

Effectiveness of an Awareness Program for Parents on The Risks Associated with Overuse of Smartphones by Children

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Cite this paper as: S. Jyothi, Dr. N. Dhanya, (2025) Effectiveness of an Awareness Program for Parents on The Risks Associated with Overuse of Smartphones by Children. *Journal of Neonatal Surgery*, 14 (32s), 6950-6957.

ABSTRACT

The study, titled "Effectiveness of an Awareness Program for Parents on the Risks Associated with Overuse of Smartphones by Children" evaluates the effectiveness of a parental awareness program on the risks of overusing smartphones by children. It draws on data from pre- and post-awareness assessments and focuses on the outcomes of an online safety handbook distributed to parents. The data was gathered from 480 parents using purposive sampling. The awareness program was conducted in two phases, in phase one an awareness program was conducted, and in phase two, a handbook on online safety was distributed. A self-prepared questionnaire is used to gather information from parents. The questionnaire contains various factors to evaluate the effectiveness of the awareness program and handbook developed. Statistical analysis through an ANOVA test reveals a significant improvement in parents' awareness, leading to better protective measures for children's smartphone use. The study underscores the need for an awareness program for parents on the risks associated with the overuse of smartphones by children.

Keywords: Smartphone, Online safety

1. INTRODUCTION

In recent years, the overuse of smartphones by children has emerged as a growing concern among parents, educators, and policymakers. Despite these risks, parents often lack adequate knowledge and resources to manage their children's smartphone usage effectively. This research highlights how an awareness program and a handbook on online safety help in enhancing the parent's knowledge on the risk of smartphone usage and to enhance their ability to safeguard their children.

According to the study by Hasan et.al (2021), practically all of the participants in their study fathers and mothers alike were aware that excessive smartphone usage might result in addiction and other negative consequences, like issues with one's physical and mental health. The parents didn't care about their children using smartphones excessively because they couldn't keep it under control. It was discovered, therefore, that close social ties within the family may be a major factor in limiting smartphone usage. Parents who foster a positive home atmosphere that promotes play and socialization will help their children avoid using smartphones excessively. The study "How children under 10 years access and use digital devices at home and what parents feel about it: Insights from India" explores the use of digital devices by Indian children under ten, focusing on ownership, content engagement, parental perspectives, and tracking techniques. The research highlights the importance of understanding and controlling digital media usage in Indian settings, highlighting the need for parental controls, passwords, open communication, and monitoring. (Attavar et al,2018) Legal action is required to hold offenders accountable and guarantee that everyone using social media is aware of cybercrime. (Andrews et al,2020)

OBJECTIVE OF THE STUDY

The objective of the study is:

- To spread awareness to parents on the threats of overuse of smartphones on children.

2. MATERIALS AND METHOD

In order to investigate the dangers of children using smartphones excessively, the current study used a mixed-methods strategy that combined quantitative and qualitative analysis. Two stages of the study were carried out, each intended to evaluate the efficacy of particular treatments meant to raise parental awareness and encourage children to adopt healthier digital habits. The ultimate goal was to assess how parental attitudes and actions changed after being exposed to a handbook on the risks associated with smartphone use and an awareness program.

480 parents were chosen to participate in the study using a purposive sample technique. In order to guarantee that the sample comprised parents who were most likely to provide significant insights into the study, this non-probability sampling technique was selected. Those whose children were actively using smartphones were the target of the sampling, which made them appropriate subjects to study the consequences of excessive smartphone use. A self-made survey created especially for the study was used to gather data. The purpose of the survey was to gauge participant's knowledge of the dangers of excessive smartphone use both before and after the intervention. To gather thorough data regarding parental knowledge, attitudes, and any potential behavioral changes, it had both closed-ended and open-ended questions.

PHASE 1

In Phase 1, parents participated in a structured awareness session that addressed the dangers of excessive smartphone use. Three key topics were covered in the program: the social repercussions of excessive smartphone use, possible health risks, and smartphone addiction. This phase's goal was to inform parents about the ways that excessive smartphone use might cause behavioral issues, physical health issues (such eye strain or sleep disorders), and a decline in children's social abilities. A pre-test was given to parents before to the awareness session to determine their baseline knowledge in order to assess the program's efficacy. To determine whether their comprehension had improved, a post-test was given after the program. In order to assess the impact of the program, the results from both tests were subjected to an analysis of variance (ANOVA) to see if the changes in parental awareness were statistically significant.

PHASE 2

A handbook on online safety was created and distributed to the parents as part of phase two of the study. The book included comprehensive information on the detrimental impacts of extended smartphone use, including how it affects a child's health and development. The manual not only increased awareness but also provided helpful advice on how parents should control their children's smartphone use and encourage better digital habits. A follow-up questionnaire was given out after the handbook was distributed in order to assess how well it worked to encourage behavioral change and increase parental awareness. A cross-tabulation method was employed to examine the data gathered from this stage. By contrasting the groups that followed the handbook's recommendations with those that did not, the researcher was able to look at correlations between several factors, including parental reactions and shifts in their kids' smartphone usage patterns.

3. RESULT AND DISCUSSION

The results and discussion of the study "Effectiveness of an Awareness Program for Parents on the Risks Associated with Overuse of Smartphones by Children" is summarized below under the following headings:

PHASE 1

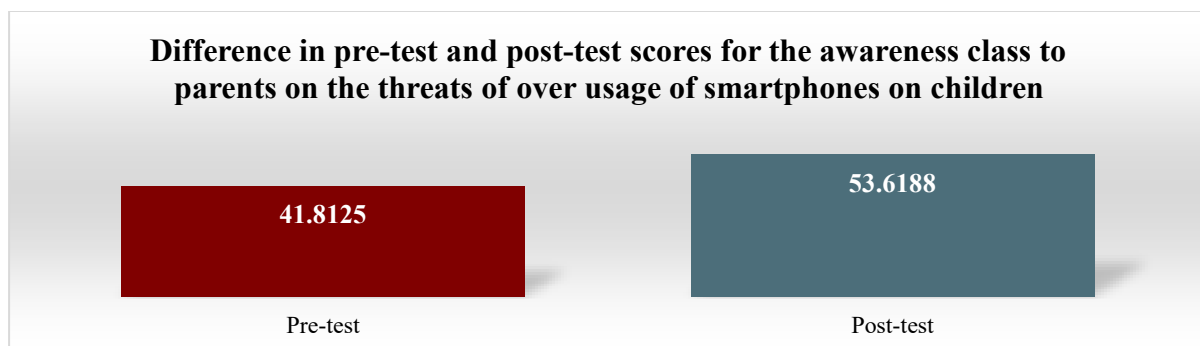
AWARENESS PROGRAM EFFECTIVENESS

The ANOVA test was conducted to compare parents' pre-test and post-test scores, which measured their knowledge before and after attending the awareness class on the overuse of smartphones by children.

Table 1

Difference in pre-test and post-test scores for the awareness class to parents on the threats of over usage of smartphones on children

Variable	Locality	N	Mean	df	F	Sig.
Awareness to Parents	Pre-test	480	41.8125	1	2795.445	.000
	Post-test	480	53.6188			



The table and figure illustrates the pre-test and post-test scores regarding the awareness class provided to parents about the dangers associated with the overuse of smartphones by children. The findings reveal a notable increase in parents' awareness levels following the awareness class, as evidenced by the comparison of pre-test and post-test scores. The statistical analysis yielded an F-value of 2795.445, with a corresponding significance value of $p\text{-value}=0.000$. This $p\text{-value}$ is significantly lower than the significant value of 0.05, indicating strong statistical significance. As a result, the data suggest that there is a substantial difference between the pre-test and post-test scores of parents.

The results highlight the effectiveness of the awareness class in enhancing parents' understanding of the potential risks associated with excessive smartphone use among children, particularly regarding its impacts on physical health. The significant improvement in scores indicates that the educational intervention successfully increased awareness, leading to more informed decision-making among parents about their children's smartphone usage, such as enabling two-factor authentication and adjusting privacy settings on apps and websites. Additionally, parents are now more proactive in regularly monitoring and setting limits on their children's smartphone use and are better equipped to address and manage online gaming risks. They have also become aware of the importance of educating their children about the dangers of clicking on suspicious links or downloading unknown attachments. This finding underscores the necessity of ongoing educational efforts to tackle the challenges posed by technology in the lives of children.

PHASE 2

EVALUATION OF HANDBOOK

The handbook created as part of the awareness program provides parents with a thorough understanding of and approach to addressing the concerns related to their children's smartphone use. It focuses on important topics including protecting children from online threats, combating malware attacks, and comprehending the risks of cyberbullying and harassment. Especially when it comes to complicated subjects like cyberstalking and online scams, the handbook's clear and simple format is one of its main advantages, making it accessible to all parents.

Clear instructions on how to stop children from unintentionally downloading malware and how to identify financial hazards associated with their internet activity are provided in the guidebook. It tells parents about the social media sites that their children might use and emphasizes how important it is to spot harmful websites. Furthermore, the child safety guidelines were simplified for ease of comprehension and application, guaranteeing that parents may confidently assist their children in upholding online safety.

Additionally, parents are given access to helpful tools, such as safety websites, that can help them better safeguard their children online. Overall, the handbook gave parents more confidence in their ability to manage their children's online safety and gave them useful tools to help them do so. Given how helpful this handbook was in helping them better navigate and secure their children's digital worlds, many parents indicated that they would be prepared to suggest it to others.

The evaluation of handbook was done using a questionnaire and the data was analysed using cross tabulation.

Feedback of Handbook on Online Safety by Parents

The effectiveness of handbook on online safety is evaluated by the parents. The obtained result is given in tables.

Table 2

Criteria of Handbook on Online Safety		Understood the dangers of cyberbullying and harassment.	Understood steps to safeguard child from cyber threats.	The information on cyber stalking was informative and easy to follow.	Understood how to help child avoid falling for online scams.	Understood how to prevent the child from downloading malware accidentally
Number of Parents (N=480)	Strongly agree	96	96	86	130	106
	Agree	312	278	302	317	297
	Neither agree nor disagree	72	96	91	33	58

	Disagree	0	10	1	0	19
	Strongly Disagree	0	0	0	0	0
Percentage	Strongly agree	20	20	18	27	22
	Agree	65	58	63	66	62
	Neither agree nor disagree	15	20	19	7	12
	Disagree	0	2	0	0	4
	Strongly Disagree	0	0	0	0	0

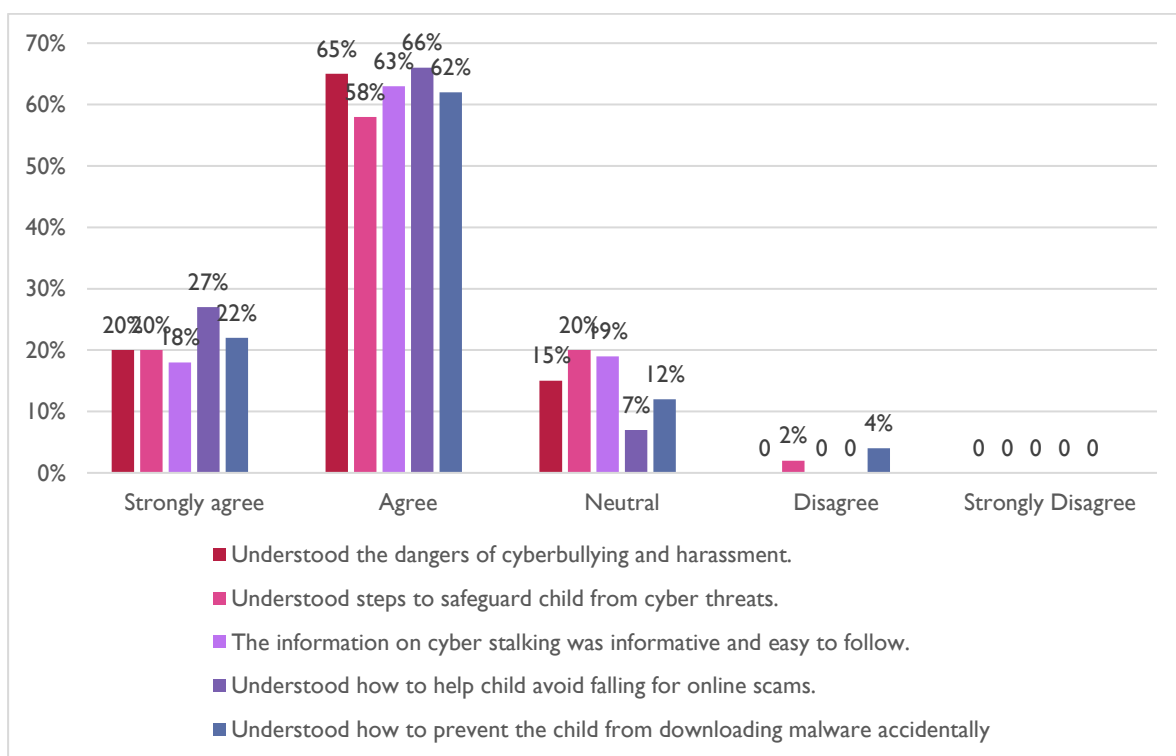


Figure 2

The information shows how beneficial the book on online safety manual is for parents. Twenty percent strongly agreed, making up the majority (65 percent) who stated they knew the risks associated with cyberbullying and harassment. In a similar vein, 58 percent of parents said they understood how to protect their child from cyber risks, while only two percent disagreed. 63 percent of respondents agreed, and 18 percent strongly agreed, that the information was straightforward when it came to understanding cyberstalking. With 66 percent of respondents agreeing and 27 percent strongly agreeing, the suggestion to help children avoid internet scams received the most positive feedback. Moreover, 62 percent of respondents strongly agreed on malware prevention, with four percent disagreeing. The fact that no parent strongly disagreed with any of the information in the guidebook shows how successful it is in communicating important online safety precautions.

Table 3

Criteria of Handbook on Online Safety		Learned to prevent malware attacks on devices.	Understood the economic risks associated with child's online activity	Helped to identify dangerous websites that children should avoid.	Informed about the social media websites parents should know	The safety rules for children were easy to understand and implement.
Number of Parents	Strongly agree	91	120	115	72	144
	Agree	312	245	293	384	264
	Neither agree nor disagree	77	67	14	24	72
	Disagree	0	48	58	0	0
	Strongly Disagree	0	0	0	0	0
Percentage	Strongly agree	19	25	24	15	30
	Agree	65	51	61	80	55
	Neither agree nor disagree	16	14	3	5	15
	Disagree	0	10	12	0	0
	Strongly Disagree	0	0	0	0	0

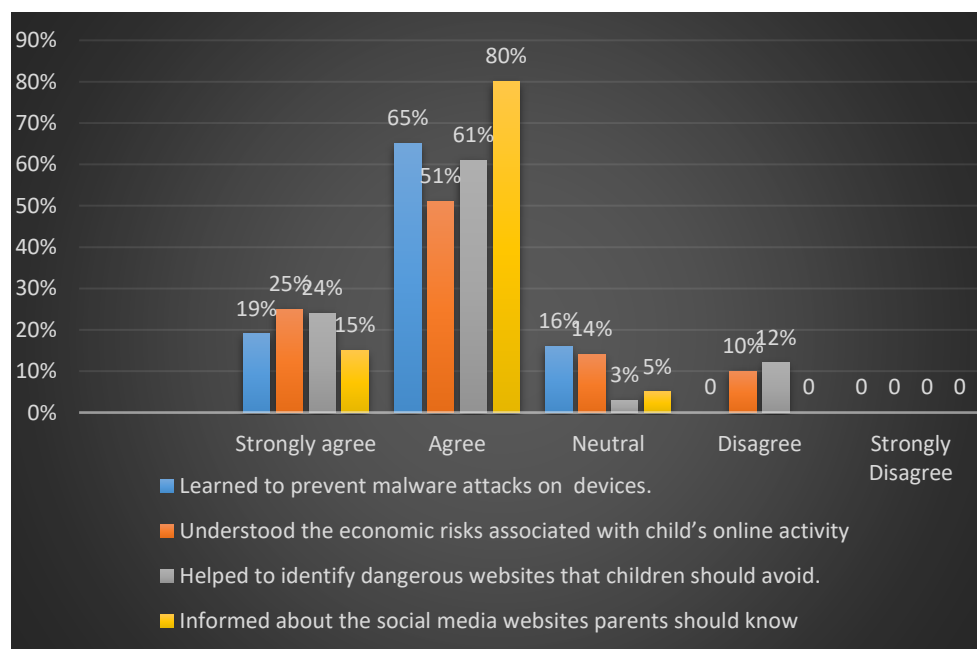


Figure 3

Based on the data, it can be concluded that the handbook on online safety is quite successful in teaching parents about online child safety. 19 percent of parents strongly agreed, with the majority (65 percent) agreeing that they learnt how to prevent malware assaults. 51 percent agreed, 25 percent strongly agreed, and ten percent disagreed that the handbook did a good job of communicating the financial concerns connected to children's internet activity. Though 12 percent disagreed, 61 percent agreed and 24 percent strongly agreed that the manual was clear in identifying risky websites. The handbook was effective in educating parents about important platforms, as evidenced by the highest level of agreement (80 percent) for social media awareness. With 30 percent strongly agreeing, the ease of use and usefulness of online safety guidelines were very well-liked. Overall, the handbook's efficacy in improving parents' knowledge of online safety is shown in the low disagreement and high agreement percentages.

Table 4

Criteria of Handbook on Online Safety		Learned how to assist children in ensuring their online safety.	Provided useful resources, including safety websites, to help protect children online.	Overall, the book helped to feel more confident in keeping children safe online.	Recommend this book to other parents.
Number of Parents	Strongly agree	134	91	168	154
	Agree	307	303	250	269
	Neither agree nor disagree	34	43	62	57
	Disagree	5	43	0	0
	Strongly Disagree	0	0	0	0
Percentage	Strongly agree	28	19	35	32
	Agree	64	63	52	56
	Neither agree nor disagree	7	9	13	12
	Disagree	1	9	0	0
	Strongly Disagree	0	0	0	0

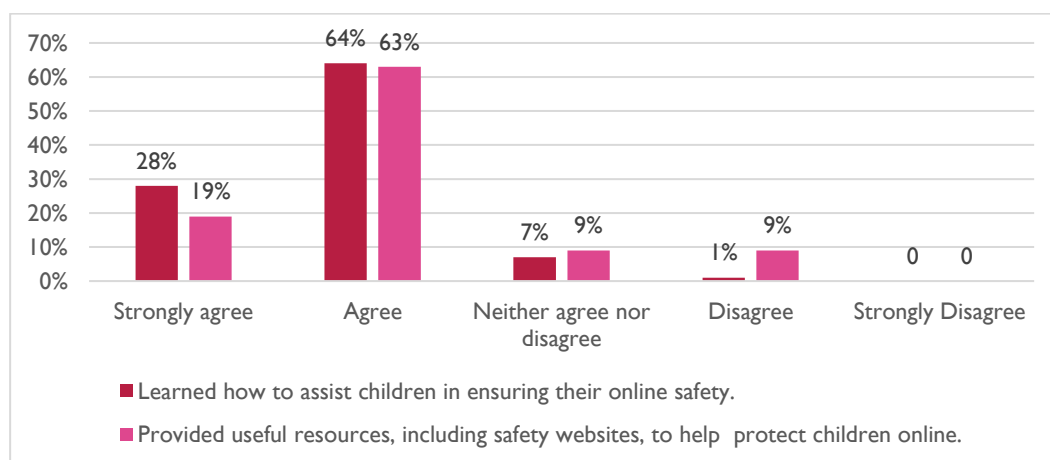


Figure 4

The data indicates that the handbook is quite successful in improving parents' confidence in their ability to protect their children online. Significantly, 35 percent of parents strongly agreed and 52 percent agreed that the book gave them greater confidence to ensure their children's safety online. Similarly, 64 percent and 28 percent strongly felt that they have learned how to help children stay safe online. The manual included helpful resources, such as websites for safety; 63 percent of respondents agreed, and 19 percent strongly agreed; only nine percent disapproved. Additionally, 56 percent agreed and 32 percent strongly agreed that they would recommend the book to other parents, demonstrating the book's broad appeal. The data shows that the handbook is a useful tool for parents to improve their children's internet safety.

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4. CONCLUSION

The study found a significant increase in parental awareness about the dangers of over-use of smartphones on children, with a post-test score of $F=2795.445$, indicating a significant difference in pre-test and post-test scores. The awareness program effectively improved parents' understanding of the risks associated with children's smartphone use. The data suggests that educational interventions, such as the online safety handbook and awareness programs are valuable tools for empowering parents to take control of their children's online safety. The significant increase in post-test scores highlights the positive impact of structured education on parental decision-making and their ability to protect their children from online threats. Parents not only learned about the dangers of cyberbullying, online scams, and malware, but they also reported feeling more confident in taking proactive steps to safeguard their children. Given the rapid pace of technological advancement and the growing influence of smartphones on children, ongoing efforts to educate parents are crucial in mitigating the associated risks. Future research should explore the long-term impacts of such awareness programs and their role in shaping parental attitudes toward technology use.

The handbook on online safety for parents has proven to be highly beneficial. A majority of parents (65 percent) stated they are now aware of the risks of cyberbullying and harassment, with 58 percent understanding how to protect their children from cyber risks. The guidebook was straightforward, particularly regarding cyberstalking (63 percent agreed) and avoiding online scams (66 percent agreed). The manual was also effective in addressing malware prevention (62 percent strongly agreed) and social media awareness (80 percent agreed). The handbook's ease of use and usefulness received strong support, with 56 percent agreeing they would recommend it to others. Overall, the handbook significantly boosted parents' confidence in protecting their children online, with 35 percent strongly agreeing it increased their confidence.

The handbook on online safety is highly successful in educating parents about online risks and how to protect their children. High agreement levels across various aspects, like cyberstalking, online scams, malware, and social media awareness, demonstrate its effectiveness. Parents also felt more confident in managing their children's online safety, making the handbook a valuable tool for broad application. The success of the handbook demonstrates the value of providing parents with accessible, well-organized resources that break down complex issues into actionable steps. The overwhelmingly positive feedback from parents suggests that similar programs could be implemented more broadly to raise awareness and improve

online safety measures in families worldwide.

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