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S28- Awareness of Digital Media Use of Parents Who Have Children in Pre-School Period

Seda Topçu

Ankara University School of Medicine

Aim: The parent is the individual who protects and guides the child in any environment that allows a child to be physically, emotionally, and socially. It is also the parents' responsibility to guide children in the early childhood period who are not yet literate in the use of rapidly developing and changing digital media (1). This study aimed to assess parents' awareness of the use of digital media by their children in preschool period.

Metod: A questionnaire consisting of 20 questions evaluating some sociodemographic features and digital media usage was applied to 124 parents who have children aged 4-6 in a kindergarten in Ankara.

Results: All mothers and fathers who have accepted to participate in the research have graduated from higher education and have no income below the poverty line. The average age of the mothers is 32.7 years, the fathers is 36.7 years. Half of the children were 5 years old, 42% were 4 years old and the ratio of girls / boys was similar. All of the children and their parents are reported to be use digital media, and what tools they use and how often they are used are shown in Table 1. 38.4% of the children and 23.2% of the parents were playing digital games. It is stated that the parents spend most of their time playing games with their children, the second most often they watch television. While parents do not do daily sports activities with their children, the duration of digital gaming together is 9.6 minutes / day. When parents are asked to rate their concerns about their children, such as health, safety, nutrition, sleep, and self-help; most often they stated that their children are concerned about health and safety, and at least they are concerned about their intellectual skills. The use of digital media is scored similarly to the social environment and effective communication skills.

92% parents indicated that digital media posed a problem between parents (eg time lost, stealing from each other, violation of family duty sharing). However, 94.4% of parents stated that the digital media facilitated their lives because the child spent time on their own. Half of the parents said their children could not set a limit on the timing of digital media use. All parents stated that digital media had risks, and 72.8% stated that they are not aware of the safety of children in the digital environment

Conclusion: In our study, it is seen that all families and children with high socioeconomic level and educational level use different areas of digital media. Families are aware of digital media, but their knowledge and attitudes about the risks posed by the digital media are not



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enough. In this regard, programs should be developed to guide wider studies and families to identify needs (2). The implementation of these programs can increase the parents' digital literacy and enable children to use digital media effectively and safely (3).

Key words: digital media, parents, pre-school child

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Table 1. Frequency of children and their parents using digital media

Digital media tool	hour/day
Television	
Child	2,29±1,9
Parent	3,37±1,15
Phone	
Child	1,48±0,51
Parent	4,76±0,96
i-pad	
Child	1,47±0,40
Parent	-
Computer	
Child	0,15±0,36
Parent	2,18±1,54

S29- Exposure to And Use of Mobile Devices in Children Aged 1-60 Months

Ahmet Osman Kılıç¹, Eyup Sari¹, Husniye Yucel¹, Melahat Melek Oğuz¹, Emine Polat¹, Esmâ Altinel Acoglu¹, Saliha Senel^{1,2}

¹Department of Pediatrics, Dr. Sami Ulus Maternity and Children's Health and Diseases Training and Research Hospital, Ankara, Turkey

²Department of Pediatrics, Yildirim Beyazıt University, Ankara, Turkey

Abstract

Aim

The use of mobile media devices has become very common in childhood. There are no particular pediatric guidelines for the use of mobile devices, although such use is not recommended before age of 24 months. For children aged ≥ 24 months there is a need for warnings and precautions to avoid their potential harmful effects. The present study aimed to determine the frequency of mobile device use, and the purposes of such use in children aged 1-60 months, and to detect the relationship between the frequency of mobile device use and family socioeconomic status. In addition, the study sought to determine which devices play an important part in the life of children, so as to make well-informed suggestions about children's use of such devices to families, health service providers, and society at large. To the best of our knowledge, the present study is the first in our country and one of the rare studies in literature to examine the use of mobile devices in children aged 1-60 months.

Materials and methods

The study included 422 parents that presented with children aged 1-60 months to the pediatric outpatient clinics at Dr. Sami Ulus Maternity and Children's Health and Diseases Training and Research Hospital, Ankara, Turkey, between 01 June 2016 and 01 August 2016. Parents whose children had neuromotor retardation were excluded from the study. A questionnaire with 21 items adapted from earlier studies was administered to the parents via face-to-face interview. Mobile devices were divided into 3 categories (cellphones, tablets, and computers). Monthly income was categorized as below or above the national poverty threshold (1777 Turkish liras, or approximately \$500).

Results

In all, 50.2% of their children were female (n = 212). Among the children, 24.4% (n = 103) had never used a mobile device, and among the children that had used a mobile device 20.6% (n = 66) were aged 1-12 months, 24.5% (n = 78) were aged 13-24 months, 18.2% (n = 58) were aged 25-36 months, 21.3% (n = 68) were aged 37-48 months, and 15.4% (n = 49) were aged 49-60 months. The youngest child that used a mobile device was 6 months old. The median age at first-time use of a mobile device was 12 months.



Among the 422 children, 15.9% (n = 67) had a tablet in their room, 0.7% (n = 3) had a computer in their room, 0.7% (n = 3) had a cellphone in their room, and 1.6% (n = 7) had both a tablet and computer in their room. The most commonly owned device among mobile devices was tablets with a frequency of 83.7%. The frequency of using a tablet increased significantly after age 25 months ($P < 0.001$). In total, 25.7% (n = 82) of the children that used mobile devices used multiple devices simultaneously (media multitasking).

The frequency of tablet use significantly decreased as the parental level of education increased ($P < 0.01$); this was strongly correlated with the mother’s level of education ($P < 0.01$).

The most frequent activity the children used mobile devices for was watching videos (70.8%, n = 226), followed by playing games (56.7%, n = 181), use of other applications (28.5%, n = 91), watching television (16.6%, n = 53), and reading books (1.2%, n = 4).

The parents reported that 38.6% (n = 123) of the children usually received help when using mobile devices, 21.6% (n = 69) received help sometimes, 17.6% (n = 56) rarely received help, and 22.3% (n = 71) never received help. As the age of the children increased the frequency of receiving help using mobile devices decreased ($P < 0.01$).

In total, 59.6% (n = 190) of parents gave their children permission to use mobile devices while they (parents) are doing daily tasks, 28.8% (n = 92) let their children use mobile devices while the family is visiting others’ homes and shopping, and when parents use their own mobile devices or leave the home. Among the parents, 91.5% (n = 386) had never been informed by a doctor about the effects of their children’s exposure to mobile devices.

Conclusion

Although it is recommended not to use mobile devices in children under twenty- four months and limited and controlled use in children older than twenty-four months, uncontrolled and independent mobile device use regardless of income level was detected in our study even in children less than twenty- four months. Parents should be trained by health care providers to make children have conscious and beneficial interactions with mobile media devices.



S31- Ailelerin Yeni Üyesi: Dijital Oyun

Sibel BARIN ÖZKAN*, Yasin ÖZKAN**

* Bülent Ecevit Üniversitesi

**MEB

Çocukların gelişimlerinde ayrılmaz bir parça haline gelen dijital oyunların ailelerin de yeni üyesi haline gelmektedir. Çocukların çoğu zaman aile ve arkadaşlarıyla vakit geçirme yerine dijital oyunları tercih ettikleri bilinmektedir. Dijital oyun tercihlerinde çocukların çevrelerindeki yetişkinlerin rolü olmakla birlikte ailelerin de büyük bir rolü olduğu düşünülmektedir. Bu sebeple çocukların dijital oyunları kullanımına ilişkin ailelerin görüşlerinin değerlendirilmesi amaçlanmıştır. Araştırmada nitel araştırma yöntemi kullanılmıştır. Araştırmanın çalışma grubu 7 yaş çocuğa sahip çocukları Zonguldak’ ta devlete bağlı ortaokula devam eden araştırmaya gönüllü olarak katılan 6 anne oluşturmaktadır. Araştırmada veri toplama yöntemi olarak görüşme yöntemi kullanılmıştır. Araştırmada yarı yapılandırılmış görüşme formu kullanılarak annelerle yüz yüze görüşme yapılmıştır. Araştırmanın analizleri sonucu elde edilen bulgulara göre paylaşılacaktır.

Anahtar Sözcükler: dijital oyun, ortaokul öğrencileri



S32- Serious Games in Child's World: Moonbase Alpha

Mustafa Serkan Abdüssleam
Giresun University

Digital games provide positive contributions to sharpen the cognitive and perceptual capabilities of individuals. Particularly, the visual performance capacity is higher in the action-based and fast game players than other type game players.

The Serious game is kind of digital game that is developed for non-entertainment purposes. Actually, serious game has been developed to allow players to see and feel real events simulated and processed in the framework of learning goals or goals. Rather than entertaining, the purpose of these games is to contribute to their education through training and experience.

When serious game applications are scrutinized; unlike the existing computer-aided teaching practices, many features allow players to take an active role in the teaching process. Serious games aiming to gain knowledge and improve their skills on a specific specialty, which is developed with the motive of using the fun factor as a motivation tool. Serious games has been used in different areas like education, military, medical and commercial.

One of the serious games is Moonbase Alpha. This serious game was developed in collaboration with NASA and the Army's Aviation Missile Research Development and Engineering. With this game, NASA has tried to contribute to the education fields. In particular, in the field of science, it is the example of the work of the United States to enhance the quality of education by working with government agencies. This game is support the multiplayer mode and modelled with a mission scenario on the Moon which developed by NASA. This game was released in STEAM gaming platform in 2010 to a number of player members exceeding millions and it has been developed in three dimensions via Unreal Engine 3. The main purpose of the improvement in particular is to analyse the situations, to follow meaningful pathways and to experience effectively the activities in the STEM fields' students encounter during the game. In addition, NASA prepared teacher manuals and student worksheets for this serious game and made them available for use. The game is for grades 6-9, in case of developing "Physical Science and Earth Science" learning activities in traditional formal education. In addition, the scenario of Moonbase Alpha serious game is expected to complete its mission within 20 minutes. NASA is planning this process in four different sessions, with each session being 90-minute periods.



In this study, Moonbase Alpha game, which is one of the serious games, is has been examined whether it is possible to be used as a supportive sources in Childs’ world in which situation should be involved. For this purpose, the published document, the serious game and users' comments were examined. Firstly, according to the documents obtained this game is designed based on 5E instructional model (Engage, Explore, Explain, Extend, Evaluate) and it combines aspects of traditional education with game-based learning to teach science, technology, and engineering concepts to students. In the second stage of the examinations, this game can be played over the internet or local network, supports individual or group work (up to 8 players) and it can be run through today's school hardware and software. Finally, according to the STEAM gaming platform, it is close to 90% of the comments of individuals playing the game are positive, and advantageous aspect of this game is the reality graphics and designs but as disadvantage is the lack of defending different languages. As a result, Moonbase Alpha serious game is advantageous to use as an adjunct to secondary school Science. However, it can be suggested to be supported by Turkish language.

Keyword: Serious game, Child, Moonbase Alpha, STEM, 5E



S34- Öğretmen Adaylarının Çocuk ve Dijital Oyuna Yönelik Görüşleri

Guner Guler*, Fırat Sarsar
Ege University

Bilişim öğretmenlerinin meslek hayatına atılmadan önce dijital oyunlar hakkındaki görüşlerinin şekillenmesi ve oyunlar hakkında farkındalıklarının yüksek olması önemlidir. Mesleği gereği teknoloji ve dijital ortamları yoğun kullanan bilişim öğretmenleri bu konularda öğretmenleri, öğrencileri ve velilere uygun bilgileri aktarılması gerekmektedir. Bu araştırmaya 2017-2018 akademik yılı bahar döneminde “Sayısal Tabanlı Öğrenme Ortamları” seçmeli dersini alan 15 Bilgisayar ve Öğretim Teknolojileri Bölümü ikinci sınıf öğrencileri katılmaktadır. Bu nitel araştırmanın amacı öğretmen adaylarının oyun ve çocukların oynadıkları dijital oyunlar hakkında farkındalıklarını ve çocukların gelişimindeki etkilerine yönelik görüşleri anlamaktır. Bu kapsamda araştırmacılar tarafından hazırlanan açık uçlu sorularla veriler toplanmıştır. Verilerin içerik analizleri devam etmek olup, sonuçlar kongre de katılımcılarla paylaşılacaktır.

S36- Internet Security of the Children of Parents Employed in Health Sector and Their Information, Attitudes and Behaviours towards Digital Games

Durmaz Nihal¹, Ulukol Betül²

¹ : Department of Pediatrics, Gülhane Training and Research Hospital, University of Health Sciences, Ankara, Turkey

² : Department of Social Pediatrics, School of Medicine, Ankara University, Ankara, Turkey

INTRODUCTION-AIM: Today the internet has come to be an important means of meeting one’s daily needs of every sort as a result of the rapid developments in computer, internet and digital games as well as the economic sector regarding them (Günlü & Ceyhan, 2017). Individuals use the facilities offered by the internet today for most of their shopping, needs, habits or behaviours. Parallel to the global case, the use of the internet has become common and widespread in Turkey, as well. According to the results of TUIK’s (Turkish Statistics Institution) Survey for the Use of Information Technologies within the Family in 2012, 8 out of 10 families have an access to the internet and also while the rate of access to the internet was 47.2% then, it rose to 66.8% in 2017 (TÜİK, 2017). According to the TUIK’s survey on the 16-74 age group people in 2014, the use of internet was found to be the highest (73%) in the age group of 16-24 (TÜİK, 2014). Viewed from this perspective, social concerns are generated by the fact that especially the children and the young are densely interested in this technology and that they very much outpace the adults in a short time (1). Such reasons as non-planned urbanization, insufficiency of the fields for children, parents’ preference to keep their children in the eye control within the house due to the child abuse and neglect have increased the children’s interest in digital games and changed their habits of playing and socialization. Turkish Language Institution (TDK) defines the game as a means of entertainment with certain rules for having a good time that improves ability, skill and intelligence and the toy as a means of game (Bekmezci, Atatürk, Sağlık, & Fakültesi, n.d.). With the developed technology, traditional games and toys have come to be replaced by the digital games on the internet today, especially in cities. However, the debate as to whether digital games are useful or harmful to children and adolescents is on the increase in the world and in our country. The studies in recent years have attempted to shed light on this issue. The common view in these studies is that the content of the game is of importance (Yılmaz, Griffiths, & Kan, n.d.).

There are a lot of studies showing that playing digital games enhances visual skills and concentration, contributes to quick decision-making and strategy-developing, and develops their social skills. There are also some studies that show that digital games can help develop the learning skills and spatial abilities of the children with autism, attention-deficit disorder and disabilities (MD, 2002). On the other hand, there are a lot of studies to reveal that these games not only cause depression, anxiety, uninterrupted worry, in appetency, sleeping



disorder and neglect of physical activities among the children but also cause them to isolate themselves from their friends and family into a solitary/isolated virtual world (Yılmaz et al., n.d.). The studies have demonstrated a relationship between the children’s gender, age and parents’ education levels and the time they spend playing digital games (Pe N, n.d.). It has been found that male children spend more time playing digital games than female children do, that the children in the 12-15 age group spend more time playing digital games than those in the other groups, and that the children of the parents with a lower education level spend more time playing digital games than those of the other parents.

This study is intended to determine the information, attitudes and behaviours of the children of parents employed in health sector with a high education level towards digital games and internet security. It also aims to enhance the health-staff parents’ awareness of the positive and negative effects of digital games.

MATERIALS-METHODS: This study was conducted with the participation of 299 health-staff parents (doctor, nurse and other health staff) employed at Dr. Abdurrahman Yurtaslan Ankara Oncology Training and Research Hospital and Gülhane Training and Research Hospital affiliated to University of Health Sciences in March 2018.

The participants were informed that they should answer the questions if they have children between the ages of 5 and 18. Once the participants had been given necessary information about the study, their written permissions were taken; then a survey was applied to them concerning their socio-demographic qualities and questioning their children’s information, attitudes and behaviours towards digital security. It was conducted on a voluntary basis. The ethics committee approval was taken from the Health Sciences University’s Non-Invasive Clinical Research Ethics Committee. The data about the study were transferred to the SPSS programme and analysed statistically.

RESULTS: 299 parents who were also health staff were included in the study. 210 (70%) of the participants were female and 89 (30%) were male. The average age of the participants was 41.3 ± 4.7 (min-max: 30-60). Women’s mean age was 40.8 ± 4.5 (min-max: 30-58), while men were 42.6 ± 5.1 (min-max: 30-60). On the basis of professional groups, 51/17% of the participants were doctors, 165 (55%) of them were nurses and 83 (28%) of them were other health-staff. The median of the participants’ number of children was 2 (min-max 1-4), and their average number of children was 1.76 ± 0.7 .

Children’s mean age was determined as 12.9 ± 0.7 for the first child and 5.04 ± 0.3 for the second child. Of the digital-security measures taken by the parents while using computer in daily life both for themselves and for their children, the highest rate was 75% on anti-virus software programmes; for their children, however, besides the existing measures, 56% of them reported that they tried to ensure the digital security by personally following the internet pages and websites visited by their children. 20% (61) of the participants said that they themselves played digital games, while 70% (197) of reported that their children played



them. The rate of parents who played or watched digital games with their children at varying frequencies was determined as 54% (151). On the other hand, the rate of parents who talked about digital games in daily talks with them was 55% (195) and that of those who did not do so was 45% (104). Most of those who reported that they did not talk with their children about digital games said that they did not want their children to play digital games and so they did not even want to talk with them about that issue. 78% (234) of the participants reported that they knew which games were in their children’s mobile phones or computers.

The rate of parents who intervened in their children choosing digital games was 72% (214). The parents employed in the health sector said that they mostly made their choices and decisions about the games on the basis of the content of the game (42%) and the age of the child (39%). Considering the views of the participants as regards digital games; their most striking answers over the negative aspects of the digital games were that the children playing digital games would be less socialized by 17% (165) and that playing digital games would affect children’s health negatively by 14% (142). While there appeared no striking difference between the answers given to the negative aspects of digital games, the parents born in and after 1980, also called digital native, agreed on the positive aspects of digital games at a higher rate. However, no statistically significant difference was found. 62% (183) of the participants reported that they children did not spend more time than acceptable for digital games, and 88% (262) of them said that their children did not spend money over digital games.

CONCLUSIONS: This study reveals that health professionals, though mindful of health and cognizant of the health risks, do not have much information and awareness of digital games though they think and feel that digital games can be harmful. For the required measures to be taken against digital games and internet security, having come to be a public health problem these days, the studies on this issue should be conducted with the collaboration of different professional groups; and this is largely expected to form a basis for these measures.

Key Words: Health staff, parent, child, digital game.

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