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Effects of Electronic Device usage on Primary School Children in Al Ahsa, Saudi Arabia: A Cross-Sectional Study

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Abstract: ***This study aims to measure the prevalence of electronic device usage among primary school children and assess the effects of electronics use. A cross sectional study was conducted on 459 children in 5th and 6th grades from 10 primary schools in 2019. A self-administered validated questionnaire developed for the purpose of this study was distributed to the children to be filled by their parents or guardians. Of 500 distributed questionnaires, 459 (91.8%) forms were received; mothers 33.6% by fathers, and 6.1% by others answered 60.3%. Analysis of questionnaire responses revealed that 78.6% of children have their own electronic devices and 21.4% children use them for more than 3 hours a day during weekdays. This figure rises to 47.8% during weekends. The most common situation of using electronic devices was before sleep (41.4%), and the most prominent cause for parents allowing the use of electronic devices was entertainment (62.5%) followed by learning (50.1%)Bivariate analysis revealed that spending 1–3 hours on electronic devices daily was significantly associated with laziness, sleep disorders, and fewer sleep hours. Primary school children spend long hours using different electronic devices. Increased time using electronic devices is associated with laziness, sleep disturbances, and fewer sleep hours.***

Keywords: electronic devices, primary school children, Saudi Arabia

1. Introduction

A common form of sedentary behavior in young people is screen time, which refers to time spent watching television or movies, playing video games, and using computers (1). The current American Academy of Pediatrics (AAP) guidelines recommend that children under two years of age should not spend any time using electronic media, while children over two years of age should be restricted to less than 2 hours per day (2).

In 2012, a report by the United Nations Conference on Trade and Development (UNCTAD) showed that Saudi Arabia has the largest number of mobile phone users worldwide. The report revealed that there are 180 mobile phones for every 100 residents in Saudi, and the usage of mobile phones is increasing among teenagers and young children (3). Data from a United States study showed that about 30% of preschool-aged children and between 50% and 90% of school-aged children and adolescents do not get as much sleep as they may need. The pervasive use of screen-based media is a likely contributor to widespread sleep insufficiency. Screen-based media devices are present in the bedrooms of 75% of children, and 60% of adolescents report viewing or interacting with screens in the hour before bedtime (4). A recent systematic review revealed that the majority of studies find an adverse association between screen-based media consumption and sleep health, primarily via delayed bedtimes and reduced total sleep duration (4).

Furthermore, screen time habits formed at an early age may track overtime and predict negative health outcomes later in life. Thus, fostering appropriate screen time habits in pre-school aged children may have important implications for health and wellness throughout life (1).

Family practitioners attend to almost all preschool children, and their guidance about media time is an important tool for increasing awareness in families about the harmful effects of long screen time on their children. TV watching habits are largely attained during preschool years, which is why these early years should be the target of any intervention to control media time. Therefore, family practitioners and pediatricians play a major role in developing strategies for reducing screen time of children (5). The present study aimed to measure the prevalence of electronic device usage and assess its effects among children in primary schools.

2. Methods

A cross-sectional study was conducted in National Guard Housing Al-Ahsa, Saudi Arabia. Data collection occurred between March and April 2019. Sample included 5th and 6th grade primary school students aged 8-12 years. Aqualitative outcome sample size equation was used to calculate the appropriate sample size for this study, assuming a 95% confidence interval, 50.0% estimated proportion, and 5% accepted error margin with an additional 10% to overcome missing information. Multistage random sampling technique was used- first stratified random sampling based on gender and educational level was done followed by systematic

random sampling from the students list in every primary school. Structured self-administered questionnaires with consent forms were distributed to the students, to be answered by their parents, through the schools' health coordinators. It was prepared based on relevant previous studies (6,7,8,9). The questionnaire included demographic characteristics, general questions about the child and electronic devices, child's experience of symptoms such as headache, dizziness/fatigue, sleeping problems, aggressive behavior, difficulties in studying and doing homework, hyperactivity, night urination, decreased vision quality and body weightgain. Statistical Package for Social Sciences (SPSS) software version 21 was used for data entry and analysis. Descriptive statistics of categorical and continuous variables were obtained. Inferential statistics was computed using the chi-square test based on the child's electronic device usage. P values ≤ 0.05 were considered statistically significant. The proposal of this study was approved by the Family Medicine Research Committee, Eastern Province - Saudi Commission for Health Specialties. Confidentiality of collected information was maintained throughout the study and the data was used for purposes of this study only.

3. Results

Out of 500 distributed questionnaires, 459 (91.8%) forms were received that were answered by mothers (60.3%), fathers (33.6%), or others (6.1%). The sample consisted of 172 (62.5%) male and 287 (37.5%) female students with an average age of 11.4±0.82 years. In terms of educational performance, 325 students (72.5%) were classified as a high performing, and 123 students (27.5%) had low performance scores. The educational level of majority of the fathers was secondary school level (53%), while mothers seemed to have avail from all educational levels. Table 1 explains the general characteristics of the sample.

Table 2 includes parents' responses to questions related to the usage of electronic devices among their children. A total of 356 (78.6%) children had their own electronic devices at the time the survey was conducted, and the average age for starting electronic device use was 8.03±2.1 years. During weekdays, 41.6% children spend less than 1 hour using electronic devices, 36.9% spend 1 to 3 hours, and 21.4% spend more than 3 hours. During weekends, 17% of children spend less than 1 hour, 35.2% spend between 1 to 3 hours, and 47.8% of children spend more than 3 hours using electronic devices. As for watching TV, 47.2% of the children spend less than 1 hour a day, 36% spend 1 to 3 hours, and 16.8% spend more than 3 hours per day.

Table 3 illustrates the most frequently reported physical symptoms in the children. Weight gain was observed by in 13.1% of the children by their parents, followed by decreased vision (9.6%), and difficulties in studying and completing homework (6.3%). As for sleep times of children, 50% had 9 hours of sleep time and 35% had less than 9 hours.

Figure 1 depicts the reasons why parents allow their children to use electronic devices. These include entertainment (62.5%), learning (50.1%), to get things done (13.3%), to stay safe and out of trouble (20.7%), avoiding kids bothering them at home (23.7%), and to connect with other family members (18.5%). The most common everyday situations when electronic devices were used included before sleep (41.4%), in the car (23.1%), public places (23.7%) and during mealtime at home (19.4%) (see Figure 2).

A chi- square test was conducted to examine whether there was a relationship between common physical symptoms in children and the amount of time they spent on electronic devices. Laziness, sleep disorder, and sleep hours demonstrated a significant relationship with time spent on electronic devices (see Table 4). Spending more than 1 hour per day on electronic devices was associated with laziness (OR = 1.64, P = 0.03), sleep disorders (OR =2.22, P = 0.01) and reduced sleep hours (OR = 1.56, P = 0.048).

Table 1: General characteristics of primary school students (n = 459)

Item	Categories	No.	%
Gender	Male	172	62.5%
	Female	287	37.5%
Questionnaire Filled by (Missed 18)	Father	148	33.6%
	Mother	266	60.3%
	Other	27	6.1%
Educational level (Missed 31)	5th	237	55.4%
	6th	191	44.6%
Educational performance (Missed 11)	Excellent	325	72.5%
	Not excellent	123	27.5%
Father's Educational level (Missed 6)	Illiterate	8	1.8%
	Primary & intermediate	77	17.0%
	Secondary	240	53.0%
	University	128	28.3%
Mother's Educational level (Missed 7)	Illiterate	33	7.3%
	Primary & intermediate	137	30.3%
	Secondary	144	31.9%
	University	138	30.5%
Chronic diseases (Missed 8)	Yes	38	8.4%
	No	413	91.6%
*Age (Missed 11) Mean 11.4 SD 0.82			

Table 2: Usage of electronic devices among primary school students (n =. 459)

Item	Categories	No.	%
Does your child own an electronic device (Mobile, iPad, etc.)? (Missed 6)	Yes	356	78.6%
	No	97	21.4%
How much time does your child spend on electronic devices in working days (Hour/day)? (Missed 58)	<1H/d	167	41.6%
	1-3H/d	148	36.9%
	>3H/d	86	21.4%
How much time does your child spend on electronic devices in weekends (Hour/day)? (Missed 36)	<1H/d	72	17.0%
	1-3H/d	149	35.2%
	>3H/d	202	47.8%
How much time does your child spend watching television per day (Hour/day)? (Missed 12)	<1H/d	211	47.2%
	1-3H/d	161	36.0%
	>3H/d	75	16.8%
*Age of using I pad (Missed 65) Mean 8.03 SD 2.1			

Table 3: Prevalence of physical symptoms among primary school students (n= 459)

Symptoms	Usually		Sometimes		Never	
Headache (Missed 18)	16	3.6%	160	36.3%	265	60.1%
Dizziness (Missed 30)	5	1.2%	50	11.7%	374	87.2%
Laziness (Missed 26)	21	4.8%	113	26.1%	299	69.1%
Sleep disturbance (Missed 37)	7	1.7%	55	13.0%	360	85.3%
Hyper-activity (Missed 30)	22	5.1%	56	13.1%	351	81.8%
Aggressive behavior (Missed 31)	10	2.3%	63	14.7%	355	82.9%
Learning difficulties (Missed 27)	27	6.3%	89	20.6%	316	73.1%
Night urination (Missed 33)	0	0	15	3.5%	411	96.5%

Symptoms	Categories	No.	%
Vision loss (Missed 7)	Yes	69	15.3%
	No	383	84.7%
Eye glass (Missed 10)	Yes	43	9.6%
	No	406	90.4%
Increase in Body weight (Missed 31)	Yes	56	13.1%
	No	372	86.9%
Sleep hours (Missed 13)	<9H/d	160	35.9%
	9H/d	226	50.7%
	>9H/d	60	13.5%
BMI (313)	<18.5	73	50.0%
	18.5-24.9	53	36.3%
	25-29.9	16	11.0%
	≥30	4	2.7%

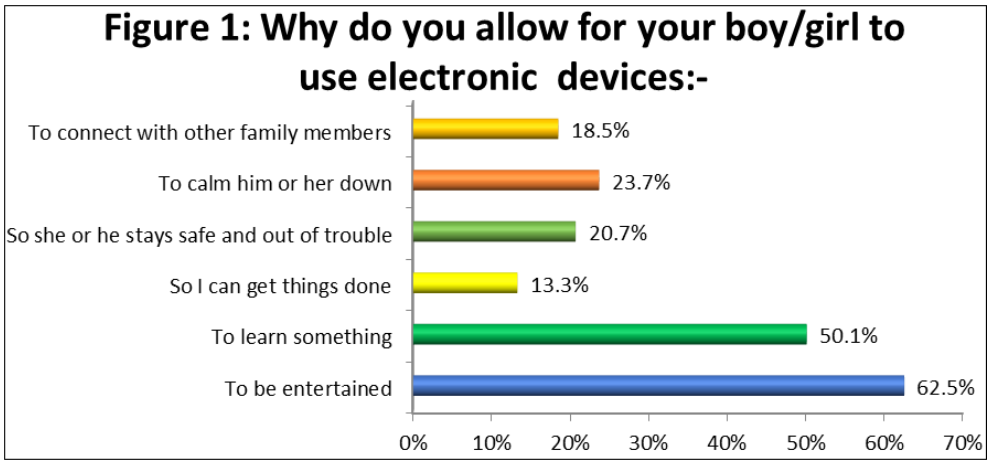

Figure 1: Reasons parents allow their children to use electronic devices

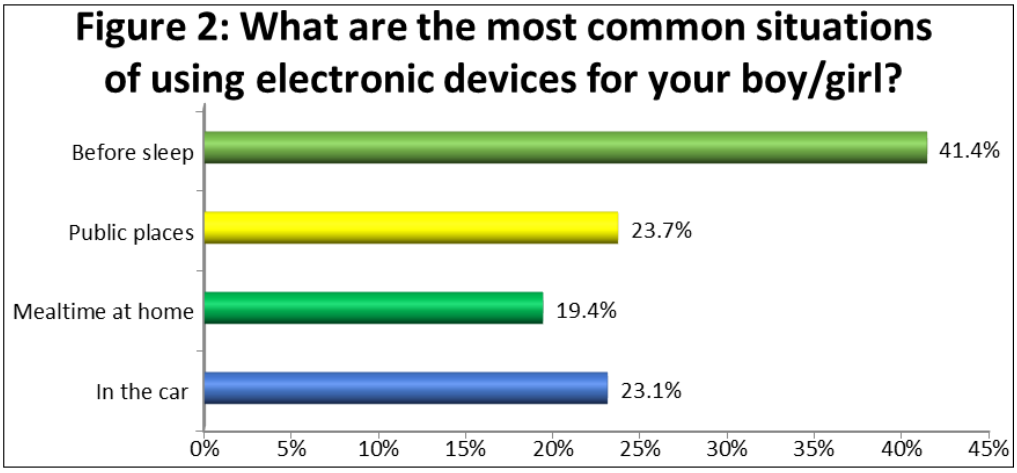

Figure 2: Common everyday situations when children use electronic devices

Table 4: Common symptoms among primary school children associated with time spent on electronic devices

Items	Categories	>1H/d(234)		<1H/d (167)		P	OR
		No.	%	No.	%		
Headache	Yes	97	59.9%	65	40.1%	0.6	1.12
	No	129	57.1%	97	42.9%		
Dizziness	Yes	32	64.0%	18	36.0%	0.4	1.29
	No	189	58.0%	137	42.0%		
Laziness	Yes	83	66.9%	41	33.1%	0.03*	1.64
	No	141	55.3%	114	44.7%		
Sleep disturbance	Yes	43	74.1%	15	25.9%	0.01*	2.22
	No	176	56.4%	136	43.6%		
Hyper-activity	Yes	50	66.7%	25	33.3%	0.12	1.52
	No	172	56.8%	131	43.2%		
Aggressive behavior	Yes	39	60.9%	25	39.1%	0.7	1.13
	No	180	58.1%	130	41.9%		
Learning difficulty	Yes	65	62.5%	39	37.5%	0.4	1.22
	No	158	57.7%	116	42.3%		
Night urination	Yes	9	69.2%	4	30.8%	0.4	1.60
	No	211	58.4%	150	41.6%		
Vision loss	Yes	32	51.6%	30	48.4%	0.3	0.74
	No	196	59.0%	136	41.0%		
Sleep hours	<9H/d	88	62.9%	52	37.1%	0.048*	1.56
	9H/d	103	52.0%	95	48.0%	0.068	1
	>9H/d	34	65.4%	18	34.6%	0.087	1.7

***Significant at the 0.05 level**

4. Discussion

In the current study it was found that 78.6% primary school children have their own electronic devices. This finding is similar to previous studies, which showed that 71% to 97% of children had access to electronic devices (10).

This study estimated that 21.4% children spent more than three hours per day using electronic devices during weekdays, and this percentage rose to 47.8% in weekends. Due to the harmful health effects of prolonged screen time, the Committee on Public Education of the American Academy of Pediatrics has suggested limiting children's screen time to a maximum of 2 hours/day (5), indicating the need for strategies to reduce electronics usage in Saudi Arabian children, especially during weekends. An American study reported that 90% of children had already begun watching television by age two, and a Canadian survey reported that 25% of children aged 2–5 watch >2 hours of television daily (1).

In the current study, we found an association between times spent on electronic devices and sleep patterns among primary school children. Children who spent more than one hour on electronic devices were 2.2 times more likely to have sleep disturbances and 56% more likely to sleep less than nine hours compared to children who spent less than one hour on electronic devices. A previous study showed that more screen time was associated with delayed bedtimes and shorter total sleep time among children and adolescents (4). In our study, 41.4% of the children use their electronic devices before sleep, and 35.9% of the student have sleep duration < 9 H.

Relationship between electronic device usage and medical symptoms among primary school children were examined in the current study.

While varying levels of fatigue, sleeping problems, low moods and increased heart rate were observed in the children. However, the bivariate analysis did not demonstrate an association between time spent on electronic devices and the abovementioned symptoms. This finding was similar to that of previous studies that indicated no significant association between dizziness, sleeping problems, feeling low and electronic devices use (11). However, one study indicated that there was a significant association between mobile phone use (including years of use as well as daily duration of calls) and fatigue in children. A possible reason was that the fatigue-related to mobile phone use was more likely to be a psychological issue than physiological one as long-periods of mobile phone exposure may serve as a chronic stressor (11). These differences in conclusions might be due to the different evaluation methods used to determine electronic device exposure. In our study, 11% were overweight, and 2.7% were obese. A previous study conducted in Riyadh, Saudi Arabia, in 2012 found that approximately half of the females (50.2%) and males (49.8%) were obese (6).

In the current study, most of the parents allow for electronic device usage for entertainment (62.5%) and learning purposes (51%). This finding is consistent with a previous study conducted in London, Ontario, Canada, in 2005, which found that most of the children use electronic devices to be entertained, to learn something and to connect with other family members, both occasionally and on a daily basis (12).
This study has a few limitations. First, the study used a self-administered survey which is liable to recall and social desirability bias. The estimated electronics usage time by parents may not be reliable. Second, the weight of students was assessed by asking the parent about obesity rather than measuring the accurate weight. Third, despite the training of all coordinators during data collection, we noticed some variations. Fourth, it is a cross-sectional study which is a descriptive study design and liable to selection and information bias.

5. Conclusion and Recommendations

Primary school children spend long hours on different electronic devices. Increased time duration on electronic devices is associated with laziness, sleep disturbances, and fewer sleep hours. Further research is required to examine whether the type of activity the electronic devices were used for has any effect on the physiological symptoms experienced, to explore strategies to use electronic devices judiciously, and to understand how the digital revolution is altering sleep and circadian rhythms.

References

[1] Carson V, Janssen I. Associations between factors within the home setting and screen time among children aged 0-5years: A cross-sectional study. BMC Public Health.2012;12(1):1. doi:10.1186/1471-2458-12-5392.

[2] Domingues-Montanari S. Clinical and psychological effects of excessive screen time on children.J Paediatr Child Health. 2017. doi:10.1111/jpc.134623.
[3] Saudi has the world's largest number of mobile phone users: U.N. report. [cited 2017 Nov19]; Avalibe from: https://english.alarabiya.net/articles/2012/03/11/200000.html
[4] LeBourgeois MK, Hale L, Chang A-M, Akacem LD, Montgomery-Downs HE, Buxton OM. Digital Media and Sleep in Childhood and Adolescence. Pediatrics. 2017. doi:10.1542/peds.2016-1758J5.
[5] Yilmaz G, Caylan ND, Karacan CD. An intervention to preschool children for reducing screen time: A randomized controlled trial. Child Care Health Dev. 2015.doi:10.1111/cch.121336.
[6] Al-Ghamdi S. The association between watching television and obesity in children of school-age in Saudi Arabia. J Fam Community Med. 2013. doi:10.4103/2230-8229.1147677.
[7] Huss A, Van Eijsden M, Guxens M, Beekhuizen J, Van Strien R, Kromhout H, et al. Environmental radiofrequency electromagnetic fields exposure at home, mobile and cordless phone use, and sleep problems in 7-year-old children. PLoS One. 2015;10(10):1–14.8.
[8] Verlinden M, Tiemeier H, Veenstra R, et al. Television viewing through ages 2-5 years and bullying involvement in early elementary school. BMC Public Health. 2014. doi:10.1186/1471-2458-14-157.9.
[9] Zheng F, Gao P, He M, et al. Association between mobile phone use and self-reported well-being in children: A questionnaire-based cross-sectional study in Chongqing, China. BMJ Open. 2015. doi:10.1136/bmjopen-2014-00730210.
[10] Van Zutphen M, Bell AC, Kremer PJ, Swinburn BA.Association between the family environment and television viewing in Australian children.J Paediatr Child Health. 2007. doi:10.1111/j.1440-1754.2007.01111.x11.
[11] Kabali HK, Irigoyen MM, Nunez-Davis R, et al. Exposure and Use of Mobile Media Devices by Young Children. Pediatrics. 2015. doi:10.1542/peds.2015-215112.
[12] Robinson TN, Wilde ML, Navracruz LC, Haydel KF, Varady A. Effects of reducing children's television and video game use on aggressive behavior: A randomized controlled trial. Arch PediatrAdolesc Med. 2001. doi:10.1001/archpedi.155.1.1713.
[13] LeBourgeois MK, Hale L, Chang A-M, Akacem LD, Montgomery-Downs HE, Buxton OM. Digital Media and Sleep in Childhood and Adolescence. Pediatrics. 2017. doi:10.1542/peds.2016-1758J14.
[14] McCloskey M, Johnson SL, Benz C, et al. Parent Perceptions of Mobile Device Use Among Preschool-Aged Children in Rural Head Start Centers. J NutrEducBehav. 2018. doi:10.1016/j.jneb.2017.03.00615.
[15] He M, Piché L, Beynon C, Harris S. Screen-related Sedentary Behaviors: Children's and Parents' Attitudes, Motivations, and Practices. J NutrEducBehav. 2010. doi:10.1016/j.jneb.2008.11.011.

Appendix 1: Literature review

A case-controlled study was conducted on students between the ages of 9 and 14 years who attended the school health clinic in King Abdulaziz Housing for National Guard (Iskan), Riyadh, in 2013. The investigation revealed that TV watching represents an important risk factor for obesity in children of school-age. It confirmed that a substantial percentage of children of school-age view TV for more than three hours on week days and at weekends. Increase in a child's age, the presence of more than one TV at home, having their own TV, and an increase in the number of hours of watching TV over the weekend were significantly associated with an increased risk of childhood obesity. Personal computers and the Internet were not significantly associated with an increased risk of childhood obesity. (6)A prospective cohort study was conducted in Amsterdam 2015 and reported that Higher use mobile phones was associated with less favourable sleep duration, night wakening, parasomnias and bedtime resistance. (7)A large population-based cohort of children in Rotterdam, Netherlands showed that a child's risk of bullying involvement in early elementary school that is associated with preschool television exposure is largely explained by confounding factors primarily maternal socio-demographic characteristics. The results suggested that social disadvantage, as indicated by the socioeconomic factors such as low income and lower educational level, may pose the actual risk for high television viewing at preschool age and for bullying involvement in early elementary school. (8)In addition, a questionnaire-based cross sectional study in Chongqing, China 2015 shown that that there was a consistent significant association between Mobile Phone use and fatigue in children. (9)A cross-sectional study in the Barwon South-western region of Victoria, Australia published 2007 concluded that overweight or obese children had more TV time than healthy weight children. They were also more likely to live in a household where children had a TV in their bedroom than healthy weight children (10).A cross-sectional study with a convenience sample of parents of children 6 months to 4 years of age who made a well or sick visit between October and November 2014 to a pediatric practice at an academic medical centre in Philadelphia, Pennsylvania showed that young children in an urban, low-income, minority community had almost universal exposure to mobile devices, and most had their own device by age 4. The patterns of use suggested early adoption, frequent independent use and media multitasking. It concluded that studies are urgently needed to update recommendations for families and providers on the use of mobile media by young children. (11)A randomized, controlled, school-based trial conducted in Palo Alto, California, USA, 2001 showed an intervention to reduce television, videotape and video game use decreases aggressive behaviour in elementary schoolchildren. These findings support the causal influences of these media on aggression and the potential benefits of reducing children's media use. (12)

Appendix 2: English

Questionnaire

Study title:The Prevalence of Effects of electronic device usage on primary schoolchildren in Al Ahsa, Saudi Arabia: A cross-sectional study

Section 1 : Demographic characteristics.	
■ Questionnaire was filled by :☐ Father ☐Mother ☐Other (Specify:.....)	
■ Age of student :……..years	■ Date: …../…../…….
■ Gender of student: ☐Boy ☐Girl	■ Educational level:……..
■ School grade: ☐Excellent ☐Very good ☐Good ☐Accepted ☐Weak	
■ Educational level of Father:	☐Illiterate ☐Primary/Intermediate ☐Secondary ☐University
■ Educational level of Mather:	☐Illiterate ☐Primary/Intermediate ☐Secondary ☐University
■ History of chronic diseases of the child:……	

Section 2 : General knowledge of Primary students about electronic device usage.	
1	Do your boy/girl own an electronic device (Mobile, Ipad, etc) ? Answer: ☐Yes ☐No ☐I don't know
2	How many years have you used an electronic device? Answer: ……..Years
3	How much time do you spend on electronic device per day (Hour/day)? Answer: ☐< 1 Hour daily ☐2-3 Hours daily ☐> 3 Hours daily
4	How much time do your boy/girl spend on television watchingper day (Hour/day)? Answer: ☐< 1 Hour daily ☐2-3 Hours daily ☐> 3 Hours daily

Section 3 :	**Have your boy/girl experience any of the following symptoms:-**	**Usually**	**Sometimes**	**Never**
3.1	Headache	✔	✔	✔
3.2	Dizziness	✔	✔	✔
3.3	Fatigue	✔	✔	✔
3.4	Sleeping problems	✔	✔	✔
3.5	Feeling low	✔	✔	✔
3.6	Heart beating fast	✔	✔	✔
3.7	Aggressive behavior	✔	✔	✔
3.8	Academic stress	✔	✔	✔
3.9	Loss of vision (Wearing glass? ☐Yes ☐No)	✔	✔	✔
3.10	Night urination	✔	✔	✔
3.11	Increasing body weight (High: ……m , Weight: ……Kg)	✔	✔	✔

Section 4 **:**	**Why do you allow for your boy/girl to use electronic devices:-**	**Agree**	**Dis agree**	**Not sure**
4.1	To be entertained	✔	✔	✔
4.2	To learn something	✔	✔	✔
4.3	To calm him or her down	✔	✔	✔
4.4	So I can get things done	✔	✔	✔
4.5	So she or he stays safe and out of trouble	✔	✔	✔
4.6	To connect with other family members	✔	✔	✔

Section 5 **:**	**What are the most common situations of using electronic devices for your boy/girl?**	**Usually**	**Sometimes**	**Never**
5.1	While he/she is in the car	✔	✔	✔
5.2	During mealtime at home	✔	✔	✔
5.3	While he/she is at a restaurant or public places	✔	✔	✔
5.4	Doing chores or fixing meals at home	✔	✔	✔

Appendix 3: Arabic questionnaire

استبيان

عنوان الدراسة: مدى تأثير استخدام الأجهزة الالكترونية على طلاب المدارس الابتدائية في الأحساء.

أنت مدعو للمشاركة في هذه الدارسة العلمية التي يشرف عليها قسم طب الأسرة بمستشفى الملك عبدالعزيز ، وتمت الموافقة عليها من قبل الهيئة السعودية للتخصصات الصحية. ☐ أوافق على المشاركة ☐ غير موافق على المشاركة

القسم 1: الخصائص الديموغرافية (السكانية):

1.1 تم ملء الاستبيان من قبل: ☐ الأم ☐ الأب ☐ أخرى (حدد .....)

1.2 عمر الطالب/ـة: ..... سنة 1.3 تاريخ الميلاد: ...../...../.....

1.4 جنس الطالب/ـة: ☐ ولد ☐ بنت 1.5 المستوى التعليمي: ☐ خامس ☐ سادس

1.6 المستوى الدراسي: ☐ ممتاز ☐ جيد جدا ☐ جيد ☐ مقبول ☐ ضعيف

1.7 المستوى التعليمي للأب: ☐ غير ملم بالقراءه والكتابة ☐ ابتدائي/متوسط ☐ ثانوي ☐ جامعي

1.8 المستوى التعليمي للأم: ☐ غير ملمة بالقراءه والكتابة ☐ ابتدائي/متوسط ☐ ثانوي ☐ جامعي

1.9 هل الطالب/ـة مصاب بأي مرض مزمن؟ ☐ لا ☐ نعم (اذكرها:.....)

القسم 2: مستوى الوعي لدى طلاب المرحلة الابتدائية حول استخدام الأجهزة الإلكترونية:

2.1 هل يملك الطالب/ـة جهازاً الكترونياً (جوال، آي باد، إلخ..) ؟ ☐ نعم ☐ لا ☐ لا أعرف

2.2 كم كان عمر الطالب/ـة عندما بدأ باستخدام الأجهزه الالكترونية؟ العمر: ..... سنة

2.3 كم مده الوقت الذي يقضيه الطالب/ـة على الأجهزه الالكترونية في أيام الدراسة "الأحد إلى الخميس"(ساعة/يوم) ؟
☐ أقل من ساعة يومياً ☐ 2-3 ساعات يومياً ☐ أكثر من 3 ساعات يومياً

2.4 كم مده الوقت الذي يقضيه الطالب/ـة على الأجهزه الالكترونية في أيام عطلة الأسبوع (ساعة/يوم) ؟
☐ أقل من ساعة يومياً ☐ 2-3 ساعات يومياً ☐ أكثر من 3 ساعات يوميا

2.5 كم من الوقت يقضيه الطالب/ـة في مشاهده التلفاز في اليوم (ساعة/يوم) ؟
☐ أقل من ساعة يومياً ☐ 2-3 ساعات يومياً ☐ أكثر من 3 ساعات يوميا

القسم 3: هل يشتكي الطالب/ـة من الأعراض التالية :	عادة	أحيانا	لا أبدا
3.1 صداع			
3.2 دوخة و إعياء			
3.3 كسل وخمول			
3.4 اضطرابات النوم عدد ساعات النوم عاده؟			
3.5 فرط الحركة			
3.6 السلوك العدواني			
3.7 صعوبة الالتزام بالمذاكره وحل واجبات المدرسة			
3.8 التبول الليلي			
3.9 ضعف النظر ☐ نعم ☐ لا (يلبس نظارات؟ ☐ نعم ☐ لا)			
3.10 زياده الوزن ☐ نعم ☐ لا (الوزن:.....كجم ، الطول:..... م)			
3.11 كم عدد ساعات نوم الطالب/ـة عاده في اليوم؟ ☐ 9 ساعات ☐ أقل من 9 ساعات ☐ أكثر من 9 ساعات			

القسم 4: في رايك، ما هي ابرز الأسباب التي تجعل الوالدين يسمحون لأبنائهم باستخدام الأجهزة الالكترونية لأوقات طويلة؟ (يمكنك اختيار أكثر من إجابة)

4.1 من أجل التسلية 4.2 لتعلم شيء ما
4.3 للتفرغ في إنجاز المهام الأخرى 4.4 لضمان بقاء الأبناء في بيئة آمنة
4.5 لتجنب إزعاج الأبناء في المنزل 4.6 للتواصل مع أفراد الأسره الآخرين من خلال الأجهزه الالكترونية

القسم 5: في أي الأماكن و الأوقات يستخدم الطالب/ـة الأجهزة الالكترونية ؟

5.1 في السياره 5.2 خلال وقت الطعام في المنزل 5.3 في الأماكن العامة 5.4 قبل النوم

شكرا لمشاركتكم