she started changing physically..... I started slowly explaining to her. Sometimes when she is putting on her clothes I will tell her, 'Make sure no one touches your chest and your private parts.'" (P3, D)

"I used to tell him, 'When you go to school don't let people touch your this part [penis] or your bumbum'.... I said 'If anyone touches you in the bathroom like that please inform the teacher'....." (P5, S)

Besides that, these mothers also explained to their children, especially sons, which body parts of other people they are not supposed to touch. All four mothers of sons warned their sons to not touch girls' bodies.

"... since he was 5 or 6 years old I started telling him he cannot touch people, cannot touch this and that. In his school also they taught that they cannot touch the ladies buttocks, in front [breast], everywhere also they cannot touch. So I also taught him like that." (P1, S)

"So I just say, you know, uh, touch the hand, touch the leg, the chest here cannot touch and all." (P2, S) Unacceptable sexual behaviours. Four mothers reported that they had explained to their children about certain self-directed sexual behaviours that they are not allowed to carry out in public, which included touching their private parts and masturbation.

"This one if he feels 'itchy' [sensations in his penis] then he will do. When I asked him why is it itchy, he said because of his pubic hair that makes it itchy so he touches his private part. So I tell him, when he touch, he cannot touch until his thing [penis] becomes big [erected]." (P1, S)

"...I asked about that [son felt aroused in his tuition centre and kept touching/playing with his penis]..... I said, 'Your teacher already told you not to do that in the public', and asked 'What did your teacher tell you', then he reiterated, only can do it in the toilet or in the room, and then the door has to be shut....." (P4, S)

These mothers also reported to have warned their children against participating in sexually inclined behaviours with the opposite gender, which includes kissing, touching, and sexual intercourse. Mothers' basis for this warning was mainly due to the fact that their children are still young and unmarried, rather than due to children's autism.

"You cannot touch girls. You cannot go too close unless, she is your wife or she is your girlfriend, but not now because you are underage." (P4, S)

"...because they are teenagers, she likes to watch romantic movies.....You can watch but you must know.....what is right and what is wrong, we used to tell her.... About sex and so on, it's like supposed to be after marriage and that kind of thing. (P6, D)

Puberty. Four mothers had also explained to their children about topics on puberty which included explanations about physical changes to their bodies, menstruation, and hygiene in terms of cleaning themselves during menstruation or after wet dreams.

"He asked why his private part is big [erected]. So I said, 'Because now you are a big boy, so sometimes this will happen [erection] but you cannot touch and play with it [penis]'. So he asked why does it happen. I said it is because of the hormones, and because of the hormones this will happen but after some time it will go away. (P1, S) "...Standard 3 itself I exposed her to period and so on because I was aware of her cousin who is one year younger than her who got her period in Standard 5. So I was afraid my daughter might get it somewhere around the age. She shoot up quite fast, and saw changes in her body, so I exposed herI used to tell her about her body and how it

develops.. Her upper part and lower part.....then I myself hold her hand, ask her to touch me. Let her be aware that there will be changes in the years to come as she grew up." (P6, D)

Privacy. Five mothers reported that they had to explain to their children about protectingtheir privacy and private body parts as they grew older. Their children were not aware of the need to cover up their bodies as they grew and changed physically.

"... I have told her to make sure to wear inner wear or if she wants to undress to take a bath she needs to make sure everything is done in her room. Because even at home there are men, so need to make sure she takes care of her behaviour. Because sometimes when there is no one at home she is always naked. Means she just removes her clothes and walks like that to the bathroom..... I just tell her to make sure to not undress simply everywhere." (P3, D)

"We also reinforce that he shouldn't like show his private part around, in the public or everywhere. But one of the bad habit, he still doesn't know that he is already going to be an adult because now he's still in the teenage stage, he walks freely naked from the toilet to his room.... Because he would usually shower in the room, come out naked and then wear the clothes in the room...." (P4, S)

However, for more complex topics such as masturbation, wet dreams, sexual intercourse, pregnancy and how one gets pregnant, and protection against pregnancy, most of the mothers reported to have not spoken about it at all with their children. Only two mothers reported to have spoken about these certain topics, but that too in a very basic or factual manner, and in the biological and scientific aspect. Mothers mainly did so to teach and guide their children with their schoolwork related to sexuality education and self-management or to educate or reprimand children's behaviours which they consider as inappropriate.

"About condoms, I think is in Standard 5 or Standard 6 they [school] started to teach about it..... A mall has a shop selling condoms. So he [son] kept going there and looking inside. So that time my husband told him what it is for. About pregnancy also they [school] taught. He [son] asked how babies are conceived. He knows everything because he learns it at school. The one thing I don't know how to explain is how the man go inside the lady's body [when the penis penetrates the vagina/ sexual intercourse]. That one I cannot talk [explain]..... Because he [father] only explained how the sperm enters the lady's ovaries and becomes a baby. But how the sperm

can go inside the body[sexual intercourse], he don't know how to explain." (P1, S)

"...he was masturbating in the bathroom until it bleed, because he didn't know when to stop. I think maybe he doesn'tknow the entire process..... But, we didn't drill into this kind oftopic in detail, just in a very common manner.....sometimes it is very difficult for me to explain. I'm a mom, I am not a dad. How am I going to show him?" (P2, S)

Parents' comfortability in sexuality communication. In their sexuality communication with their children, mothers reported to feel (i) comfortable and confident, (ii) comfortable but afraid, and (iii) uncomfortable.

Comfortable and confident. Four mothers reported that they felt comfortable when they engaged in sexuality communications with their children and are confident about discussing more complex details if / when required in the future.

"It's normal for me, because I feel like sometimes he does not understand what I'm saying, but some days he will ask me, 'Why are you talking about this?'. But Idon't feel shy. No, I never feel shy talking to him. It is fine for me." (P5, S)

"I think I was comfortable because I teach in a coed school so I know. I was exposed to these children before my daughter came of age..... I didn't feel, not so much, I didn't feel uneasy." (P6, D)

These mothers also did not see any possible adverse consequences of discussing about more complex sexuality topics with their children now or in the future.

Comfortable but afraid. Another mother reported that although she was comfortable having sexuality communication with her child, she still had a sense of fear of whether her child understood and would be able to apply what she has been taught.

"I am more towards afraid that she does not understand. Sometimes I am also worried because we know for normal children they can shout for help but for her, how is she going to protect herself if we are not there with her, especially at school or at the centre. Even at home I make sure that in the room she doesn't do anything weird or watch movies that she shouldn't watch. I will make sure she does not explore anything by herself." (P3, D)

Uncomfortable. Only one mother reported that she was uncomfortable during her sexuality communication with her son as she was uncertain of ways to explain about male's sexual development and experiences to him.

"I also feel like not [comfortable], because he is a boy and I am a woman, so I don't know much details about men's privacy or anything. Sometimes I will ask him to ask his father about his feelings and everything. Because they are men. I feel scared my son will say, what happen mummy is a lady and know about these things. Sometimes he know, if he keeps asking I will explain some basic things, but would not talk in detail because I am a lady." (P2, S)

Resources for sexuality communication. To equip themselves with the knowledge and skills, and to improve their sexuality communication, mothers stated to have sought and received helpfrom (i) experts' advice, attended talks, and read books or online articles regarding sexuality, and also wish to receive additional help and guidance from (ii) support groups, to equip themselves with knowledge and skills in their sexuality communication.

Expert's advice or attended talks and read books or online articles. 83% of the mothers used a combination of resources to gain additional knowledge and information about ways to handle their children's sexual development and to accurately communicate about sexuality to them.

"From my readings of websites and from teachers at the special needs school..... I prefer explanations, because if I just read for myself, by reading I can understand but will not be able to put it into practise." (P3, D)

"...I read books..... on ways to expose these children and so on. Then we [her and her husband] attend courses and so on..... We go through the internet, finding materials on how you're supposed to approach this kind of children and so on. We have gone to the specialist as well..... So if anything, we will refer to the paediatrician (P6, D)

Support groups. When asked what type of resources would be most helpful to improve their knowledge in sexuality communication, five mothers reported that they would benefit from support groups where they would be able to receive practical advice and information from other parents who have experienced sexuality development and communication with their own autistic children.

"I feel like there needs to be practical classes. Maybe from teachers and parents. Like we have teachers and parents group support... Because I feel only those people who have gone through the same problems as our children will understand our situation, and they have also experience the

situation.... Because if we ask parents who have normal children, they would not have handled children with autism and so on, so they might considered these things as something simple and can be done. But in reality, I feel a little insecure. Insecure like, really, is this easy? Really, is this simple? Like I am the only one who is worried. So I prefer to receive experience, receive sharing from parents who have gone through the same situation as us. So it will be easy. Anything that I am confused about or anything that I do not know how to do, they can give us solutions and guidance. That is the best." (P3, D)

"We need like help from each other a lot. I mean some kind of parent group..... If any problem we can talk to each other and share information. I think that would be helpful." (P6, D)

The Challenges Experienced In Sexuality Communication with Adolescent Children with ASD

Challenges faced by parents in their sexuality communication. Mothers reported to have (i) not faced any challenges due to the lack of complex sexuality communication, and (ii) faced challenges due to uncertainties of ways to explain complex topics, with their children.

Not faced any challenges due to the lack of complex sexuality communication. Four mothers reported that they had not faced any challenges in their sexuality communication with their children as they had not initiated conversations surrounding more complex sexuality topics. Three of them explained that they had not initiated sexuality conversations regarding more complex topics as they felt that their children are still too young for it or have not shown any curiosity towards these topics in sexuality yet.

"I think so far no yet, because we haven't actually drilled into the subject yet. So I don't see any challenge yet. But in future, let's say something is different or maybe if he asks me or he is curious, then only I will expose him. That time only, depends on his understanding and how far or how deep we will go...." (P2, S)

"...I used to discuss with my husband, 'Maybe you should sit and talk'. He [husband] said he [son] is still young to talk about this [erected penis in the morning and masturbation]. (P5, S)

"...Maybe after she finishes Form 5 I think I will-I need to expose her to all that [sexual intercourse, pregnancy, and protection against pregnancy] she needs to know what people can do to her, what will happen if she gets engaged in a relationship.

serious things I haven't talked to her about yet....." (P6, D)

Faced challenges due to uncertainties of ways to explain complex topics. Two mothers reported that they faced challenges in developmentally tailoring their sexuality communication of complex topics to suit their daughters' understanding. Of the two, one mother emphasised that she faced challenges in explaining about mensturation, childbirth, and sexual behaviours as her daughter has not reached menarche, but is at the age of puberty and is developing physically.

"First thing is because she hasn't started her period so I also don't know how to handle it [conversations about menstruation]. For example, once she starts her period if she will understands how to wear a pad and where to throw it and when does she need to change..... My plan is to go deeper into topics such as childbirth and so on after she starts her period. Because I am worried if I explain it now she will not understand how things happen...." (P3, D)

"...Maybe discussing about the issues, going further about pregnancy and so on [contraceptives]. I think that is the one for the time being I haven't expose her. I need to educate myself a lot on how I'm going to bring about the issue to my daughter." (P6, D)

The Ways Adolescent's ASD Symptoms Create Challenges for Parents in Parent-Child Sexuality Communication

Children's autism symptoms which create challenges in parent-child sexuality communication. Children's autism symptoms or deficits that created challenges in mothers' communication and children's understanding of sexuality were (i) lack of understanding, and (ii) lack of two-way conversation.

Lack of understanding. Four mothers stated that their children's slower rates of understanding and lack of practical understanding of sexuality concepts created challenges in their sexuality communication.

"The main challenge will be-....this particular topic [puberty], the changes in him, I feel like he won't understand. I think that's the mainproblem. Does he understand sexual relationships, this and that, the changes in his body and all that. (P5, S)

"Because like, her understanding was slow compared to the normal children. So we have to find ways and means to make them understand what is going on in this life." (P6, D)

Lack of two-way communication. Two mothers stated that their children's lack of verbalization, questioning and response during their conversations, or regarding topics on sexuality, have created challenges in their communications. Resulting in their inability to identify if their children have understood correctly what has been delivered.

"I think basically the first thing is communication..... We don't know actually how much that he understand and what are the things that he understand or what are the things that he wants to know." (P2, S)

"...Because she does not give feedback as she does not have social skills. Meaning that what we say does she really understand or does she just listen without understanding. She does not question us. For example, my second daughter she is normal [typically developing]. So she will at times ask, 'Mummy what is period'. So for that we can explain to her about periods..... But for my eldest daughter [autistic], she does not ask, so we also don't know if she understands or not." (P3, D)

However, for the children who are able to understand their parents' sexuality communication, able to ask questions regarding it, or just have not shown any interest in sexuality yet, their mothers reported to not face any challenges in their sexuality communication. Nonetheless, the mothers still have concerns about the challenges their children might face in the future due to their autism symptoms. Three mothers were concerned about their children's future romantic relationships and how their autism symptoms would affect it. The mothers specifically highlighted children's lack of practical understanding and understanding of complex sexuality concepts, poor self-expression, and decision making skills. One mother raised concerns of her son potentially exhibiting inappropriate sexual behaviours in the future.

"I don't know how he wants to- when he grows up, will he have likes towards girls. I don't know how he wants to show it [affection]....orwill he not have that feelings towards girls..... I used to wonder whether he [son] would talk about girlfriends, the concept of girlfriends, marriage, sexual relationship. I used to wonder whether he will understand or he won't have that idea at all..... He watches movies and from there he will say, 'When I grow up, I'll marry and I will have children'. He will say that, but I don't know

whether he understands the concept ofgetting married, having children." (P5, S)

"... I, as a mother, we are afraid also that at one fine day this [masturbating in public] is going to happen.....adolescents, teenagers, at this level, I would say their hormonal imbalance is very dangerous [unpredictable]." (P2, S)

Techniques Used By Parents to Present Sexuality Communication.

Besides verbally explaining about sexuality to their children, mothers have also explained about sexuality using (i) visual aids, and (ii) teachable moments.

Visual aids. All six mothers used some sort of visual aid to explain sexuality topics to their children. Mothers stated that their children are visual learners, thus, are better able to understand when taught using visual aids such as pictures, drawings, videos and so on.

"I have showed him YouTube video on how babies are created." (P1, S)

"Visual aid as well as verbal..... like for wet dream.....he saw pictures because he had to label the pictures [step by step on how to know when a wet dream happens and how to clean himself after]" (P2, S)

Teachable moments.For children who learn Science subjects in normal schools or Selfmanagement subject (covers various topics on selfcare or grooming, health, and sexuality) in Special Education, mothers (66.7 %) took the opportunity to explain information about sexuality when helping their children with schoolwork, or when reinforcing certain topics learnt in school.

"In his school they taught that you cannot touch the ladies buttock, in front, everywhere also you cannot touch. So I also teach him like that." (P1, S)

"I do revision with him in the house, so there are a lot of things they [self-management subject] talk about- girls' private parts, whether you should touch or not, and all that. So I explained to him more when I did that topic with him." (P5, S)

Two mothers of daughters took advantage of different activities and situations to explain to their daughters about sexuality.

"Sometimes when she is putting on her clothes I will tell her, 'Make sure no one touches your chest and your private parts'.... Especially after she takes her bath and she is in her room to dress up..... I will tell her to wear her bra.....and I will hold her hand and tell her 'Make sure you don't allow anyone to touch your breasts' 'Make sure you don't allow anyone to touch your private

parts'.....That is when I always advise her and remind her, everytime when she puts her clothes on, so she is aware." (P3, D)

"I used to tell her about her body and how it develops...... I myself will hold her hand, ask her to touch me [mother's body]. Let her be aware that there will be changes in years to come as she grows up..... And I showed her my pad when I had my period.....Also sometimes when we watch movies, there itself when things happen, I used to tell her on the spot [inaudible] theseare the consequences [of certain action]." (P6, D)

Discussion

The current study aimed to explore the experiences of sexuality communication between parents and their adolescent children with ASD in Malaysia. Besides that, this study aimed to understand the challenges parents face in their sexuality communication, as well as to identify the ways their adolescents' ASD symptoms create challenges for their parents' sexuality communication, as well as the techniques parents employed to present sexuality communication.

This study's parents of adolescents with ASD covered sexuality topicsof protective behaviours, unacceptable self-directed and partnered sexual behaviours, puberty, and privacy, in the same way as prior studies' parents did regardless of their children's age, level of understanding or autism symptoms (Ballan, 2012, Chamidah& Jannah, 2017; Holmes &Himle, 2014; Holmes et al., 2019; Lestari et al., 2021; Mackin et al., 2016; Nichols & Blakeley-Smith, 2010). Nonetheless, many parents of adolescents with ASD either did not explain masturbation, wet dreams, sexual intercourse, pregnancy, and protection against pregnancy, or merely addressed it in a broad or factual manner (Holmes &Himle, 2014; Holmes et al., 2019).

A more factual or prohibitive tone when speaking about sexuality related topics with children was one of the approach used by the parents of adolescents with ASD. Qualitative research has revealed thatthe primary motivation of parents was mainly to educate their children on ways to protect themselves from being taken advantage of by strangers. They also wanted to prevent their children from engagingin behaviours which can be regarded unacceptable in public or at such a young age as they were. This is especially since autistic children's behaviours could be misconstrued as sexually intrusive or as sexual predators and are more vulnerable to being taken advantage of

(Ballan, 2012; Mackin et al., 2016; Nichols & Blakeley-Smith, 2010).

Although the mothers of adolescents with ASD acknowledged that children's masturbation and touching their own private parts are common and normal behaviour, their conversations regarding these topics were in the form of warnings to their sons to refrain from doing it in public or acting on their urges altogether. Similarly, Pryde and Jahoda (2018) identified that mothers taught their autistic sons about appropriate places to masturbate but did not explain about safe masturbation practices or the positive aspects of it, while some Indonesian parentsreported to have prohibited their sons from masturbating and touching their genitals (Lestari et al., 2021)

The second component of parents' experience looked at parents' of adolescents with ASD comfortability in their sexuality communication with their children. The narrative of the parents led to the presentation of themselves as comfortable and confident in their conversations about sexuality with their children. Not only were they comfortable and confident in theiron-going conversations, they are confident that they would also be open to and comfortable if and when they are required to convey more complex sexuality topics in the future. Morawska et al. (2015) determined that one of the best predictors of parent's self-efficacy in sexuality communication was parents' knowledge and comfort in educating their children about sexuality. In addition, the parents of adolescents with ASD did not expect any possible negative outcomes of having sexuality communication with children, rather, they perceived or witnessed their sexuality communication with their children to lead to positive outcomes. Thus, parents of adolescents with ASD focused on conversations of protective and prohibitive topics to lead to positive consequences of protective and adaptive behaviours. Parents in Mackin et al.'s (2016) study stated that having conversation about sexuality topics on social navigation, which involves explaining to their children about unspoken rules on public versus private behaviours, self-advocacy and protection from harm, is very beneficial. This allows them to look past possible negative consequences of their parent-child sexuality communication.

The concerns and fears that the mothers of adolescents with ASD have of their children being sexually abused or misunderstood as sexual

predators may also act as an environmental factor, as explained by the SCT, to encourage parents' sexuality communication. This was seen in the case of the mother whose comfortability in sexuality communication was accompanied by fear. Her fears of whether her daughter is able to fully understands the sexuality information provided and apply what was taught, in crucial situations, did not stop her sexuality communication and education. Rather, she saw the communication to lead to positive outcomes, which was to equip her daughter to be able to protect herself and recognize dangers such as inappropriate touch, as well as to distinguish between acceptable and unacceptable public behaviours.

However, for the parents who stated to be uncomfortable in their sexuality communication with their sons, it is sensed that their perceived selfefficacy to effectively communicate topics of sexuality in a male perspective is low. Besides that, they were also concerned about the potential negative consequences and confusion their sons might experience if they (i.e. the mothers) as females were to have in-depth conversations regarding the malesexual development and experiences. Similarly, mothers in the studies by Kürtüncü and Kurt (2020) andMackin et al. (2016)stated that it would be preferable that their male counterparts to explain sex-specific biological phenomena.Ballan (2012) identified that some parent's uncertainties about their abilities to effectively communicate about sexuality and in ways children are sure to understand caused them to be apprehensive to engage in parent-child sexuality communication. They also expected their communication to bring forth more negative outcomes than helpful ones, thus, engaged in fewer and less extensive sexuality conversations with their sons.

Furthermore, support from parents' social circle and information from other resources are forms of environmental factors which can increase parents' perceived self-efficacy and outcome expectations, thus, encouraging sexuality communication (Dilorio et al., 2006) while, the lack of materials or resources hinders parent's sexuality communication as it "contributes to parent fears of 'doing it wrong" (Mackin et al., 2016).

In short, these findings are in line with the SCT. The parentsof adolescents with ASD who showed confidence in their knowledge regarding sexuality and believed in their effectiveness of the

conversations with their children, accompanied by the expectation of positive outcomes of having those conversations and adequate resources to aid their sexuality communication were more likely to feel comfortable in their sexuality communication and to carry out more frequent conversation with their children.

The parents of adolescents with ASD have not faced any significant challenges in their sexuality communication as they had yet to initiate conversations surrounding complex sexuality topics, due to children's age and lack of curiosity. Children's disparity in chronological age and mental age, shown through their display of age inappropriate interests, lead parents to believe that communications on complex sexuality topics were irrelevant to their children (Ballan, 2012). Although some children showed some interest in watching romantic movie scenes or questioned their parents regarding sexuality related topics, they did not follow-up on the questions or explore more into sexuality independently. Contrarily, the other children were preoccupied with other interests unrelated to sexuality, indicating their disinterest in it.Parents of adolescents with ASD were lead to initiate sexuality communication and found it easier to speak with their adolescents who indicated some kind of interest or curiosity about sexuality (Holmes et al., 2019; Mackin et al., 2016), or showed signs of readiness by asking questions about dating (Grossman et al., 2018; Santa Maria et al., 2014). In addition to the lack of interest in sexuality exhibited by the adolescents, they have not display major problematic sexual behaviours (e.g. masturbating or undressing in public, or inappropriate touching of self and others). Even for those who have, their parents were able to correct it by means of reprimands. These factors could have led to the lack of communication on complex sexuality topics and therefore, resulting in parents facing challenges in their sexuality not communication.

However, there were parents of adolescents with ASD who faced challenges in developmentally tailoring complex sexuality communication to suit their daughters' understanding and educate them on matters pertaining to menstruation, hygiene, childbirth, and sexual behaviours. They assumed that their premenarchaldaughter was not ready for such conversations or have reported to be less knowledgeable in these topics. Parents with low self-efficacy would face challenges in educating their children on ways to apply basic information

regarding appropriate privacy and hygiene practices, as well as more complex sexuality topics (Holmes &Himle, 2014).

The factors associated with parents' of adolescents with ASD lack of sexuality communication of complex topics were largely due to the absence of certain characteristics in their children rather than parents' abilities to discuss about it. This reinforces the narrative of confidence and perceived competence among the parents in their sexuality communication. Besides that, as supported by the initiate parent-child sexuality SCT, to parents communication, children's characteristics as environmental indications of their readiness(Ritchwood et al., 2017). Whereas, for the parents who did face challenges in their sexuality communication, both their children's characteristics and their lack of ability to carry out conversations on the required topics led to their challenges.

Adolescents' autism symptoms of slower rate of and lack of practical understanding created challenges in their parents' sexuality communication. social Autistic children's impairments creates challenges their understanding of boundaries, privacy, and social cues (Nichols & Blakeley-Smith, 2010). These impairments which cripples children's understanding of sexuality, also creates challenges in their parents' communication.

Besides that, parents of adolescents with ASD also stated that their children's lack of two way communication creates challenges in their sexuality communication. Individuals with ASD are often times unable to engage with others to share feelings or converse due to their deficits in social-emotional reciprocity (APA, 2013). As their children do not ask questions or talk about sexuality, these parents are unable to gauge if they have grasped the information provided accurately, like the findings of Ballan (2012). Autistic individuals' deficits in verbal and nonverbal communication affect their ability to inquire about sexuality, thus, depriving their access to necessary sexuality information (Attwood et al., 2014, as cited in Brown et al., 2018). Although the parents of adolescents with **ASD** consistently engaged in sexuality communication with their children, their narratives were fraught with uncertainties of their childrens' level understanding

Like the parent participants in the studies conducted by Ballan (2012), Holmes et al. (2019),

Mackin et al. (2016), Ritchwood et al. (2017), in addition to verbal communication, the parentsin this study generally used visual aids and instructions, as well as took advantage of teachable moments to have sexuality communication with their children. Holmes et al. (2019) explained that irrespective of their cognitive abilities, individuals with ASD learn best through enhanced instructional strategies. With this, they will be better able to generalize the information learnt and apply the required knowledge and skills accurately. Similarly, using teachable moments makes it easier for children to retrieve knowledge form past communications to be applied in related situations (Ashcraft & Murry, 2017). It is also highly effective as it takes advantage of children's interest, level of understanding, and attention to the event the teaching is taking place, thus improving their knowledge generalization(McDuffie, 2013). The parents of adolescents with ASD took into consideration the condition of their children and used techniques that would work best for them, to ensure that they understand and are able to retain sexuality information provided.

Conclusion

The current study showed that parents did engage in sexuality communication with their adolescent children with ASD and covered more general protective and prohibitive sexuality topics while avoiding complex ones. Parents showed contrasting reports in terms of their comfortability and challenges faced in their sexuality communication. Although most parents were comfortable in their communication, sexuality one uncomfortable. This was related to their varying perceived self-efficacy, expected outcomes of their having sexuality communication with adolescents. and resources aid their communication. Besides that, most parents did not challenges their face anv in sexuality communication as they did not bring up complex sexuality topics in their communication due to children's characteristics. However, there were some parents who did face challenges in their communication, which was due to the combination of children's characteristics and parent's ineptitude. Besides characteristics, children's ASD symptoms and their deficits in understanding and two-way communication, also caused challenges in parents' sexuality communication. Parents sought out and received help from various resources to increase their knowledge and skills in sexuality, and used various techniques to provide sexuality education to their children with ASD.

This study contributes to literature in several ways. As studies in this area are scarcein Malaysia, the present study adds to the body of literature on parent-child sexuality communication, and thereby enabling a deeper understanding of Malaysian parents' sexuality communication with their adolescents with ASD through the exploring of parents' lived sexuality communication experiences.

The findings on the challenges parents have faced in their sexuality communication due to their concerns, uncertainties, or lack of self-efficacy, as well as the challenges caused by children's ASD symptoms, can provide treatment providers, educators, and autism specialists with important information to initiate discussions on sexuality and provide appropriate support for parents. Support can be provided through trainings, support groups, and additional resource on techniques and information, to alleviate parents fears (Holmes et al., 2015), increase parents self-efficacy with 2012; Nicholas communication (Ballan, Blakeley- Smith, 2010), and encourage parents to engage in more sexuality communications with their children (Holmes et al., 2015). This is in line with the reports of parents in this study who indicated their interest in participating in practical classes, trainings, or support groups to improve their knowledge and efficiency in sexuality communication with their autistic children.

Furthermore, by understanding the influence of parents' varying levels of comfortability and confidence sexuality communication. in expectations of possible behavioural outcomes for their children post sexuality communication, as well as the available sexuality resources, on parents' motivation to carry out sexuality communication, practical strategies to increase the frequency, accuracy, and efficiency of parent-child sexuality communication can be implemented for the betterment of children (e.g. delayed initiation of sexual activity, increased practice of safer sexual behaviour, and better sexual decision making skills).

In addition to that, the findings on, and, interactions between parents' self-efficacy, their expected behavioural outcomes of having sexuality communication, and the influence of environmental factors to encourage or discourage parent-child sexuality communication supplement past researches(Holmes &Himle, 2014; Holmes et al., 2015; 2019; Pryde&Jahoda; 2018; Ritchwood et al., 2017).Not only do the findingsconfirm the SCT theory, it also adds to the existing literature as a support of its theoretical accuracy.

Limitations

Although the qualitative nature of this study was able to provide in-depth understanding of participant's experiences of sexuality communication, the possible relationship and influence parents' demographic characteristics might have on their sexuality communication were not able to be investigated, empirically.

As the participants who agreed to participate in this study were only mothers from Perak, the participants interviewed were only a small subset of the entire population of parents of adolescents with ASD in Malaysia. As such, the experiences of other parents of adolescents with ASD in Malaysia might differ from that of this study's parents. Also, discussions on sexuality are considered sensitive and personal, thus, only mothers who were comfortable with having such conversations with a third party had showed interest and participated in this study. Consequently, the findings of this study from the participating parents might not be representative of other parents who are not as comfortable with discussions on this topic.

Lastly, although the telephone interview method proved to be useful to accommodate participants' schedules and comfort levels, the access to their body language and facial expressions which could have added to the study's non-verbal data was lost.

Despite these limitations, this study acts as a foundation for other future studies to build upon. Future studies can look into the demographic characteristics of parents and how it influences their sexuality communication, as well as explore the experiences and roles of fathers of adolescents with ASD in parent-child sexuality communication.

More in-depth studies would pave the way towards gaining deeper understanding of Malaysian parents' experiences, in parent-child sexuality communication, by investigating the phenomenon among parents with varying levels of comfort with sexuality, and involving children with other autism deficits and severities, as well as when involving communications on more complex sexuality topics.

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References

Abdullah, N. A. F. B., Muda, S. M., Zain, N. M., & Hamid, S. H. A. (2020). The role of

parents in providing sexuality education to their children. *Makara Journal of Health Research*, 24(3), 157–163. doi:10.7454/msk.v24i3.1235

Ah, S. H. A. B., Omar, N., &Azam, S. B. M. (2014). Family ecology and adolescents

premature pregnancies: Multiple case studies of Malaysia. *The Malaysian Journal of Social Administration*, 10(1), 87-114.

https://doi.org/10.22452/mjsa.vol10no1.5

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). American Psychiatric Association.

Ashcraft, A. M., & Murray, P. J. (2017). Talking to parents about adolescent sexuality. *Pediatric Clinics*, 64(2), 305-320. doi:10.1016/j.pcl.2016.11.002.

Ballan, M. S. (2012). Parental perspectives of communication about sexuality in families of children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 42(5), 676-684. doi:10.1007/s10803-011-1293-y

Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development*.

Six theories of child development (Vol. 6, pp. 1-60). JAI Press.

https://www.uky.edu/~eushe2/Bandura/Bandura19 89ACD.pdf

Bandura, A. (1999). A social cognitive theory of personality. In L. Pervin& O. John (Ed.), *Handbook of personality* (2nd ed., pp. 154-196). Guilford Publications.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52(1), 1-26.

https://web.stanford.edu/~kcarmel/CC_BehavChange_Course/readings/Additional%20Resources/Bandura/bandura_soccogtheory.pdf

Beckett, M. K., Elliott, M. N., Martino, S., Kanouse, D. E., Corona, R., Klein, D. J., & Schuster,

M. A. (2010). Timing of parent and child communication about sexuality relative to

children's sexual behaviors. *Pediatrics*, *125*(1), 34–42. https://doi.org/10.1542/peds.2009-0806

Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. doi:10.1191/1478088706qp063oa

Brown, J., Anderson, G., Cooney-Koss, L., Hastings, B., Pickett, H., Neal, D., Martindale, J., Dodson, K. D., &Barfknecht, L. (2018). Autism

spectrum disorder and sexually inappropriate behaviors: An introduction for caregivers and professionals. *The Journal of Special Population*, 1(1)

https://www.researchgate.net/publication/32160645 8_Autism_Spectrum_Disorder_and_Sexually_Inap propriate_Behaviors_An_Introduction_for_Caregiv ers and Professionals/citations

Chamidah, A. N., & Jannah, S. N. (2017). Parents perception about sexual education for

adolescence with autism. *Advances in Social Science, Education and Humanities Research, 118.* doi:10.2991/icset-17.2017.15

Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative and mixed methods approaches (5th ed.). SAGE.

Dai, F. M., Nei, A. W., Samad, A. A., Im, E. S., Ramli, E. R. M., Ismail, J., Singh, M. K. H.,

Rosli, M. M., Yusof, M. A. M., Rahman, N. A. M. A. A., Bahar, N., Nordin, N., Abdullah, N., Razali, N., Paranthaman, V., Ali, R. M., Sivanesom, R. R., Sumardi, R., Lan, S. G., Marimuthu, S., ... Yusuff, Y. (2014). Clinical practice guidelines on management of autism spectrum disorder in children and adolescents. Malaysia Health Technology Assessment Section (MaHTAS) Medical Development Division, Ministry of Health Malaysia.

Dekker, L. P., Hartman, C. A., van der Vegt, E. J., Verhulst, F. C., van Oort, F. V., &

Greaves-Lord, K. (2015). The longitudinal relation between childhood autistic traits and psychosexual problems in early adolescence: The tracking adolescents' individual lives survey study. *Autism*, *19*(6), 684-693. doi:10.1177/1362361314547114 Dewinter, J., Vermeiren, R. R. J. M.,

Dewinter, J., Vermeiren, R. R. J. M., Vanwesenbeeck, I., & Van Nieuwenhuizen, C. (2016).

Adolescent boys with autism spectrum disorder growing up: Follow-up of self-reported sexual experience. *European Child & Adolescent Psychiatry*, 25(9), 969-978. doi:10.1007/s00787-016-0816-7

Dilorio, C., Resnicow, K., Dudley, W. N., Thomas, S., Wang, D. T., Van Marter, D. F.,

Manteuffel, B., &Lipana, J. (2000). Social cognitive factors associated with mother-adolescent communication about sex. *Journal of Health Communication*, 5(1), 41-51. doi:10.1080/108107300126740

Dilorio, C., McCarty, F., &Denzmore, P. (2006). An exploration of social cognitive theory

mediators of father–son communication about sex. *Journal of Pediatric Psychology, 31*(9), 917-927. doi:10.1093/jpepsy/jsj101

Eastman, K. L., Corona, R., & Schuster, M. A. (2006). Talking parents, healthy teens: A worksite-based program for parents to promote adolescent sexual health.

Preventing Chronic Disease, 3(4), A126. https://www.researchgate.net/publication/6814750_ Talking_Parents_Healthy_Teens_A_Worksite-based_Program_for_Parents_to_Promote_Adolesce nt Sexual Health

Edelson, G. (2010). Sexual abuse of children with autism: Factors that increase risk and

interfere with recognition of abuse. *Disability Studies Quarterly*, 30(1). doi:10.18061/dsq.v30i1.1058

Ghani, F. and Awin, N. (2020). Sexuality education across selected Muslim countries:

A review to inform Malaysia's 2020-24 national reproductive health and social education plan of action. United Nations University International Institute for Global Health (UNU-IIGH), commissioned by UNFPA. http://collections.unu.edu/eserv/UNU:7886/IIGH_Report - SRHE PEKERTI -

Desk Review 2020-11-30.pdf

Grossman, J. M., Jenkins, L. J., & Richer, A. M. (2018). Parents' perspectives on family

sexuality communication from middle school to high school. *International Journal of Environmental Research and Public Health*, *15*(1), 107. doi:10.3390/ijerph15010107

Hellemans, H., Colson, K., Verbraeken, C., Vermeiren, R., &Deboutte, D. (2007). Sexual behavior in high-functioning male adolescents and young adults with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 37(2), 260-269. doi:10.1007/s10803-006-0159-1

Holmes, L. G., &Himle, M. B. (2014). Brief report: Parent–child sexuality communication

and autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 44(11), 2964-2970. doi:10.1007/s10803-014-2146-2

Holmes, L. G., Himle, M. B., &Strassberg, D. S. (2015). Parental romantic expectations and

parent–child sexuality communication in autism spectrum disorders. *Autism*, 20(6), 687-699. doi:10.1177/1362361315602371

Holmes, L. G., Strassberg, D. S., &Himle, M. B. (2019). Family sexuality communication

for adolescent girls on the autism spectrum. *Journal of Autism and Developmental Disorders*, 49(6), 2403-2416. https://doi.org/10.1007/s10803-019-03904-6

Ismail, K., &Abd Hamid, S. R. (2016). Communication about sex-reproductive health issues

with adolescents: a taboo among Malaysian parents? *European Journal of Social Sciences Education and Research*, 3(1), 27-41.https://doi.org/10.26417/ejser.v6i1.p27-41

Kalyva, E. (2010). Teachers' perspectives of the sexuality of children with autism spectrum

disorders. Research in Autism Spectrum Disorders, 4(3), 433-437. doi:10.1016/j.rasd.2009.10.014

Khalaf, Z. F., Low, W. Y., Merghati-Khoei, E., &Ghorbani, B. (2014). Sexuality education

in Malaysia: Perceived issues and barriers by professionals. *Asia Pacific Journal of Public Health,* 26(4), 358-366. doi:10.1177/1010539513517258

Khan, M. A., Rassool, G. H., Mabud, S. A., & Ahsan, M. (2020). *Sexuality education from an islamic perspective*. Cambridge Scholars Publishing.

Koller, R. (2000). Sexuality and adolescents with autism. *Sexuality and Disability*, 18(2), 125–135. doi:10.1023/a:1005567030442

Kürtüncü, M., Kurt, A. (2020). Sexual education and development in children with

intellectual disability: Mothers' opinions. *Sex Disabil*, 38, 455–468. https://doi.org/10.1007/s11195-020-09638-z

Lestari, L. (2021). Sexual education for adolescent autism spectrum disorders: An interpretative phenomenological analysis. *International Journal of Community Medicine and Public Health*, 8(4), 1625-1631. doi:10.18203/2394-6040.ijcmph20211210

Leung, H., Shek, D. T., Leung, E., &Shek, E. Y. (2019). Development of contextually-relevant sexuality education: Lessons from a comprehensive review of adolescent sexuality education across cultures. *International Journal of Environmental Research and Public Health*, 16(4), 621. doi:10.3390/ijerph16040621

Mackin, L. M., Loew, N., Gonzalez, A., Tykol, H., & Christensen, T. (2016). Parent

perceptions of sexual education needs for their children with autism. *Journal of Pediatric Nursing*, 31(6), 606-618. doi:10.1016/j.pedn.2016.07.003 McDuffie A. (2013). Incidental teaching. In F. R. Volkmar (eds.), *Encyclopedia of autism*

spectrum disorders. Springer. https://doi.org/10.1007/978-1-4419-1698-3_1669 Morawska, A., Walsh, A., Grabski. M., & Fletcher, R. (2015) Parental confidence and

preferences for communicating with their child about sexuality. *Sex Education*, 15(3), 235-248. doi:10.1080/14681811.2014.996213

Mutalip, S. S. M., & Mohamed, R. (2012). Sexual education in Malaysia: Accepted or

rejected? Iranian Journal of Public Health, 41(7), 34-39.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC34 69017/pdf/ijph-41-34.pdf

National Research Council & Institute of Medicine. (1999). *Adolescent development and the*

biology of puberty: Summary of a workshop on new research (M. D. Kipke, Ed.). National Academies Press.

Nichols, S., & Blakeley-Smith, A. (2010). "I'm not sure we're ready for this...": Working

with families toward facilitating healthy sexuality for individuals with autism spectrum disorders. *Social Work in Mental Health*, 8(1), 72-91. doi:10.1080/15332980902932383

Othman, A., Shaheen, A., Otoum, M., Aldiqs, M., Hamad, I., Dabobe, M., ...&Gausman, J.

(2020). Parent–child communication about sexual and reproductive health: perspectives of Jordanian and Syrian parents. *Sexual and Reproductive Health Matters*, 28(1), 1758444. doi:10.1080/26410397.2020.1758444

Pryde, R., &Jahoda, A. (2018) A qualitative study of mothers' experiences of supporting the

sexual development of their sons with autism and an accompanying intellectual disability. *International Journal of Developmental Disabilities*, 64(3), 166-174. doi:10.1080/20473869.2018.1446704

Ritchwood, T. D., Peasant, C., Powell, T. W., Taggart, T., Corbie-Smith, G., & Akers, A. Y.

(2017). Predictors of caregiver communication about reproductive and sexual health and sensitive sex topics. *Journal of Family Issues*, *39*(8), 2207-2231.doi:10.1177/0192513X17741920

Santa Maria, D., Markham, C., Engebretson, J., Baumler, E., & McCurdy, S. (2014) Parent-

child communication about sex in African American mother-son dyads. Family Medicine & Medical Science Research, 3(3), 134. doi:10.4172/2327-4972.1000134

2063 Shah, F. A. S. Z., Mustapa, N. M., Pakri, S. S., & Ab Manan, N. (2021). Perception on sexuality education in secondary schools: An exploratory study among University of Cyberjayaetudents. Evaluation Studies in Social Sciences, 10, 71-77. https://doi.org/10.37134/esss.vol10.sp.12.2021 Sutton, S. (2001). Health behavior: Psychosocial theories. In: Smelser, N. J., &Baltes, P. B. (Eds.), International encyclopedia of the social &behavioral sciences (Vol.11, pp. 6499-6506). Elsevier International Encyclopedia of the Social &Behavioral Sciences. doi:10.1016/B0-08-043076-7/03872-9 Talib, J., Mamat, M., Ibrahim, M., & Mohamad, Z. (2012). Analysis on sex education in schools across Malaysia. Procedia-Social and Behavioral 340-348. Sciences. 59. https://doi.org/10.1016/j.sbspro.2012.09.284 Tulloch, T., & Kaufman, M. (2013). Adolescent sexuality. Pediatrics in Review, 34(1), 29-37. doi:10.1542/pir.34-1-29 Travers, J., & Tincani, M. (2010). Sexuality education for individuals with autism spectrum disorders: Critical issues and decision making guidelines. Education and Training in Autism and Developmental Disabilities, 45(2), 284-293. http://www.jstor.org/stable/23879812 Widman, L., Choukas-Bradley, S., Noar, S. M.,

Widman, L., Choukas-Bradley, S., Noar, S. M., Nesi, J., & Garrett, K. (2015). Parent—adolescent sexual communication and adolescent safer sexual behavior: A meta-analysis. *JAMA Pediatrics*, 170, 52–61. doi:10.1001/jamapediatrics.2015.2731 Wolfe, A. (2018). *The impact of communication*

deficits on puberty and sexual development in adolescents on the autism spectrum. (Doctoral dissertation, University of South Carolina). University South Carolina of Scholar Commons.https://scholarcommons.sc.edu/etd/4476 Wolfe, P. S., Condo, B., & Hardaway, E (2009). Sociosexuality education for persons with autism spectrum disorders using principles of applied behavior analysis. Teaching Exceptional Children, 50-61. *42*(1), doi:10.1177/004005990904200105

Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review, 14*, 361-384. doi:10.5465/AMR.1989.4279067 World Health Organization. (2019, November 7). *Autism spectrum disorders*. https://www.who.int/newsroom/fact-sheets/detail/autism-spectrum-disorders#:~:text=Epidemiology,prevalence%20var

disorders#:~:text=Epidemiology,prevalence%20varies%20substantially%20across%20studies.

World Health Organization. (n.d.). *Adolescent health*. https://www.who.int/health-topics/adolescent-health#tab=tab_1