



RESEARCH PAPER

Urban Parenting Patterns and Child Development Practices Using Technologically-Smart Devices: Evidence from Karachi

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ABSTRACT

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This is the era of technological advancement has affected everyone in the modern world. The trend of modern technological adaptations is speeding in the rural as well as in the urban context and every individual in general and parents of children are adapting its use with their children. Children learn best from sensory development and cognitive skills. The use of these modern technological devices can have both positive and long lasting adverse impact on children's development, learning, cognitive skills, social and emotional development. The recent trend shares high use of technological devices by the parents living in urban context. This study aims at exploring the parenting patterns in the context of use of technology for young children. The use of smart devices have made life easier and difficult at the same time. Excessive use of technology and parental preferences have impacted the life of all stakeholders in general and children in particular. Phenomenology was adopted in the current study as a major research strategy followed by purposive sampling technique. The data was collected from a sample of n = 10 urban parents living in different areas of Karachi employing in-depth interview strategy. The data analysis was done using SPSS. The findings was collated as a part of the research report.

Introduction

If you Technology and digital devices have increased in a mammoth number for the last few decades globally. As a consequence of such mushrooming, toddlers and kids are experiencing the increased subjection to technology and usage of digital devices. (Heim et al.2007: Leamonth 2010). Media-based technology in this article acquired all expressions covering to describe which come under ambit of smart

devices and other platforms of media. Vandewater et al. (2007) affirmed that there is a huge desire in parents and segments of the communities to probe how digital devices are effecting young children.

Since the inception and existence of technology in young learners' everyday life, researchers and academia have been endeavouring to take initiatives and concentrate on the current phenomenon. It is pivotal to pay heed to the parents and families' use of technological devices while effectively parenting. The direction set by the parents and their conspicuous roles in assisting their young children's education cannot be ignored. The home is a vital place for learning of young children, where toddlers spend most of the time and share space with the parents heavily influenced by the parents practices (Plowman et al 2011). The research pursues the practices and perception impacting Karachi parents' usage of digital devices with their young children age ranged from 3 to 7 years. According to Statista (2019), around 3.8 billion people in the world are using smartphones and tablets throughout this green planet. Similarly, the number of users has gradually increased in 2016. The number of smartphones and gadget user was 2.5 billion. By 2020, the number of smartphones user has grown to almost 4.1 billion.

For the last five decades, smartphones and other pedagogic technology have shown a giant leap. The very first mobile phone came into existence in 1973, which was large in size and very costly (TechGinex, 2019). With the passage of time, smartphones have become technologically very advanced, a range of advancement has appeared on the horizon of tech-world e.g. holographic screens, online tracking, global positioning system, visual calls, folding screens, flexible screens and wireless charging (Nguyen, 2019).

Smartphone are present everywhere and are part of lives of families which is impacting young children's life in one way or other causing effect on their learning, cognitive wellbeing and behavior. Changes are paramount on young children's life. This fact cannot be ignored that in developed countries, young children's proportion of smartphone user has increased in the last decade tremendously. The ecology of homes is full of smartphones and other devices and parents are enabling themselves in the use of devices with their early-age and pre-school children. It has generated a debate in Pakistan too whether the technology has a direct impact on young children's life in the context of the way these digital devices are transforming their daily lives. It seems that these technological advancements cause young children to things beyond their natural cognitive and physical capacities. In this context, American Association of Pediatrics informed the parents of young children to restrict their children from watching television programmes and commercials that stress not only children, but parents too. (American Academy of Pediatrics Committee on Public Education, 1999, p. 342).

Excessive use of smart digital technologies has immense impacts on the personalities of young students in their early years. The time for smartphones and smart screens has increased instead of pragmatic and scientific activities. Hence, they are living in an imaginary rather than a real world (Alliance for Childhood, 2004). Many researchers have raised eye brows that with the emergence of smart digital technology, preschoolers and young children remain absent from classes. Consequently, this behaviour has impacted chronic diseases e.g. depression or anxiety and stress (Postman (1982 & 1994). During this phase of early childhood, pedagogic experiences increase the use of smartphones and digitally-smart technology immensely preventing young children's ability to develop linguistic ability. Healy (1998).

In Pakistan, uses of smartphones are termed highly dangerous. Impacts of smartphones are profound on lives and lifestyle of people of Pakistan (Zaheer, 2011). In the same way, mobile phones and other smart devices are likely to be ineffective when used excessively, without parental control and intermittently without a genuine and natural need. The use of smartphones has been noticed in every segment of the society regardless of their social and economic statuses. Pakistani society's social fabric is disintegrated through the use of smartphone usage and family members are using much time with smartphones and gadgets. With that, young children get used to using digital technology. In urban setting, some parents of young children use smartphone and other devices as their passion and pastime and this practice is overwhelmingly increasing issues and challenges for parents and their young children. This impeding parental and social dynamics have altered the lifestyle of many families in Pakistan. Sleeping late and staying awake for fun and pleasure have become a common aspect of common households across the cosmopolitan city of Karachi. A tremendous change in behavior is observed. Parents are grappled with coded online language of internet and children are seen using coded language with others on internet. This dark aspect of smartphone has come to limelight (Neda, 2019).

Literature Review

Various studies depict a fact that young learners gain access to digital devices and technology at an early age (Heim et al, 2007). Young children's time consumption in using digital devices is increasing day by day and other daily life activities are decreasing ultimately (de Haan and Huysmans 2004; Miller 2005). A detailed Common Sense Media (2011) showed the use of digital media comprising video, TV, musical playing devices, global connectivity, computer games and other soft wares. This study also focused on young children's use of latest digital devices (Common Sense Media, 2011). Such studies reveal that young toddlers are frequent users of digital devices in Americas. 52% of infants are regularly using digital devices in

presence of family; a smart phone (41pc), a video gadget (21pc) or an iPad or other related device (8pc). A huge number of young children from the ages 3 to 7 years have also acquainted these digital media or devices in their capacity for playing videos, games or other apps. George Marsh Applied cognition Lab concluded that young children aged 5 and 8 are able to communicate digitally or use electronic media to communicate for thirty minutes a day. This system of digital communication is making them aged (Rosen 2010). His research also revealed young children are using media and technology unattended by parents or in private condition. Many studies validate that young learners' usage or vulnerability to digital technology is a global occurrence. The studies also depict that parents and teachers we are not well-informed about the use of digital technology for the time being (Bittman et al.2011).

Teachers and professional educators have had different opinions on effects of digital devices on young children education in the process of learning. Contemporary researches on the subject presents little knowledge how technology has profound effects on young children. On the other hand, such findings are divergent, benefits are less (Geist 2012; Heim et al. 2007; Hinchiff 2008). Andrew (2003) revealed in a study that young children can understand compound structure of health through the use of technology and state-of-the-art gadgets. There is difference of opinion among scholars and researchers about use of technology on usefulness of digital devices and technology on child learning. They are convinced to believe that these technologies vary in benefits and advantages (Lai et al, 2007). (Lai et al, 2007) presented a crux of studies on technology depicting that media technology has pros and cons for particular age group children range from 2 to 7 years of ages. Further, it revealed that media has brought positive and soothing changes in life of children in various aspects of learning and polishing their skills related to their empirical knowledge and learning.

Researchers are delighted to share that scientific and technological devices are enhancing and fostering potential of young children in pragmatic learning (Bower 2012). Similarly, it has been seen by the parents that there is great capability of media technology which is positively changing cognitive domains of the children (Pegeaon 2012). The researchers have indicated some challenges for the parents emphasizing that technology should be used wisely and deliberately (Killeen, 2013). On the contrary, scholars and researchers are deterring usage of modern digital device among young learners. Many of them are doubting advantages of media technology for young children. They add that young children are prone to modern technology at early age because they hamper ideation, use of mental power and pragmatism (Linn2009). They suggested that interconnectivity of young children with modern technology is likely to hinder their civic life and cognitive health. Educationists and families of young children fear that digital technologies are cause of digital divergence or distraction in young children (Richtel 2010). AAP, the American Academy of

Pediatrics came up with certain protocols of using digital technology of young children. It endorsed those children of age 2 years should not be allowed watching television more than 120 minutes per day.

(Bittman et al, 2011) show keen interest for conducting more cognitive or empirical research on young children's usage of digital devices and media technology. Similarly, findings of (Bittman et al, 2011) shows that previous productivity and after effects of old media have not been able to replace new digital technology. Furthermore, current studies revealed that cellphones and similar technology under a bigger umbrella (Lieberman et al. 20019) elucidated that there is lack of new research in this area. Parents are considered to sole source of education and creation of new knowledge at a very young age. Parents are responsible for creation of learning environment for the young children during first five years. It is a very crucial tie for both of them for their learning. Parents' perspective and point of view towards media, and devices discern the usage of these technological devices with their children.

According to UNICEF 2018, children are used to using internet at a very early age and parents are not aware of it or lacking skills to hinder them from using devices and protect their children from immense effects of these devices. The findings of researches were presented in a panel discussion and they termed the phenomenon a challenge for the parents. It is hard for the parents to keep their children at distance with these devices and online presence. The finding of researches in this context also termed that every fourth child has access to digital device in the cosmopolitan city of Karachi before the age of schooling (Staff, 2018)

Material and Methods

The study is based on two theoretical frameworks. One is TAM aka Technological Acceptance Model and other is UGT known as Uses and Gratification Theory.

Technological Acceptance Model

This model is likely to serve as a leg up for perceiving the elements influencing parents using digital devices with their young children in the context of UGT in indulgence of using it with stimulus. One objective is based on goals and other is activism. The attitude of the users of technology is based on the choice of people. When young children and parents perceive technology is useful for them, they decide to choose it. There are several factors that defines people acquiring technology for the sake of ease of use and productivity. They perceive if the technology is useful to them, they definitely opt for that technology based on their choices. Davis (1989) asserted

that technology increases efficiency and effectiveness of performing services. Similarly, use of the technology increases when people think that the use of technology has enhanced their functioning or performance. These factors are also influencing behavior of the user. Incorporating Technological Acceptance Model in the study, parent's perception, preference and practices are highly dependent on attitude towards smart technology. It is attitude of parents that define letting their kids to use smart technologies. There were studies conducted by researchers. (Senge 1999) concluded that users past perception may affect the use of the technology if the users met any unwanted experience from technology. Furthermore, there are other factors under the ambit of the study e.g. risk factors and trust for the smart technology. When perceived risk factors are higher, parents become conscious and their practice with the changes and new strategies are adopted in this regard.

Use and Gratification Theory

This theory explains two main questions. First, why people use technology. Second, how they use technology. These are two basic question this theory explains. In the same token, part of people in this selecting technology is very important and the use of technology attain their needs (Rubin, 1992). This method diverts people conventional mind set and ask scientific questions about usage of media. UGT explain certain areas of use of technology which includes, cognitive domain. In cognitive domain, knowledge understanding and manipulation of information and knowledge is focused. Then, emotional aspect, and aesthetic aspect are focused which comes under affective domain. Moreover, needs based on personal integration also come under this umbrella. Lastly, social needs as well as tension free affects are also focused. The study incorporates use and gratification theory with the needs mentioned above. These are factors which suits best with parents of urban areas use smart technology with their young children.

The study adopted a qualitative research design based on Creswell research approach, which reflected the real essence of the study. The research was explanatory by nature and then headed towards confirmation of the data by collecting data from parents via in-depth interviews. The research was based to find out aspects influencing parents' usage of digital technology with young children and its effects on upbringing of children. The study was phenomenological in nature and based on qualitative phenomenology.

Data Collection

The research interviewed the participants for collecting qualitative data using purposive sample of parents of young children. The tool for collection of data was interview based and parents of young children were selected for the study because

they were sole source of data. The parents were essential to be interviewed as they were the only source of data pertaining to the use of technology by young learners. The study sample comprised purposive sampling technique with n =28 young children aged 3 to 8 years and selected parents of n = 15 parents. For data collection, in-depth interviews and other qualitative tools were used. The study conducted structured and individual based in-depth interviews. Four parents quit on the basis of their non-availability. Interviews were conducted online and face- to-face using available technological tools of internet, social media, calling applications e.g WhatsApp, Google Docs, Skype.

Characteristic of the Participants

The participants of the study were mainly parents of young children based in Karachi. Participants had diverse background in context of earning and education. As compared to mothers of toddlers, fathers were more educated and affluent. Moreover, 36 percent of parents were earning 10k to 50k per month and 54 percent of participants were earning 50k to 100k per month in local currency and 9pc of parents earned 150k. Qualifications of fathers were higher. On one hand, 72pc of fathers were post graduated, 9pc were graduate. 18pc of mothers were post graduate, 36pc of were graduate. Smart phone, tablets, and other gadgets were available with 90pc of families have 1 to 3 devices only a 10 pc of families had 3 to 6 devices. Further, 45pc of young children had access to technological gadgets and other 9pc had access to three or more devices in a family. 81pc of parents conceded that their children used smart devices on daily basis. Average day time usage of smart technology varied within families. 18pc of young children used smart technology for 1 to 2 hours, 54pc of used smart technology for 2 to 3 hours and only 27pc of used smart technology for more than 3 hours and above.

Data Analysis

Data collected through interviews of the parents were used for analyzing. SPSS V.22 was used for the same purpose. Data was obtained from observation and interviews in the light of Creswell (2012) recommendations. Through careful examination of these themes, some facts surfaced for further elaboration in the section below. Here are some of the major themes.

Practices

Practices of parents held paramount importance while they were using smart technology with their young children. 63 percent parents accepted that they regulate the use of smart technologies and other 36 percent denied doing the same. 54 percent

parents said they supervised their children and other 45 percent said they left their children unattended. 54 percent children were independent to use devices without being asked and other 45 percent curbed and restrained the use of smart technology of their kids. 63 percent agreed that they were vigilant. 63 percent of parents conceded that they offered help to their young children. Other 36 percent denied that they did not offer help to their children. Furthermore, 90 percent of children played games on parents' devices particularly on smart phones and other 10pc did not have access to games. 70 percent of parents accepted that they interrupted their children while using devices and other 30 percent did not. Similarly, 81percent of parents helped their toddlers in selection of application and other 18pc did not have time to do so. It was also found that there are many factors urging parents to use smart technology with their young children. They said that there were many practices and factors that incited them to use smart technology with their children. They were convinced that these devices were result-oriented and productive.

Preferences

Mostly parents gave suggestion of using smart technology for the learning and understanding. They helped their toddlers in selection, by suggesting effective of applications and devices which provided them assistance in academic development, social improvement and emotional betterment. They also believed that such selected application were created with care keeping in view the young children's learning approach. They preferred the most common applications and software for learning and emotional well-being of their children. Parents also preferred game applications that could help build critical thinking. Hence, preference of using smart technological devices with young children. Parents use them on the basis of improving skills, learning and better understanding.

Attitudes and Approaches

There are certain factors that bothered parents of young children in terms of their attitude and approach towards the use of smart devices and other technologies. Common among such factors were overall health concerns, eye infection and other. In the same manner, parents termed use of mobile phone as the main cause of social illness, addiction, mental health issues and emotional and sentimental changes. Parents thought immoderate usage of smart technology directly impacts critical thinking and rationality. Parents of young children confronted several challenges while using smart technology with children at home. In this regard, parents termed that immoral content, unsocial values were challenging the young children including the use of abusive and profane languages. Similarly, parents termed surveillance imperative. They were convinced that there are negative aspects of smart technology

as well. Parents agreed that there must be strong surveillance of young children using smart technology.

Perceived Ease of Use

One of the reasons for allowing young children the usage of smartphones and digital device is the usefulness or productivity. Parents of young children termed smart-gadget usage a fruitful and productive experience. Their feedback was convincing. They see the usefulness of the devices through lenses of being easily usable without any difficulty. Young children can use them easily with perfection. This was reflected in statements.

Perceived Risks

There are several recognized risks which were identified by parents. These perceived risks were due to inappropriate use of digital technology, smartphones and digital gadgets. A parent discerned that these devices were physically detrimental to the young children which could head ache, digital strain, hyperactivity, lack of physical activities. One parent was of the opinion that digital technology was not only diminishing physical, but mental activities of children too. Parents admitted that mental growth of their children seemed slow and reduced while they feared cognitive and social values among children could be affected.

Results and Discussion

The finding of the study on the use of smart technological devices with young children revealed that productivity and perceived danger of using smart technology will remain as key factor for further research. Data revealed from parents' perception and preferences reflected the extent to which smart technology are used with young children. There are two divisions of technology-aided learning among young children. One, for gaining knowledge and second for recreation and entertainment.

These are three of the human needs as defined by Katz et al. (1973). This study presented considerable proof of pragmatic usage of smart technology with young children on the sensory development and growth. This fact was also established that during the use of technology and smart devices, learning or gaining of knowledge has occurred to a large extent. Parents added that learning was observed with observation of Plowman (2011). This includes adopting of pragmatic skills by using smart technological devices; getting knowledge of related world and surroundings e.g. puzzling, identification of animals etc; enhancing growth and instigating young children's determination of learning and to develop a comprehension what extent

smart technology is modifying daily life of young children. Furthermore, there is unity among different segments of researchers that usage of smart-technology has constructive influence on young children using smart technology with their parents and family members. These devices have had positive effects on young learners' growth which is perceived to develop linguistic and psychosocial dimensions of young children. In addition, young children are gaining knowledge from controlled or impeded usage of smart technology, using their creativity skills and knowing of the world around them. The reported learning is far from what the pedagogical affordances or the mobile learning these devices can offer (Lai et al. 2007; Roschelle 2003).

It is also proposed in this study that proper usage of smart technology adds to literacy of living ecology e.g. home. Without blinking the facts that parents are aware of the productivity of smart devices on one hand, on the other hand they are uncertain whether or not these are appropriate tools for learning. There are persistent divergences in study deviating from one another. One of glaring examples, Miller (2005) proposed that there is no confirmation that young learners learn acquire linguistic ability through the use of modern technology. These smart devices foment tools of learning and provide more opportunities to learn on individual basis rather than depending on others without being handled by parents or family members. There is a strong argument that adding literacy to home and to its environment holds paramount importance because it has been found that it eases children's learning and skills. Hence, the research also added Technological Assistance Model theory's perceived usefulness. The article focused a factor which is perceived risk of using smart technology. Nevertheless, the study participants emphatically stated the importance of supervising their children's use of digital devices due to the perceived risks of the over-use. For example, a parent stated that the use of smart technology especially connectivity should be watched by parents in order to make sure that they are using smart devices appropriately. On contrast, parents refused to halt use of smart technology for young children when they felt challenged to supervise their children's use and/or perceived that the risks are greater than the perceived values.

Conclusion

This study argues the factual data keeping in mind elements affecting parents of young children in Karachi with regards to the use of mobile phones, tablets and other technological devices with their young. The paper unearthed that two factors of needs have an effect on urban parents of Karachi: decision of using technology and smart gadgets by young children, relaxing the choice of peering and bonding with friends and family. The study revealed that parents are convinced to believe that needs of children are satisfied and the peril effects of using digital devices influenced their decision to accredit the use technology for long time. On the other hand, observed

findings revealed more soothing data that the use of digital technology has positive effects of parents using digital technology with their young children. This holds paramount importance that this study obtained observed evidences on useful impacts of parents using smart technology with their young children. Future studies should focus how parents of young children can improve the usefulness of new smart technology for progress and integrated development of their young children.

The study is met with some limitations too. The study adopted a convenient sampling method which may not properly discern data from parents and may reduce generalization of findings. Research sample was confined to parents aged 25-37 years. Nature of the article is exploratory. Similarly, more studies are needed to second this study and cover a larger profile of samples preferences, practices with smart technology use among young children. Furthermore, some parents quit the study on account of not being technologically smart. This research is also confined by what the parents know and do not know. It is more productive to see young children through the prism of knowledge measuring. They can be noticed how much they have learnt through the use of smart technology and devices in terms of change in behavior and outcomes. More studies will pave ways for better understanding and may prove to be effective for young children in gaining knowledge.

Recommendations

The study recommends that young children's parents need to guide their children in the use of technology specifically on website that exhibit profane contents. They must also increase interaction time with their young children. It is essential as the screen timings of young children directly affects their learning behaviour. At the same time, parents must also ensure cyber security of their children and internet surveillance. The study recommends that internet surveillance of young children must be introduced at schools and educational institutions across the country.

Internet-based socialization of young children should not be ignored. It is also recommended that young children aged 3-7 years should be educated about implications of smart technology and devices. Parents of young children must not use mobile phones excessively as it urges the young children too to indulge in non-academic viewing. Smart technologies and phones must be used for academic purpose only. Other sources of learning and understanding can be utilized as well. Digital strain and anxiety level has increased in toddlers so it is important to check and cure their physical and emotional health when they become addicted of screens.

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