PARENT'S PERCEPTION TOWARDS EXCESSIVE USE OF TECHNOLOGY AT EARLY PRIMARY (5-7Y) LEVEL

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Abstract

The impact of technology in modern life is multifarious. We use technology in different ways and often times the way we implement various technologies ends up harming our lives or the society we leave in.

This study revealed the understanding of the parents about the influence of technology on the child's social, language and physical health development. the present study conducted by Two Focus Group Discussions (FGD) and four In-depth interviews (IDI) were the basis of the qualitative approach. All the participants were selected through convenient sampling.

The findings revealed that children have access to all the technology that is available at home. It was found from the study that children's screen time was varying from 2 to 5 hours. Findings say that children use technology for entertainment purpose, though educational purpose through Khan Academy also surfaced during the interviews.

Another interesting finding was, though video games have adverse effects on children, one cannot bar children from using technology in this modern age.

Some parents believe technology has some negative effects. Addiction to digital media is one of the negative effects. Among the other responses, parents identified less physical movement, less social interaction, and obesity of children as the negative influences of excessive technology use. In case of parents' understanding on usefulness of technology at early primary level, it was found that, children start using smart phones at early age. The parents responded this early literacy of smart phones helped to develop sense of language.

From the findings, it can be concluded that, parents do not have the idea of excessive time limit for using technology of their children. Parents should follow some strict parental guidance in case of excessive technology use, find innovative ideas in case of indoor play, take children for outdoor play for physical fitness, give limited playtime for video games with parental guidance.

This study will help parents to think about excessive use of technology and balance it with their existing lifestyle. It will help build a social awareness among parents, policy makers and teachers about the excessive limit of using technology.

Key Words: *Early primary(5-7y), Excessive use, Parents' Perception, Technology.*

I: INTRODUCTION & BACKGROUND

Today's technology based environment:

Technology has changed the shape of the world. It is hard to survive without the existence of the technology in the modern world. Both adults and children use technology. Children use technology for a source of learning and entertainment (Lee, 2018).

Actually, the world is tightly wrapped around by technologies. The most common technologies include: video games, smart phones, television, computers, tablets, internet, social networks, chatting services, calculators and much more (Fatima, 2017).

Young children's use of technology:

Children in this modern era are seriously involved with using technologies. These technologies sometimes bring blessings and sometimes bring unfortunate consequences for children. Now a day's children who have good access to the technology sometimes become addicted to it.

"Children aged between 5 and 16 spend an average of six and a half hours a day in front of a screen compared with around three hours in 1995" (Wakefield, 2015). It was found in a research in Bangladesh that on an average most of the children play video games for 20 to 25 hours per week (Mahmud, 2016).

Addiction to technology, what does it look like?

In this modern era children gets addicted to technology easily. They have good access to it. So, parents may notice some changes in their children when they get addicted to technology. In a research it was found that, the child could not entertain herself without electronics, disconnecting from technology results in tantrums or high level of irritation, the child developed a negative attitude towards spending time in nature, the child couldnot manage guidelines surrounding electronics (Bertani, 2018).

Impact of using technology at an early age:

So, what is the impact of technology on child development? The visible changes of advancing technology have been seen as child's physical, psychological and behaviour disorders (Rowan, 2017). Rowan found child obesity to be causally related to technology overuse. Child obesity rates have risen drastically over the past several decades. In 2012, the child obesity rate measured to be 18 percent, which was an 11-point difference from the obesity rate in 1980 (Patel, 2017).

Recent research has shown screens from devices such as tablets and smart phones emit harmful blue light that can cause headaches, eyestrain and irritated eyes for children (Patel, 2017). Use of digital (wireless) technologies, is also found to be connected with neurological diseases, physiological addiction, cognition, sleep, and behavioural problems in addition to cancer (Hardell, 2018).

It was found from research that parents are concerned about their children's excessive technology use. Many parents believed that smartphones might cause health problems for their children. In addition, families worried about their children's isolation from society and loneliness. On the other hand, some parents shared positive opinions. They believed that one could not survive in the modern world without technology. In the same research, parents did express fears about radiation exposure from smartphones. (Genc, 2018).

Thus, this study particularly focused on middle and upper middle class parents who have the ability to supply varieties of technology to their children. Now, to know parents' perception on technology usage is important in Bangladeshi context because the impact of technology and parent's perception would assist parents, teachers, including other guardians or family members and health professionals to better understand the complexities of this issue. This will also help create effective strategies to use technology in the best way for children.

Statement of the problem

In today's world, family surroundings are different. Children are raised in a high technology environment. Children now rely on technology for the majority of their play. This dependency limits challenges to children's creativity and imaginations. It also limits necessary challenges to physical activity and mental ability including sensory and motor development (Beurkens, 2017).

Movement, touch, interaction and exposure to nature are one of the critical factors necessary to achieve healthy child development. Research found that with the deficiency of the above mentioned exposure children's self-regulation gets hampered (Toppo, 2015). The same research mentioned that use of technology increases aggressive responses from playing violent video games.

Swamenathan (2015) also found that using technology also benefit children. It helps making new friends, teaches cause and effect relationship, eye hand co-ordination. So, considering both pros and cons it is necessary to know a child's behaviour. It is also important to find out if any domain of children's development gets hampered due to extensive use of technology.

In case of the pros and cons of technology, many parents have shared many different opinions. A recent study on parents found that the parents believe technology can support the four main areas of learning: acquiring operational skills, extending knowledge and understanding of the world, developing dispositions to learning, and understanding the role of technology in daily life (Plowman et al, 2010). In another study Plowman, McPake, and Stephen also found that children face health problems due to use of technology for a long time. These also cause obesity, technology addiction and many other health risks.

It is important to come together as parents, teachers and therapists to help society and find out the effects of using technology on a child's physical, psychological and behavioural health, but also on their ability to learn and sustain personal and family relationships. It is true that the benefits of using technology in the modern era, cannot be denied. Therefore, finding the causes, which arise the developmental issues related to excessive use of technology, should be studied.

Purpose of the Study

In this modern era, one cannot survive without using technology. It is part of life. However, it has both merits and demerits. Overuse of technology can cause different problems on children. Parents carry different perceptions on that. Again different parent with different social background carry different opinion on technology usage. There is an increasing interest in finding out parent's perception on technology usage. Particularly, this research work focused on the perception of Bangladeshi parents on excessive use technology of their children in early primary level.

Now, this research will clearly define the word 'excessive', parent's perceptions regarding excessive technology usage, and early primary level children. Thus, the purpose of the study is to explore parents' perception towards excessive use of technology at early primary (5-7y) level.

The objective of the study is:

- To explore parent's perception on excessive technology, use of their children.
- To investigate the kind of technologies their children get access to at home.
- To learn about their understanding regarding the influence of excessive technology use by the children
- To identify the challenges, the parent's face, in controlling excessive use of technology of their children.

Significance of the Study

Technology is defined as the use of tools and methods to create and produce. Modern technologies like MP3 players, video games, and computers are found, beneficial for young children in some research (Burke and Marsh, 2013). In other research, the negative impact of technology use by children was found (Vandewater et al., 2007). During the first six years of life children's perception, comprehension, language development, memory, problem solving and concept representation are usually triggered through surroundings (Siegler and Alibali, 2005).

It is found, through research that children should have limited screen hours at certain age because surrounding is playing key role to develop positive or negative perception.   Thus, timing is very important. Michigan State University urged to limit screen time for children within 1 hour for 2-5-year-old children. In the same research, for children younger than 2 years were suggested not to have any screen time. Children 6 year plus were suggested to have strict limit about screen time (Rymanowicz, 2018).

In USA "parents' attitudes toward media and technology were generally positive, and again, age and education were not related to parents' media attitudes. This may be a reflection of the media-saturated society in which they live and the fact that media and technology have become such common staples of their everyday lives" (Vittrup et, el., 2016). So, the attitude of the Bangladeshi middle class parents towards their child's use of technology is also important to know so that we can get an in depth idea about a middle class child and their technology rich environment.

In Bangladesh, there are limited studies or survey on the use of technology by children in early years and parents' perception on excessive use (Rymanowicz, 2018). Parents understanding of excessiveness in using technology may help them to be sensitive in giving access to technology and contribute to use parental control (Rymanowicz, 2018).

The current study will obviously reduce the knowledge gap about parental understanding of excessive use of technology of their children. Understanding of 'screen time' and 'excessive use' which can lead parents to find a possible solution to deal with child's developmental issue. School teachers, will know about the 'screen time' limitation and can play a role to advocate against 'excessive use' of technology at home by the children. Policy makers can take necessary steps to design an appropriate curriculum suitable for 21st century with the focus of necessary use of technology related to learning at home and school.

Research Topic & Research Questions

Research Topic: <u>Parents Perception Towards Technology</u>

Modern world cannot survive without technology though; technology has both blessings and curse. Excessive use of technology has caused many problems to children including health problems, eyesight problem, and addiction to technology and obesity. Now parents who cannot say no to technology need to know how to control the uses of it by their children. So, knowing parents' perception is important because that can help making decisions about controlling excessive use of technology based on current situation and find out better solution based on it.

Research Questions

1. <u>**What kind of technologies the child is getting access to?**</u>

   a.   How many different technologies the child is familiar with?
   b.   How the family members encourage their child's engagement with technology?
   c.   What are the practices of the parents in using technology?

2. <u>**What are the influence of excessive technology use?**</u>

   a.   What is the parent's perception on the influence of using excessive technology on the social development of the children?
   b.   What is the parent's perception on the influence of using excessive technology on the language development of the children?
   c.   What is the parent's perception on the influence of using excessive technology on the physical development of the children?

3. <u>**What is the role of the parent in his/her child's technology use?**</u>

   a.   What is the child's daily routine?
   b.   Why parents are giving access to technology to their children?
   c.   Do the respondents use any technology-focused rules in case of screen time?
   d.   What are the challenges the parents face in controlling the excessive use of   technology by their children?

II: LITERATURE REVIEW

Technology

Technology has rapidly expanded. Children in modern age are now growing up in a world with technology. Technologies like MP3 players, video games, and computers, are being used passionately by the children; may be because their life is surrounded by technologies from the time they are born.

As many people know that ICT is 'information and communications technology'. Kennington (2011) says, the term means all the technologies like mobile phones, computers, video recorders, CD and DVD players, and digital cameras. Kennington (2011) also added that "Children accept this technology as part of their life and they very quickly learn to use it. They have arrived into a technological world and there is so much you can do to help them make the most use of it – to develop their language and encourage them to explore their world so they can discover new things. Talking with children as they explore technologies will help them to see why things happen and how things work."

Technology at early primary level

Now, there is a debate whether these technologies are appropriate for children's development or not. Research has shown benefits from the use of technology. Television can help preschoolers to improve their math skills. It can also help to improve vocabulary size; which plays a key role in school readiness performance (Brigitte et. el., 2014). However, playing with video games help improving spatial skills, visual attention, problem-solving skills, fine motor coordination, computer literacy and academic performance (Wright et al. 2001). Fish et al. (2008) found that the use of computer increased children's cognitive test scores and also it helps to improve performance in science and science-related areas.

It was also found from a study, that children's physical, personal and social development also gets affected due to the excessive exposure to technology. It can also lead children to social isolation (Hosale, 2013). Hosale (2013) also found many negative symptoms for extensive use of technology such as anxiety, sadness or depression, anger, irritability, mental confusion and low self-worth. From the same research, it was also found that, spending hours in online games also reduce ability to socially interact with others. There is data that proves that, any individual, kid or an adult who browses the internet frequently is likely to spend over 100 minutes less time with friends and family than non-internet users.

Parents' perception

   <u>Parents understanding on use of technology</u>

Parental understanding about the media devices in their home may impact the quantity and quality of screen time exposure for their children. Sanders et.el (2016) found in her research that parents positive or negative perception affect children perception related to technology use.

   <u>Parental control on excessive use</u>

Parents are ultimately responsible for the types of technology and the amount of screen time their child has access to (Vittrup et al., 2016). The more the parents use media, the more comfortable the children will be using specific technology. This could affect how parents perceive technology (Nikken & Schols, 2015).

Impact of use of technology

Television can help preschoolers to improve their math skills, vocabulary size (Brigitte et. el., 2014). It was also found in another study that playing with video games help improving problem-solving skills, and fine motor coordination of children (Wright et al. 2001). Fish et al. (2008) found that the use of computer increased children's cognitive test scores.

Excessive use of technology

Excessive use of technology can also lead children to social isolation, anxiety, sadness or depression, anger, irritability, mental confusion and low self-worth Hosale (2013). The impact of technology on child development; the visible changes of advancing technology have seen as child's physical, psychological and behaviour disorders (Rowan, 2013). Rowan found child obesity to be causally related to technology overuse. Children who play many video games or spend most of their time online tend to have less of an ability to focus (Patel, 2017). Mahmud (2016) in his research found that violent video games make children hyperactive and aggressive. It hampers children's study and affects their eyes. Too much playing of video games make children isolated from the society and makes them addicted to it.

Additionally, it was found in a study (Brigitte et. el., 2014) that excessive media content was consumed by both parents and children. Even the very youngest ones also had private access. 50% or less number of parents could identify their children's tech proficiency. Though, many children heavily used media, they failed to identify the correct media tools. In the same research work, parents showed a tendency towards positive approval of the media and despite recommendations regarding age-appropriate content, parents believed media exposure was good for children's development.

In a research drawn from 600-plus parents divided among three divisions of families having children from three developmental stages - young, middle and adolescent childhood – a model linking parent's perception of technology to technology related strategies that parents often indulge in. The models also linked parental perception to youth screen time and to internal and external behaviour problems. It was found that the association of technology-related parenting strategies to child screen time, and problem behaviours diminished as children increased in age (Sanders et.el., 2016).

Parents need to take time out of their busy life and make time for their kids and can do outdoor activities on a regular basis so that they get chance to see the real world more. Both the parents and the guardians should try to obtain the maximum benefit through technology and pass it on to their own children because it is found, that physical health risk, mental issues can be handled nicely with some physical and mental activity. Also at the end of the day we cannot live a technology free environment. Through research it is found technology has positive impact on motor skills, psychological well-being, cognitive development, social competence and emotional maturity at early childhood stage.

Despite the fact that studies have clearly shown an increase in child electronic screen time, there is limited data measuring the perception of parents regarding the use of technology in households. Parent perceptions on technology use are a determining factor that has the potential to affect the amount of screen time for children. This is because parents are ultimately responsible for the types of technology and the amount of screen time their child has access to. "Given the media saturated environment in which we live, parents may find value in these media tools, and this may partly account for their willingness to let their children have access to the technology" (Vittrup et al., 2016).

Many of the studies aim to identify a correlation between parent perception and child media use. There exists both benefits and demerits to technology use during childhood. One study indicated "the influence of technology on children's learning is conditional… by children's age, experience, time spent using the technologies, and gender" (Hsin et al., 2014). Children's experience and time spent using technology is influenced by a family's lifestyle and living situation. For any person, "working a full-time job, taking care of basic household duties, and being a parent is very time and energy consuming," can lead to "forego their supervisory and regulatory responsibilities by letting screen media entertain their children" (Vittrup et al., 2014). The use of electronic entertainment can increase the amount of screen time children have per day. Even the "parent's own media use is an important predictor" of child media use (Nikken & Schols, 2015). The more the parents use media, the more comfortable they will be using specific technology. This could affect how parents perceive technology. Studies show that parents show overall positive attitudes toward technology and child media use.

The literature review in this chapter suggests that parent's carry different perceptions on use of technology. So far, different research has found different results but particularly 5 to 7 years' age group children haven't been focused much. In this research a particular age group of children and a particular social group of parents are focused. The research focuses are to find out the particular parent groups perception on their children's

excessive use of technology. The research finding will benefit other parents to make decisions on their children's behaviour due to excessive technology use. It will also help the policy maker to understand the effects of technologies excess involvement in learning.

III: METHODOLOGY

This study was a qualitative research to explore parents' perception towards excessive use of technology at early primary (5-7y) level. The study was conducted in Mirpur and Mohammedpur area in Dhaka city. 16 parents were selected who had one or more children who studied at early primary level and their age were in between 5 to 7 years. 12 parents were selected for focus group discussion (FGD). 4 parents were selected for in-depth interview (IDI). Participants were selected using convenient sampling.

Data collection method and tool: Focus group discussion *(*FGD) and In-depth Interview (IDI) methods were applied to collect data. These two methods were chosen to achieve research goal and answer research questions. FGD was conducted using an FGD guideline. For IDI a questionnaire was developed and used. The length of FGD was planned as 60 to 90 minutes and IDI was planned for 40 minutes for each parent

Data Management and Analysis

The data collected from FGD and IDI were analysed following the content analysis approach.

a) Transcription of Data

During the collection of data detailed note were taken during interview and focus group discussion. In necessary cases the conversations were recorded in a recorder. After data collection data were revised to find the gaps.

b) Reading, Memoing and Describing

In order to develop category memos were written in the form of short phrases, ideas and concepts.

c) Categorization

The data were categorized to find answers of the research questions.

d) Coding theme and Interpretation

Data were coded thematically and interpreted.

Validity & Reliability

The data collection tools were revised by the experts to check validity. The experts' suggestion was applied to modify the tools. Later the reliability was tested on selected parents.

IV: RESULTS & DISCUSSION

Results

The purpose of the study was to explore parents' perception towards excessive use of technology of their children at early primary [5-7y] level. This study employed qualitative methods with FGD, IDI as data collection techniques. Two FGDs and four IDIs with parents were conducted. In the process, participants expressed their views, thoughts and experience as parents. The findings are presented under different themes: Demographic information about participants, Children's access to technology, Influence of excessive technology use, Parents perception regarding excessive use of technology, Role of parent in his/her child's technology use.

4.1 Demographic information about participants

The age range of parents was between 25 to 37 years. 16 parents were selected from Mirpur and Mohammedpur area. Among 16 parents, 4 parents (2 males and 2 female) were interviewed from Mirpur (2) and Mohammedpur (2) area. 12 parents (5 males and 7 female) were chosen for FGD. Two FGDs were done in Mirpur and Mohammedpur area.

All the participants came from middle class background and they use different kinds of technology at home.

4.2 Theme 1: Children's access to technology

4.2.1 Defining extensive use of technology for early primary level (5-7 years) children

Parents from the 2 FGD groups were asked to define extensive use of technology for their children. Four parents responded that using technology from 2 to 3.5 hours seems a long hour for them. One parent added that if the child use technology for 3-3.5 hours and use technology properly then it is okay. Two parents mentioned that 4 to 5 hours seems long for them. One parent added that this is the age of technology so they have to let their child use technology for 5 hours.

The same parent mentioned that, "*5 hours of use is not too long for me. In the age Information Technology, this is what you need.*"

Another parent added that if they do not let their child use technology then they will fall behind.

4.2.2 Different technologies the child is familiar with

All the interviewed children had access to all the technologies (TV, mobile, Internet, video games, YouTube, console) available at home. Four (4) parents from the IDIs responded that their children know to operate the available devices at home and their children use the available technology from 2-5 hours in a day.

From 2 FGDs it was found that, majority of the children had access to TV and smart phone, while some others had access to laptop, internet, YouTube. From two FGDs, consisting of 12 parents, reported that a maximum of 5 hours and a minimum of 2 hours use of technology were allowed for the children.

Among the interviewed parents, 3 parents mentioned that their children use the technology for entertainment. However, they also used it for listening to music and playing video games.

4.2.3 Family encouragement to their children's in technology engagement

All 16 parents from both IDI and FGD believed that this is the age of technology. So, they could not say no to their children but they could actually limit their children's prolonged screen hours. A parent stated that, "It is not bad to use technology. Modern society needs technology." Another parent mentioned that, "These days the children cannot go outside. So what they will do? Sit idle? So let them play on computers. At least they will learn something."

4.2.4 Parents practice in using technology

All 16 parents from both interview and FGD valued technology use. They believed they cannot say no to technology in the age of 21st century. So, they made the necessary technology available at home. They also knew the use of those available technologies. A parent mentioned that,

"I always keep track of my child's technology use. I know what kind of video games my child plays".
Another parent mentioned that, *"I allow my child to play mobile games only the time my husband comes from office."*

4.3 Theme 2: Influence of excessive technology use

4.3.1 Parents' perception about technology related parenting strategies

In case of limiting screen time:

In case of limiting the screen-time, all the interviewed parents agreed that there should be time bound for using technology. A parent suggested that if a child listen to parent and limit his/her screen time then the child should be rewarded sometimes. As per the parent's suggestion, the child could be taken to his/her favourite place for outing.

Through in-depth interview it was also found that all parents agreed that, there is a negative outcome of excessive screen time. Therefore, the child should have limited screen time. The parents from the 2 FGDs also suggested limited screen time for children.

A parent from a FGD group mentioned that, *"I do not allow prolonged screen time for my children."*

Factors associated with extensive technology involvement

In case of discussing factors associated with extensive technology involvement of children; most of the interviewed parents observed that the environment that the children were living in were very much tech savvy so, the children naturally attracted to technology.

In extreme cases, parents' extensive work-load (e.g. both of the parents are full-time working) lead the children to technology use as pass-time. Also, it has been observed, parents' excessive technology use also prompts children leaning toward device addiction.

Parental guidance for excessive use of technology:

All 4 interviewed parents suggested for counselling and parental guidance. Two parents did not agree to allow video games or excessive use of it since it is a waste of time. Those who agreed, stressed about time-bound use since video games help children develop imagination.

Technology in the modern world:

All interviewed parents agreed to allow technology use for the children in these modern days. One parent mentioned,

"This is the age of 21st century. So, how can we say no to technology? If we say no, then our child will not be able to keep up the pace with modern times. He will not be able to make friends."

Learning in an interesting way:

Interviewed parents (4) perception regarding learning is that it gets interesting with technology. Technology helps children make sentences as suggested by one parent, while another parent stressed for visual learning which has a high impact.

One parent mentioned that, *"There is khan academy to learn science and mathematics. There are social media to make connections with friends.*"

Another parent responded that, *"Technology helps to learn in an interesting way but again I always check how long my child spends on technology. He should lead technology not let technology lead him in life."*

Impact of using video games:

Most of the FGD parents mentioned video games excite child's mind so the child refuse to take food in-time and it also make a child hyper in behaviour. A parent mentioned that television program broadcast in a way that attracts children. Another parent added that modern video games come with high visual effects and in an attractive manner so kids get addicted to the video games.

Play versus technology:

All the interviewed parents valued play in their response. A parent mentioned play is important for mental and social development but all parents supported play for physical fitness and to control obesity. The 2 FGD groups' parents also valued play in their response but one FDG group of parents reported that their children do not have any extra time for active play out of their daily schedule, on weekdays at least. The other group sees the scope for active play only in school time, as part of their schooling activity. On weekdays, there is very little scope of active play out of school time. All the interviewed parents mentioned that due to office work they cannot take their children for outdoor play every day. Half the parents interviewed mentioned that they take their children to playground to play cricket and football.

Strategies to control technology use:

The interviewed parents applied different techniques to control technology usage of their children. They applied the technique of limiting the screen time, sometimes give incentives when the child listen to parent. Parent also involved child in coloring, storytelling. A parent has admitted her child in ALOHA where the child learn mental math.

The interviewed parents suggested that parents should be proactive and fix some time slot for video games and involve them to do physical games like football at outside. The parents from 2 FGD groups suggested that; other parents should restrict prolonged use of technology, keep track the usage of devices, and divert the child's focus. The majority of the parent suggested taking children for outdoor play. A parent also suggested for in-house devices. Another parent suggested spending time with children.

Good finding from the FGD groups is the entire parents think in modern age they cannot avoid technology. According to a parent it is good for making connections in a society.

4.3.2 Parents' negative attitude about technology

All the parents interviewed believed that technology has some negative effects. Half of the parents interviewed reported that the children get addicted to devices if they use for a prolonged time. One parent observed use of technology reduces physical movement and another parent observed the children become less socially involved.

In response to the effect of technology on child-parent interaction; most of the interviewed parents responded that there are no direct effects, though they mentioned that the children get irritated or very much disturbed when their smart phones are taken away while being used for a prolonged time. However, parents mentioned that they have to give more time to their children to improve parental ties.

4.3.3 Parents' understanding on usefulness of technology at early primary level

All interviewed parents mentioned that their children started using smart phones at early age. As a result, their children developed advanced sense of language. They simultaneously advanced in both English and Bengali. One parent observed that this advancement has been caused by the rhymes available from YouTube. Another parent observed that this early use has resulted in the child's skilful use of the buttons on the phone. Half of the parents reported that their children learned a lot about spacecrafts, cockpits, astronauts etc, which they didn't know in their childhood. Parents additionally reported that children learn to use instructions from video games.

4.3.4 Influence on the child's social, language and physical health development

All interviewed parents reported that extensive use of technology leads to social isolation. In case of influence in social development due to excessive use of technology; among the two FDG groups, eleven parents saw no influence of technology usage on their child's social development. However, interestingly, only one parent casted doubt on the use of technology that might hamper child's social interaction.

The interviewed parents responded that, prolonged time of technology use leads to obesity and eyesight problem. They also mentioned about poor sleep habit due to obsession with gaming levels or addiction to YouTube music. Sometimes children imitate cartoon characters and indulge in physical activity such as jumping or dancing, as noted by one parent. Children tend to imitate video game characters which leads to aggressive behavior and it was reported by all parents. However, one parent reported the positive side of the use of technology that helps the children in cognitive thinking. The respondents in two FGDs replied to the question

whether as a parent they think technology is influencing their child's health or not. The response to this question was varying. One group of FDG parents did not see any influence of technology on physical health of their children apparently. They deemed it secondary as to technology use. Whereas, the 2nd FDG group reported worrying degradation of health related problems – eyesight problem, obesity problem etc. This may be because of the educational background or lack of awareness on the influence of the parents in two different FGD groups. The respondents from the 2 FGD groups shared their view on their child's language development due to excessive use of technology. Overall response of the parents reported that; their children learn at least some other language other than the mother tongue.

The interviewed parents also responded in case of dealing with negative factors of excessive use of technology. They also suggested that they can limit screen-time for the children and divert their attention to other activities such as physical play or outing.

4.4 Theme 3: Role of parent in his/her child's technology use

4.4.1 Child's daily routine

In case of children's daily routine, majority of children of 2 FGD group parents; return from school and play games on phone or watch TV. A handful of them use technology in afternoon and before sleeping. Two of the children reported to go out in the neighbourhood and play with other kids. Most of the parents do not follow any fixed daily schedule – they either use the phone or watch TV, and rest of the time is divided into sleep and lunch/snacks.

4.4.2 The reason children are getting access to technology

Two FDG group parents agreed that it is the trendy affair of the third millennium. If the children do not use technology they will lag behind and will not be able to compete with others. These days, from banking to money withdrawal, to ticketing to phone usage, everything have been digitized. In such a digital fortress, one cannot help but learn technologies suitable for the days' demand. If the child does not get habituated, then they will be in position of great disadvantage.

4.4.3 The challenges parents face in controlling the excessive use of technology

In case of facing challenges due to restriction of technology use; majority of the 2 FGD groups parents face challenges. For example, without TV the child does not take food, some of the children use less technology as they are scared of their father.

4.5 Discussion

This chapter discusses the analysis based on the key findings of the research followed by literature review. Some recommendations are suggested at the end.

From the findings it is found that all the parents consider the use of technology in this modern age positively. They mentioned that the use of technology is necessary. If their children do not know how to use technology, such as computer, then they will lag behind in knowledge compared to their peers. In case of watching television the parents believe it is necessary to watch television for knowledge, passing time. They revealed that there is a shortage of outdoor time because of the space, children's education time, parent's workload or office hours. Therefore, considering many issues they allow their children to watch television, use computer or spend time with mobile. However, it is good that they are aware of the situation and found a solution for it as well. As a parent, their concern for spending good time is appreciable but at the sometime their knowledge on the limit of technology is questionable.

Because the findings revealed that children use technology from 2 to 5 hours. The parents who let their children to use technology within the range do not consider it as long hours, which reflects that they do not have the idea about the limit for using technology at certain age. According to the research of Michigan State University (2015) children younger than 2 years are suggested not to have any screen time. The same study urged to limit screen time for children within 1 hour for 2-5-year-old children. Therefore, parents need to know about the limit of using technology first according to their child's age and they need to know about excessive using time for their children. So that they can control the use of technology before their children get addicted to it.

According to the findings of the current study, the parents have not seen any language difficulties, health issue and social isolation problem in their children. However, it is found that they believe if any child use technology for excessive hours then the problem of obesity, weak eye sight and less movement may arise. The children will also enjoy more time with technology then friends, family or society. May be parents were biased about their own children. They know problems arise for other children but they have not noticed any problem among their own children even when a child uses technology for 5 hours, which is longer than the child's age group limit. May be the findings would have been different if observation of the children were possible.

According to the findings of this research, parents know how to use technologies available at home but in case of playing video game, they do not play it by themselves. In that case, the parents are not aware of the violent part of the games. Therefore, they cannot follow any parental guidance for their children. In some cases, it may

be also true that the parents are lagging behind in terms of technology using skills compared to their children. The second generation is advanced, in not only playing video games, but also advanced in using you tube for many purposes. The parents are clearly busy in household and office work. So tracking every second of their children's technology use is not possible. Hence, the constant parental guidance part is missing for many children. Especially, for those who use technology for 5 hours in a day. The parents need to know about the parental guidance first and then apply it on their children. They can certainly follow the browsing history for children and can lock some adult channel in television.

V: CONCLUSION

The study attempted to extract and explain parent's perception towards excessive use of technology at early years (5-7y). Middle class parents have various technologies available at home. Both parents and children know how to use technology. The findings suggest that they are not aware of the age specific standard use of technology. They are also not very clearly aware of the negative impact of excessive use of technology. Actually due to many reasons children get access to technology but parents try to limit the prolonged time in their way though they have their own point of view for the term 'excessive use'. The parents carry positive perception in case of using technology in this modern age. The findings of this study will help us to know the perception of middle class parents on excessive use and that actually there exists no definition regarding excessive use of technology in the society. Therefore, this study will help them to think about excessive use of technology and balance it with their existing lifestyle. As they do not see any harm of excessive use of technology among their children – they need to study on its after effect so that they become more sensitive about limited use. School health policy should have a very clear instruction on how many hours the parents can let their children use technology. Children are our future of the country; therefore, policy makers should take this issue seriously.

VI: RECOMMENDATIONS

In accordance with the current study, the following suggestions may be considered.
- Parents need to have clear idea about the term 'excessive use of technology'. Schools parenting sessions may include such topic to increase awareness. Parents must watch for addictive behavior in their children.
- Parents should follow some strict parental guidance in case of excessive technology use. In case of using YouTube, or any other virtual reality games, parental guidance should be there. Children should have limited playtime for video games. Parents must also look for obsessive behavior and other imitations induced by video games, cartoons, etc.
- Children should be taken for outdoor play for fitness and social interaction and parents should focus more on learning then entertainment in case of technology use.
- Further research is needed, to assess the detailed influence of technology on children behaviour. Observing and interviewing children is recommended for detailed information on the influence of excessive technology use on children.

VII: REFERENCE

[1] Beurkens N. (2017), Screen Time Can Be Dangerous for Kids' Mental & Physical Health, A Blog by Dr. Nicola Beurkens. https://www.drbeurkens.com/dangers-overexposure-electronics-kids-mental-physical-health/

[2] Burke, A, Marsh, J (2013) Children's Virtual Play Worlds: Culture, Learning, and Participation. New York: Peter Lang.

[3] Banks, J. A., & Banks, C. A. M. (2003). *Multicultural education: Issues & perspectives*. New York, NY: Wiley.

[4] Bertani, S. (2018). "How to Address Your Child's Technology Addiction", GreenChild Magazine, retrieved from https://www.greenchildmagazine.com/children-technology-addiction, on 20 Oct. 2018.

[5] Fatima, A. (2017) "Excessive use of technology in children" appeared in *The Nation*, nation.com.pk, https://nation.com.pk/28-Mar-2018/excessive-use-of-technology-in-children, retrieved on 14 May 2018.

[6] Fish, AM, Li, X, McCarrick, K. (2008) Early childhood computer experience and cognitive development among urban low-income preschoolers. Journal of Educational Computing Research.

[7] Genc, Zulfu. (2014). "Parents' Perceptions about the Mobile Technology Use of Preschool Aged Children. Procedia - Social and Behavioral Sciences. Vol.146, pages 55–60. Doi: 10.1016/j.sbspro.2014.08.086.

[8] Hosale, S. (2013). 25 Negative effects of technology. Retrieved from http://roogirl.com/25-negative-effects-of-technology/.

[9] Hsin, C. T., Li, M. C., & Tsai, C. C. (2014). The Influence of Young Children's Use of Technology on Their Learning: A Review. *Educational Technology & Society*.

[10] Hardell, Lennart (2017). "Effects of Mobile Phones on Children's and Adolescents' Health: A Commentary," Child Development, Vol. 89, pages 3-4. DOI: 10.1111/cdev.12831

[11] Kennington L. (2011) "Young children and technology", a leaflet in Learning Together Series, UK. www.early-education.org.uk

[12] Lee, Katherine. (2018) "Kids and Technology: When to Limit It and How", appeared in *verywellfamily.com*, https://www.verywellfamily.com/kids-and-technology-when-to-limit-it-and-how-621145, retrieved on 14 May 2018.

[13] Mahmud, S. (2016). "Exploring the role of video games on children's behaviour and learning", M.Sc Thesis in ECD, Institute of Educational Development, Brac University.

[14] Nikken, P., & Schols, M. (2015). How and why parents guide the media use of young children. *Journal of Child and Family Studies*. Vol. 24, issue 11, pages:3423-3435. DOI: 10.1007/s10826-015-0144-4

[15] Plowman L., McPake J., Stephen C. (2010) "The Technologisation of Childhood? Young Children and Technology in the Home", *Children and Society*, Vol.24, Issue 1, January, Pages 63-74. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1099-0860.2008.00180.x

[16] Patel, D. (2017) "Will Technology Ruin Your Children's Development?" ThriveGlobal, retrieved from https://medium.com/thrive-global/will-technology-ruin-your-childrens-development-663351c76974, on 20 October 2018.

[17] Rowan, C. (2013) "The Impact of Technology on the Developing Child", *The Huffington Post*, https://www.huffingtonpost.com/cris-rowan/technology-children-negative-impact_b_3343245.html, retrieved on 14 May 2018.

[18] Siegler, R, Alibali, MW (2005) Children's Thinking. Upper Saddle River, NJ: Prentice Hall.

[19] Sanders W., Parent J., Forehand R., Sullivan A. D.W., Jones D.J. (2016) "Parental perceptions of technology and technology-focused parenting: Associations with youth screen time", *Journal of Applied Developmental Psychology*, Vol. 44, May–June, Pages 28-38. https://doi.org/10.1016/j.appdev.2016.02.005.

[20] Swamenathan M. (2015) "The role of technology in child development", *The Star Online,* retrieved from https://www.thestar.com.my/lifestyle/health/2015/01/04/the-role-of-technology-in-child-development/

[21] Toppo M. (2015). "Do video games inspire violent behavior", Scientific American Mind, July issue. https://www.scientificamerican.com/article/do-video-games-inspire-violent-behavior/

[22] Vandewater, E, Rideout, V, Wartella, E. (2007) Digital childhood: electronic media use among infants, toddlers, and preschoolers.

[23] Vittrup B., Snider S., Rose K. K., Rippy J. (2016) "Parental perceptions of the role of media and technology in their young children's lives", *Journal of Early Childhood Research*, Vol.14, issue: 1, page(s): 43-54. https://doi.org/10.1177/1476718X14523749

[24] Wright, J, Huston, A, Murphy, K. (2001) The relations of early television viewing to school readiness and vocabulary of children from low-income families: the early window project. Child Development.

[25] Wakefield, J. (2015). "Children spend six hours or more a day on screens", BBC Technology Report, retrieved from https://www.bbc.com/news/technology-32067158, on 20 October 2018.