

Parent's perception of children's socialisation during middle childhood: the effects of smartphone usage on urban children

By

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A thesis submitted to Brac Institute of Educational Development in partial fulfilment of the requirements for the degree of Master of Science in Early Childhood Development

BRAC Institute of Educational Development

BRAC University

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Declaration

It is hereby declared that

1. The thesis submitted is my/our own original work while completing a degree at Brac University.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

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of Spring, 2022 has been accepted as satisfactory in partial fulfilment of the requirement for the degree of Master of Science/Postgraduate Diploma in Early Childhood Development on January 2024.

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Ethics Statement

Title of Thesis Topic: **Parent's perception of children's socialisation during middle childhood: the effects of smartphone usage on urban children**

Student name: **Faria Nayeem**

1. Source of population: **Parents of children aged 6-8 years, living in Dhaka City**

2. Does the study involve (yes, or no)

a) Physical risk to the subjects **No**

b) Social risk **No**

c) Psychological risk to subjects **No**

d) Discomfort to subjects **No**

e) Invasion of privacy **No**

3. Will subjects be clearly informed about (yes or no)

a) Nature and purpose of the study **Yes**

b) Procedures to be followed **Yes**

c) Physical risk **Yes**

d) Sensitive questions **Yes**

e) Benefits to be derived **Yes**

f) Right to refuse to participate or to withdraw from the study **Yes**

g) Confidential handling of data **Yes**

h) Compensation and/or treatment where there are risks or privacy is involved **Yes**

4. Will Signed verbal consent for be required (yes or no)

a) From study participants **Yes**

b) From parents or guardian **No**

c) Will precautions be taken to protect anonymity of subjects? **Yes**

5. Check documents being submitted herewith to Committee:

- a) Proposal **Yes**
- b) Consent Form **Yes**
- c) Questionnaire or interview schedule **Yes**

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Abstract

Children start the rapid acquisition of their social skills and go through emotional development during a period called middle childhood, which ranges from 6-8 years (CDC, 2021). At this age they start paying more attention to friendships and learn to work with people as teams which enables them to make connections and builds their confidence. If they hardly go out or socialise with their peers during this crucial period, then this can be very damaging for their socio-emotional development and their skills of self-expression. So instead of socialising, if children bury themselves behind smartphones, which is the prime leisure activity for most children at this day and age, it can be very harmful for their socioemotional development. Not only that but smartphone addiction can also cause degradation of the brain and create other development hindrances as well. Research has shown that this addiction is especially prevalent in urban school going children. The prevalence among children in their middle childhood, not quite thoroughly researched. In such cases parents are the only ones who are the closest to them and can regulate their smartphone usage hours and style. They are the ones who need to be the most involved in their children's lives and prevent any addiction from occurring.

Chapter I: Introduction & Background

Introduction

"Electronic screen media including mobile, television, video games, iPads have become widely accessible by children, teenagers and adults of all ages" (Detnakarintra et al., 2020). It is quite a well known fact to all that screens have taken over as the prime leisure activity for most children at this day and age, but the extent of its repercussions on the minds of the young is not yet completely explored, especially on the minds of the children who are at the age of rapid growth such as 6-8 years. This period is known as middle childhood and this is the age when children start the acquisition of their social skills and go through emotional development (CDC, 2021). During middle childhood, children are usually at the beginning of their schooling years, which introduces them to the bigger world out there. This is the age when they start paying more attention to friendships and learn to work with people as teams which enables them to make connections and builds their confidence. It has been observed that as they learn more complex coping skills, their moral understanding deepens and they start taking more responsibilities (Malik et al., 2023). If they hardly go out or socialise with their peers during this crucial period, then this can be very damaging for their socio-emotional development and their skills of self-expression (CDC, 2021). Parents play a significant role in fostering the development of their children's socio-emotional growth during middle childhood. According to Bronfenbrenner's ecological model, parental involvement can be conceptualised as the mesosystem (the system which forms the interconnection between the elements of a child's microsystem, e.g. parent- teacher, etc), which forms a bridge between a child's microsystem (the system which contains all the elements of a child's immediate surroundings, e.g family, neighbourhood, etc) and society (Bronfenbrenner, 2000). That means parents can influence how and to what extent their children socialise. But

recently it has been seen that instead of encouraging the children to play outdoors with their peers, most parents are increasingly opting to use screen time as a leisure pursuit (Chong et al., 2023). They feel like technology is a huge part of their children's lifestyle and they use smartphones to feed, clothe or maybe calm down their children (Downey et al., 2007). Especially in a country like Bangladesh where there is a serious lack of playgrounds and parks in the urban areas, which can be seen according to the latest census conducted by Bangladesh Bureau of Statistics in 2022. It says that about 62.07% of the children living in Dhaka use mobile phones for recreational purposes due to the lack of amusement parks and open fields in the city (BBS, 2022).

This research has aimed to analyse the perception of parents regarding the effects that smartphone usage has on their children's socialisation. The urban city of Dhaka has been chosen as the location and parents with children of ages 6-8 have been chosen as the research participants. Although there are a few studies done on topics similar to this, none has tried to dive into the matter deeply. There are two similar papers by Rashid et al. (2021) and another one by Liza et al. (2023) which focuses on secondary school students and the effect on their physical and mental health due to gadget usage. There is a paper by Noor (2022) which focuses on parent's influence on gadget usage, but this was again for students from class four. There is one paper by Abdullah (2023) and a few newspaper articles which focuses on the problematic smartphone usage of preschoolers (3-5 years). So it can be seen that although all other age groups have been focused on, hardly any accountable research has been done for the age group at hand which is 6-8 years old and it is a pressing matter to explore this topic because this is the age when children start to enhance their social skills. This research aims to do just that.

Statement of the Problem

Smartphone addiction has been on a surge and it is especially harmful for children, but despite that it has been seen that children like to spend the majority of their time hooked to the screens (Hossen, 2022). Initially using a smartphone might seem harmless as the user of a smartphone enjoys pleasure and excitement from it without the mindfulness of any harm being done, but in reality overuse can lead to behavioural problems such as nervousness, mental distraction, indolence, temperament and these problems can be more potent for children in their early years (Wacks, 2021). In fact researchers have found out that smartphone addiction among young children degrades the function of the right hemisphere of the brain and furthermore causes it to alter the structure of the brain and for it to become ¹'popcorn brain', which eventually starts finding reality dull compared to the digital world (Park, 2014). Regular usage among children can also damage the function of the frontal lobe of the brain which relates to the ability to think, judge, and concentrate (Carter, 2017). Moreover smartphones do not fit any early childhood development stage properly because it is a very passive tool which would only let children to sit down and absorb the knowledge (Braune-Krickau et al., 2021). But yet, it has been seen that a total of 55.89% of children (aged 5 years and above) use smart phones all across Bangladesh and out of this, 66.53% are boys and 45.53% are girls (BBS, 2022); and unfortunately there has been an increase in this number after the COVID-19 pandemic, since all the children were forced to use smartphones and laptops to attend school virtually (Naira, 2021). The same article by Naira (2021) also quotes a few parents of school going children in Bangladesh who have stated the problems they have been facing with their children at home like, asking for the phone right

¹ Popcorn brain or popcorn syndrome - is the condition where the brain becomes too accustomed to fast paced, thoughtless or easy entertainment (surfing the internet, watching television, etc) and eventually starts finding the slower pace of life mundane.

after waking up, refusing to eat if the phone is not given, staying up late, etc. The article also quotes Dr. Pran Gopal Dutta who is an ENT (ear, nose and throat) specialist of Bangladesh, where he said that “smartphones are very injurious for health as children who play video games on mobile phones for five-six hours daily get eye problems at a very young age” (Naira, 2021). He has also compared smartphones to cigarettes in order to emphasise its extent of harmfulness.

In such situations parents are the only ones who can exercise control over their children's screen time but most parent's might feel like technology is a huge part of their children's lifestyle and they use smartphones to feed, clothe or maybe calm down their children (Downey, et al., 2007). Hence more research is needed to verify the harmful effects of smartphone usage and more papers and valid articles need to be published to spread awareness across common people.

Purpose of the study

The purpose of this research is to explore the amount of time 6-8 years old children from the urban areas of Bangladesh (Dhaka) spend on their smartphones, the effect that it has on their socialisation skills and their parent’s perception about it. The research also addresses child practices and the challenges faced by parents while trying to regulate screen time.

Since there has been an increase in the usage of smartphones among children in the past few years and it was also aggravated due to the measures taken during the recent pandemic (online schooling, lockdown, etc), this research aims to provide an insight into the matter and offers some advice through its findings. The thought process behind the reasons for addictive smartphone usage have been tried to explore and understood. It has also been kept in mind that despite the reasons, parents are the only people who can put a restriction on the amount of

screen time of their children; but some parents might not perceive the depth of the consequences excessive screen time can have on their children, especially the ones in their middle childhood, as that is the period when children develop their social skills the most. Therefore interviews of parents have been taken and their perception has been scrutinised.

Significance and Justification of the study

It has been mentioned above that there are very few online and newspaper articles and some scattered reports which can be used as the source material to do further studies on this topic in Bangladesh. Hence more research needs to be done, as the matter at hand does not seem to be abating. Digging deep might help understand the severity of the issue and any underlying negligence of the parents (if any). If not that then at least more research can be done to find a solution to guide or advise new and existing parents to prevent further aggravation of the problem since they are the ones who definitely need to be informed and notified about the mal effects of smartphone dependency. Their perception also needs to be understood to lay out bespoke advice and suggestions. Doing more research on this topic can serve as stepping stones for further studies in the future.

Some countries have already explored the matter and some have also found solutions to reduce screen time. This research has tailored its investigation questions according to the life in Bangladesh so that more personalised answers can be found for the people living in this country.

Research Topic & Research Questions

Research Topic: Perception of parents on the effects on socialisation skills of children due to smartphone usage

There are several studies which have mentioned the adverse effects of gadget usage (phones, TV, tabs, etc) on the development of children. Smartphones are the latest device through which these kinds of effects are currently eventuating (Chong et al., 2023) and the detrimental effects it has on the socio-emotional development of children is just another concern in the list.

Research Questions:

1. What is the perception of the parents of 6-8 years old children on the effects of smartphone usage on their socialisation skills?
 - a. How long are the children using smartphones everyday?
 - b. How do they use it?
 - c. What do the parents think about its usage?
 - d. Is it making them less social?

2. i) What are the challenges faced by the parents while trying to regulate their children's screen- time?
 - a. Are the children using phones during bed and mealtimes?
 - b. What are the reactions of the children when phones are taken away from them?

- ii) What are the practices done at home by the parents regarding smartphone usage?

- a. Have the parents set any limitations on the usage of smartphones?
- b. Are they trying to limit the usage of phones?

Operational definitions:

i) Socio-emotional development: A child's ability to build and sustain meaningful relationships with other children and adults is known as socio-emotional development. It is a child's ability to recognize, express and manage their emotions, and also to reciprocate others emotions appropriately. Both social and emotional development are important for a young child's mental health.

ii) Middle childhood: Children between the ages of 6 and 12 fall under the classification of middle childhood. This is when children move into expanding environments and roles, and they begin to spend more time away from their family and spend more time in school and other activities. Children begin to develop their own identity as they experience more diverse situations.

iii) Perception: The meaning of perception is not only to see and become aware of but also to regard, interpret and understand a situation or happening. In this research the perception of parents has been registered.

Chapter II: Literature Review

The impact of excessive smartphone usage

It has been noted that child development across all socioeconomic groups in the 21st century has been tainted by the excessive access and exposure to electronic gadgets from a very young age.

It has also been noticed by some researchers that the influences of gadget usage have significant unfavourable effects on normal childhood developmental processes (Hermawati et al., 2018). Although there are many kinds of addictions, since cell phone addiction is the only addiction which appears to be innocent to most, it makes it much more dangerous than the others. There are many researches which show that smartphone overuse can cause Attention Deficit and Hyperactivity Disorder (ADHD) (Cheol et al., 2014). Researchers have reported six types of behaviours regarding smartphone addiction: addictive (major focus of a person's life to the exclusion of other activities), compulsive (strong desire to continue the behaviour), dependent (attached importance of social norms), habitual (performed with little mental awareness), voluntary (reasoned by specific motivations), and mandatory (officially required and parentally mandated) (Shambare et al., 2012). If young children adapt even one of these behaviours, then it is going to be very harmful for their development. Despite the very obvious advantages, the excessive usage of mobile phones has become a concern because of its extensive association with harmful side effects. According to researchers, addiction of mobile phone usage can be thought of as an impulse control disorder which does not involve any intoxicant and is similar to pathological gambling (Louis, 2008).

A study done in 2014, acknowledged the usage of cell phones as automatism and it is said to cause uncontrollable use, loss of control, inattention to usual activities, irresistible desire and continuation of the behaviours mentioned (Cia, 2014). In another recent study conducted in China it was found out that using mobile phones for a long time exposes individuals to electromagnetic radiation (Zheng et al., 2014), which might pose health risks; it can also cause interpersonal problems such as, psychological stress, sleep disturbances (Liu et al., 2017;

Takeshi et al., 2011), headaches (Min et al., 2011), and the inability to focus attention on an activity for a considerable amount of time (Byun et al., 2013; Zheng et al., 2014). But one of the crucial effects is the lack of social interaction and communication which develop difficulties in interpersonal skills. If a child is exposed to cell phones from a very young age, then it is very likely that the child will become isolated and dysfunctional and the lack of socialisation is not to be disregarded as it directly reflects a child's emotional development level (Bhattacharya, 2015) . Some studies have explored the effects of early screen usage and found out that it is in relation to children's attachments, which are noticeably reduced due to lack of adequate opportunities for social engagement (Hosokawa et al., 2018). Initially using a smartphone might seem harmless as the user of a smartphone does not only enjoy pleasure and excitement from it, but on the other hand it can lead to behavioural problems such as nervousness, mental distraction, indolence, temperament and these problems are seen to be worse in children in their early years. Researchers have found out that smart phone addiction among young children degrades the function of the right hemisphere of the brain and furthermore causes it to alter the structure of the brain and for it to become 'popcorn brain', which is dull to reality (Park, 2014). It damages the function of the frontal lobe of the brain which relates to the ability to think, judge, and concentrate.

The impact of smartphone usage on children in a global context

A study in Japan regarding 1,642 children of 6 years of age showed that mobile use is related to the level of emotional or behavioural adjustments in early elementary school years. The parents of these children reported that there were conduct problems, hyperactivity and inattention among those who used mobile phones regularly (Hosokawa et al., 2018). There is also a case in Japan

which described a report highlighting symptoms of a 5 year old boy which was exactly similar to the symptoms of Autism Spectrum Disorder due to early media exposure; but after treatment involving prevention of using all media was done, significant changes in his behaviour nearing normal development were registered (Numata-Uematsu, 2018).

A child's special executive function system begins to develop by the age of two and during this period they are required to receive as much stimulation as possible to organise and integrate sensory information with other aspects like touch, movement and feel (Katz, 1999). But if a child spends more time looking at techno screens rather than making human interactions, then the child will end up having diminished ability to absorb and analyse information and also have concentration deficits (Hatch, 2011). A cross-sectional study in the U.S consisting of 2623 children of 1-3 years of age looked over the effects of early techno screen exposure and subsequent attentional problems in children. It was found that 10% of the children developed attention problems by the age of 7 due to over usage of mobile phones, suggesting that using phones can impair cognitive functioning of young children (Christakis et al., 2004). A study was done in India where 100 children of age 6 months to 2 years were divided into two groups. One group was allowed a screen time of 4-5 hours daily for 2 months while the other had no gadget exposure. The children in the second group showed normal developmental milestones but the children of the first group showed delayed cognitive milestones and 5 among 12 children showed regression of cognitive development (Suman et al., 2018). Therefore, it can be seen that exposure to cell phones not only hinder socioemotional development but other developments too. A survey in India on 33 healthy children in the age range of 6 months to 5 years in the department of Clinical Psychology and Karthikeyan Child Development Unit at Sri Ramachandra Institute of

Higher Education and Research. It was found out that language and speech delay is significantly associated with the level of socioemotional development a child has (Thurm et al., 2018); (Dewi et al., 2019).

According to the famous psychoanalyst Erik Erikson, there are eight stages of development and during middle childhood, children are in the fourth stage which relates to competence, i.e. this is when children learn to deal with new social and academic demands, failure to do so can fill them up with a feeling of inferiority and dubiousness (Erikson, 1959). And according to similar research done along this field, the inability to reach age-appropriate milestones can cause psychosocial disturbance which can lead to autism, social anxiety disorder, reactive attachment disorder, generalised anxiety disorder, oppositional defiant disorder, attention-deficit hyperactivity disorder, post-traumatic stress disorder and conduct disorder, among others (Malik et al., 2023).

The impact of smartphone usage on children in the Bangladeshi context

Bangladesh is a fast-growing country where Dhaka being the capital is going through rapid urbanisation (Rahman et al., 2023). Although it may be good for the inhabitants of the city, but the ramifications it has on reducing space for playgrounds is costing the children their childhood. As a result, an uprise in the use and availability of smartphones has been seen in the past six years in Bangladesh. The use of it as a source of entertainment has been noticed in adults, teenagers and even children (Hossain, 2020). In a study done in 2018, it was found that 1–10-year-old children prefer to use smartphones and TV for entertainment and they spend at least 2 hours every day on it; also the prevalence has been seen more in urban children with nuclear families and working parents (Sadri, 2018). Not only is this causing developmental problems

but health problems too. According to a renowned ophthalmologist professor Dr Golam Mustafa, the director of the National Institute of Ophthalmology and Hospital in Bangladesh, the number of children coming to the hospital with eye problems and headaches have risen dramatically over the last few years (Naira, 2021). A survey done in August 2020 also reported that children with excessive screen time have difficulties with their vision and delayed speech development (Hossen, 2022). In fact the problem has become so severe that a cover story was also aired on a news channel in August 2020 on the negative consequences of excessive smartphone usage of children under the age of 5 (Khondkar, 2021).

In a study conducted across Bangladesh on 1,803 school going children in 2020, it was found out that there was a surge in smartphone usage during COVID - 19; to be exact a rise from 33.5% in 2019 to almost 53% in 2020 with a usage of at least five hours per day. 28% of the interviewed children said they spent less than two hours on outdoor activities and 27% spent an inconsiderable amount of time outdoors (Rashid, 2021). In the same study, it was also revealed that children from urban areas showed more gadget usage compared to children from rural areas.

The significance of the role of parents in monitoring their children's screen time

It almost seems like smart phones have become an indispensable tool in everyday life, not only to children, but to their parents too. Working parents allow smart phone access to their children at an early age in order to communicate with them and also to occupy their time in their absence (Hossen, 2022). According to Albert Bandura's theory of social learning, children are more likely to do what they observe rather than what they are told to (Bandura, 1969) and as a result by following their parents the children use the smart phones as a part of their everyday lives, which can lead to addiction eventually. Although several reports and articles have been published on the correlation between screen time and the health of children, the matter in

question does not seem to have been resolved, instead it is increasing day by day (Hossen, 2022).

Parents should be the main target audience for these articles and they are the ones who need to be most aware of the perils of smartphone usage at a young age.

According to the American Academy of Pediatrics, the screen time for a child of age 0-2 years should be nil and for 2-5 year olds should be limited to 1 hour per day, but sadly very few parents know about this information. If parents are encouraged to have interactions with their children during screen use then it might minimise negative effects (Suhana et al., 2018) because phone usage does not only cause distractions for children but also for their parents. Parents who use their phones frequently are seen to miss their children's bids for attention more than other parents (Hiniker et al., 2015). It is important for parents to monitor their children's smartphone usage and their attitudes towards the need for having such urges, which is the main factor that affects the level of mobile phone overuse among children. If not possible they can at least accompany their children while they are using smartphones because according to several studies it has been seen that unchaperoned screen time can induce delayed speech, aggressive behaviour, inconsistent sleeping patterns, etc (Sanders, et al., 2016). A study even defined these children as "digital children" and predicted that they might be growing up disconnected from their parents, teachers and even their peers (Downey, et al., 2007). Parent education programs can be introduced to help them develop communication skills with their children in order to prevent smartphone overuse and to advise them when they need their support. Campaigns can be run in order to spread the word through the country. It can be done with the help of the government, policy makers, international and even local NGOs.

Chapter III: Methodology

Research Approach and Design

A qualitative approach has been taken for the research, as the investigation was done to understand what the participating parents observed and perceived about their children's screen time and the effect it has on them. The research tool was one to one in-depth interviews (IDI), following the same set of fixed guidelines for every participant. The participants were asked some structured questions about their demographics at first and then followed by open-ended elaborate questions next.

Research Participants

The study participants were one of the parents (either mother or father) of children aged 6-8 years old from Dhaka. Interviews were taken of a total of 10 participants for this study.

Research site

The proposed study was done with participants from the urban areas of Dhaka, Bangladesh. The participants were from the areas of Motijheel, Lalmatia, Dhanmondi and Mirpur. The interviews were taken one on one and in-person. Some of the participants could not agree to in person interviews due to the political situation of the country and the blockades on the roads, and so their interview was taken over a phone call where the conversation was recorded with their permission.

Sample size and Sampling method

Participants for the study included 10 parents from a homogenous group. Purposive sampling method was used since parents of only 6-8 years old children would be selected. Either father or mother can participate. Both working and non-working parents were selected for diversity in the data.

Data Collection Tool

The data collection tool was an in-depth interview with each participant individually following a set guideline of questions (attached in the Annex) related to the research questions.

Data Collection Methods

The data was collected by following a set of interview questions with a tailored guideline, which was divided into three parts. The first part consisted of demographic questions like age, occupation, marital status, children's names, ages, and gender, and the second and third part would consist of open-ended unstructured questions based on the study. The second part referred to research question 1 and the third part referred to research question 2. Whenever the participants provided close ended answers, further sub-questions were asked on the topic for elaborate answers. The questions were constructed both in English and Bengali and the participants were asked for their preference. The participants were briefed about the content of the study from beforehand and the interviews were conducted only after receiving their consent. Anonymity was maintained and all names provided by the participants were kept confidential and the interview was recorded only after taking their consent. Notes were taken from observation and reflection.

Data Management and Analysis

After the data collection, all the answers given by the participants were transcribed from Bengali to English and organised into a single file manually. The reflection notes taken were rewritten in narrative form in order to identify specific themes or patterns. The data was categorised into topics and themes. The data is stored as a MS Word file in the computer and the accuracy of the data can be checked manually. The raw data was analysed and represented under themes instead of just being listed.

Validity and Reliability

The validity and reliability of the questionnaire was checked by one of the expert faculties of BRAC IED to ensure the trustworthiness of it. Later improvements were also made to the guidelines by taking feedback from external faculties. Piloting was done on the first two participants and the questions were adjusted to procure more informative answers from the rest of the participants.

Ethical Issues

The survey was conducted only after taking verbal affirmations from all participants. They were asked to take part voluntarily and answer the questions unbiasedly. The questions for the survey were made in a manner so that no feelings were hurt and no one was offended. The privacy of all information was guaranteed and the participants were ensured that their answers would be kept in record only for academic purposes. All names were kept anonymous and the participants were allowed to withdraw themselves from the interview at any point they wanted. No physical, psychological or social harm occurred during the study.

Limitations of the study

The research was conducted on a small scale with 10 participants only, it can definitely be made more potent by increasing the number of participants. Participants can be chosen from other cities of Bangladesh as well and parents can also be interviewed from rural areas to make a comparison.

Chapter IV: Results & Discussion

Results

The results were based on the in-depth interviews taken of 10 participants. The data was transcribed in English and then divided under two main themes and eight sub-themes, which are discussed below.

Demographics of the participating parents and children

There were eight mothers and two fathers who participated in the study for this research. All of the participants were from Dhaka, living in the areas of Motijheel, Lalmatia, Dhanmondi and Mirpur. The ages of the mothers ranged from 27-36 years and for the fathers it was 33 - 38 years. All of the parents had a minimum of an undergrad degree and 7 of them had full time jobs, 2 of them worked from home and one of them was a stay-at-home mother. One of the fathers was a widower and the other one worked from home, making them the parent who spent the most time with their child. The children were all of the age range 6-8 years old and went to classes K.G. - II, class - I and II. Three of the children were an only child, the rest of them had one or two siblings. Children of both genders were involved in this study.

Theme 1: Parental perception on smartphone usage of their children

i. How children spend their time on smartphones

Eight of the parents reported that their child likes to spend their leisure time on the smartphone after school. Among them six of them let their children use the phone for 2-4 hours and two of the children like to spend their entire time after school on their phones at home. One of the parents reported that instead of being on the smartphone, her child preferred to watch youtube videos on the TV since it offered a bigger screen and another one reported that they only allow 30 minutes of screentime on the TV every day, they only let their child use the phone when they go out to eat. Since most of the parents' work, they prefer to relax a little after getting home and so they let their children watch videos or play games on their phones while they watch the television or do any other chores. As told by one of the fathers who takes care of his son along with his mother since he is a widower -

"I let him use my phone after work because I like to watch the news after getting home and my mother also gets a break after taking care of my son all day." (IDI - 05, 06/12/23)

Four of the parent's mentioned that they let their children use the phone for purposes other than entertainment, such as learning new languages (English and French), getting help for their homework online and one of them takes online dance lessons. Almost all of the parents have reported that their children play educational games like colour and shape matching, learning to name objects, etc on their phones.

"He usually plays educational games like matching colours and shapes, tracing alphabets, colouring, solving puzzles etc. Sometimes he will go to YouTube and watch cartoons like Hop Hop the owl, Leo the truck or Peppa pig" (IDI - 02, 30/11/23)

ii. Effects of smartphone usage on the children's social skills as observed by the parents

Eight of the parents reported that their children preferred to play outside, with them or with other children if given the chance. One of the parents said that her child preferred to be on the smartphone than spend time with other children because she found it easier to play games online (*IDI - 03*). Another parent said that his child is shy so it takes him time to open up to new people, that's why he prefers to stay at home and play his games online (*IDI- 04*).

" She likes to play minecraft quietly on my phone with her online friends and doesn't like to interact with children who play very loudly" (IDI -03, 02/12/23)

"He is a little shy and doesn't like to go downstairs to our building play area as there are usually a lot of people there. He only likes to play with his brother but that doesn't occur much because he stays busy after school with his private tutor." (IDI - 04, 04/12/23)

All of the parents mentioned that they would like to take their children outside more or spend more time with them at home reading books or playing games, but they cannot because of their busy work schedule. When asked about the number of friends, it was seen that there was a correlation between the number of friends a child has and the amount of time they spend on their devices. All of the children had about 2-6 very good friends, the exception being *IDI -03* and *IDI -08*. *IDI -03* has observed that her child does not have any friends in school and usually stays quiet in the classroom (as reported by the teacher) but she has a lot of online friends from the games she plays. On the other hand *IDI-08* has observed that her daughter is very social and likes to make friends everywhere she goes. The amount of time she spends on the phone is uncertain everyday since she prefers to play with her dolls and only opts for a device if she gets

too bored. *IDI -10* has reported that her son spends about 2 hours every day on the phone but he has five very good friends at school who like to come over and play sometimes.

On being asked whether the children liked to volunteer for help, there were mixed answers. A few of the parents said that their child loved to help, a few said that they did not care about helping others and the rest said that it depended on the situation.

"She loves to get involved in everything I do and so I let her do small chores like passing a bowl, etc. Her teacher said that she likes to help in school as well." (IDI -01, 25/11/23)

IDI -01 works from home and usually leaves her child under the care of her grandparents when she is busy working.

"She doesn't like to listen to anyone when she is on her device and I usually have to push her to do things like eating and taking a shower. No, she doesn't volunteer for help in school." (IDI -03, 02/12/23)

"He doesn't want to help when he is busy playing but if I call him one or two times then he comes to help me. He listens to his teacher in school and likes to help but is shy to volunteer." (IDI -07, 11/12/23)

The interviewee for *IDI -07* is a stay at home mother of two sons. She spoke about her younger son in this interview and he reportedly prefers to play with his brother than on a device during his free time.

iii. Observed influences on behaviour of the children due to smartphones

On being asked about handling new situations or meeting new people, nine of the parents reported that their child is always hesitant at first but they start to ease up as time goes on. They all think that their children have missed out on the opportunity to pick up social skills due to being locked up at home during COVID-19 for two years and are still trying to learn their ways around strangers. Only one of the participants mentioned that her child is very comfortable around strangers as they have a big family.

"She is very smart and responds instantly when anybody asks anything. She is not hesitant around strangers either.....I think this is because we live with her grandparents and her uncle and his family. We always have a lot of guests at home and she has gotten comfortable with the idea of interacting with strangers." (IDI -08, 15/12/23)

Six of the parents have remarked that their children try to use the phone as a means of evading uncomfortable or unknown scenarios, for example they ask for the phone when they visit a new place, or they have to wait somewhere for a long time or during long journeys. Eight of the parents have agreed that their children ask for the phone when they are bored instead of asking them to play with them or to take them out. On being asked their opinion on the reason behind the pleading, they responded by saying that the children know that they do not always have the time to take them out; some said that they get home very late and are too tired to play with their children at that point.

"I try to take him out on the weekends but even he knows that it's not possible to go out during the weekdays, especially since his father and I reach home very late." (IDI -06, 10/12/23)

“...I let the maid take her out when she is bored during the day, but at night I am too tired to entertain her, so I let her use the phone since the maid takes her leave as well.” (IDI -09, 20/12/23)

While describing the activities the children do with cousins or friends who come over, the parents presented various kinds of interesting observations.

“She loves it when her cousins or friends come over and they instantly start playing with their toys or start running around the house playing make-believe games.” (IDI -01, 25/11/23)

“She does not care much for guests at home. Her cousins are slightly older than her so she doesn't like to play with any of them.” (IDI -03, 02/12/23)

“.....since he is shy, someone needs to initiate the game or otherwise he sits around quietly.” (IDI -05, 06/12/23)

“He likes to play online games with his friends when they come over which usually involves racing or wrestling. Sometimes they play board games too.” (IDI - 10, 22/12/23)

iv. Comparison with their own childhood and opinions on device usage

All of the parents stated one thing which was in common, they had all grown up in a joint family with their grandparents and extended relatives, that's why they never had any lack of people to play with. Almost all of them grew up with siblings and cousins living in the same house or neighbourhood, that's why they never felt lonely. On the other hand, right now most of them have nuclear families and as a result their children do not have anyone to play with unless they have siblings. The parents see smartphones as a source of low effort entertainment for their

children. While some of the parents see the negative effects of smartphones and have realised that it has made their children less social....

“It is hard to separate my daughter from her phone most of the days, so yes I do think it has had a negative effect on my child and has made her less social....” (IDI -03, 02/12/23)

..... Others have stated that they see some usefulness of using phones and it has helped them to maintain balance in their homes.

“I don't think devices make a child less social because my son hardly uses any device but still he is not very social. As he didn't get the opportunity to meet many people due to covid, he has become less social. But after starting preschool he is doing much better.” (IDI -02, 30/11/23)

Theme 2: Practices done at home and challenges faced by parents

i. Screen time during meals and bedtime

Nine of the parents have agreed that they let their children have screen time during meals. They said that it had made mealtime easier for them since they used to feed their children by showing them youtube videos when they were younger and now it has turned into a habit.

“Only during dinner he watches TV and he will ask me to turn it on as it has turned into a habit I guess” (IDI -02, 30/11/23)

Only one of the parents have said that their daughter eats with them on the dining table as they all have lunch and dinner together and consider it as family time.

“The whole family gathers around to have meals together in the dining room and so she does not ask for the phone then as everybody talks and shares their stories” (IDI -08, 15/12/23)

Most of the parents have admitted to not allowing screen time before bed. They allow it at the very most an hour before bed. Only one of the participants said that her child has to watch youtube videos to fall asleep.

ii. Regulation of screen time and challenges faced

Only two of the parents have acknowledged to accompany their children during their screen time. They monitor the contents their children watch and do not allow them to play all games.

“Yes, I supervise when he is using a device. If he is watching something, I control the content. I don't let him surf the internet, he only watches cartoons or plays games that are already downloaded on the device.” (IDI -02, 30/11/23)

Seven of the parents have admitted to letting their children use phones when they get upset. They said that when they are outdoors or busy at home they let their children have the phone when they get fussy. On being asked about other tactics they have applied to calm down their children, they said that they have tried letting them have a treat (juice, chocolate, etc) or a toy but that does not always work.

Some of the parents have observed that their child throws a tantrum when they take the device away from them. They cry and plead till the parents are bound to give it back.

“.....she keeps on crying and refuses to eat until I give it back.” (IDI -03, 02/12/23)

“.....he refuses to eat and will sulk around the house in a bad mood the whole day” (IDI -06, 10/12/23)

iii. Phone usage by parents and activities done at home

Almost all of the parents have reported to spend about 1-2 hours on their phones at home, since they stay busy with their work. They consider that time as their personal leisure or relaxation period. They have also admitted to letting their children use a device during that period. Some of the parents have let their children use the phone as a reward.

“Since he doesn’t like doing his homework, I tell him that he can use the phone after he has finished” (IDI -07, 11/12/23)

On being asked about spending quality time, four of the parents mentioned that try to spend as much quality time as possible during the weekends; two of the parents have mentioned that they try to spend at least 30 mins of quality time everyday, three of the parents have said they do not get the time and consider going out during the weekends as spending quality time and only one of the parents has said that she spends her entire day taking care of her child and doesn’t think that they need to spend “quality” time together. When asked about the activities, they mentioned that they try to play board or card games, watch children’s movies or read together. One of the parents considered doing their child’s homework together as spending quality time as he gets to share his knowledge with his child.

iv. Initiatives to reduce screen time

Only one of the parents has admitted to taking initiatives to reduce her child’s screen time, the rest of them think that they have the hours spent on the phones under control. Some of them

think that the hours that their children spend are needed for a mental break and for entertainment.

The others think that the screen time is already low.

“His screentime is already low and I don't think I'll reduce it anymore.” (IDI -02, 30/11/23)

“I have tried to take her out more in order to reduce her screen time. I think it has been effective because now sometimes she gets bored of her device and asks me to take her out.” (IDI -03, 02/12/23)

Discussion:

This research has aimed to explore the amount of time, types of activities and the tendency of attachment that children have with smartphones, through their parents' eyes or perception. In order to get the best assessment, parents who were closest to their children were picked as participants regardless of their gender. The results found were very interesting and different from each other in some cases.

In order to understand how the usage of phones is affecting the children's socialisation, it was important to explore the kind of practices they had in their homes throughout the day. It was also important to understand how much control and involvement the parents had over their children's access and usage. The results have been presented below into four sections to understand the outcomes better -

Practices and smartphone usage done by the children at home

When asked about the daily usage, it was seen that the children mostly spent their leisure time on the phones watching youtube, some played video games and there were a few children who

used the phones for educational purposes as well. According to most of the parents the children preferred to spend their leisure time out in the playgrounds or in their home courtyards playing, but they couldn't because of the following reasons -

- i) there was no one to take them outside since the parents worked till late night
- ii) there were no playgrounds or courtyards nearby as all the children resided in the metropolitan areas
- iii) the parents who could get home before the afternoon or stayed at home, found it too tedious to take their children out everyday

The parents tried to make exceptions during the weekends and took out their children for casual outings whenever they could.

Another interesting issue that came up was that due to televisions becoming android, some children preferred watching youtube on the bigger screen compared to the small screens of smartphones. Although the television wasn't available to the children most of the time as their parents opted to watch TV during their own leisure. So basically most of the children did not have access to only one device but two, throughout their whole day. Also some parents actually relied on the phones to feed their children or to keep them calm. If the parents had any work at hand, they let their children use phones to keep them busy, in fact some of them had also let their children use it as a reward for good behaviour.

“Since he doesn't like doing his homework, I tell him that he can use the phone after he has finished” (IDI -07, 11/12/23)

These kinds of indulgent behaviours by the parents can be thought of as examples for enabling phone usage among children.

Effect on socialisation of the children due to phone usage

Despite all the attempts and restrictions made by the parents, the children still showed some level of dependency on the devices. Some were more drawn and dependent on it than the others. As for affecting socialisations skills, it was understood that it did not only involve the hours of phone usage, but also the temperament of the child. When a shy child by nature spends a lot of time alone over a phone, it eventually starts taking him/her away from society. But then again if a child of the opposite temperament is handed a phone, he/she might find more ways to engage and connect to people through it. For example, playing online games with friends or connecting with them through social media.

Like all studies, of course there were some outliers to this research; there was one child who was always seen to be dependent and engrossed with her phone. Her mother said it wasn't only applicable for phones but tabs and other devices as well. She was so engrossed that she was actually missing out in her social life and finding it difficult to be around other people or children her age. This child can be thought to have been affected in the most extreme way by phone usage - her temperament unknown. Then again there was another child who did not seem to be much affected by the presence of phones as she lives in a joint family and always has a lot of people around her to keep her accompanied and occupied. Therefore, it can also be theorised that isolation or effect on socialisation also depends on the size of the family, i.e. children from nuclear families are more likely to be affected compared to families with a lot of members. This

theory can be further strengthened by the statements given by the parents about their own childhood. They have all admitted to being raised in a joint family and having a rather pleasant childhood in the company of their cousins or neighbours.

“I used to run to my neighbour’s house whenever I was bored. We used to play ‘gollachut’ and ‘borof-pani’ on the street in front of my house with my friends during the afternoons” (IDI -03, 02/12/23)

Of course they did not have smartphones back then, but from the essence of their answers it did not seem like they even needed one.

Almost all of the children have been reported to be hesitant in talking to strangers, therefore maybe this clause can be omitted while making a judgement on their social skills. Most of the parents have agreed to the same thing, that their children take time to open up in new situations or places. All of the parents mentioned COVID - 19 as being a factor behind whatever lackings their children have socially. They all think that the children have missed an opportunity to hone their social skills at the crucial age they were during the lockdown. A correlation has been seen between the number of friends a child has and the number of hours that child likes to spend on the phone alone. But there was no relationship between their level of socialism and the activities they preferred to do on the phone.

Parental involvement in the daily activities done by the children

Unfortunately most of the parents did not know the definition of quality time or why it was important. Some parents considered doing chores or homework together as quality time, and some thought of watching videos together as so.

“.....I mean I help him with his homework after coming home, then we like to watch cricket matches during dinner and after that it gets pretty late so we all head to bed.” (IDI -06, 10/12/23)

None of them mentioned working on any hobbies the children had, in fact it appeared as if the children did not have any to begin with. Also instead of teaching the children to enjoy eating outside, the parents tended to distract them with their phones while waiting for the food. Whereas that time could be easily used for family bonding. When the parents were not at home, they either left their children under the care of their grandparents or maids. That time of the day was unaccounted for, as the parents could only know about the state of their children over phone calls. All of the parents were working except for one and yet it was commendable how almost all of them made time for their children after they came home, no matter how short it was.

Parental perception about smartphone usage of their children

Analysing the perception of the parents, it did not seem like most of them were aware of any problems the phones were causing, unless it became an extreme case. Upon being asked about the initiatives they were taking to reduce screen time, all of them, except for one parent, thought that no efforts were needed to be made as their children already had a low screen time

“His screentime is already low and I don't think I'll reduce it anymore.” (IDI -02, 30/11/23).

They all saw benefits in phones being used, which were significant. Like picking up on English

by watching Youtube videos, extending their vocabularies, learning new information, making new friends through online games, etc. Maybe if the alternative scenarios can be shown to them or recommendations can be made, then they might understand if their child is actually falling behind on acquiring social skills.

Conclusion:

It can be inferred that the natural instinct of children is to play with other children or basically spend quality time in the company of another human during their leisure; they are forced to use phones due to the lack of opportunities as a result, eventually they are becoming dependent on it for stimulation and in some cases comfort or distraction.

Although hours of smartphone usage can be linked to diminished social skills, it is not the only factor which can affect so; temperament, size of the family (nuclear or joint), parental presence and involvement throughout the day are also some of the contributing factors. Also the social skills of a child does not only depend on the hours of isolation he/she is facing but also on the temperament and nature of the child. Lack of playgrounds and not having easy access to the outdoors is a conducive factor to children falling back to using phones during their leisure period.

Lack of parental awareness is also a factor as parents let their children use the phones outside of their leisure period to feed them, calm them down, as a reward and also to stop them from throwing tantrums regardless of the dependency it is creating.

In the end it can be concluded that smartphones offer some undeniably good uses and qualities like learning languages, easy access to entertaining content, etc, but if its use is not restricted or

limited among children, then it can have some adverse effects. Not all children take up to the same level of influence, therefore parents need to be aware of how susceptible their children are and what kind of personalised discipline they need to maintain at home.

Recommendations:

Almost all of the interviewed parents liked to exercise some level of control and restriction over their children's smartphone usage, but still most of them could not perceive the extent of influence and hold this gadget had over their children's lives until they were met with the questions for this research. Some of them realised how they could reduce this addiction and many shared suggestions on how they could make their children more social. The following recommendations have been made for the parents to improve their childrens' social skills, from the observations and notes taken during the interviews and by also keeping the suggestions made by the parents in mind -

- i) Instead of phones, other things like books, chocolates, etc can be used as rewards in return for good behaviour from children.
- ii) The children can be encouraged to have constructive hobbies so that they can work on it during their leisure instead of seeking means of entertainment, like painting, doing crafts, learning to play a musical instrument, etc.
- iii) Parents can spend quality time together with their children during their leisure period doing activities which do not involve a screen.

iv) If possible pets can be bought for the children so that they do not feel lonely while their parents are away at work and in doing so they can also learn to undertake responsibilities as well.

v) If a child is shy or does not know how to make friends then parents should help them with advice and if possible arrange playdates with their classmates to help them make friends.

vii) The parents should stay in touch with the school and the teachers to get regular updates on how their children are progressing in a holistic way.

vi) When eating outside, the parents can keep the children entertained by teaching them about the food or the food making process instead of handing them the phone when they are bored. The same thing can be done on long road trips where parents can play different types of games in the car, name the places they pass by, introduce the children to new or interesting objects they see on the road or even play music and encourage them to sing along.

References:

- Abdulla, F., Hossain, M. M., Huq, M. N., Hai, A., Rahman, A., Kabir, R., Peya, F. J., Islam, S., & Khan, H. T. A. (2023). Prevalence, determinants and consequences of problematic smartphone use among preschoolers (3-5 years) from Dhaka, Bangladesh: A cross-sectional investigation. *Journal of affective disorders*, 329, 413–427. <https://doi.org/10.1016/j.jad.2023.02.094>
- Bandura, A. (1969). Social-learning theory of identificatory processes. *Handbook of socialization theory and research*, 213, 262.
- Brandon T. McDaniel (2019). *Parent distraction with phones, reasons for use, and impacts on parenting and child outcomes: A review of the emerging research*. Family and Consumer Sciences, Illinois State University, Campus Box 5060, Normal, IL 61790. DOI: 10.1002/hbe2.139
- Braune-Krickau, Katrin & Schneebeli, Larissa & Pehlke-Milde, Jessica & Gemperle, Michael & Koch, Ramona & von Wyl, Agnes. (2021). Smartphones in the nursery: Parental smartphone use and parental sensitivity and responsiveness within parent–child interaction in early childhood (0–5 years): A scoping review. *Infant Mental Health Journal*. 42. 10.1002/imhj.21908.
- Bronfenbrenner, U. (2000). *Ecological systems theory*. Oxford University Press.
- Carter, A. (2017). The Effect of Cell Phone Use on Frontal Lobe Function [Undergraduate dissertation, Middle Tennessee State University]. JEWLScholar@MTSU <http://jewlscholar.mtsu.edu/handle/mtsu/5252>
- Centers for Disease Control and Prevention. (n.d.). Middle Childhood (6-8 years of age). <https://www.cdc.gov/ncbddd/childdevelopment/positiveparenting/middle.html>
- Chong, S. C., Teo, W. Z., & Shorey, S. (2023). Exploring the perception of parents on children's screentime: a systematic review and meta-synthesis of qualitative studies. *Pediatric research*, 94(3), 915–925. <https://doi.org/10.1038/s41390-023-02555-9>
- Downey, S., Hayes, N., O'Neill, B. (2007). *Play and technology for children aged 4-12*. Study commissioned by the Office of the Minister for Children, Government of Ireland.
- Drouin, M., McDaniel, B. T., Pater, J., & Toscos, T. (2020). How Parents and Their Children Used Social Media and Technology at the Beginning of the COVID-19 Pandemic and Associations with Anxiety. *Cyberpsychology, behavior and social networking*, 23(11), 727–736. <https://doi.org/10.1089/cyber.2020.0284>
- Erikson, E. (1959). *Theory of identity development*. International Universities Press.

[http://childdepsychology.yolasite.com/resources/theory% 20of% 20identity% 20erikson. pdf.](http://childdepsychology.yolasite.com/resources/theory%20of%20identity%20erikson.pdf)

- Fuller, C., Lehman, E., Hicks, S., & Novick, M. B. (2017). *Bedtime Use of Technology and Associated Sleep Problems in Children*. *Global pediatric health*, 4, 2333794X17736972. <https://doi.org/10.1177/2333794X17736972>
- Hossen, Md. (2022, October 11). Smartphone addiction in children. How are parents responsible for it? *The Daily Star*. <https://www.thedailystar.net/opinion/views/news/smartphone-addiction-children-how-are-parents-responsible-it-3139896>
- Kim, R., Lee, K. J., & Choi, Y. J. (2015). Mobile Phone Overuse Among Elementary School Students in Korea: Factors Associated With Mobile Phone Use as a Behavior Addiction. *Journal of addictions nursing*, 26(2), 81–85. <https://doi.org/10.1097/JAN.0000000000000074>
- Kostadin Kushlev, Elizabeth W. Dunn (2019). *Smartphones distract parents from cultivating feelings of connection when spending time with their children*. *Journal of Social and Personal Relationships* 2019, Vol. 36(6) 1619–1639. DOI: 10.1177/0265407518769387
- Liza, M. M., Iktidar, M. A., Roy, S., Jallow, M., Chowdhury, S., Tabassum, M. N., & Mahmud, Malik F, Marwaha R (2023). *Developmental Stages of Social Emotional Development in Children*. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK534819/>
- Liza, M. M., Iktidar, M. A., Roy, S., Jallow, M., Chowdhury, S., Tabassum, M. N., & Mahmud, T. (2023). Gadget addiction among school-going children and its association to cognitive function: a cross-sectional survey from Bangladesh. *BMJ paediatrics open*, 7(1), e001759. <https://doi.org/10.1136/bmjpo-2022-001759>
- Louis Leung (2008). *LINKING PSYCHOLOGICAL ATTRIBUTES TO ADDICTION AND IMPROPER USE OF THE MOBILE PHONE AMONG ADOLESCENTS IN HONG KONG*. *Journal of Children and Media*, 2:2, 93-113, DOI: 10.1080/17482790802078565
- Naira (2021, March 15). Covid-19 increases smartphone addiction for children, poses health risks. *Dhaka Tribune*. <https://www.dhakatribune.com/bangladesh/health/241222/covid-19-increases-smartphone-addiction-for>
- Noor, S., Haseen, F., Ahsan, L., & Noor, N. (2022). Parental Influence on Usage of Electronic Gadgets and Students' Grades: Primary Students' Perspective. *Mymensingh medical journal* : MMJ, 31(1), 186–193.
- Park, Cheol & Park, Ye Rang (2014). *The Conceptual Model on Smartphone Addiction*

among Early Childhood. International Journal of Social Science and Humanity, Vol. 4, No. 2. DOI: 10.7763/IJSSH.2014.V4.336

Rahman, Mohammad Anisur, Kalam Abul, Al-Mamun Md (2023). Unplanned urbanization and health risks of Dhaka City in Bangladesh: uncovering the associations between urban environment and public health. *Frontiers in Public Health*, Vol. 11. DOI: 10.3389/fpubh.2023.1269362

Rashid, S. M. M., Mawah, J., Banik, E., Akter, Y., Deen, J. I., Jahan, A., Khan, N. M., Rahman, M. M., Lipi, N., Akter, F., Paul, A., & Mannan, A. (2021). Prevalence and impact of the use of electronic gadgets on the health of children in secondary schools in Bangladesh: A cross-sectional study. *Health science reports*, 4(4), e388. <https://doi.org/10.1002/hsr2.388>

Richtel, M. (2021). Children's Screen Time Has Soared in the Pandemic, Alarming Parents And Researchers. *The New York Times*. <https://www.nytimes.com/2021/01/16/health/covid-kids-tech-use.html>

R. Zhen, L. Li, Y. Ding, W. Hong, R-D. Liu (2020). *How does mobile phone dependency impair academic engagement among Chinese left-behind children?* Children and Youth Services Review. doi: <https://doi.org/10.1016/j.chilyouth.2020.105169>

Sadri, A.M. (2018, December). *Prolonged Digital Screen Effect on Preschool Children: An Analysis from the Perception of Parents of Dhaka*. https://dSPACE.bracu.ac.bd/xmlui/bitstream/handle/10361/12433/17162018_BIGD.pdf?sequence=1&isAllowed=y

Sahu, M., Gandhi, S., & Sharma, M. K. (2019). Mobile Phone Addiction Among Children and Adolescents: A Systematic Review. *Journal of Addictions Nursing*, 30(4), 261–268. <https://doi.org/10.1097/JAN.0000000000000309>

Shivakumar, Sandhya & Sivaraman, Varadharajan. (2022). Early Gadget Exposure among Young Children and its Association with Cognitive and Socio-Emotional Development. *Journal of the Indian Academy of Applied Psychology*. 48. 177-187. https://www.researchgate.net/publication/363857331_Early_Gadget_Exposure_among_Young_Children_and_its_Association_with_Cognitive_and_Socio-Emotional_Development/related

Wacks, Y., & Weinstein, A. M. (2021). Excessive Smartphone Use Is Associated With Health Problems in Adolescents and Young Adults. *Frontiers in Psychiatry*, 12, 669042. <https://doi.org/10.3389/fpsy.2021.669042>

Appendix A

(In-depth interview questions in English)

Section A: Demographics of the participants

Parent:

- Mother
- Father

Parent's name:

Age:

Education:

Occupation:

Child's name:

Child's Gender:

Child's age:

Class:

No of total children:

Interview starts at:

Interview ends at:

Section B: Parent's perception on smartphone usage

1. How does your child spend his / her time at home?
2. How much time does your child spend on smartphones during his/ her leisures everyday?
Do they use the phone for purposes other than entertainment?
3. Can you mention some skills or any developments your child has made through the usage of smartphones?
4. If given the choice, do you think your child would prefer to play with other children (including siblings if any) or with you, rather than spend time on the device? Please explain your reasons.

5. How many friends does your child have?
6. Can you describe what your child likes to do on the smartphone?
7. Are you aware of any problems your child is facing due to smartphone usage? If yes, then what are they?
8. Does your child want to use the smartphone or do they want to go outside when they are bored? Why do you think that is?
9. Instead of choosing a smartphone for entertainment, do you think you can make your child do some other activities? Explain in what way you think doing those other activities would be better for your child's development.
10. Can you compare your child's leisure activities with yours when you were of the same age and why do you think they differ?
11. Does your child feel nervous or clingy in new situations or around new people? Can they interact with strangers on their own?
12. Does your child often volunteer to help others (parents, teachers and other children)?
13. Do you think the usage of a device is making your child less or more social? Please elaborate your answer.

Section C: Practices done at home and challenges faced by the parents

1. Do you accompany/supervise your child while he/ she is using the device? If yes, then how?
2. Can you mention some of the purposes and the length of your phone usage at home?
3. Do you allow screen time during meals? If not, then do they ask for a device when they are eating?

4. How often do you hand over the phone to your child to calm them down when they are upset?
 - i) Have you approached any other tactics?
 - ii) If yes, then what are they?
5. Do you allow device usage before bedtime? If yes, then how long before bedtime?
6. Does your child throw a tantrum if you don't allow them to use/ take away the device from them?
7. What activities do you do with your child to spend quality time together?
8. What kind of activities does your child do if his/her friends or cousins come over?
9. Have you ever allowed screen time as a reward to your child? If so then can you please mention the occasion ?
10. Please mention any initiatives that you have taken to reduce your child's screen time.

Appendix B

(In-depth interview questions in Bangla)

বিভাগ ক: অংশগ্রহণকারীর তথ্য

অভিভাবক:

- মা
- বাবা

অভিভাবকের নাম: _____

বয়স: _____

শিক্ষাগত যোগ্যতা: _____

পেশা: _____

সন্তানের নাম: _____

সন্তানের লিঙ্গ: _____

সন্তানের বয়স: _____

শিক্ষা শ্রেণী: _____

মোট সন্তানের সংখ্যা : _____

সাক্ষাৎকার শুরু : _____

সাক্ষাৎকার শেষ: _____

বিভাগ খ: স্মার্ট ফোন ব্যবহারের প্রতি অভিভাবকের দৃষ্টিভঙ্গি

1. আপনার সন্তান কীভাবে বাড়িতে সময় কাটায়?
2. আপনার সন্তান প্রতিদিনের অবসরে কতটা সময় স্মার্টফোনে ব্যয় করে? সে বিনোদন বাদে আর কি কি কারণে ফোন ব্যবহার করে থাকে?
3. আপনার সন্তান স্মার্টফোনের ব্যবহারের মাধ্যমে কোন দক্ষতা অর্জন করে থাকলে তা উল্লেখ করুন।
4. আপনার কি মনে হয়, সুযোগ দেয়া হলে আপনার সন্তান ডিভাইসে সময় ব্যয় করার চেয়ে অন্যান্য বাচ্চাদের (ভাই/বোন যদি থেকে থাকে) সাথে বা আপনার সাথে খেলতে বেশি পছন্দ করবে? বিস্তারিত করে বলুন।
5. আপনার সন্তানের কতজন বন্ধু আছে?
6. আপনার সন্তান স্মার্টফোনে কিভাবে সময় কাটাতে পছন্দ করে?
7. আপনার জানা মতে ফোন ব্যবহারের কারণে কি আপনার সন্তানের কোন ক্ষতি হচ্ছে? উত্তর হ্যাঁ হলে, তা কি কি বিস্তারিত বলুন।
8. আপনার সন্তান কি একঘেয়েমি কাটাতে স্মার্টফোন ব্যবহার করতে চায় নাকি বাইরে বেড়াতে যেতে চায়? বিস্তারিত বলুন।
9. আপনার সন্তান কি অবসর সময়ে আপনার সাথে সময় কাটাতে বেশি পছন্দ করে নাকি কোন ডিভাইসে থাকতে পছন্দ করে?

10. বিনোদনের জন্য স্মার্টফোনের পরিবর্তে আপনার সন্তানের জন্য কি আপনি অন্য কোন একটিভিটি চিন্তা করতে পারেন? এই অন্যান্য একটিভিটিগুলো কীভাবে আপনার সন্তানের বিকাশের জন্য ভাল হবে বলে আপনি মনে করেন?
11. আপনার ছোটবেলার সাথে আপনার সন্তানের অবসর একটিভিটি তুলনা করলে আপনি কি কি পার্থক্য খুঁজে পান ?
12. আপনার সন্তান কি নতুন পরিস্থিতিতে বা নতুন লোকের আশেপাশে নার্ভাস বা আপনার সাথে আঁকড়ে থাকে? সে কি নিজের থেকে অপরিচিত মানুষদের সাথে কথা বলতে পারে?
13. আপনার শিশু কি প্রায়শই অন্যদের (পিতামাতা, শিক্ষক এবং অন্যান্য শিশু) সাহায্য করার জন্য স্বেচ্ছাসেবক হয়?
14. আপনার কি মনে হয় ডিভাইসের ব্যবহার আপনার শিশুকে কম বা বেশি সামাজিক করে তুলছে? দয়া করে আপনার উত্তরটি ব্যাখ্যা করুন।

বিভাগ গ: বাসায় অভিভাবকের সমস্যার সম্মুখ এবং অনুশীলন

1. আপনার সন্তান স্মার্টফোন ব্যবহারের সময় কি আপনি তার সাথে থাকেন?
2. আপনি কি কি কারণে এবং কতক্ষণ সময় বাসায় থাকা অবস্থায় ফোনের পেছনে ব্যয় করেন?
3. আপনি কি খাবারের সময় স্ক্রিন টাইমের অনুমতি দেন? যদি তা না হয় তবে কি সে খাওয়ার সময় ডিভাইস চায়?
4. আপনার সন্তানকে শান্ত করতে আপনি কতোটা ফোনের সাহায্য নেন?

ক) আপনি কি অন্য কোন কৌশল অবলম্বন করে দেখেছেন?

খ) করে থাকলে, তা কি কি?

5. আপনি কি ঘুমানোর আগে ডিভাইস ব্যবহারের অনুমতি দেন? যদি হ্যাঁ হয়, তাহলে ঘুমানোর কতক্ষণ আগে?
6. আপনার সন্তানের কাছ থেকে মোবাইল কেড়ে নিলে বা তাকে ডিভাইস ব্যবহার করতে না দিলে সে কি করে তখন?
7. আপনি আপনার সন্তানের সাথে কিভাবে সময় কাটান?
8. আপনার সন্তানের বন্ধু বা কাজিনরা বেরাতে আসলে তারা একসাথে কিভাবে সময় কাটায়?
9. আপনি কি কখনো পুরস্কার হিসেবে আপনার সন্তানকে ফোন ব্যবহার করতে দিয়েছেন? এমন একটি সময়ের কথা বলুন।
10. আপনার সন্তানের স্ক্রিন টাইম কমাতে আপনি কোনও উদ্যোগ নিয়ে থাকলে তা উল্লেখ করুন।