Original Research Paper **Community Medicine** PARENT'S PERCEPTION OF ELECTRONIC GADGETS AND INTERNET USE AMONG CHILDREN ATTENDING TERTIARY CARE HOSPITAL OF DELHI: A **CROSS-SECTIONAL STUDY** Assistant Professor, Department of Community Medicine, North Delhi Dr. Yachna Setu Municipal Corporation Medical College, Hindu Rao Hospital, Delhi Dr. Anika Sulania Assistant Professor in School of Health Sciences (SOHS), IGNOU. Director and Professor, Department of Community Medicine, Dr. Baba Dr. Satyavir Singh Saheb Ambedkar Medical College and Hospital, New Delhi Mr. Ravi Prakash Statistician cum tutor, Department of Community Medicine, Dr. Baba Saheb Ambedkar Medical College and Hospital, New Delhi Iha

ABSTRACT Background: In the recent times, there are various options available of media use. Parent's involvement with excessive media or electronic gadgets use has been shown to have early media use among their children also. According to several studies, access to internet and use of media is increasing among children. With increasing online activity and screen time exposure, the younger generation is exposed to the risk factors for development of non-Communicable diseases at early ages such as low physical activity and weight gain. The present study focuses to assess the factors affecting the electronic gadgets use among children and to find out the perception of parents regarding their children's media use. Material and Methods: This is a Hospital based cross-sectional study conducted from May 2019 to October 2019 at the Outpatient Department of Pediatrics of Dr. Baba Saheb Ambedkar Medical College and Hospital, New Delhi. The total of 223 parents of children aged 6 months to 10 years visiting pediatric OPD were interviewed by using pre-designed, pre-tested and semi-structured questionnaire. The questionnaire has three parts, first part consists of detailed socio-demographic characteristics, second part consists of knowledge and usage of media and third part consists of Internet related health issues and average time spent daily on electronic gadgets. A statistical analysis was conducted by using Chi-square test between television viewing and mobile use among kids and sociodemographic variables in MS Excel 2007, version 12.0. A p-value of less than 0.05 was considered significant. Results: A total of 223 parents were surveyed and it was found that (212/223) 95% of parents were aware of social media, (200/223) 90% of parents were using smart phones, and (190/223) 85.2% of parents have installed applications specifically for their children. The media use among children was found to be associated with socioeconomic status of the family and education status of the father. More than one third (138/223) 62% of parents believed that Internet is beneficial for their kids mainly for education/learning purpose (97.80%), about 32% of respondents believed that Internet and media use is not beneficial for their kids and among those, majority of them said that it can cause distraction of mind and thus can lead to disturbance of studies, some also said that excessive media use can cause major health issues According to the respondents (211/223) 95% of parents believed that excessive media use is related to one or other health issues and the major one is visual disorder. Conclusion: Involvement with Television and mobile phones was very common among young children. Excessive involvement of media use among children is associated with behavioral problems. In order to decrease the media use or electronic gadgets use, parents' awareness and vigilance is very important.

KEYWORDS : Media-use, addictive behaviors, behavioral problems, gaming disorder

INTRODUCTION

Initial years of life are very important for development of brain. Brain development mainly depends upon proper nutrition, exposure to infections and child's exposure with other people [1]. Parents or care givers plays key role in overall development of the child and thus their involvement is necessary for developing healthy behavior of their children apart from their teachers [2]. In the recent time, it has been shown that engagement of parents in technology or media, results in excessive media use among their children too. According to the data, globally 46% of population were using internet in 2016 as compared to just 0.5% in year 2000 [3]. According to the research, in United States the Internet use among adults has reached to 90% in 2019 from 52% in 2000 [4]. In India, overall Internet users were 29.55% in 2016 from 0.53% in 2000. And approximately 700 million of Indians were using Internet in 2020 [5].

The Internet usage similarly has been found to increase in children also. According to one such report, media use was assessed among children (8-11 years) of UK in 2019 and it was found that, 37% have their own Smartphone, 74% watched live online TV or you tube videos, 66% play online games and 21% have their own social media profile [6]. According to recent report, parent's perception on media use among 1-8 years of children was assessed in U.S and it was found that online video viewing dominates kids' screen time [9]. As predicted in

the 1999 American Academy of the 0 to 2-year age group (and their parents) as key consumers of electronic media. Educational DVDs/videos, television programs, and even entire cable networks are geared toward this age group (POLICY STATEMENT Media Use by Children Younger Than 2 Years).

As young as 1- 2 years old kids are exposed to excessive screen time experience. The pattern steeply increased in COVID-19 times when due to restriction of movements and lockdowns in several parts of World, the only source to be in contact with each other was social media and gadgets but while using these technologies ,one should think about all the negative health effects younger generation is facing and might face in future. It is associated with physical and mental development of children. They are more likely to become obese, develop seizure and vision problems [7]. It can also cause irreversible damage such as slow cognitive development and attention deficit [8].

Such negative Health implication because of excessive media usage has been discussed and ponders upon in recent times. Since it is fairly new topic, there is shortage of research in this regard. This is a well-known fact that there is no sufficient research and guidelines on children's safe use of electronic media in developing countries including India. Parent's perception and parent's monitoring for their children's

electronic media use, plays a key role. Hence the present study was planned to focuses to assess the factors affecting the electronic gadgets use among children and to find out the perception of parents regarding their children's media use.

MATERIALS AND METHODS

It was Hospital based cross-sectional study was conducted from May 2019 to October 2019. The study was conducted among parents of children aged 6 months to 10 years attending OPD of Dr. Baba Saheb Ambedkar Medical College and Hospital. Keeping the sample size 223 in mind, everyday 7 to 10 study subjects were taken from hospital OPD during hospital OPD hours preferable from waiting areas so the working of parents and hospital doesn't hamper. Study was approved by the Institutional Human ethical Committee of Dr. Baba Saheb Ambedkar Medical College and Hospital (IEC No-BSAMCH-CM/2019/22).

Inclusion criteria:

Parents of 6 months-10 years, who accompanied the patients in Pediatric OPDs/Sitting area, who were willing to participate in study were included.

Exclusion criteria:

Those who were not willing and parents of older children and adolescents.

Sample size calculation:

was calculated by using the formula $n = Z^2 x p x (1-p)/d^2$. Prevalence of 84.3% [9] and absolute allowable error of 5% was used and sample size was found to be 223. (The sample size was adjusted to compensate for non-response rate of 10%)

Study Procedure

A self-made semi-structured (few questions were open ended and few questions were objective), pretested and predesigned questionnaire was used for collection of data. The pilot study was performed in the same setting to frame the questionnaire in a better way. The questionnaire was typed in English language.

The questionnaire was divided into three sections. First part consists of detailed socio-demographic characteristics- age, gender, education, occupation and number of living children (≤ 10 years) of study population. Second part consists of knowledge and usage of media i.e. television, mobile phones, computers/laptops/tablets and perception of Internet use among them and their kids and Parent's awareness regarding different advisories. Third part consists of Internet related health issues and average time spent daily on electronic gadgets. No scoring system of scales has been used.

Working definitions

The study was planned to check the internet or media usage among children less than 10 year old. However, since younger kids and toddlers and some older kids can't comprehend the questionnaire, the knowledge regarding their usage was taken from the caregiver and their feedback and answers were considered as proxy indicator of actual media usage in children.

1. Social media:

Social media is the term often used to refer to new forms of media that involve interactive participation. Often the development of media is divided into two different ages, the broadcast age and the interactive age [10].

2. Mobile media:

Mobile media would define as which encompasses a range of hand-held devices from mobile phones, tablets, and ereaders) primarily as a personal, interactive, internet-enabled and user-controlled portable platform that provides for the exchange of and sharing of personal and non personal information among users who are inter-connected [11]. For the purpose of study the more than 2 hrs. usage of media is considered unhealthy practice.

3. Education learning application/E-learning:

e-Learning- or electronic learning has been referred to as "technology-enhanced learning" and more recently as "digital learning". E-Learning describes a set of technologymediated methods that can be applied to support student learning and can include elements of assessment, tutoring, and instruction [12].

4. Online videos:

Includes watching videos on sites like YouTube or Tik-Tok [9].

5. Internet access:

Internet access defines as opening, using, or getting to content, documents, and applications and collecting data [13].

6. Television:

Includes TV shows or movies watched on a TV set, including "live TV" or content recorded earlier on a DVR, or watched through video on demand [9].

7. Screen based:

It is not general sedentary behavior, but the increased use of new technologies, particularly watching television, playing digital games, and using computers should be considered as screen-based sedentary behavior [14].

8. Video games:

Includes gaming on a console video game player or other device that connects to a TV set (e.g., an Xbox, Play Station, Switch, or Wii), a handheld player (e.g., a Game boy) a computer, or a mobile device (e.g., a smart phone or tablet) [9]. Apart from all above mentioned definitions, general sociodemographic information and Socioeconomic status was taken with Modified BG Prasad scale [15].

Statistical analysis

Chi-square test was applied between television viewing and mobile use among kids and sociodemographic variables in MS Excel 2007, version 12.0. A p-value of less than 0.05 was considered significant.

RESULT

Table 1: Distribution of study participants according to their socio-demographic details

Study variables	Number (n=223)	Percentage (%)
Age of Interviewee		
<25 Years	22	9.9
25-34 Years	137	61.4
35-49Years	64	28.7
Gender of Interviewee)	
Male	60	26.9
Female	163	73.1
Mother's Education		
Illiterate	29	13.0
Up to High School	84	37.7
Above High School	110	49.3
Father's Education		
Illiterate	11	4.9
Up to High School	86	38.6
Above High School	126	56.5
Mother's Occupation		
Housewife	175	78.5
Private Job	28	12.6

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Government Job	20	9.0
Father's Occupation		
Unemployed	6	2.7
Private Job	190	85.2
Government Job	27	12.1
Socio economic status	3	
Class I	47	21.0
Class II	56	25.1
Class III	62	27.8
Class IV	33	14.7
Class V	25	11.2
Gender of elder child		
Male	116	52
Female	107	48

 Table 2: Knowledge and awareness regarding electronic

 gadgets and media use among study participants

Study variables	Number (n=223)	Percentage (%)		
Awareness of Social M	edia			
Yes	212	95.1		
No	11	4.9		
TV at Home				
Yes	212	95.1		
No	11	4.9		
Separate TV for children				
Yes	2	0.9		
No	221	99.1		
Awareness of Video Go	imes			
Yes	129	57.8		
No	94	42.2		
Computer/Tablets at He	ome			
Yes	76	34.1		
No	147	65.9		
Smart Mobile Phone at	Home			
Yes	202	90.6		
No	21	9.4		
Use of Social Media App				
Yes	185	83.0		
No	38	17.0		
Awareness regarding a	ige at which childre	n should use		
phone				
Appropriate	211	94.7		
Not-Appropriate	12	5.3		
Awareness regarding age at which children should use				
phone				
Less than 10 Years	7	3.1		
10-15 Years	65	29.1		
16-20 Years	116	52.0		
>20 Years	30	13.5		
No response	5	2.2		

Table 3: Association of Socio-demographic variables with television viewing more than 2 hours/day versus less than 2 hours/day

Study	Hours Spent on	Hours Spent	Total	p- value
variables	TV <2hrs a day	on TV >2hrs	(n=186)*	
	(n=167)	a day (n=19)		
	Number (%)	Number (%)		
Gender of	older child		•	
Female	82 (91.1)	8 (8.9)	90 (48.4)	0.334
Male	85 (88.5)	11 (11.5)	96 (51.6)	
Education	of Mother			
Illiterate	20 (83.3)	4 (16.7)	24 (12.9)	0.534
Up to	67 (90.5)	7 (9.5)	74 (39.8)	
High				
School				
Above	80 (90.9)	8 (9.1)	88 (47.3)	1
High				
School				

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Education of Father				
Illiterate	8 (80.0)	2 (20.0)	10 (5.4)	0.536
Up to High School	67 (89.3)	8 (10.7)	75 (40.3)	
Above High School	92 (91.1)	9 (8.9)	101 (54.3)	
Occupation of Moth	ner			
Unemployed	132 (89.8)	15 (10.2)	147 (79.0)	0.932
Private Job	23 (88.5)	3 (11.5)	26 (14.0)	
Government Job	12 (92.3)	1 (7.7)	13 (7.0)	
Occupation of Father				
Unemployed	5 (83.3)	1 (16.7)	6 (3.2)	0.639
Private Job	145 (90.6)	15 (9.4)	160 (86.0)	
Government Job	17 (85.0)	3 (15.0)	20 (10.8)	
Socio-economic status				
Class I	64 (91.4)	06 (8.5)	70 (37.6)	0.05
Class II	50 (90.9)	05 (9.0)	55 (29.5)	
Class III	39 (95.1)	02 (4.8)	41 (22.0)	
Class IV	09 (69.2)	04 (30.7)	13 (6.9)	
Class V	05 (71.4)	02 (28.5)	07 (3.7)	

In the present study, among all study participants, total 186 children were involved in television viewing. (difference is because of different age groups, children's interest and their parent's interest)

Table 4: Association of Socio-demographic variables withmobile use allowed for more than 2 hours/day versus less than2 hours/day

$\label{eq:constraint} \begin{array}{ c c c c c } \mbox{variables} & Mobile < 2hrs α & Mobile > 2hrs α & (n=127) & value \\ \mbox{day} (n=116) & & day (n=11) \\ \mbox{Number} (\%) & Number (\%) & \\ \hline \hline \mbox{Gender of older child} \\ \hline \hline \mbox{Female} & 63 (90.0) & 7 (10.0) & 70 (55.1) & 0.753 \\ \hline \end{array}$				
day (n=116) day (n=11) Number (%) Number (%) Gender of older child Female 63 (90.0) 7 (10.0) 70 (55.1)				
Number (%) Number (%) Gender of older child Female 63 (90.0) 7 (10.0) 70 (55.1) 0.753				
Gender of older child Female 63 (90.0) 7 (10.0) 70 (55.1) 0.753				
Female 63 (90.0) 7 (10.0) 70 (55.1) 0.753				
Male 53 (93.0) 4 (7.0) 57 (44.9)				
Education of Mother				
Illiterate 13 (92.9) 1 (7.1) 14 (11.0) 0.767				
Up to 40 (88.9) 5 (11.1) 45 (35.4)				
School				
Above 63 (92.6) 5 (7.4) 68 (53.6)				
High School				
Education of Father				
Illiterate 2 (50.0) 2 (50.0) 4 (3.1) 0.010*				
Up to 48 (94.1) 3 (5.9) 51 (40.2)				
High				
School				
Above 66 (91.7) 6 (8.3) 72 (56.7)				
High				
School				
Occupation of Mother				
Unemplo 95 (92.2) 8 (7.8) 103 0.654				
ved (81.1)				
Private 11 (84.6) 2 (15.4) 13 (10.2)				
Job				
Governm 10 (90.9) 1 (9.1) 11 (8.7)				
ent Job				
Occupation of Father				
Unemplo 3 (100.0) 0 (0.0) 3 (2.4) 0.773				
yed				
Private 97 (90.7) 10 (9.3) 107				
Job (84.3)				
Governm 16 (94.1) 1 (5.9) 17 (13.4)				
ent Job				
Socio-economic status				
Class I 50 (92.5) 04 (7.4) 54 (42.5) 0.592				
Class II 38 (95) 02 (5) 40 (31.4)				
Class III 15 (83.3) 03 (16.6) 18 (14.1)				
Class IV 08 (88.8) 01 (11.1) 09 (7.0)				
Class V 05 (83.3) 01 (16.6) 06 (4.7)				

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In the present study, among all study participants, total 127 children were involved in mobile use. (difference is because of different age groups, children's interest and their parent's interest)

Table 5: Distribution of study participants according to the probability of different health issues because of excessive media use.

Related Health Issues	Number	Percentage
Behavioral disorders	24	10.7%
Visual disorders	161	72.19%
Lack of physical activity/obesity	28	12.55%
Lack of sleep/ headache	43	19.2%
Decrease in mental concentration	07	3.13%
Others*	19	8.5%

*Includes psychiatric disorders, ear problems because of increased use of earphones, the radiation from screen can lead to cancers



Figure 1: Distribution of study participants according to time spent on media use by their children.

 Table 6: Distribution of study participants according to reasons of allowing and not allowing media/Internet use to their children

Allowed media/internet use to their kids (n=138)		Not allowed media/internet use to their kids (n=68)	
For Education Purpose	135	Causes distraction from studies	15
For Entertainment purpose	06	Not able to use it properly	07
For both Education and Entertainment purpose	03	Can cause so many health issues	10
		Time wastage	8
		Cause medical problems and distraction from studies	2
		No need of Internet as child reads book	3
		may open adult sites	14

A total of 223 study participants were selected from hospital OPD area. Table 1 shows Socio-demographic details of the study participants. It was observed that among all respondents, majority were females i.e. 73.1% (163/223), majority of the study participants belongs to 25-34 years of age group i.e. 61.4% (137/223). The Socio-economic classification was based on Modified BG Prasad scale, which shows majority of the respondents' (27.8%) belongs to SES Class III, followed by (25.1%) SES class II. In Table 2 it was observed that almost every house has TV of study participants (95%).

Majority of the respondents were using personal smart phones with Internet connection (90.6%) and amongst them (83.0%) of study participants were using one or other social media applications. According to 95% of study participants, excessive and independent media use among kids of less than 8 years of age is not appropriate. And more than 50% of study participants believe that kids should use media or can have their own mobile phones only after completion of high school or after 16 years of age group but still very few participants (18%) were aware of recommendations given by International Pediatric association (3-6-9-12 rule i.e no screen time before 3 years, no internet before 6 years, no video games before 9 years and no social media use before 12 years). As per 82% of parents, Internet or social media use is easier and convenient method to be in contact with their friends and relatives. More than one third (62%) of parents believed that only under supervision and for limited use, Internet is beneficial for their kids mainly for education/learning purpose (97.80%), about 32% of respondents believed that Internet and media use is not beneficial for their kids and among those, majority of them said that it can cause distraction of mind and thus can lead to disturbance of studies, some also said that excessive media use can cause major health issues.(Table 6) In our study none of children had their own device. The study was conducted in Pre-COVID era, However the usage would be more if we do in in current times. "You tube" was most commonly (40.4%) used application by children in their parent's mobile/laptop/computers followed by of gaming applications (39%) were also more frequently used by children. Approximately 31% of respondents installed education/learning applications for their kids like learning app, Carryculum app (School accounting management system), Homework app and different Maths learning app. Binary logistic regression model was applied to assess the Internet beneficial response with socio-demographic variables, it was found that association between Internet beneficial response and age of interviewee was significant (χ^2 value = 6.93, p value = 0.031). Parents of \leq 25 years and 25-34 years of age group are 3.6 times and 2.4 times more likely to believed that Internet use is not beneficial to their Kids respectively.

Duration of hours spent on TV per day has been categorized into <2hrs and >2hrs based on division followed in maximum studies. Chi square test has been applied to check the association between various Socio-demographic variables and duration of hours spent on TV per day. (Table 3) Education of father is significantly associated with duration in hours spent on mobile per day (χ^2 value= 9.14, p value=0.010). Higher proportion of respondent's whose father is illiterate (50%) spent more than 2 hours on mobile as compared to respondents whose father's education is up to high school (5.9%) or above high school (8.3%). (Table 4)

Table 5 depicts distribution of study participants according to the probability of different health issues because of excessive media use. About 95% (211/223) of parents believed that one or other health issues can occur because of excessive media use irrespective of different age groups.

According to the study participants the most common health disorder is "visual disorders (72.19%)" including watering eye, painful eye, redness in eyes and refraction issues, followed by disturbed sleep/ Irregular sleep issues or headache (19.20%) and about 12.55% replied that excessive media use can lead to increase in obesity, can lead to increased sedentary screen time thus decreases the overall physical activity duration or outdoor activities duration.

DISCUSSION

This study describes the patterns of very early and very common use of mobile media devices among children of 06 Months-10 years of age group. The study participants were care givers/parents; interviewed as proxy indicators of their young child. Most of the respondents are females which might shows the participation and responsibility in health care for the kids is more in females or mothers as compared to males or probably males are out for work and only females can come out for health seeking of their child. It was observed that most children had access to mobile devices in their houses and at very early age they spent maximum screen time on Television and mobile devices.

Media usage pattern and online activities (Both Television & Mobile)

It was observed that most of the participants i.e 95% have Television in their home and 90.6% of the participants have their own smart mobile phone, similar findings were found in a study conducted by Hida K Kabali[16] and Ellen Wartella[17]. Similar results were found in a study conducted by Morgan McCloskey et al [18], more than 90% of parents had downloaded applications specifically for their child among media use, in our study more than 90% children showed fondness of watching Television our results were similar to studies conducted by Aysu T Karaagac [19] and Burdette et al [20]. In one study conducted by Park M et al. in US [21], it has been found the average 8-10 years old spends nearly 8 hours a day with a variety of different media. This over exposure of the kids would lead to development of variety of diseases. Also Children are exposed to violence and aggression through media exposure as presented by Burdette et al in their study. Also they imitate the characters they watch on TV programs or on video games because they cannot distinguish between fact and fantasy until 5 years of age. They may accept the violence as an ordinary means to solve problems over the time [20,22,23]

In our study, the parents and children showed inclination towards Watching TV and engaging in social media. This is a risk factor for developing violent behavior and aggressive behavior in future in kids. In one US based study it was mentioned that 90% of parents report that their children younger than years watch some form of electronic media [24] Similarly In another study it was quoted those By 3 years, almost one third of children has a television in their bedroom [25]. Parents say that engaging children in media give them some time to prepare dinner or complete household chores etc. In our study it was found that few percentage of parents use phones and Television to feed their child by keeping them busy in videos or games .The patterns was more common in nuclear families where there in no one else to take care of kids if mother or father is busy with their own work or household work. This indirectly increasing the screen exposure and media exposure to kids as young as 2 years.

Internet access

According to a UNICEF report done for the period of 10 years (2010-2020), it was found that globally 33% of schools going children have Internet access at home and in South Asian countries, 12% of schools going children have Internet access at home [26].

According to one report, almost 90% of all digital minutes spent by Indians in 2017 were spent on a mobile phone, highest in world [27]. It will subsequently increase the health risk factors related to internet usage. As kids learn most of the behavior from parents and adults, the same habit will be percolated to them. The report further quote that out of all online activity maximum time was spent on multimedia (15%) followed by Social networking (10%) and instant messaging (13%). The trend imitates the Global usage pattern. In present study also follows the similar movement with 40% roughly for both you tube and gaming application followed closely by educational sites. The using of gaming site is worth mentioning here in view of high number of gaming addiction and homicidal cases, reported against adolescents in past years to the games such as Blue whale challenge or PUBG which subsequently leading to banning of such gaming sites in India.

According to recent report, parent's perception on media use among 1-8 years of children was assessed in U.S and it was found that roughly 40 min a day is being spent watching online videos 72% of parents responded that media use helps in learning activities and 60% responded that media use helps in developing creativity in their kids [9].

Health Problems linked with internet usage

In our study, the Parents/guardian quoted various health issues related to excessive media usage namely Visual disorders followed by insomnia and headache ,obesity and lack of physical activity, Behavioral disorders ,decrease mental concentration and others such as on the other side, Internet addiction is the biggest problem which can be described as 'pathological internet use' or unlimited internet use [28]. Signs include difficulty in logging out, the tendency to spend 'just a few minutes more' online, the inability to rationalize the use of such devices despite academic obligations, sleep disturbance, decreased social interaction, irritability, anger outbursts when technology is out of reach or denied. Children were found to be addicted to media usage which started interfering with the daily activities and routine. Watching television and playing with computers for ≥ 2 hours/day may cause childhood obesity due to lack of physical activity [29]. According to recent guidelines, children should not be sedentary for >60 minutes at a time except when sleeping [30]. Screen based sedentary habits in childhood is associated with adverse health effects [7]. In a study conducted by Said Yousef et al in UAE among 675 students for 1 year, they have used CBCL (child behavior checklist) subscales score and it was found that Children who spent more than 2 hours/day watching TV or playing Video games scored significantly higher on withdrawn, social problems, attention problems, aggressive behavior, delinquent behavior, and externalizing syndrome scales and thus on CBCL total score [26].

Parent's awareness regarding social media and perception towards internet usage by their children

According to our finding majority of the parents were aware about social media. And more than 80% of them were active user. Also more than 50% thinks that at the appropriate age of social media and owing independent phones should be 16 or more years. However, none were aware of any guidelines regarding to screen exposure. Also parents express their concern regarding their child's mobile technology use citing can lead to behavioral change and medical issues with excessive use. Similar findings were found in a study conducted by Jenny S. Radeskyet al [31].

Contrary to the above finding, few parents and guardian perceives that internet is beneficial for their kids in terms of learning and education. Healthy television viewing can be good teaching tool [32]. In a study conducted in USA, parent's showed positive attitude towards media and many parents disagreed on advisories regarding age appropriate screen time [33]. In another such study conducted by Van dewater EA et al, it was stated that many parents report feeling better knowing that the programming their children watch has been described as educational. Parents who believe that educational television is "very important for healthy development" are twice as likely to have the television on all or most of the time [34].

Screen exposure

Many studies showed the impact of excessive screen time on academic, behavioral and mental-health issues. Screen media is determined not only by the number of hours of use, but also the child's preoccupation with the use of technology.

International and national guidelines regarding media and screen exposure

According to new guidelines from WHO sedentary screen time (such as watching TV or videos, playing computer games) is

not recommended till 2 years and in children with 2 to 4 years of age, sedentary screen time should not be more than 1 hour in a day [35]. According to American Academy of Pediatrics, earlier children till 2 years or less than 2 years of age should not have any screen time and for older kids the screen time is limited till 2 hours/day. But recently AAP revised its screen media use recommendations, mentioning that technology is the part of everyday life and focusing on parent's responsibility towards quality of content. Prioritizing how actually their kids spends screen time rather than just setting a timer [36]. International Pediatric association follows 3-6-9-12 rule- no screen time before 3 years, no internet use before 6 years, no video games before 9 years and no social media use before 12 years. For a child's proper growth and development, family is the first institute and parents has huge role for this, so evaluation of certain beliefs and attitude of parents about their children's electronic gadgets and Internet use during initial stages of life is important.

Use of internet and electronic gadgets among young children in India is increasing day by day and no such study has been done in this field in India. Physical activities, games and outdoor hobby are reduced and replaced by social media and chats. Trends such as making profile in Social media and other entertainment platform by parents for their kids and uploading all the recent pictures and activities in them are emerging nowadays. Kids while growing up take this new normal as part of their daily life. Hence parents are also partly responsible for the development of such behavior [37].

There was no association seen between time spent on Gaming device, mobile device, computers/tablets with family income and parent's education. And in contrast to the present study, statistical significant association was seen between time spent on Television and parents education. In a study authors had described impact of media use among children and youth, in a similar way they mentioned that excessive media use may lead to health issues, may cause obesity; it can lead to inference of normal social interactions. It can also cause adverse effects on child's values like child is more expose to pornography, can learn online gambling, violence through television watching and video games and plagiarism for their project work [8].

Limitation

Objectives were fulfilled by asking questions only. So, the constraints of recall and credibility remain. Also it is a hospital based study where we could not detect the prevalence of media and gadget users.

Conclusion

In our study, it was observed that most of the parents were using smart phones with internet connections, have Television in their home. But when it's about media use among their children, according to most of the participants they don't want their kids to have their own mobile phones or should use Internet other than education purpose. Also it was noted that the general knowledge about media or screen time exposure are less so as the knowledge of health problems associated with excessive internet use. Hence it is advised that the general population should be made aware by Audio visual tools or Information, Education & Education (IEC) components.

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REFERENCES

- Early Brain Development and Health | CDC [Online]. Centers for Disease Control and Prevention. 2020 [cited 10 December 2020]. Available from: https://www.cdc.gov/ncbddd/childdevelopment/early-brain-development. html
- 2. Ncbi.nlm.nih.gov. 2022. Parenting matters. United States of America: e

National Academies Press. [online] (cited 21 April 2020) Available at: https://www.ncbi.nlm.nih.gov/books/NBK402024/pdf/Bookshelf_NBK402024. pdf.

- Roser M, Ritchie H, Ortiz-Ospina E. Internet [Internet]. Our World in Data. 2022 [cited 21 April 2020]. Available from: https://ourworldindata.org/internet
- Demographics of Internet and Home Broadband Usage in the United States [Internet]. Pew Research Center: Internet, Science & Tech. 2020 [cited 10 December 2020]. Available from: https://www.pewresearch.org/internet/factsheet/internet-broadband/
- Keelery S. Total internet users in India | Statista [Internet]. Statista. 2020 [cited 10 December 2020]. Available from: https://www.statista.com/ statistics/255146/number-of-internet-users-in-india/
- Children and parents: Media use and attitudes report 2019 [Internet]. New York; 2020 p. 5. (cited on 11 December 2020) Available from: https://gertkoot. files.wordpress.com/2020/02/children-media-use-attitudes-2019-report-1.pdf
- Juan Mielgo-Ayuso, Raquel Aparicio-Ugarriza, Adrian Castillo, Emma Ruiz, Jose M. Avila, Javier Aranceta-Bartrina et al. Sedentary behavior among Spanish children and adolescents: findings from the ANIBES study. BMC Public health 2017.p 1. (cited on 10 December 2020) Available from https://pubmed.ncbi.nlm.nih.gov/28103843/
- Said Yousef, Valsamma Eapen, Taoufi k Zoubeidi & Abdelazim Mabrouk. Behavioral. correlation with television watching and videogame playing among children in the United Arab Emirates. Int J Psychiatry Clin Pract 2014; 18: p 204. (cited on 10 December 2020) Available from https://www. researchgate.net/publication/ 259314505_Behavioral_correlation_with_ television_watching_and_videogame_playing_among_children_in_the_ United_Arab_Emirates
- Peter and Helen Being, The David and Lucile Packard Foundation. THE COMMON SENSE CENSUS: MEDIA USE BY KIDS AGE ZERO TO EIGHT. New York; 2020 p.41, p.12, p.39 (cited on 11 December 2020) Available from https://www.commonsensemedia.org/sites/default/files/uploads/research/ 2020_zero_to_eight_census_final_web.pdf
- Jimmie Manning. Definition and classes of social media.2014; page 1158 (cited on 15 December 2020) https://www.researchgate.net/publication/ 290514612_Definition_and_Classes_of_Social_Media
- Ran Wei. Mobile media: Coming of age with a big splash. Mobile media and Communication 2013;1: page 52. (cited on 20 December 2020) Available from: https://journals.sagepub.com/doi/full/10.1177/2050157912459494#:~:text=F or%20clarification%2C%201%20would%20define,sharing%20of%20person al%20and%20non%2D
- Wheeler S. (2012) e-Learning and Digital Learning. In: Seel N.M. (eds) Encyclopedia of the Sciences of Learning. Springer, Boston, MA. (cited on 19 December 2020) Available from:https://link.springer.com/reference workentry/10.1007%2F978-1-4419-1428-6_431
- Nigel E. Bush, Deborah J. Bowen, Jean Wooldridge, Abi Ludwig, Hendrika Meischke, Robert Robbins. What Do We Mean by Internet Access-A Framework for Health Researchers. 2004; 1 (4): page 5. (cited on 25 December 2020) Available from https://www.ncbi.nlmnih.gov/pmc/articles/ PMC1277955/pdf/PCD14A15.pdf
 Juan Mielgo-Ayuso, Raquel Aparicio-Ugarriza, Adrian Castillo, Emma Ruiz,
- 14. Juan Mielgo-Ayuso, Raquel Aparicio-Ugarriza, Adrian Castillo, Emma Ruiz, Jose M. Avila, Javier Aranceta-Bartrina et al Sedentary behavior among Spanish children and adolescents: findings from the ANIBES study. BMC Public Health 2017;17: page 1 (cited on 25 December 2020) Available from: https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4026-0
- Jugal Kishore, Charu Kohli, Neeta Kumar and Neeru Gupta. Scales used in India to Evaluate Socio-economic Status in Medical Research: Limitations of Existing Scales and the need of a more Comprehensive One. The Journal of International Medical Sciences Academy. 2017 (27, no.2); page-71: (cited on 25 December 2020) Available from https://www.researchgate.net/ publication/329287402_Scales_used in_India_to_evaluate_socioeconomic_status_in_medical_research_Limitations_of_existing_scales_and _the_need_of_a_more_comprehensive_one
 Hilda K. Kabali, Matilde M. Irigoyen, Rosemary Nunez-Davis, Jennifer G.
- Hilda K. Kabali, Matilde M. Irigoyen, Rosemary Nunez-Davis, Jennifer G. Budacki, Sweta H. Mohanty, Kristin P. Leister et al. Exposure and Use of Mobile Media Devices by Young Children. Pediatrics-official journal of American academy of pediatrics. 2015 (136, no.6); page-1044: (cited on 30 December 2020) Available from https://pubmed.ncbi.nlm.nih.gov/26527548/
- Wartella et al, Parenting in the Age of Digital Technology, REVISED, Northwestern University, 2013. All findings among parents of children ages eight or under. The National Survey. (cited on 30 December 2020) Available from https://cmhd.northwestern.edu/wp-content/uploads/2015/06/ ParentingAgeDigitalTechnology.REVISED.FINAL_2014.pdf
- Morgan McCloskey, Susan L. Johnson, Cristen Benz, Darcy A. Thompson, Barbara Chamberlin, Lauren Clarak et al. Parent Perceptions of Mobile Device Use Among Preschool-Aged Children in Rural Head Start Centers. Journal of Nutrition Education and Behavior. 2018. (50, no.1); page- 83-89; (cited on 01 January 2021) Available from https://www.researchgate.net/publication/ 320365595_Parent_Perceptions_of_Mobile_Device_Use_Among_Preschool-Aged_Children_in_Rural_Head_Start_Centers
- Aysu Turkmen Karaagac. Undesirable Effects of Media on Children: Why Limitation is Necessary? Indian Pediatrics. 2015 (52, June 15) page: 469-471; (cited on 01 January 2021) Available from https: //pubmed. ncbi. nlm. nih.gov /26121718/
- Burdette HL, Whitaker RC, Kahn RS, Harvey BJ. Association of maternal obesity and depressive symptoms with television-viewing time in low-income preschool children. Arch Pediatr Adolesc Med. 2003; (157) page: 894-9. (cited on 01 January 2021) Available from:https://link.pringer.com/article/ 10.1007%2Fs13312-015-0657-3
- Rideout, V., Foehr, U., Roberts, D. GENERATION M2 Media in the Lives of 8- to 18-Year-Olds. The Henry J Kaeser family foundation. [online] US. (cited on 07 January 2021) Available at: https://www.kff.org/wp-content/uploads/2013/01/ 8010.pdf
- Beresin EV. The impact of media violence on children and adolescents: opportunities for clinical interventions. American Academy of Child and Adolescent Psychiatry. 2014. (cited on 07 January 2021) Available from

https://www.aacap.org/AACAP/Medical_Students_and_Residents/Mentorsh ip_Matters/DevelopMentor/The_Impact_of_Media_Violence_on_Children_a nd_Adolescents_OpportunitiesforClinicalInterventions.aspx

- Rajkumari Bishwalata, Akoijam Brogen Singh, Akoijam Joy Singh, Longjam Usharani Devi, R.K Bikramjit Singh et al. Overweight and obesity among schoolchildren in Manipur, India. The National Journal of India. 2010; 23: 263-266. (cited on 15 January 2021) Available from https://archive.nmji.in/ archives/Volume-23/Issue-5/Original-Article-I.pdf.
- Frederick J. Zimmerman, Dimitri A. Christakis, Andrew N. Meltzoff. Television and DVD/Video Viewing in Children Younger Than 2 Years. ARCH PEDIATR ADOLESC MED. 2007; 161: 473-479. (cited on 15 January 2021) Available from https://www.researchgate.net/publication/ 6345045_Television_ and_DVDVideo_Viewing_in_Children_Younger_Than_2_Years
- Dr. Šuzy Tomopoulos, Dr. Benard P. Dreyer, Dr. Samantha Berkule, Dr. Arthur H. Fierman, Dr. Carolyn Brockmeyer, Dr. Alan L. Mendelsohn, MD. Infant Media Exposure and Toddler Development. Arch Pediatr Adolesc Med. 2010; 164(12): 1105–1111. (cited on 15 January 2021) Available from https://www. ncbi.nlm.nih.gov/pmc/articles/PMC3095486/
- HOW MANY CHILDREN AND YOUNG PEOPLE HAVE INTERNET ACCESS AT HOME? [Internet]. Unicef.org. 2020.P5 [cited 12 December 2020]. Available from: https://www.unicef.org/media/88381/file/How-many-children-andyoung-people-have-internet-access-at-home-2020.pdf
- Vikas Aryaa, Deepa Sethib, Justin Paulc. Does digital footprint act as a digital asset? – Enhancing brand experience through remarketing. International Journal of Information Management. 2019; 49: 142. [cited 12 December 2020]. Available from http://drjustinpaul.com/wp-content /uploads/2019/12/JJIM-Paginated.pdf
- Ford-Jones D. Impact of media use on children and youth. Paediatrics & Child Health. 2003;8(5):304.Availble from. https://www.ncbi.nlm.nih.gov/pmc/ articles/PMC2792691/
- 29. Karaagac A. Undesirable effects of media on children: Why limitation is necessary?. Indian Pediatrics [Internet]. 2015 [cited 29 December 2020];52(6):469-471. Available from: https://link.pringer.com/article/10.1007/ s13312-015-0657-3
- 30. Cynthia S.Minkovitz, Donald B. Middleton, Joseph M. Carrillo, Peter A. Gorski, Christopher A. kus, Nan Gaylord et al. Bright futures guidelines for health supervision of Infants, children and Adolescents. Joseph F Hagan. AAP ebook, 4th edition. America. P194. [cited 29 December 2020]; Available from https://ebooks.aappublications.org/content/bright-futures-guidelines-forhealth-supervision-of-infants-children-and-adolescents-4th-ed
- 31. Jenny S. Radesky, Staci Eisenberg, Caroline J. Kistin, Jamie Gross, Gabrielle Block, Barry Zuckerman et al. Overstimulated Consumers or Next-Generation Learners? Parent Tensions About Child Mobile Technology Use. Annals of Family Medicine. 2016 (vol 14, no.6) page: 503-508; [cited 29 December 2020] Available from: https://www.semanticscholar.org/paper/Overstimulated-Consumers-or-Next-Generation-Parent-Radesky-Eisenberg/ 91a76b 15866c808847/0c43e1152d4332e5d06ecf
- Wright J, Huston A, Murphy K, St. Peters M, PiA+-on M, Scantlin R et al. The Relations of Early Television Viewing to School Readiness and Vocabulary of Children from Low-Income Families: The Early Window Project. Child Development [Internet]. 2001 [cited 16 December 2020];72(5):1347. Available from: https://pubmed.ncbi.nlm.nih.gov/11700636/
- Piaget J, Cook M. The origin of intelligence in the child. 3rd ed. New York, NY: Routledge; 2011. [cited 16 December 2020] Available from https://www.pitt. edu/~strauss/origins_r.pdf
- 34. Vandewater EA, Bickham DS, Lee JH, Cummings HM, Wartella EA, Rideout VJ. When the television is always on: heavy television exposure and young children's development. Am Behav Sci. 2005; 48(5):562–577. [cited 15 December 2020] Available from https://www.scholars.northwestern.edu/en/ publications/when-the-television-is-always-on-heavy-television-exposureand-yo
- To grow up healthy, children need to sit less and play more [Internet]. Geneva. [update on 2019 April 24; cited 2021 Jan 22] Available from: https://www.who. int/news/item/24-04-2019-to-grow-up-healthy-children-need -to -sit-less-andplay-more
- 36. Shapiro J. The American Academy Of Pediatrics Just Changed Their Guidelines On Kids And Screen Time [Internet]. Forbes. 2021 [updated on 2015 September 10; cited 22 January 2021] Available from: https:// www. forbes. com/sites/jordanshapiro/2015/09/30/the-american-academy-ofpediatrics-just-changed-their-guidelines-on-kids-and-screen-time/ ?sh=28b45ac45c40
- Peter Nikken and Marjon schols. How and Why Parents Guide the Media Use of Young Children. Journal Child Fam Study. 2015; (24, no.11) page no: 3423-3435; [cited 22 January 2021] Available from https: //pubmed. ncbi. nlm. nih. gov/26472932/