Parental control on handphone access and usage among Malaysian children

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ABSTRACT

Introduction: Parental control for a child's handphone access is important to ensure online safety. This study was to determine parental control on handphone access and the usage amongst Malaysian children.

Materials and Methods: A cross-sectional survey was conducted electronically between April 2017 and March 2018 among parents with children above 2 years of age, who owned a handphone. The 10-item questionnaire included questions about rules applied to the use of handphones, education on cybersafety, the characteristics and activities of their youngest children who had full-time access to a handphone, and parental perceptions of their children's usage of handphones. A total of 215 parents were included.

Results: From this, 92% controlled their children's handphones use by setting rules. The commonest rules were limiting the time of handphone usage (77%) and being aware of whom the child was communicating with (77%). The majority (94%) educated their children on cybersafety, and the commonest discussed topic was not to communicate with strangers (93%). The children's average age of first handphone ownership was 10.6 (SD: 3.6) years, and the use of the handphone averaged 17.4 (SD: 18.5) hours a week. Despite the rules and education provided, only a quarter of parents were confident of their children's capability to manage their own safety when using handphones (27%).

Conclusion: In summary, Malaysian parents did control their children's handphone usage.

INTRODUCTION

According to the United Nations International Children's Emergency Fund (UNICEF) estimates, approximately one in three internet users were children under 18.[1] Children could be seen clicking on keypads and swiping across electronic screens even before learning to speak. Less than 8% of those between the ages of 9–11 had followed the American Academy of Paediatrics guidelines on restricting media usage to less than 2 hours a day.[2] Electronic device usage among older children had been linked to obesity and other metabolic syndromes.[3] Taiwan reported that 15.2% of students were addicted to smartphones and owning a handphone, frequent gaming and low parental control were predisposing factors.[4] A 2014 nationwide telephone survey among 2401 users of handphones on all digital platforms in Malaysia reported that 12.5% of all handphone users were younger than 20 years and 34% of school-going children owned a handphone.[5] Results of a large-scale online survey of Malaysian secondary school children's view of the internet showed that more than 95% of school children in Malaysia use the internet.[6] Many school children expressed positive family values on their use of the internet and they followed rules set by parents. However, several school children also reported that their behaviours online were influenced by their peers, they experienced cyber-bullying, and there were inappropriate sexual activity online involving children.[6] Like subjected to sexual harassment on the internet, asked for intimate photographs or videos of themselves or sent such photographs or videos to someone over the internet.[6]

Since 2010, several studies have been conducted by public and private organisations locally on the impact of information and communication technology on children's rights and well-being. However, sources of such data were from the perspective of the children, and little appeared to be available about the views of parents. Therefore, the main objective of this study was to determine parental control on handphone access, the usage of handphones among children, the intention, and the actual usage of handphones given to children in Malaysia.

In this study, a handphone was a device that requires a sim card with internet access that could make calls and send or receive messages, images, videos, and other digital materials. Handphone ownership meant having their own handphones and not borrowing from others. Parental control was the method practiced by the parents to restrict their children's access to and use of handphones. Parents who practised at least one of the rules specified were considered to have some control of their children's handphone usage.

MATERIALS AND METHODS

This was a cross-sectional study conducted over 12 months, from April 2017 to March 2018. Malaysian parents with children aged 2–18 years were approached via social media

platforms such as Facebook® and WhatsApp® to participate in an online survey. To encourage participation from the wider parental community, the researchers also disseminated the link of this survey to their paediatric colleagues working in the Malaysian Ministry of Health (MOH) and researchers in the Clinical Research Centre (CRC) Network, who were requested to share the study invitation with their contacts.

Inclusion criteria were Malaysian parents, regardless of marital status, who understood written English, Malay, or Mandarin and had children between the ages of 2 and 18 years, of which at least one possessed a handphone at all times. If more than one child in a household possessed a handphone at all times, the youngest child would be the main target of the survey. Parents who had any children with severe intellectual disabilities were excluded because our team would like to focus on typical family for this study.

2014 nationwide survey among handphone users in Malaysia reported that 40% of parents had "some amount of control" over their children's computer and internet usage.5 We calculated that a sample size of 256 participants was required (power of 90%, setting the alpha at 5% and the prevalence of 40% of Malaysian parents had control over their children's handphone use).

The questionnaire was developed and made available online via Google Form in three commonly used languages in Malaysia—English, Malay, and Mandarin. The questionnaires were developed by paediatricians. There was no reliability or validation done. In the forms, participants would first read a Participant Information Sheet that briefly explained the study. Parents who agreed to the consent statement would proceed to the next page of the questionnaire. Socio-demographic characteristics of the participants were first collected followed by the 10-item questionnaire. The questionnaires included the child's age of acquiring a handphone, the hours of usage per week, parental reasons for providing the handphone, and the commonest purpose for the use of handphones. We asked whether parental control was applied to handphone use and, if yes, the specific rules or restrictions chosen. We also asked whether parents educated their children on cyber-safety and, if yes, the topics provided. Parents' perceptions on whether their children followed the rules imposed were also evaluated. All questions were made compulsory for a successful submission of the questionnaire.

Survey responses were automatically recorded in a Google Sheet, which was downloaded and exported to SPSS v21.0 for analysis. Data analysis for this paper was purely descriptive. Continuous data were summarised as means with standard deviations if normally distributed, or medians and interquartile ranges if otherwise. Categorical data were presented as frequencies with percentages.

The study was approved by the Medical Research & Ethics Committee (MREC) of the MOH Malaysia ((6)KKM/NIHSEC/P17-729). All participants provided consent online prior to answering the questionnaire. No unique identifiers were collected and all participants remained anonymous. All collected data and responses were kept strictly confidential, and only the researchers had access to the online questionnaire and the database.

RESULTS

We received a total of 270 responses. Fifty-five of the respondents were parents whose children were allowed access to handphones but did not own them and hence were excluded. The subsequent analysis was based on 215 respondents, which was 84% of the target sample size.

Figure 1 compared parents' intentions of providing their children a handphone, and their children's actual use of the handphone. While communication was a joint purpose of owning a handphone, parents intended the handphone for reasons of safety or emergency contact (30.70%), while children primarily used the handphone for entertainment (59.26%).

Table I describes the socio-demographic characteristics of the parents who had participated and their children. Majority of the respondents were from social classes I and II and had less than 4 children. The average use of the handphone was about 2.5 hours a day.

198 out of 215 parents (92%) controlled their children's handphone usage by setting rules (Table II). Approximately half of the parents set between 9 and 12 rules. The five commonest rules set included limiting the time of usage, being aware of the person communicating on the other end, limiting the type of applications downloaded, and restricting the time spent online and place where handphone should be used. A small proportion (10%) of parents were unsure if their children followed the rules.

201 out of 215 parents (94%) stated that they educated their children on cyber-safety, out of which the majority (83%) discussed five or more topics with their children. The five commonest topics discussed included not communicating with strangers, not disclosing personal information, not sharing passwords, seriously considering before posting photos, and observing basic internet etiquette as in Table III.

When asked about their children's capability to manage their own cybersafety when using the handphone, only a quarter of parents (27%) were confident that this was possible (see Table IV).

DISCUSSION

Reasons cited by parents for providing a handphone to their children differ from their children's actual use of the handphone. A particular cause of concern was the use of entertainment, especially gaming and gambling. Instant messengers, gaming, and entertainment had shown to be strong predictors of smartphone addiction.[7] This should bring awareness to the community as it had a potential negative outcome.

The average age for a child's first handphone ownership was 10.6 years, which meant most of them were still in primary school. Our results were similar to the findings from a 2016

Table I: Socio-demographic characteristics of respondents and children[a]

Characteristics	N (%) n=215
Occupational class[b]	
Managerial, administrative, or professional (class I)	121 (56.3)
Intermediate managerial, administrative, and professional (class II)	59 (27.4)
Supervisory, clerical and junior managerial, administrative, and skilled manual worker (class III)	11 (5.1)
Semi-skilled and unskilled manual worker (class IV)	1 (0.5)
State pensioner, unemployed, housewife, or househusband (class V)	23 (10.7)
Number of children in the family	
1–2	85 (39.5)
3–4	96 (44.7)
5–10	34 (15.8)
Number of children in the family who owns a handphone	
1	99 (46.0)
2	62 (28.8)
3	32 (14.9)
4	6 (2.8)
5–10	16 (7.5)
Age of youngest child when he/she first owned a handphone (years), mean (SD)	10.6 (3.6)
Current age of youngest child who owns a handphone (years), mean (SD)	12.7 (4.0)
Number of hours per week the youngest child uses the handphone (hours), mean (SD)	17.4 (18.5)

SD: standard deviation
[a]Data presented are frequencies (percentages) unless otherwise specified.
[b]Office for National Statistics (ONS) 2010. Standard occupational classification 2010, Vol.3. The national statistics socio-economic classification: Rebased on the SOC2010 user manual, London, Palgrave MacMillan.

Table II: Rules set by parents on handphone usage[a]

Characteristics	N (%) n=198[b]
Number of rules practised	
1–4	33 (16.6)
5–8	76 (38.4)
9–12	89 (45.0)
Type of rules practisedc	
Limit time of total handphone usage	153 (77.3)
Knowing the person who is communicating with our children in any form	153 (77.3)
Limit type of applications	145 (73.2)
Limit time to go online, either using data or Wifi	145 (73.2)
Limit place of handphone usage	142 (71.7)
Confiscate child's handphone as a form of punishment	138 (69.7)
Check files (images and videos) that are downloaded into the device	133 (67.2)
Add your child into your network (Facebook®, social media)	129 (65.2)
Install applications (apps) to monitor/control child's online activities	128 (64.6)
Check in-coming private messages (e.g. email, Facebook®, Whatsapp®, Wechat®) content (text, images, videos, files, etc.) from time to time	124 (62.6)
Accompany child when using device	44 (22.2)
Other methods	73 (36.9)
Parent's perception if their youngest child follows rules set	
Yes	147 (74.2)
No	21 (10.6)
Do not know	20 (10.1)
I do not control my child[d]	10 (5.1)

[a]Data presented are frequencies (percentages) unless otherwise specified.
[b]n=17 did not set any rule and were therefore excluded from this analysis.
[c]Parents were allowed to select all relevant rules that were practised/applied.
[d]These parents had earlier indicated that they had imposed rules on their children but in response to this question, they denied any control over their children's handphone use.

Table III: Cyber-safety topics discussed with the children[a]

Characteristics	N (%) n=201[b]
Number of topics discussed	
1-2	17 (8.5)
3-4	17 (8.5)
5-6	100 (49.8)
7 and more	67 (33.3)
Parent's method(s) in educating their youngest child regarding cyber-safety[c]	
Not to text people that you do not know	187 (93.0)
Never disclose personal information online	184 (91.5)
Not to share passwords with others except parents	179 (89.1)
Not to post photos of self or others without understanding the impact	172 (85.6)
Tell them about internet etiquette, like asking ourselves – 'should I really be posting this?' and 'will someone be hurt or offended by this post?'	166 (82.6)
Always log out from online accounts especially when using public computers	149 (74.1)
Other methods	89 (44.3)

[a]Data presented are frequencies (percentages) unless otherwise specified.
[b]n=14 did not provide any education and were therefore excluded from this analysis.
[c]Parents were allowed to choose all relevant methods that were used.

Table IV: Parent's perception about their children's capabilities to manage their own safety when using a handphone[a]

Characteristics	N (%) n=215
Yes	59 (27.4)
Maybe	89 (41.4)
No	40 (18.6)
Not sure	27 (12.6)

[a]Data presented are frequencies (percentages) unless otherwise specified.
[b]Parents were allowed to choose only one answer from the 4 options of Yes, Maybe, No, Not Sure
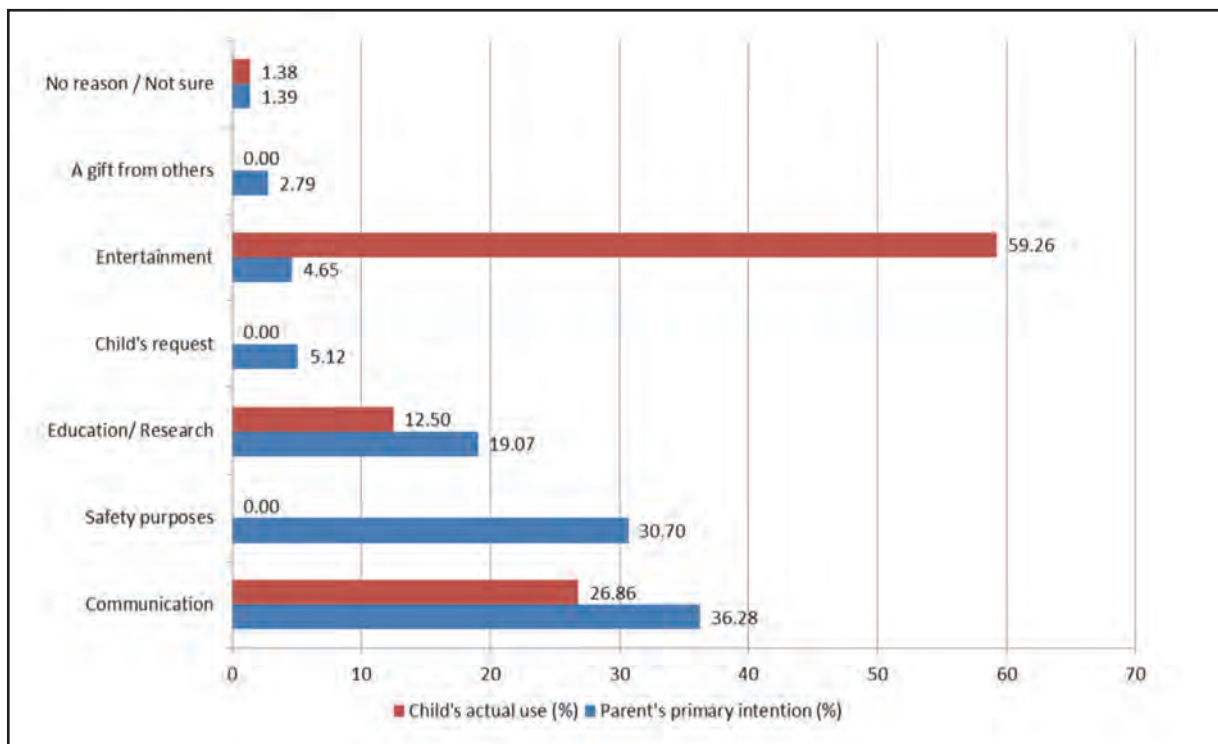
Fig. 1: Parent's intentions of providing their children a handphone and child's actual use of the handphone

Digital Trends Study in the United States where 500 women reported that the average age for a child getting their first smartphone was 10.3 years.[8] However, back in 2012, a survey done in Japan, India, Indonesia, Egypt, and Chile showed the commonest age for children to get their first handphone was 12.[9]

In the 2014 nationwide survey among users of handphones in Malaysia, the common methods of parental control include checking the content of their children's phone (73%), limiting their children's out-going calls (59%) and the length of conversation (47%), and confiscating the phone as a form of punishment (45%).[5] A survey on 249 parent-child pairs in the United States on technology rules and their perceived effectiveness reported that children were more likely to follow activity constraints, like boundaries set on specific technology activities (e.g., no Snapchat) than context constraints (e.g., no handphone at the dinner table).[10] These methods of control were similar to those reported by parents in our study, where limit the time of total handphone usage, type of applications, time spent online were commonly practiced.

In the United Kingdom, common strategies of parental safety mediation included explanation of the good and bad of websites, suggestions on safe internet use, providing help with difficult internet searches and asked not to disclose personal information online.[11] Our parents preferred to explain the exact method, like advising their children not to text people whom they did know and not to disclose personal information online.

A survey among Malaysian secondary school children further confirms that children do experience cyber-bullying, addiction, sexual harassments, and have been exposed to inappropriate language when they use the internet, and they may not have the capacity to mitigate such problematic situations or negative experiences.[6] As a result, only a quarter of parents in our study perceived their children to be capable of managing their own safety when using handphones despite the rules and education provided.

There were a few limitations to this study. Since the study was conducted via an online questionnaire, parents without regular access to the internet would not be able to participate, thus affecting the representativeness of the sample. As with any self-reported data, there was a potential for measurement bias as there might be deviation from the actual practices compared to those perceived. The use of electronic questionnaires had been shown to elicit truthful responses from participants as it was anonymous and could be done privately, but there was no possibility for clarifying ambiguous responses. For example, the parents that had earlier indicated that they had imposed rules on their children but in response to this question, they did not state any control being practised.

CONCLUSION
The majority of Malaysian parents controlled their children's handphone usage by setting rules as well as educating them on cybersafety. A wide range of rules and education topics were practised. Most parents perceived that their youngest children in the family followed the rules set by them. Despite the rules and education provided, many parents were still not confident that their children were able to manage their own safety when using handphones.

Lastly, there was a need for more research and evidence-based guidelines on protecting children's safety in the use of media devices. Future studies should also be expanded to include parents of children from marginalised settings to examine their perspectives of mediating their children's digital media use.

DISCLOSURE STATEMENT
No competing financial interests exist.

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