

Pornography Exposure among Adolescents: Awareness, Attitudes and Knowledge of Malay Muslim Mothers

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ABSTRACT

Background: Adolescent exposure to online pornography has become a growing public health concern with implications for their psychological and sexual development. This study explores how Malay Muslim mothers perceive and manage their children's exposure to sexually explicit online content, focusing on parental awareness, preventive strategies, and influencing socio-educational factors. **Methods:** A qualitative descriptive design was employed, involving semi-structured interviews with sixteen mothers of children aged 3–17 years. Data were analyzed using reflexive thematic analysis guided by Parental Mediation Theory to understand how parental education, digital literacy, and cultural beliefs shape monitoring and communication practices.

Results: Three main themes emerged: Parental Challenges and Strategies in Regulating Gadget Use; Addressing Pornography Exposure in Children; and Sex Education and Communication at Home. Results revealed that while parents are aware of the risks, most rely on schools for formal sex education and face barriers in discussing sensitive topics. Parents with higher educational levels reported stricter digital control, while those from lower-income backgrounds often lacked digital literacy or resources to use monitoring tools.

Conclusion: The study highlights how parental education, digital literacy, and cultural values influence Malay Muslim mothers' mediation of their children's online experiences. Strengthening parental confidence and providing accessible resources for low-income families may enhance preventive education and communication regarding online sexual exposure.

Keywords: Pornography exposure; Adolescence; Sex education; Gadget; Parental concern

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INTRODUCTION

Previous studies indicate that Malaysian parents generally have moderate awareness of internet-related threats but may lack comprehensive understanding of the psychological and behavioral risks associated with pornography exposure (1,2). Local research has largely focused on prevalence and behavioral outcomes among youths, showing alarmingly high exposure rates up to 74.5% among Malaysian youths (3). However, limited attention has been given to how parents, especially Malay Muslim mothers perceive, manage, and communicate about this issue. This represents a critical research gap, as parental mediation is central to preventing harmful exposure and promoting healthy psychosexual development.

This study draws upon Parental Mediation Theory, which posits that parents' monitoring, communication, and co-use of media influence children's media-related behaviors and attitudes (4). Within the Malay Muslim context, this theory provides a valuable framework to examine how cultural norms, religious values, and digital literacy intersect to shape parental strategies for regulating children's online behavior.

Although pornography exposure among adolescents has been widely discussed in Western contexts, there remains limited understanding of parental awareness and responses within Muslim-majority societies, where cultural and religious sensitivities often inhibit open discussions about sexuality. Moreover, there is a scarcity of data linking parental education level, socio-economic status, and digital literacy to strategies used to prevent or manage pornography exposure among children. Addressing these gaps is vital for developing culturally sensitive, evidence-based parental education and intervention programs in Malaysia.

This descriptive qualitative study aims to; explore Malay Muslim mothers' awareness, knowledge, and attitudes regarding their children's exposure to online pornography. Identify the strategies and challenges parents face in regulating children's digital behavior and providing sex education and examine how educational background, socio-economic status, and program participation (e.g.,

IMPRESS workshops) influence these parenting practices.

METHODS

Data was collected through semi-structured phone call interviews. Interviews with parents of school-aged children (3–17 years old) sought insights into their awareness, knowledge, and attitudes regarding their children's exposure to pornography and methods employed in preparing their children for a healthy psychosexual development.

Study Design

This study employed a qualitative descriptive design to explore Malay Muslim mothers' awareness, attitudes, and practices regarding their children's exposure to online pornography. The approach was chosen for its suitability in examining sensitive social phenomena within participants' natural contexts (5). The design allowed for rich, nuanced insights into parental experiences while maintaining ethical sensitivity. The study was guided by Parental Mediation Theory, which explains how parents use strategies such as monitoring, discussion, and restriction to shape their children's media use. Within this theoretical lens, parents' educational background, digital literacy, and cultural beliefs were examined as potential influences on mediation practices. The study was reported using the COREQ (Consolidated criteria for Reporting Qualitative Research) checklist.

Participants

Sixteen participants were recruited, eleven from the post-workshop of 'Parents Monitoring The Sexual, Reproductive and Social Health of Their Children' (IMPRESS) that was held on 19 August 2023 and 16 December 2023, and five from without attending the program prior. IMPRESS is a workshop organized by the nonprofit organization Malaysians Against Pornography (MAP). This institution aimed to fight the threat of pornography among the Malaysian community. MAP's focus was on the prevention, intervention, and advocacy related to pornography. A suggestion of a sample size of 15-30 participants should be recruited for a qualitative study (6). From the 75 participants in the workshop, a sample size of 16 participants was selected. Inclusion criteria

for the participants included parents who: the ages of 28 to 50 years old, have children between the ages of 3 to 17 years old, are primary caregivers of the children, active internet users, and falls under the following income categories: low, middle, and high. The categories are based on Household Income and Basic Amenities Survey Report (7) by Pahang State and Administrative District (2019) (Table 1).

Exclusion criteria for the participants include parents who have cognitive impairments, hearing and/or visual impairments, and mental disorders. A Google form link was sent to each of the participant prior to the interview to collect their sociodemographic data. The participants' sociodemographic details and their children's ages are shown in Table 2.

Table 1: Range of Income and Its Category

Range	Income Category
Below RM 3,900	Low
RM 3,900 to RM 7,600	Middle
More than RM 7,600	High

Table 2: Sociodemographic Data of Participants (N=16)

Sociodemographic Characteristics	Frequency, <i>f</i> (%)
Gender	
Female	16 (100)
Age (years)	40 (5.4)
Ethnicity & Religion	
Malay, Muslim	16 (100)
Employment	
Professionals	4 (25)
Educators	2 (12.5)
Housewife	4 (25)
Supporting Staff	6 (37.5)
Marital status	
Married	14 (87.5)
Single parent	2 (12.5)
Income range	
Below RM3,900	6 (37.5)
RM3,900 to RM7,600	6 (37.5)
More than RM7,600	4 (25)
Education level	
Secondary Education	5 (31.25)
Diploma	4 (25)
Degree	7 (43.75)
Number of children(s)	
1-2	4 (25)
3-4	10 (62.5)
>5	2 (12.5)

Procedures

Ethical approval was obtained from the IIUM Research Ethics Committee (IREC 2023-181). Participants provided informed consent prior to interviews, and anonymity was ensured through the use of pseudonyms. Data were collected through semi-structured phone interviews, each lasting approximately 30–40

minutes. This mode was chosen to encourage privacy and openness when discussing sensitive topics. The interviews explored parental awareness, monitoring practices, communication about sex education, and perceptions of online risks. The same interviewer conducted all sessions to ensure consistency and build rapport.

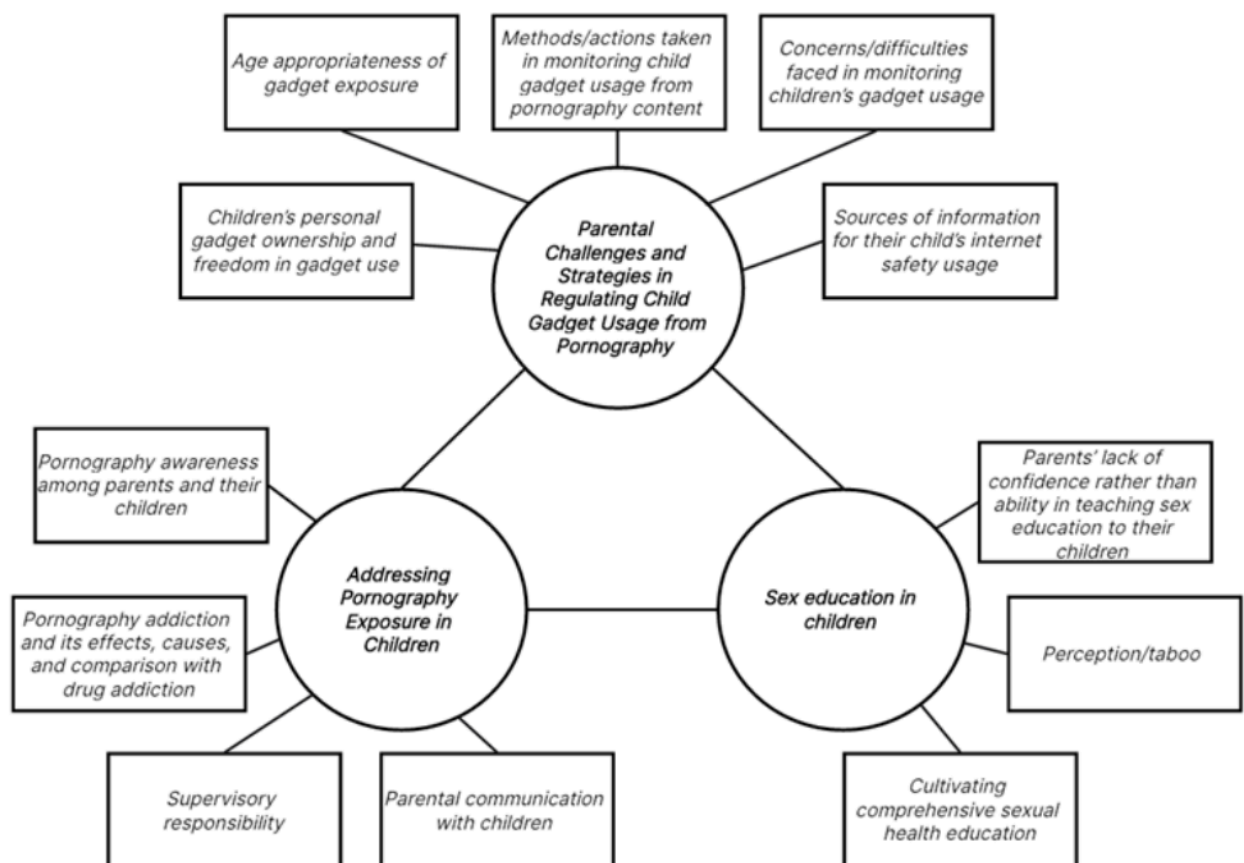
Data Analysis

The rigour of this study was ensured by using Lincoln & Guba's Framework of Quality Criteria, which included legitimacy, reliability, validity, versatility, and genuineness (8). Interviews were transcribed using the AI-powered software Notta.ai and analyzed using reflexive thematic analysis. Coding was performed manually by the first author, with verification by co-authors to enhance credibility. Thematic maps were developed through iterative discussion, comparing codes and themes until data saturation was reached (Figure 1).

Researcher Reflexivity and Assumptions

The researchers acknowledged several key assumptions underlying this study: that mothers are the primary mediators of children's digital behavior in Malay Muslim households; that parental education and digital literacy influence how parents regulate children's online exposure; and that cultural and religious norms affect parents' comfort in discussing sexual matters. While these assumptions are consistent with existing literature and cultural expectations, they may introduce bias by underrepresenting fathers and other family structures. These limitations were considered during data interpretation to ensure analytical transparency.

Figure 1: Thematic Map



RESULTS

Three major themes and twelve subthemes were identified through reflexive thematic analysis presented in Figure 1. The three theme include (a) Parental Challenges and Strategies in Regulating Child Gadget Usage from Pornography (b) Addressing Pornography Exposure in Children, and (c) Sex education in children. These themes collectively illustrate how Malay Muslim mothers mediate their children's exposure to digital media and navigate culturally sensitive discussions surrounding sexuality.

Theme 1: Parental Challenges and Strategies in Regulating Child Gadget Usage

Children's Personal Gadget Ownership and Freedom in Gadget Use

Almost half of the participants provided each of their children a phone for personal use, citing reasons such as facilitating communication with parents and school, and supporting educational needs. The decision to provide personal phones reflects a recognition of the potential benefits in easily accessing educational resources and information disseminated by schools. Moreover, a lot of these participants mentioned that the initial reason for granting their children their own mobile devices was due to online learning during the pandemic. They also grant some extent of freedom to their children during gadget use. For example, there is an absence of device passwords, lack of active mediation, and no time restriction for gadget use. However, while offering freedom, participants also highlighted the need for clear communication and setting boundaries about responsible tech use to ensure a healthy balance between autonomy and guidance, and the purpose of this freedom was for learning self-regulation and moral guidelines on what is right and wrong to consume.

From the interviews, it became clear that most participants with lower educational backgrounds provided their children with individual phones. A discernible pattern emerged, showing that older children in high school typically had their own phones, while younger children in primary school shared a phone with their siblings, or used their parent's phone. Some of them shared:

"We just recently each got our kids their own phones. It's mainly for anything, you know, like when we're outside or if my younger kid is left at home. That's about it. So, they use the gadget just for playing games, watching TikTok, and following influencers."

(P9)

"Two of them have phones. My 11-year-old uses my phone."

(P11)

"...one phone is shared by two of my younger kids for studying, and it was bought by their uncle. The eldest one has a phone too, it was also given to him by their uncle."

(P12)

While most of the parents provided the phones themselves, a few were presented as gifts by close relatives, and one participant received a YES telephone as part of a collaborative initiative between YTL Communications; a mobile network operator in Malaysia, and the government. This initiative aims to provide free smartphones to lower-income families with children enrolling in government schools who lack smartphones or other smart devices. On the contrary, all four participants from the higher educational backgrounds do not provide smartphones for any of their children. The children were either given their parents' phone or access to TV for entertainment.

However, it's important to acknowledge that participants with higher educational backgrounds did not grant their children individual phones, primarily because their children are mostly in kindergarten or preschool. Conversely, participants with lower educational backgrounds typically have older children already enrolled in primary and secondary schools, where the use of phones becomes necessary for receiving school-related information. For participants with higher educational background whose children attend primary and secondary schools, they only provide them with the parent's phone. The distinction between these two groups lies in the amount of screen time allotted to their children, a topic that will be discussed in subtheme 1.3.

Age Appropriateness of Gadget Exposure

The participants had differing opinions and gave different reasons on the appropriate age for their children to be exposed to gadgets. It

was found that there was a child who was given access to gadgets as early as 3 years old, while the majority were during primary school ages. Some emphasized that their children experienced earlier exposure to electronic devices due to the constraints on outdoor activities, as they lacked that option during the pandemic. While others believed that gadget exposure to ages of ten and above are appropriate supplementary with monitoring and education of gadget use.

Methods/Actions Taken in Monitoring Child Gadget Usage from Pornography Content

Majority of participants have implemented the same measures in monitoring their children's gadget usage from pornography content, demonstrating a collective emphasis on creating a safe digital environment for their children. Common strategies include implementing parental control apps through email accounts linkage on mobile devices, restricting content suitable for underage children including little to no social media use and game usage regulation, setting time limits for gadget use, arranging outdoor activities to limit gadget use, co-viewing, setting conditions after phone use such as charging location and storage, establishing control measures such as setting up password on gadgets, limiting types of gadgets exposure to children and monitoring through content and history check, reduction of gadget use after exposure to inappropriate content, educating and guiding children on navigating internet content that serves as a defence mechanism, and revisiting conversations with their children about their day.

Additionally, two participants also mentioned the role of government in eradicating pornography websites as a preventive action in limiting such exposure to children. However, they expressed their doubts about the scope of government's ability to regulate and monitor online content.

However, an observed trend in the interviews indicates a noteworthy correlation between educational levels within families and the amount of screen time allocated to children. Specifically, families with higher educational levels appear to restrict their children's exposure to gadgets or screens to a lesser extent than families with lower educational levels. From the interviews, it was concluded that the

former permitted a screen time of 30 minutes to 2 hours, while the latter permitted more than 2 hours. The participants with higher education backgrounds shared:

"...but not for a long period. I gave them a short time, around 30 to 40 minutes."

(P5)

"For phones, it's usually 1 hour."

(P15)

While participants with lower education backgrounds,

"In the evenings until night usually. And then before 10 o'clock, they don't use the phone anymore."

(P11)

"Within two to three hours, I think. Based on... how long I work to avoid any fights between my children."

(P7)

Most participants allowed their children to use gadgets, primarily for communication and educational purposes. However, the degree of supervision varied according to educational background and income level. Parents with higher educational attainment tended to enforce stricter screen-time limits (30–120 minutes per day), whereas those with lower education levels reported longer, less supervised usage. Rather than suggesting a direct causal relationship, these patterns reflect associations consistent with prior research indicating that socio-economic resources and digital literacy shape parenting styles and children's media use (9). Families with higher income and education often had access to structured extracurricular activities, reducing reliance on gadgets for entertainment (10).

Participants reported using various monitoring strategies, including parental control apps, co-viewing, time restrictions, and verbal guidance. Mothers who attended the IMPRESS workshop demonstrated higher awareness of digital control tools (e.g., Google Family Link), highlighting the potential impact of community education programs. However, lower-income mothers often lacked digital literacy or faced device limitations (e.g., outdated phones, lack of data access). This suggests that technological barriers intersect with socio-economic inequality, constraining the ability to

implement effective digital supervision. The limited ICT access in low-income families restricts participation in digital safety practices (11). These participants shared:

"...their phones, I set them up with parental control apps so that we can monitor. We can set the time limits and specify what they can access."
(P1)

"Their phones are all family-linked. ...all the content in YouTube and everything else, I restricted it to only for underage users."
(P2)

However, an outlier lies within the lower educational background families who attended the workshop but did not utilise parental control apps, which is shared by one of them:

"Another way parents can control the use of internet on phones is through parental control apps, but I don't know how to set those up."
(P12)

Individuals who did not join IMPRESS do not know how to employ parental control apps may lack awareness of the available tools or the potential risks associated with children's exposure to pornography. On the contrary, participants who joined the workshop employ parental control apps demonstrate a proactive approach to addressing the issue. Joining the workshop likely increased their awareness of the importance of monitoring and controlling children's exposure to explicit content, leading them to utilise technological solutions for enhanced supervision. The exception observed among lower educational background participants who joined IMPRESS but do not know how to employ parental control apps may be influenced by factors such as financial constraints or lower digital literacy. In the context of these participants, financial constraints may refer to their owning lower-quality phones. Half of the participants from this group had gadget constraints such as inability of phone to open a PDF file which indicates lacking software capability, and occasional performance issues such as phone hangs, which necessitates repair prior to an interview. Additionally, one of them faced the challenge of lacking mobile data and Wi-Fi access at home, which required them to go to a relative's house for internet connection. Lower-quality phones may lead participants to believe that parental control apps might not be

compatible with their devices due to lack of storage or poor performance, consequently contributing to their limited access to parental control tools.

Moreover, digital literacy is the capacity of an individual to generate and utilize digital content to fulfil the needs of a constantly evolving digital society (12). This encompasses the broader concept defining digital literacy as "the skill to navigate computers, social media, and the internet" (13). One study revealed that low-income urban communities face lack of access to information and communication technologies (ICTs), which suggests that residents in these communities are being deprived of the chance to actively engage in the information-centric society (14). Therefore, the IMPRESS workshop may have been effective in promoting awareness and understanding of the need for parental control apps, as evidenced by the proactive engagement observed among those who attended. However, the exception in the lower educational background group highlights the importance of the need for considering additional support or tailored resources for participants from lower-income backgrounds.

Concerns/difficulties Faced in Monitoring Children's Gadget Usage

Participants described multiple difficulties in monitoring gadget use, such as conflicting approaches between home and school, peer influence, and exposure through social media or gaming platforms. These findings resonate with Parental Mediation Theory, which emphasizes the tension between restrictive and enabling mediation strategies (4). Mothers often aimed to balance control with autonomy, seeking to foster moral responsibility while respecting children's independence. Despite these challenges, they remained committed to guiding their children's digital habits and emphasized the school's role in promoting healthy gadget use. They stressed the importance of teacher awareness and school-parent collaboration through joint awareness sessions and PIBG meetings, given that parents are the primary providers of gadgets.

Sources of Information for Their Child's Internet Safety Usage

The sources of information mentioned by the participants include attending the IMPRESS

workshop and parenting courses, internet searches, and their personal experiences in raising and handling their children. A small portion of them were unsure as they relied on their partners in setting up parental control applications.

Theme 2: Addressing Pornography Exposure in Children

Pornography Awareness among Parents and Their Children

Most of the participants shared a similar experience where they had limited awareness of pornography exposure before educational programs such as IMPRESS were introduced. Moreover, they reported that they had not heard or known what pornography is before attending the program. However, the participants acknowledged that these awareness initiatives played a crucial role in enhancing their understanding and fostering a proactive approach to addressing and mitigating pornography exposure for themselves and their children. All the participants were also privy to the online content consumed by their children. However, in terms of online games, some of them could not exactly recall the titles or unable to describe what the games their children played entail. Most common online games mentioned were Roblox, Mobile Legends, PUBG, and Freefire which all have servers in common.

Pornography Addiction and Its Effects, Causes and Comparison with Drug Addiction

All the participants surmised that pornography could cause addiction. They believed that watching pornography can create a desire to watch more, indicating a shared perspective among participants about the potential for an escalating pattern of consumption. While others reported that pornography consumption causes arousal or changes to the brain that causes the addiction itself. Two participants, respectively, had a standpoint of the addiction depending on the individual's control to consume it in terms of quantity and frequency, and children are more vulnerable to being addicted to pornography as they lack maturity and development.

Majority of the participants shared the same opinions on the effects of pornography. Firstly, the impact on mental and emotional well-being

including persistent guilt and behavioural manifestations of cognitive issues. These manifestations comprise of the repetition of wrongful behaviour and escalation from harassment to abuse. Secondly, it may lead to social implications such as facing societal judgment, social withdrawal and isolation, influencing peers negatively, and developing distorted views of women. Other than that, it can cause academic distraction which entails the loss of academic focus, attention deviation and persistent distraction from daily tasks. Additionally, it could instigate sexual implications such as the inclination towards sexual abuse, self-inflicted pleasure, and sexuality crisis. These similarities suggest interconnected aspects of pornography addiction that impact individuals holistically, spanning psychological, social, sexual and academic dimensions.

Various opinions regarding the causes of pornography addiction were obtained from the participants. Participants highlighted several factors contributing to this phenomenon, including pornography's novelty to children and their natural curiosity to explore it, peer influences in content exploration, visual stimulation and pleasure seeking, fast learning and message absorption, the lack of gadget monitoring and content restriction, and data access that allows children to access to internet content irrespective of their location.

The participants had differing opinions on the similarities and differences between pornography and drug addictions. Some highlighted the similarities such as the role of the brain reward system, repetitive behaviour towards consumption, substance abuse pattern where users will eventually seek more than what they already consumed, and causing similar societal issues, specifically, sexual diseases. However, in terms of non-sexual diseases, the outcomes may differ. On the contrary, the differences were the nature of substance (drug vs explicit content), manifestations of pornography and drug addictions (behavioural and mental vs physical outcomes respectively), route of exposure (watching vs oral and injection), severity of addiction where they believe that drug addiction is more severe, duration of exposure to cause the addiction where the participants perceived that pornography needs to have longer exposure compared to drugs. Moreover, some participants think that these two

addictions have similarity in pleasures, while others think otherwise.

Participants perceived pornography as potentially addictive, often comparing it to drug dependency due to its repetitive and pleasure-seeking nature. They associated it with emotional distress, social withdrawal, and distorted perceptions of sexuality echoing global findings on the psychosocial effects of excessive pornography use (15). However, as this study is qualitative, these perceptions should be interpreted as subjective interpretations rather than empirical claims of causation. They reflect cultural and moral frameworks that shape how Malay Muslim parents define and respond to digital risks.

Supervisory Responsibility

Mothers described diverse approaches to managing exposure, emphasizing open communication, behavioral restriction, and educational guidance. Teachers and schools were viewed as key partners in promoting digital safety. This aligns with studies suggesting that collaborative family-school partnerships enhance children's resilience to online risks (7).

Parental Communication with Children

Most of the participants foster a healthy relationship with their children, where they encouraged open communication and discussions regarding the content that their children consumed. For example, their children would openly show videos they considered 'weird' to which the parents would explain and educate them on why the content they were watching was inappropriate. Their children would also tell stories of their peers' activities which helped the parents to assess environments where there are external influences on their children. Other than that, most of the participants would also revisit their children's conversations and daily activities to ensure their safety from any potential undesirable exposures.

More than half of the participants agreed that there was more improvement they needed to do in helping their children prepare in navigating the digital landscape. Participants who expressed a higher level of readiness stated that they have confidence with their home gadget control compared to the school

environment where they cannot do remote monitoring, equipped with the ability to explain sexuality-related questions according to their children's level of understanding, and relied on their children's training in gadget use which fosters positive communication and trust. On the contrary, some of them mentioned that they could use more improvement in terms of communication and timely discussions, the need for continuous knowledge, activity monitoring and their children's social circle evaluation.

On a scale of 0 to 10, with 0 being very negative and 10 being very positive, majority of participants answered between the ranges of 8 to 10 in rating their experience in preparing their child dealing with pornography exposure through the internet, indicating that they are well-prepared and equipped to navigate conversations and implement strategies to safeguard their children from pornography exposure online.

Theme 3: Sex Education in Children

Parents' Lack of Confidence Rather Than Ability in Teaching Sex Education to Their Children

It emerged that, despite some parents actively engaging in discussions with their children regarding sex education, enrolling them in such programs and teach the fundamentals within their homes, a consistent pattern was observed among all participants wherein they leaned on formal school settings for a more comprehensive understanding of sex education typically through subjects like Religious Studies and Physical Education. Some of the participants facilitated discussions with their children regarding to what the sex education entailed, while others do not due to communication barrier. A contributing factor to this reliance, as identified by some participants, was the unpreparedness of parents to initiate discussions about sexuality with their children. Additionally, the participants noted that the children's discomfort and embarrassment regarding the topic discouraged open communication with the parents, as said by participant four:

"They are exposed to the program (sex education) at school, but they only talk among themselves. Because, being teenagers, they won't discuss it with their mothers. But when we hear them chatting with

each other, we know what they're talking about. Or when we ask about it, they acknowledge it, but they won't share the details because they're embarrassed to tell us."

(P4)

Nevertheless, the inclination of parents to depend on schools for the delivery of sex education appears to be contingent on the individual backgrounds of the parents. For example, a participant who serves as a counselling teacher. She disclosed her personal encounter with students grappling with pornography addiction, prompting her to take proactive measures to support and assist these students. Moreover, she emphasized her regular attendance at NGO programs focused on child development, actively involving her own children in these events. Following each attended program, she conscientiously engages in discussions with her children to facilitate understanding of the programs and encourages them to raise questions for further clarification. Despite acknowledging the importance of schools in imparting sex education and emphasizing the significance of teachers possessing this knowledge, her active involvement in her children's sex education lessens her reliance on schools for this aspect of their development.

Several factors contribute to parents relying on schools for more in-depth sex education. Firstly, is the formal education structure. Parents often view schools as institutions that provide structured and formal education. Sex education, being a sensitive and complex topic, is a part of the formal curriculum in schools that parents trust can deliver comprehensive and age-appropriate information to their children in a systematic manner (15). Moreover, some parents may perceive schoolteachers and educators as experts who are trained to address delicate subjects like sex education (18). They trust that these professionals have the knowledge and skills to deliver accurate information in a developmentally appropriate manner, ensuring that children receive a thorough understanding of the subject. A participant expressed that it is important for schools to incorporate sex education because teachers possess a unique skill set in educating children, different from that of parents. There are certain topics that children might feel reluctant to discuss with their parents but are more open to addressing with their teachers, and better understanding is facilitated as

children would have peers to engage in discussions with.

Following this, we delve into the communication barriers between parents and their children. The interviews highlight some of parents' unreadiness and the children's feeling of embarrassment to initiate detailed discussions about sex education at home. These findings mirror research by Maina and colleague, who identified discomfort, lack of knowledge, and social norms as key inhibitors to effective parent-child communication on sexual health (16). Within the framework of Parental Mediation Theory, this reflects a preference for "delegated mediation," where parents transfer educational responsibility to institutional actors (4).

However, the effectiveness of delivering SRH information within parent-child communication is influenced by the timing of discussions. A few research suggest that initiating SRH communication before a child's sexual debut can be more impactful in reinforcing defence mechanisms (16,17). Cultivating a closer connection with their children empowers certain parents to have transparent and open dialogues about sexual health matters. Recommendations support this approach by underscoring the need to refine parents' communication skills for the effective exchange of information regarding sexual health (15).

Perception/Taboo

Several mothers noted that discussions about sexuality remain taboo within the Malay Muslim community. Talking about pornography or sexual development was often equated with promoting immorality. This perception limits proactive engagement in children's sexual education, echoing Waliyanti and Dewantari, who found similar constraints among Indonesian parents due to cultural modesty norms (18).

"...if it's someone else's child, I can only offer suggestions because it's a sensitive issue. ...it's taboo for us Malays. It's up to that person to tell. If they don't tell, we won't know."

(P4)

But another participant expressed, teaching sexual education in schools could "break the taboo" and normalize informed discussion,

fostering awareness without encouraging premature sexual curiosity.

"Teachers can play a significant role in increasing programs or lectures on awareness of sexual education, online grooming, pornography, and sexual reproductive systems. We don't want all of that to become taboo, right? Schools and parents... we should expose what is happening."

(P14)

Cultivating Comprehensive Sexual Health Education

A significant number of the participants have taught sex education to their children as early as pre-school ages. This mainly comprised of the basics such as safe and unsafe touch, and teaching correct terms for their reproductive organs while older children were taught regarding privacy rules and modesty at home, and communication boundaries and modesty between different genders. Several participants also advocated joining educational programs focused on child development alongside their children. Additionally, they emphasized the importance of facilitating family discussions post-program to enhance understanding.

Parental communication was also discussed by the participants. While the majority expressed having open communication for discussing sensitive issues such as sexual assault and abduction cases with their children, a smaller subset faced challenges initiating conversations on sex education. This difficulty was attributed to their children's feelings of embarrassment or the parents' unreadiness in broaching the subject. Furthermore, the participants who attended the IMPRESS program has provided formal sex education to their children, while others either have not done so entirely or covered only fundamental aspects.

Most respondents expressed the view that teaching sex education as early as primary school age is appropriate, and at the same time emphasizing the significance of teaching the basics while children are in their early years. However, Participant 10 expressed concerns regarding the inclusion of sex education topics in the primary school curriculum, as the sexual nature of the subject could negatively influence the children. This participant advocated for the introduction of sex education at the secondary school level as a more appropriate timing, who said:

"But you know, issues like that (pornography exposure) are present even in schools now. It's like waiting for them on the internet, right? Nowadays, I feel like subjects with elements like that are already in primary schools. Whether it's a science subject or something. But, back in my time, we only got subjects like that when we entered secondary school. Now, those subjects are already there in schools."

(P10)

"...The school authorities, in my opinion, should also provide exposure to this matter so that our children are aware that it is something awful. However, once they are aware of it, they might seek to know more. So, in my opinion, it's allowable but not to an extreme extent."

(P10)

"I think the suitable age for these children to be exposed to sex education is secondary school."

(P10)

This perspective highlights about the belief that exposing young children to sex education might inadvertently introduce them to pornography is rooted in a fear that it encourages children to engage in sexual activity (17). On the other hand, early sex education helps in equipping adolescents with responsible attitudes and behaviour in their approach to sexuality, and providing age-appropriate information can empower them to make informed decisions and protect themselves (19). Additionally, parents expressed intense fear about the potential "loss of innocence" that may arise from sex education. Despite these apprehensions, it is advisable for parents to initiate age-appropriate introductory discussions about sex with their children. This approach aims to cultivate an open communication required to handle sex-related issues as they arise (20).

A minority of the participants also highlighted the role of peers in shaping perspectives towards sexual education. They recognized that peers could have a significant impact on attitudes and knowledge, thus emphasizing the importance of reliable sexual education sources to provide accurate information and counterbalance the influence of peers on adolescents' understanding of this sensitive topic.

CONCLUSION

This study explored how Malay Muslim mothers perceive and manage their children's exposure to online pornography, and how education, income, and digital literacy influence parental mediation practices. Guided by Parental Mediation Theory, the findings reveal that mothers serve as both moral gatekeepers and digital supervisors, balancing restrictive and enabling strategies within a framework shaped by cultural, religious, and socio-economic factors.

Overall, the results indicate that, awareness and knowledge of pornography risks are generally high among mothers who have participated in awareness programs, such as IMPRESS, but remain limited among those without prior exposure to structured training. Parental mediation practices vary according to educational and income levels-parents with higher education tend to implement more structured digital supervision and communication, whereas those from lower-income groups face barriers due to limited digital literacy and resource constraints. Communication barriers and cultural taboos significantly hinder open discussions about sexuality at home, leading to reliance on schools to provide formal sex education.

These findings underscore that parental confidence, rather than awareness alone, determines the effectiveness of preventive strategies. The results also support the Parental Mediation Theory's assertion that parents' beliefs, socio-economic resources, and media literacy shape children's exposure experiences and resilience to online risks. Within the Malay Muslim context, this mediation process is further influenced by religious values and modesty norms that regulate how sexual matters are addressed in the family setting. In light of these findings, interventions should prioritize enhancing parents' self-efficacy and digital competence, especially among lower-income families. Incorporating culturally sensitive parental training and accessible resources could improve both awareness and communication about sex education and online safety.

LIMITATIONS

This study's limitation included a predominantly female sample. Past research

has suggested that adolescents are more inclined to engage in discussions about sex and sexuality with their mothers (21). Moreover, focusing solely on female Malay Muslim samples may lack generalizability to other populations, as they might not represent the diversity of experiences and perspectives present within broader society. This narrow focus could also overlook important intersections of identity, such as cultural practices, which could influence the outcomes of the study. Additionally, parents may feel uncertain about their ability to address pornography and sex education with their children, possibly due to communication barrier and surrounding taboo on the topic. Further investigation is necessary for a more inclusive and diverse research approaches and to fully understand parent's lack of confidence and address them through a comprehensive approach to pornography and children's sex education programs.

CONFLICT OF INTEREST

The authors declared no conflict of interest.

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AUTHOR CONTRIBUTIONS

AHN: Conceptualization, methodology, software, validation, formal analysis, investigation, data curation, writing original draft preparation, visualization.

BFU: Conceptualisation, validation, resources, writing review and editing, supervision, project administration, funding acquisition.

SZ: Conceptualisation, validation, resources, project administration.

SHAH: validation, writing-review and editing.

MAR: validation, writing-review and editing. All authors have read and agreed to the published version of the manuscript.

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