

Impact of Mobile Screen Time on Early Childhood (0-5 Years) in Patna: An Analytical Study

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Abstract

This study examines the impact of mobile screen time on children aged 0–5 years in Patna. Data were collected from 50 parents using a questionnaire and analyzed through percentages. The findings revealed that 62% of children spent more than three hours daily on screens, while 58% reportedly experienced lack of sleep and 92% showed reduced real-world interaction, according to parental responses. The study highlights the importance of parental supervision, limited screen time, and outdoor activities for healthy child development

INTRODUCTION

In the current digital era, mobile phones have evolved beyond simple communication devices to become a vital aspect of everyday life. Their prevalence has increased across nearly every demographic, influencing even infants and toddlers (aged 0–5 years). Many parents now depend on mobile phones to calm, feed, or entertain their children, resulting in early exposure to screens, which can significantly affect their development.

Infancy is a crucial stage in human growth when the brain develops rapidly, and children learn from their environment. During this time, direct experiences—such as interacting with caregivers, playing, and engaging socially—are essential for a child's cognitive, social, and emotional growth. In this context, excessive mobile phone use can disrupt these important developmental processes.

On a positive note, mobile phones can provide educational content, like videos, colourful visuals, and interactive applications that help children learn letters, numbers, colours, and sounds. Additionally, controlled screen time can entertain kids and offer convenience to parents. Therefore, when used judiciously and with supervision, mobile phones can enhance early education.

However, unmonitored and excessive phone use can lead to various negative effects. Extended screen time may hinder a child's language development due to lacking real-life interactions and self-expression opportunities. Furthermore, it can result in social skill deficits, irritability, and an attachment to devices. Physically, too much screen time can disturb sleep, cause eye strain, and decrease physical activity, ultimately harming children's overall health. Thus, the effects of mobile phones largely depend on their usage. This research paper provides a thorough analysis of both the positive and negative impacts of mobile phone use among infants. It highlights the importance of balanced and supervised screen exposure for healthy child development. Parents and guardians play a crucial role in setting appropriate guidelines and boundaries.

Ultimately, technology should complement children's development rather than replace it. Achieving a balance, along with awareness and proper guidance, is essential for fostering a hopeful and healthy future for our children.

OBJECTIVE

To examine the impact of mobile phone usage on children aged 0 to 5 years.

HYPOTHESIS

Mobile phone usage has a significant impact on infants (0–5 years).

RESEARCH METHODOLOGY

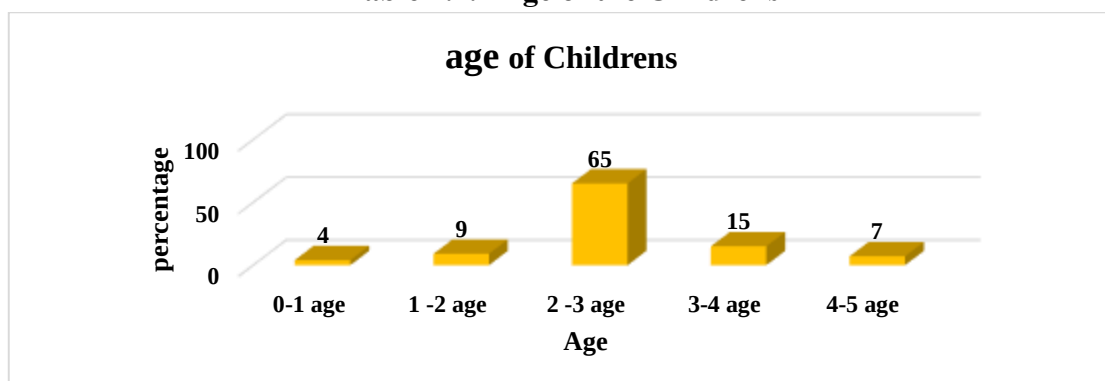
1. **Study Focus-** This research examines families living in Goriya toli Station Road mohalla, Patna town areas with children aged 0–5 years, particularly those whose children use mobile phones or are somehow connected to mobile devices.
2. **Population and Sampling-** The study's population includes all parents with children in the 0–5 age range. A convenient sample of 50 parents was chosen, consisting of those who were easily accessible and willing to take part in the research.
3. **Research design-** The research employs a descriptive design, aimed at detailing and assessing the impact of mobile phone usage on infants and young children.
4. **Data Collection Tools-** The main tool used for data gathering was a questionnaire, which included:
 - Closed-ended questions (Yes/No)
 - Multiple-choice questions
 - Open-ended questions

This questionnaire was crafted to collect insights on parents' perspectives, experiences, and observations related to their children's behaviour.

5. **Data Gathering Method-** To collect data, the questionnaire was distributed among the selected parents. In some cases, assistance was provided to help fill out the questionnaire, while others completed it on their own. All participants were informed about the study's objectives and provided their consent. The collected information was meticulously compiled and organized.
6. **Data Evaluation-** The data was analyzed using basic statistical techniques, with responses categorized and represented in percentages, accompanied by straightforward interpretations presented in tables.

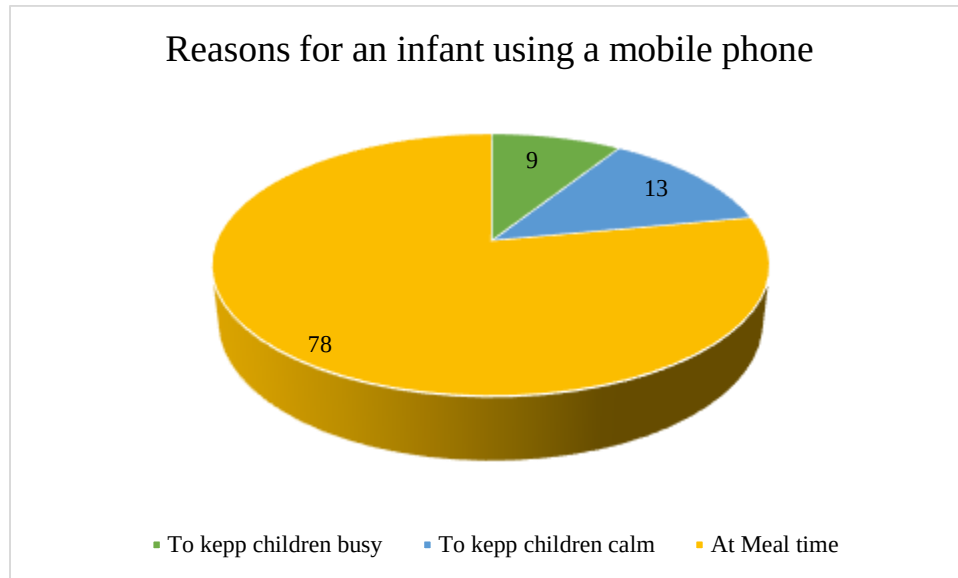
RESULT AND DISCUSSION

Table 4.1.1 Age of the Childrens



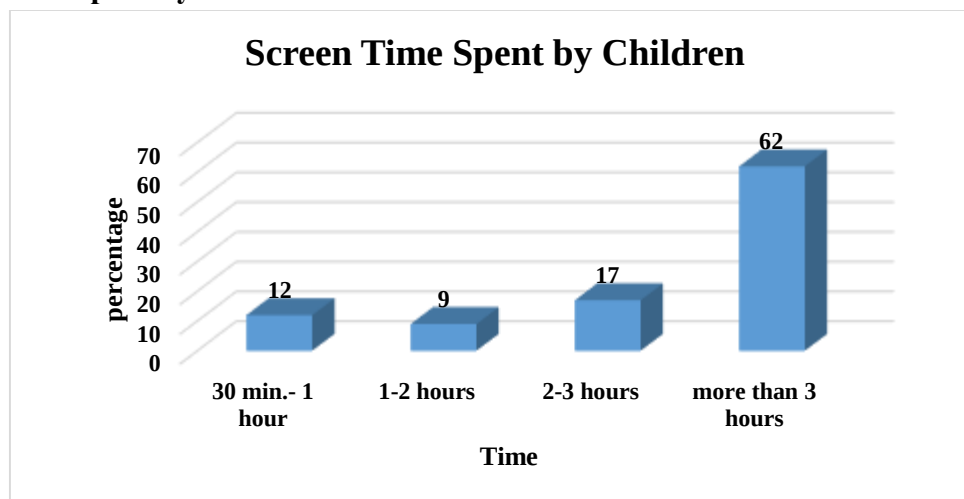
An analysis of the data presented in the graph 4.1.1 above reveals that the majority 65 percent were children aged 2–3 years, 15 percent were aged 3–4 years, 7 percent were aged 4–5 years, 9 percent were aged 1–2 years, and 4 percent were aged 0–1 year.

Fig. 4.1.1 Reasons for an infant using a mobile phone



In 4.1.1 the diagram above, regarding the reasons for children's mobile phone usage, the majority 78% of parents believe that the primary reason is to make it easier to feed their children. Furthermore, 13% of parents allow their children to use mobile phones to calm them down, while 9% do so to keep them occupied.

4.1.2 Screen Time Spent by Children



According to the 4.1.2 graph, the largest proportion of children (62%) spend more than 3 hours daily in front of screens, a situation that highlights a cause for concern. This indicates that the majority of children are exposed to excessive screen time, which can be detrimental to their physical and mental development. In contrast, only 12% of children use screens for a duration ranging from 30 minutes to 1 hour—a range that can be considered a controlled and safe limit. Similarly, the percentage of children with 1–2 hours of

screen time stand at 9%, which is relatively low. Meanwhile, the percentage of children with 2–3 hours of screen time was found to be 17%; while this represents a moderate level, it still exceeds the recommended limit.

Table 4.1.1 Problems in children due to excessive mobile screen time

	Problems in children due to excessive mobile screen time	Percentage (%)
1.	Crying	69
2.	Being stubborn	11
3.	lack of socializing in children	3
4.	hitting someone in anger	9
5.	throwing things	6
6.	etc.	2
	Total	100

According to the 4.1.1 table, the most prevalent issue is "crying," observed in 69% of children. This indicates that excessive dependence on mobile devices is leading to increased emotional instability among children.

This was followed by "stubborn behaviour," observed in 11% of children, suggesting that excessive screen time impacts children's conduct, causing them to become more obstinate.

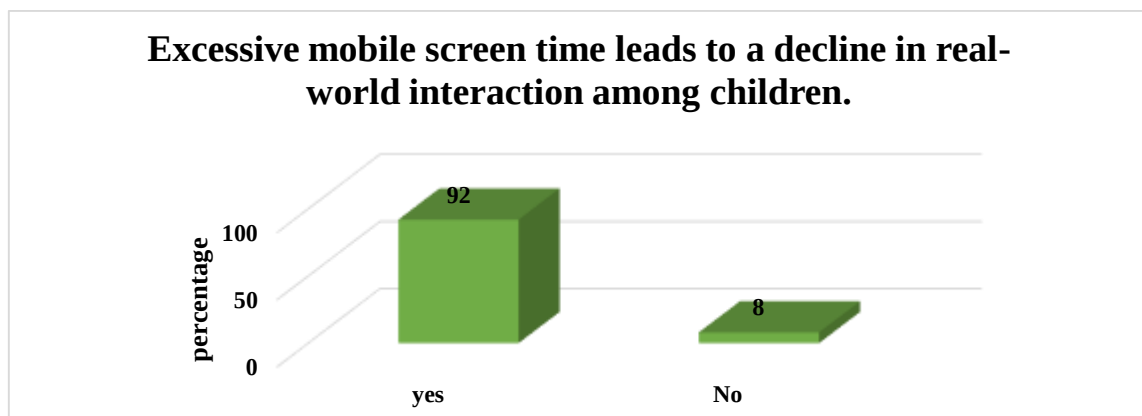
The issue of "hitting someone in anger" was noted in 9% of children, while "throwing things" was observed in 6%. Both of these indicators suggest that excessive mobile usage can foster aggressive behavior in children.

A "lack of socializing" was recorded in only 3% of children; however, this remains a significant indicator that screen time can adversely affect children's social development. Additionally, "other issues" were observed in 2% of children.

Overall, this table clearly demonstrates that excessive mobile screen time primarily exacerbates emotional and behavioral problems in children.

Therefore, it is essential for parents to regulate their children's screen time and encourage them to engage extensively in social and physical activities to ensure their balanced development.

Graph 4.1.3 Excessive mobile screen time leads to a decline in real-world interaction among children.



In the graph 4.1.2 provided above, it was observed that due to excessive screen time, 92% of children showed a decline in the time spent on interaction, consequently, their speaking and comprehension abilities were found to be relatively underdeveloped. Furthermore, 8% of parents held the view that no such decline in interaction time was observed among their children.

4.1.2 Table Physical health problems in children due to excessive mobile screen time.

	Physical health problems in children due to excessive mobile screen time	Percentage
1.	Going to bed late	12
2.	lack of sleep	58
3.	eye strain	11
4.	lack of physical activity	17
5.	etc.	2
	Total	100

According to the 4.1.3 table, the most prevalent issue is "lack of sleep," observed in 58% of children. This indicates that excessive screen time adversely affects both the quality and duration of children's sleep—a matter of serious concern for their overall health.

Additionally, a "lack of physical activity" was observed in 17% of children, suggesting that excessive mobile usage is causing children to disengage from active pursuits.

The habit of "going to bed late" was noted in 12% of children; this disrupts their daily routine and could potentially exacerbate health issues in the long run.

Furthermore, "eye strain" was observed in 11% of children—a direct consequence of prolonged screen exposure.

"Other issues" (etc.) were identified in only 2% of children, a comparatively low figure.

Overall, this table clearly demonstrates that excessive mobile screen time primarily fosters sleep-related problems and physical inactivity among children, thereby exerting a negative impact on their health.

Discussion

This study's findings clearly show that mobile phones have a varied impact on the growth of infants and young children. On one side, they provide a contemporary and captivating platform for learning; on the other side, excessive and unmonitored use can lead to several significant concerns.

The research revealed that children who engage with educational materials—such as nursery rhymes and basic concepts like letters and numbers—over limited time frames demonstrated improvements in their early learning skills. This method fosters an engaging and interactive atmosphere, encouraging faster learning.

However, prolonged and unsupervised use of mobile phones negatively affects children's cognitive, social, and emotional development. The study also noted that children who excessively use mobile devices tend to lose interest in real-world activities—like sports, family interactions, and socializing—which hampers their social skills.

Additionally, language development was negatively impacted. Children spending too much time on screens showed slower progress in speaking and understanding skills, as they miss out on direct, face-to-face communication.

Thus, it is apparent that the effects of mobile phones hinge on how and how much they are used, alongside the level of parental oversight. Hence, parental involvement is crucial for ensuring balanced growth in children.

Suggestions

1. In light of the study's results, the following recommendations are made to support the healthy and balanced development of children:
2. For children under the age of 2, it is important to minimize exposure to mobile phones and other screens, as direct experiences and human interaction are vital during this critical developmental phase.
3. For children aged 2 to 5 years, screen time should be restricted to no more than one hour per day to prevent interference with their mental and physical growth. Parents should supervise mobile phone usage and ensure that children engage only with educational and positive content.
4. Children should be encouraged to participate in a variety of outdoor activities—such as sports, drawing, storytelling, and other creative endeavors—to promote their overall development.
5. Encouraging family time and social interaction is essential for helping children develop their social and emotional skills.
6. Parents should also model balanced mobile phone habits, as children primarily learn from their surroundings.

Conclusion

In summary, mobile phones are a significant and influential aspect of modern life, deeply affecting our lifestyles, including those of infants and young children.

This study illustrates that the effects of mobile phones are not entirely positive or negative; they depend on the usage patterns and context. When used in limited amounts with appropriate supervision and beneficial content, mobile phones can enhance a child's early learning journey.

Conversely, if used excessively and without supervision, they can harm a child's cognitive, social, emotional, and physical well-being. Therefore, it is crucial for parents and caregivers to monitor their children's mobile phone use closely and strive for a balanced approach.

Ultimately, for children's healthy and comprehensive development, technology should be used as a complementary tool rather than a replacement for other activities. Through appropriate guidance, balance, and awareness, we can pave the way for a bright and secure future for our children.

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