

## **HOLISTIC SEXUALITY EDUCATION MODEL FOR MALAYSIAN CHILDREN WITH SPECIAL NEEDS (H-SEXE)**

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*Neglected sexual health education in the disability community leaves stakeholders unprepared, resulting in significant social issues. To address this gap, this study set out to explore stakeholders' perceptions towards developing a Holistic Sexuality Education Model for Malaysian Children with Special Needs (H-SEXE) through adopting a multiple case study approach. A total of 33 respondents who are major stakeholders from three main zones in Malaysia were interviewed. Observations were also conducted on public and private primary- and secondary level sexuality education classes. The H-SEXE is derived thematically and consists of five interrelated parts, namely, a) Input, referring to knowledge, attitude and skills to be imparted from contexts to special educational needs (SEN) children; b) Contexts and Determinant Factors, referring to places and stakeholders that SEN children continuously and consistently learn from, depending on culture and stakeholders' existing knowledge, attitude and skills; c) SEN Child, referring to readiness of the child such as mental and chronological age, diagnosis and needs, strengths and interests; d) Content and Delivery, referring to themes and respective topics that has to be progressive and taught concurrently, delivery methods which include instructional strategies and materials; and, e) Output, which are demonstration of learning outcomes such as self-awareness, self-management and self-expression and protection by SEN children. The study concludes that the H-SEXE can be fully utilised as a framework to guide further planning, decision-making and implementation of sexuality education for SEN children from the ground-root and the top-down level.*

**Keywords:** Holistic, sexuality education, learning disabilities, health and sexuality, model

Sexuality constitutes the fundamentals of being human. All individuals should have the autonomy to know, understand and meet their basic human needs (Nelson et al., 2020); thus, sexuality encompasses all domains of human development - cognitive, physical, social, and emotional, making learning in this area imperative to develop well-rounded individuals. It has been shown that sexuality education keeps an individual informed about themselves from inside out - from external means such as the physical self, body parts and respective functions, as well as what is internal, such as their body image, gender identity, and gender roles (Stein et al., 2017). These aspects determine one's self-identity, a precursor to ensuring an individual's capability to display competency and to protect oneself (Simorangkir, 2020) by making responsible sexual health decisions at every stage of development (Coll et al., 2018), and to embrace sexual diversity (Maimunah, 2019).

For persons with disabilities (PWDs), sexuality has been commonly disregarded culturally and historically. They are perceived in antithesis, either 'hypersexual' or 'asexual', the latter should be protected from others, whereas for the prior, others should be protected from. Regardless, both perception causes them to be isolated. Contrary to the statements mentioned above, literature has illustrated that PWDs mature physically at the same rate as their neurotypical peers (NT) and have the same desire towards relationships or having a connection with others (Hancock et al., 2019). However, the gap between their desires and their fulfilment is widened when their sexuality is confined by contextual factors (André et al., 2020), causing them to be unable to make informed decisions due to the lack of objectivity in this area.

In the Malaysian scene, Ang (2014) developed a sexuality education module for SEN children in secondary schools, while Shariza (2017) created a teacher training module for elementary schools. However, both only focus on primary and secondary education and lack input from diverse stakeholders, neglecting the importance of a comprehensive, multi-disciplinary perspective on H-SEXE from early years (Khalaf et al., 2014).

On the other hand, international sexuality education modules such as the Home BASE curriculum (Frank & Sandman, 2019), Supporting Teens with Autism on Relationships (STAR) (Pugliese et al., 2020), Tackling Teenage Psychosexual Training (Visser et al., 2017), Healthy Relationships and Autism Curriculum (Pask et al., 2016), and Social Stories Module (Stankova & Trajkovski, 2020), focuses on the role of parents, but does not involve other stakeholders who are evidently influential in a child's life. This gap contradicts with the collectivism culture of the local context. In addition, of all the modules, only one (Pugliese et al., 2020) include a topic directly relevant to values. Based on earlier findings, a religion-driven country such as Malaysia operates on a moral- and value-based education system, as such, a module integrated to localised characteristics are highly in need. On top of that, although all of the above-mentioned modules adopt multi-modal approaches, however, there is a lack of adaptable alternatives to meet the heterogeneity of children with learning disabilities.

## **RESEARCH QUESTIONS**

Thus, this study aims to bridge the aforementioned gaps by answering the following research questions:

1. What are stakeholders' perceptions towards developing a holistic sexuality education model for Malaysian students with special needs?
  - a) Teachers
  - b) Parents
  - c) Professionals
  - d) Service providers
  - e) Policy makers
2. What are the underlying elements required for a holistic sexuality education model for Malaysian students with special needs?
3. What is a holistic sexuality education model for Malaysian children with special needs?

## **LITERATURE REVIEW**

### **Comparison of Related Models**

Three models of sexuality education exist: Abstinence-Only Education (AOE), Comprehensive Sexuality Education (CSE), and Holistic Sexuality Education (HSE). AOE focuses solely on abstinence as the only way to prevent social issues (Haskins & Bevan, 1997), while CSE includes it with information on safe-sex and contraception, and developmental domains related to sexuality, in addition to promoting abstinence as the safest option (Shepherd et al., 2017). HSE encompasses the previous two models and also highlights positive potential of sexuality and personal development aspects (Ketting et al., 2016).

AOE emphasises morality and religion but lacks comprehensive information on safe-sex and contraception, and is less effective. CSE is a rights-based approach and provides accurate information on reproductive health rights (UNFPA, 2015) from age five onwards (UNESCO, 2018, p.34). HSE takes a positive approach emphasising personal and sexual development and begins from birth (WHO, 2010; Ketting et al., 2016). AOE, CSE, and HSE differ in terms of their focus on scientific accuracy and their objectives, with HSE having a more personal focus and CSE focusing on public health and behavioral change. CSE does not have a definitive standard in which implementation is open to interpretation (Miedema et al., 2020) and HSE is developed in Europe, which is heterogeneous from the local Malaysian context. Both reasons would pose a great challenge in a highly diversified country such as Malaysia.

Thus, sexuality topics from CSE, HSE and the Religion, Value, and Culture Comprehensive Sexuality Education Model (ANB) developed by Shariza (2017) are consolidated into four main themes, grounded on culture, religion, values, and emotions, highlighting the importance of personal attitude (WHO, 2010), alongside socio-cultural factors for the best sexuality-and-health outcome in the Malaysian setting, as shown in Figure 1.

**Figure 1**

*Consolidation of Related Models*



*Note.* Adapted from CSE (UNESCO, 2018), HSE (WHO, 2010) and ANB Comprehensive Sexuality Education Model (Shariza, 2017).

The four consolidated themes, a) Relationships and feelings, b) Interpersonal skills, rights, and staying safe, c) The human body and gender, d) Sexual reproductive health, and family should be taught based on appropriateness for both society and individual's religion, culture, values, and emotions (Ballan & Freyer, 2017), as derived from the related models.

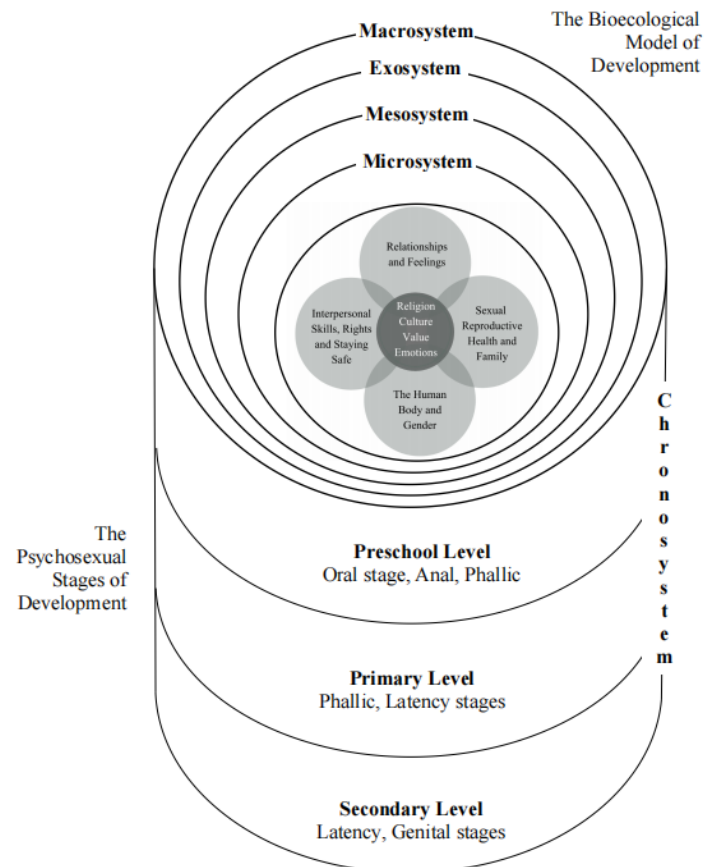
### **Theoretical Framework**

From a social and contextual point of view, Bronfenbrenner (1977) stated that the environment of SEN children consists of immediate relationships such as parent-child, educator-student, and professional-client. Parents as primary caregivers play a crucial role in the child's development by providing care and teaching basic skills and relationships (Sutherland et al., 2018). However, negative caregiving experiences can have lasting impact (Nelson et al., 2019), and shortcomings of educators' taboo could limit conveyance of important information (Mainhard et al., 2018). Professionals and service providers are crucial in supporting the growth of SEN children and reducing challenging sexual-related behaviours in an informed manner (Olivier-Pijpers et al., 2018).

From a personal and developmental point of view, Freud's Psychosexual Theory of Development is used as the theoretical lens to understand the sexuality development of SEN children (Freud et al., 1953). The theory states that development takes place in a series of fixed stages, called psychosexual stages, and personality development in early childhood is crucial for resolving conflicts at each stage, leading to healthy and secure adults (Freud et al., 1953). Thus, Freud's psychosexual development theory, and Bronfenbrenner's bioecological systems theory are combined in the theoretical framework presented in Figure 2.

**Figure 2**

*Theoretical Framework of the Study*



*Note.* Adapted from Shariza (2017), Freud (1953), and Bronfenbrenner (1979)

Figure 2 implies that, in order to develop the H-SEXE, three main factors should be taken into consideration: i) Time - Sexuality begins from birth and develops across a lifetime (Freud, 1953), ii) Context - Sexuality-themes should be inclusive for all and centralised on socio-cultural and emotional factors (Shariza, 2017; UNESCO, 2018; WHO, 2010), and iii) Collaboration - Connection between stakeholders are indispensable (Bronfenbrenner, 1979).

## METHODOLOGY

### Research Design

The study adopted a multiple case study design and qualitative method to explore the perspectives of different stakeholders on H-SEXE through focused group interviews and observations. The qualitative method emphasizes specific case and context, and provides in-depth insights, whereas the multiple case study design increases reliability of findings through contrasts and similarities across different contexts (Miles et al., 2014). The study aims to provide all-embracing perspectives based on the local cultural context (Gustafsson, 2017).

## Participants of the Study

A total of 33 major stakeholders from three regions, namely, West Coast (WC), East Coast (EC) and East Malaysia (EM) through 19 individual and focus group interviews. They are special educators and parents of SEN children in the preschool, primary school and secondary school level, professionals, service providers from private and public sector, as well as policy-makers, who are recruited through non-random sampling with inclusion criteria that ensures minimum years of experience in the related field. Observations were also conducted on public and private primary- and secondary level sexuality education classes. A detailed breakdown of the sample is shown in Table 1.

**Table 1**

### *Sample of the Study*

Stakeholder	Category	Zone	Gender	Highest Qualification	Years of Experience/ Age of Child
Special Educator	Pre-school	West coast	F	Bachelor	15
		East Coast	M	Bachelor	11
		East Malaysia	F	Bachelor	6
	Primary	West Coast	M	Bachelor	20
		East Coast	M	Bachelor	14
		East Malaysia	F	Bachelor	10
	Secondary	West Coast	F	Master	11
		East Coast	F	Bachelor	15
		East Malaysia	F	Bachelor	5
Parents	Preschool	West Coast	F	SPM	6
		West Coast	M	Master	4
		East Coast	F	N/A	5
		East Malaysia	F	College	4
	Primary	West Coast	M	Bachelor	9
		West Coast	F	Diploma	9
		West Coast	F	Bachelor	10
		East Malaysia	M	Bachelor	12
	Secondary	West Coast	F	Master	14
		East Coast	M	Bachelor	15
		East Coast	F	Master	17
		East Malaysia	F	SPM	16
Professionals	Clinical psychologist	West Coast	M	Master	15
		West Coast	F	Master	10
	Educational psychologist Health professional	East Malaysia	M	MD	12
		Lecturer in special education	West Coast	F	PhD

Service provider	Public	West Coast	F	SPM	17
		East Coast	F	SPM	10
	Private	West coast	F	Bachelor	4
		East Coast	F	N/A	20
		East Malaysia	F	N/A	29
Policy-maker	Ministry of Education	West Coast	F	Master	6
		West Coast	F	Master	10
	Ministry of Women, Family and Community Development	West Coast	F	Bachelor	8

### **Instruments of the Study**

The first part of the interview protocol opens with questions on participants' basic information. The second part consist of questions designed according to the research questions, whereby the initial component consists of questions on sexuality-related topics, instructional strategies and materials, and the second component includes three questions focused on aspect of development, influencing factors and best practices of sexuality education. There are six questions in total, aimed at acquiring perceptions of stakeholders about H-SEXE.

The observation protocol is aligned with the interview protocol, however, designed in table form - the column on the left states the domains of sexuality education, namely, topics, instructional strategies, materials, developmental areas, influencing factors, best practices; whereas the column on the right is reserved for observation notes.

### **Data Analysis**

All interview and observational data were transcribed verbatim and analysed through repetitive reading, identifying key facts, generating initial codes, consolidating codes, reviewing emerging themes, and finalising themes. The same process was repeated for each stakeholder group. Themes were combined, refined, or discarded to ensure coherence. The researcher then developed superordinate themes across all sample groups.

## **RESULTS**

### **Research Question 1: Stakeholders' Perceptions towards Developing a Holistic Sexuality Education Model for Malaysian Children with Special Needs**

The stakeholders' perspectives on H-SEXE are categorised into five themes: 1) Encompass All Areas of Development, 2) Lifelong Education with Emphasis on Early Education, 3) Depends on Child Readiness, 4) Proper Knowledge, Attitude and Skills, and 5) Culturally Appropriate.

### ***Encompass all Areas of Development***

Respondents perceive H-SEXE as an area of learning that involves extensive areas of development, as indicated:

*"Holistic, it means the development of sexuality is not only from the biological or physical aspect, but includes the aspects of attitudes, beliefs, values, culture, religion. All of that will influence and be considered in a holistic sexuality education."*  
(Pro\_Lect\_WC, personal communication, January 7, 2022)

To illustrate, respondents shared how all areas of development are integrated informally and formally:

*"Different development it will... cross each other... in that aspect you might have also cognitive, emotional and all together... let's say he doesn't know he take off the pants outside, that involves cognitive, that involve emotional, that involves everything."*  
(PM1\_MOE\_WC, personal communication, December 20, 2021)

Findings imply that H-SEXE should encompass all areas of development and be integrated into life-skills, both formally in the curriculum and informally in daily activities. This theme is similar across stakeholders, establishing the perception that sexuality education is a learning process embedded into one's day-to-day life.

### ***Lifelong Education with Emphasis on Early Education***

The respondents expressed that sexuality is a basic human need, hence, H-SEXE is considered fulfilment of human rights throughout one's lifespan, preparing SEN children for inevitable transitions:

*"We cannot deny the fact that they are also sexual being, right? The stimulation is different, they behave in a special way, doesn't mean they have no sexual arousal."*  
(Spro\_Pri\_WC, personal communication, January 22, 2022)

Parents also shared that H-SEXE is an important part to help their children to be independent in the future:

*"My daughter, one day, at least she is able to be independent and take care of her health, personal hygiene ah, for the long term."* (Par\_Pre\_EC, personal communication, March 5, 2022)

Respondents emphasised that H-SEXE should start as early as possible, particularly for SEN children who take longer to achieve mastery, and before negative habits are imprinted:

*"My home is actually a home for both boys and girls and they are already adults when they come in, I do face a lot of problems because they don't have early training."*  
(Spro\_Pri\_EC, personal communication, January 22, 2022)



Respondents perceive that H-SEXE is part of lifelong development, should be a basic human right and provided to all individuals, regardless of ability. However, respondents are not homogeneous in terms of the exact developmental stage to begin, either from birth, preschool or primary school. Regardless, it is mutual that H-SEXE should begin as early as possible, and should not only begin from puberty.

### ***Depends on Child Readiness***

Interviewees noted that H-SEXE is contingent on the readiness of SEN children, who tend to exhibit emotionally-driven behaviour that intensifies with age and can be risky when children are uninformed:

*"I have a boy who was rubbing himself on the carpet in front of me. I was like (gasp) or they take off their pants right, in front you. This is what happened when we don't allow or we don't impart that knowledge."* (Edu\_Sec\_WC, personal communication, December 21, 2021)

Thus, respondents shared that H-SEXE should consider physical and cognitive development of SEN children:

*"We already know that there are SEN children, their physical development is 12 years, but their cognitive level may be 6 years. Because of age, we will relate it to physical development, but the content we deliver needs to consider the cognitive age."* (Pro\_Lect\_WC, personal communication, January 7, 2022)

The following narrative in a secondary-level private centre show need for specific strategies for specific diagnoses:

*"Two female teenagers who are diagnosed with autism spectrum disorder (ASD), C2 and C3 are stimming during the lesson. C2 rocks back and forth, cupping her face in both hands. C3 chews on a mouth chewy that hangs on a string around her neck that makes a loud, squeaky song. The assistant teacher (AT) puts a sensory cushion that is blue, spiky and inflatable on C2's chair. C2 continues to rock on the sensory cushion.."* (Koh, personal observation, October 6, 2022)

The findings imply that development of H-SEXE depends on SEN children's readiness, which factors in the child's emotional needs and sexual desire, chronological and cognitive development, as well as the category of special needs.

### ***Proper Knowledge, Attitude, and Skills***

Findings highlighted that appropriate sexuality-related knowledge is vital to be conveyed from stakeholders to prevent social issues involving SEN children as a form of prevention:

*"But education, when that time comes, we can't refuse, so that knowledge is necessary, that knowledge is very necessary. Yes, prevention."* (Par2\_Sec\_EC, personal communication, February 26, 2022)

Aside from knowledge, instilling proper values to make right decisions is also cited as a vital outcome of H-SEXE, thus, acceptance and openness need to be modelled by stakeholders, as shown:

*"A time where we build values and grounding or teach them to respect each other... At the end of the day, it is they themselves who need to make that decision of what they are doing... I feel better that they have this knowledge and all the strategies to go about it, hoping that all this will be a foundation and values that they can use."*

(Edu\_Sec\_WC, personal communication, December 21, 2021)

Respondents emphasised the need for collaboration and increased awareness as a positive attitude, both vertically between policy-makers and horizontally across the child's contexts:

*"We work together, get ministries involved to produce a module that can be used for one Malaysia... It's not a model made by the Ministry of Education (MoE), only the MOE uses it. Ministry of Health (MoH), MoH only. But we can involve everyone. The MOH includes more aspects of pedagogy, teaching techniques, everything, that's an advantage in the field of education. MoE is more knowledgeable in the field of health, experts for sexual and reproductive health."* (Pro\_Lect\_WC, personal communication, January 7, 2022)

Respondents highlighted that proper skills are an outcome expected from the H-SEXE and should be conveyed by stakeholders, such as sharing of expertise:

*"Sexuality-related issue happens at school, teachers can refer to psychiatry, to doctors, refer to any party that can help parents... The role of the multi-disciplinary team is important."* (Edu\_Pre\_WC, personal communication, February 8, 2022)

Thus, proper knowledge, attitude, and skills are crucial for success in H-SEXE, referring to awareness and understanding, acceptance and collaboration, and a multidisciplinary team. Findings portray the need for change in awareness prior to transmitting information and taking action for collaboration.

### ***Culturally Appropriate***

Respondents associate the word 'holistic' as an integration of contexts, where SEN children model and learn from:

*"Modelling at home is what it means. So the role models at school are the teachers. The role models at home are the parents, his family. The child looks at each role model one by one. Family model, friend model, male and female model, the child has their models."* (Edu\_Pri\_WC, personal communication, January 25, 2022)

Findings demonstrated that home, school, community, and digital community are influencing factors. Home is a mutually the first and foremost input by all stakeholders. Each context entails cultures which are determinant in imparting H-SEXE, as shared in the following excerpts and field notes:

*"Parents with different backgrounds, maybe certain family background is more conservative, maybe they feel it's a taboo and it's not socially appropriate to say these things to other people." (PM2\_MOE\_WC, personal communication, December 23, 2021)*

*"Teacher (T) was teaching about private parts which are considered 'no-touch' zones. T then said, 'Even women have private parts, we call them... at home we call them something else, vagina.'" (Koh, personal observation, September 13, 2022)*

*"Because of cultural and social factors are similar, the same thing. Ah, social interaction, culture, the practice of different ethnicity or races," (Spro\_Pub\_WC, personal communication, November 18, 2021)*

*"T asks students to show where is their nipple. One of the students, C, pointed to his chest. T prompted C to touch the right place. T tells R that she does not know the word for 'nipples' in Bahasa Malaysia." (Koh, personal observation, September 14, 2022)*

*"...They sleep together, in the living room. There is no room. That's the way they live." (Edu\_Sec\_EC, personal communication, February 10, 2022)*

The findings indicate that cultural factors such as family background, race, religion, language, and demographics, play a critical role in determining the impact of H-SEXE. However, despite cultural factors mentioned by every stakeholder, language was not brought up by the policy makers, although policy makers emphasised on the need for ensuring standardised and scientific terms in the implementation of sexuality education.

## **Research Question 2: Underlying Elements Required for a Holistic Sexuality Education Model for Malaysian Children with Special Needs**

### ***Appropriate Topics***

SEN children's appropriate topics for learning are categorised into four themes: Human Body and Development, Gender and Identity, Emotion and Relationships, and Sexual Development and Behaviour. These are grouped into three sub-themes, or demonstration of knowledge: Self-Awareness, Self-Management, and Self-Expression and Protection.

The first theme covers human body and development, including topics such as body parts, development changes, self-management. Respondents shared that preschool children should first learn about basic body parts, which is fundamental for self-protection and self-management; followed by private parts, respective functions and hygiene from primary to secondary level, as shown:

*"4 to 6 years old, I think the appropriate topic is to teach them about body parts, which parts can be shown to people, which parts we can't show to people... building an understanding related to, safe touch, unsafe touch." (PM2\_MOE\_WC, personal communication, December 23, 2021)*

*"If it's the current one, because it's primary school, just touch, okay he knows, knows private organs, then how to take care, how to take care of hygiene, take care of self-respect, limits of association, with safe and unsafe touches ... already taught the*

*function of that person's organs."* (Edu\_Pri\_EM, personal communication, February 7, 2022)

*T: OK, so, we are going to break it down again. Change pad. Pad, wrap pad and then throw where? Do we just throw pad inside, or we wrap it up?*

*C4: Wrap it up.*

*T: C2, do we wrap our pad before we throw?*

*C2: Yea*

*T: Wrap and throw where?*

*C4: Dustbin*

*T: OK very important, what do we need to do after? Do we just walk out? (stomp out)*

*C4: Wash hand*

*T: Wash with soap or just water?*

*C4: With soap!*

(Koh, personal observation, September 15, 2022)

The second theme, gender and identity, cover topics like gender identity, differences, and boundaries. Respondents expressed that preschool SEN children should first identify gender of self and others and basic boundaries:

*"I would say zero to four, simple things like gender identity, is important, like you've got a penis, and because you're a boy that's very biology."* (Pro\_Edupsy\_WC, personal communication, December 20, 2021)

Findings show consistency between preschool and primary school topics with added details such as gender-appropriate clothing and respect:

*"They need to recognise, where are they, and what action need to be taken when they are in a certain environment. Or at home it's okay, say they want to wear short pants, because in that house there are probably all of siblings who are girls. But if it's a male sibling, you can't undress like that, you have to undress in the room..."*

(PM\_JKM\_WC, personal communication, November 23, 2021)

For secondary-level SEN children, there is a heavier emphasis on sexual identity and opposite gender relationships and boundaries as they discover themselves:

*"14 to 18 would be the stage of self-identity, and you find a lot of children start to question their sexuality, so I think this is where the topic of sexuality becomes very important, and you need to teach it.... I think most importantly for me, inner beauty and self-worth, to be emphasized at this stage (puberty)"* (Pro\_Edupsy\_WC, personal communication, December 20, 2021)

The third theme, emotion and relationships, begin with basic topics for preschool children such as identifying and communicating basic emotions for safety and protection of self and others.

*"Children need to know basic emotions. Happy, sad and they know when they are in an unsafe situation, they need to know their emotions in an unsafe situation, emotions that are not fun." (Pro\_Lect\_WC, personal communication, January 7, 2022)*

Progressing from emotion identification in the preschool level, respondents elaborated on topics such as emotion regulation, communication, and managing relationships for children from primary school onwards:

*"Teach the child ways to control emotions. If he wants to be angry, we want to tell him to be patient. It's about controlling our own emotions... we have to teach him the right reaction, appropriate reaction... to convey to us, that if we want to communicate with people, we have to do it appropriately." (Par3\_Pri\_WC, personal communication, March 14, 2022)*

*"When we opened the tablecloth, there were two people there. At that time I thought, 'How can it be like this?' So I saw the need there, it is necessary, for students who have reached the age of 12, 11 years..." (Edu\_Pri\_WC, personal communication, January 25, 2022)*

The fourth theme, sexual development and behaviour, focuses on private and public behaviour, such as child's need for self-stimulation which stems from a biological need and curiosity:

*"He likes to roll on the mattress, rub his penis on the mattress. So, what we did is we gave him one safe zone which is his own bed, then only certain time he can do that... now when he's on his bed, that's where he's soothing, anywhere else in the house, especially public, so which is penis is out of limits ah, his hands can't play that part." (Par\_Pri\_EM, personal communication, March 12, 2022)*

### ***Instructional Strategies***

Effective strategies for delivering sexuality education to SEN children as perceived by respondents are consolidated into the following categories - experiential learning, play- and activity-based, multisensory, task analysis & scaffolding, alternative communication, interactive, child-centred, repetition & consistency, and a combination of these approaches. The themes are demonstrated by the following excerpts and field notes:

*"We want to give them something practical, we nurture that emotional value in a practical way, we do it together... it means that they follow us, they do what we do, so we have to model the right things in front of them." (Par3\_Pri\_WC, personal communication, March 14, 2022)*

Activity-based learning (e.g. drawing, art, projects) and multisensory approaches (e.g. visual, auditory, tactile, kinaesthetic input) is effective in helping SEN children express themselves and understand knowledge better, as stated by respondents:

*"Maybe I ask her to draw, because asking her to write has been a problem so far. So she actually draws something." (Par1\_Pre\_WC, personal communication, March 5, 2022)*

*“So we teach them to even look at the pad. So the pad, once this portion, so there are some pads, like I think Kotex, has a blue indicator in the middle, so we teach them the moment this blue indicator is full, it's filled up, that's time to change...”* (Edu\_Sec\_WC, personal communication, December 21, 2021)

Findings showed the importance of breaking down tasks into steps, scaffolding, and delivering them in a structured and progressive way for SEN children to achieve mastery:

*“If you follow the structure, you won't go wrong. Follow it step by step, then the teacher does it once step by step, at home also do it step by step....”* (Par\_Sec\_WC, personal communication, February 26, 2022)

Narratives from a secondary-level private centre showed the use of alternative communication methods to check understanding of non-verbal students:

*T: That's all you need to remember, okay? If you are okay, show thumbs up. If you are not okay, thumbs down.*

*C2: (Shows thumbs up)*

(Koh, personal observation, October 13, 2022)

Respondents emphasised that interactive techniques like discussion or group learning, can enhance active recall, especially for older children:

*“But for secondary school, I feel that you should teach it in a way that you are like their friends... You start a topic, then we talk about it. Not to say I teach you.. We discuss.”* (PM1\_MOE\_WC, personal communication, December 20, 2021)

*“Split up the group for the female and the male and then we have a discussion right. So I think when they are at that age, they wanted to ask certain embarrassing thing... The boys can't be asking me about...”*(Edu\_Sec\_WC, personal communication, December 21, 2021)

Each strategy should also be mutually reinforced by combining the approaches, repeated and consistent across contexts:

*“Consistency, it should be carried forward from pre-school to primary to secondary, you know, because that's how they learn... I think we all know children with special needs, they learn with repetition. So if you keep repeating and repeating and telling them, they'll remember it. So as they grow older, they go, you know, to all the different stages, they'll remember it.”* (Spro\_Pri\_EM, personal communication, January 22, 2022)

## **Materials**

Effective teaching and learning materials cited by respondents include: multisensory materials, digital materials, alternative communication materials, and a suitable space for SEN children to self-manage. The use of multisensory materials, including visual aids which are realistic and auditory material help SEN children to better understand instructions:

*"We use visuals, there are cards, right... I just use pictures. Pictures, videos. The video is there, video. If you want to give an explanation, they don't understand. We just show a picture and he will be able to point." (Edu\_Pre\_WC, personal communication, February 8, 2022)*

Respondents also cited that digital materials are imperative in the 21<sup>st</sup> century classroom:

*"T gave a head's up to children about what the video is about by saying, 'We will find out what she calls a secret.' T then plays the video through Youtube. All the girls were watching the video intently. T then asked questions from the video afterwards." (Koh, personal observation, October 6, 2022)*

Materials that reinforce alternative communication are also emphasised, followed by having an appropriate space with minimal distraction when teaching is ongoing:

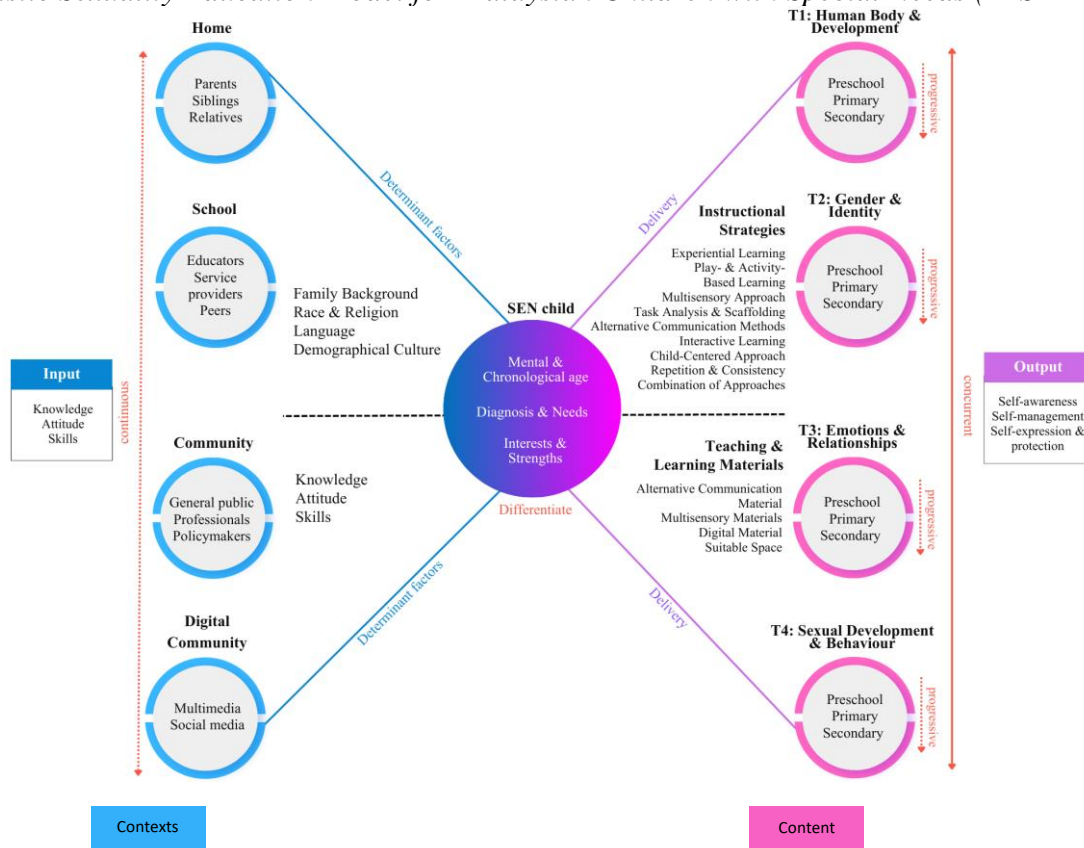
*"He has a special room, a room to manage himself... autistic student, aged 11, he's lustful,.... put him in a room and let him release it." (Edu\_Pri\_EC, personal communication, February 8, 2022)*

### **Research Question 3: What is a Holistic Sexuality Education Model for Malaysian Children with Special Needs?**

The H-SEXE consists of five parts, which are consolidated from the findings of research question one and two. The model pivots on the SEN child, following a child-centred and humanistic approach. The components are: Input, Contexts and determinant factors, SEN child, Content and delivery, as well as Output. The H-SEXE present the interrelation of components involved, such as contexts' input and delivery systematically influencing SEN child's learning and demonstration of content, as shown in Figure 3.

Figure 3

Holistic Sexuality Education Model for Malaysian Children with Special Needs (H-SEXE)



## DISCUSSION

The H-SEXE model demonstrated alignment when triangulated with available literature. In terms of *contexts*, it is parallel in the findings of Rooks-Ellis et al. (2020), and Stanojević et al. (2020), whereby family members and caregivers play a crucial role in shaping sexual behaviour and socialisation in the home context. Schools, as discussed by Balter et al. (2016) and Nelson et al. (2020), involve educators who create safe spaces and balance cultural needs, and service providers who raise awareness. Peers are effective mediators in social engagement, as shown by Dewinter et al. (2016) and Hancock et al. (2019). The community context involves public, professionals, and policy makers, as discussed by Eriksson et al. (2018) and Asya et al. (2020). The digital community includes multimedia resources and social media (Collins et al., 2017). In relation to the need for continuation across contexts, Razali and colleagues (2017) emphasised the need for effective collaboration among stakeholders to impart sexuality education effectively, in line with the findings of this study.

The effective impartation of H-SEXE to SEN children depends on two *determinant factors*. Firstly, according to André et al. (2020) and Medina-Rico et al. (2017), appropriate knowledge, attitude, and skills of stakeholders for effective impartation of H-SEXE to SEN children can be improved through training opportunities. Secondly, cultural factors, such as family background, race, religion, language, and demographic profile influence the input



provided to the child as according to local researchers Ang & Lee (2016), and Ihwani et al. (2015). The learning and differentiation of delivery of H-SEXE depends on the child's readiness, represented by the *SEN child* element, including needs, chronological and cognitive age (Medina-Rico et al., 2017), diagnosis (Watson, 2012), preferences, and interests (Faught et al., 2020).

*Delivery* of H-SEXE involves appropriate instructional strategies and materials, such as a multimodal approach with experiential learning, play-based learning, multisensory approach, task analysis and scaffolding, alternative communication methods, and interactive learning (Sala et al., 2019; Schmidt et al., 2019). Appropriate teaching materials include multisensory, digital (Pugliese et al., 2020), alternative communication materials (Medina-Rico et al., 2017), and suitable spaces for self-management (Sitter et al., 2019; Watson, 2012). These materials should reinforce the recommended strategies (Boer, 2020; Stankova & Trajkovski, 2020) and are differentiated based on the *SEN child's readiness*.

The *content* of H-SEXE covers four major themes aligned with CSE (UNESCO, 2018), HSE (WHO, 2010), and ANB (Shariza, 2017) models, grouped into three sub-themes: self-awareness (knowledge), self-management (life-skills), and self-expression and protection (self-advocacy, communication, and protection). These *outputs* demonstrate learning outcomes aligned with the goals of comprehensive sexuality education (Guttmacher Institute, 2019), taught based on SEN child's readiness, sequentially and concurrently.

## **RECOMMENDATION**

The study recommends three key strategies for implementing H-SEXE. Firstly, develop a comprehensive H-SEXE Module, covering themes founded in this study. Ensure accessibility across various contexts, with multilingual, digitalised, and standardised content that employs multi-sensory strategies and standardised materials. Secondly, promote awareness and understanding of the H-SEXE model among stakeholders through sharing the framework and providing training. This will stimulate discussions and research, benefiting SEN children. Thirdly, initiate discussions within the Ministry of Education to integrate the H-SEXE model into the curriculum which involves experts to guide best practices. Ensure a uniform, progressive curriculum across age groups, with repetition and a practical section for life skills taught through multi-modal approaches.

In the short term, further model validation is required for practicality, relevance, and suitability. This involves outlining topics for module development and conducting empirical research via a pilot test, with input from SEN children and physical interviews for precise data interpretation. In the long run, research should focus on demonstrating H-SEXE's contribution to related fields through longitudinal studies, comparing it to existing models, and considering stakeholders' perspectives. This research aims to enhance educational practices and support for Malaysian children with learning disabilities.

## **CONCLUSION**

This research has acquired comprehensive findings which includes the perspective of various stakeholders in special education in terms of developing the H-SEXE. These perspectives are crucial as it depicts the reality and current needs that stakeholders are facing. The

stakeholders emphasised on developing a model which encompasses all areas of development and lifelong education with emphasis on early education; one which considers the readiness of SEN children; a model that imparts the right knowledge, attitude, and skills from stakeholders to SEN children, and a model which is culturally appropriate. It was also found that the model requires underlying elements such as topics which are uniform across themes and taught in a progressive manner, delivered using instructional strategies that meet the needs of SEN children, and materials that reinforces the said instructional strategies. This model ensures input and outcome of child and contexts are relevant and applicable.

The theoretical framework in which development of H-SEXE is set upon, holds theoretical significance by merging diverse perspectives while respecting Malaysian culture. Methodologically, this research adopts a multiple case study design, utilising interviews and observations from different regions to provide a holistic view, yet it faces limitations in terms of individual perceptions and the generalisability of findings due to a single zone where observations were conducted. The limited research on holistic sexuality education and the differences between Europe and Malaysia also limit the evidence of investigation in a local context (Ketting et al., 2016; WHO, 2010). In a practical sense, H-SEXE offers benefits to stakeholders by empowering parents with knowledge and skills, guiding educators, aiding service providers, and serving as a foundation for policymakers to develop comprehensive sexuality education programmes, emphasising collaborative efforts among stakeholders to ensure effective learning outcomes for SEN children.

#### **DISCLOSURE STATEMENT**

No potential competing interest was reported by the authors.

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