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RESEARCH

The relationship between parental attitudes, media exposure, and sleep habits in preschool children

Okul öncesi çocuklarda ebeveyn tutumları, medya maruziyeti ve uyku alışkanlıkları arasındaki ilişki

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Abstract

Purpose: The brain develops rapidly in early life, so sleep, media exposure and parental relationships are important topics for researchers during this period. The aim of this study was to examine the media exposure of children aged 3-6 years, in addition to their sleep habits and parental attitudes.

Materials and Methods: Participants in this descriptive study, based on the relational screening model, were 70 boys (64.2%) and 39 girls (35.8%) aged between 3 and 6 years, and their parents, who had been seen at the child psychiatry outpatient clinic. The study used the following data collection instruments: Personal Information Form, Child Sleeping Habits Questionnaire and Parental Attitudes Scale, Internet Parenting Styles Scale.

Results: This study, it was reported that 44% of children used tablets and 67% used mobile phones. Children who slept 6-9 hours had higher mean scores for sleep habits and sleep problems than those who slept 10 hours or more. The mean sleep habits scores of children who watched more than two hours of television per day were significantly higher than those of children who watched between one and two hours per day. Children who watched two or more hours of TV per day had lower mean parental control scores than other children. Children whose weekly use of digital devices was up to 8 hours had higher mean scores for both parental control and parental warmth than children whose weekly use was more than 8 hours

Conclusion: A significant number of children were exposed to the media and an association was found between family attitudes, media use and children's sleep habits.

Keywords:. Media exposure, sleep, parental attitudes, sleep habits, preschool, child.

Öz

Amaç: Beyin yaşamın erken dönemlerinde hızla gelişir, bu nedenle uyku, medyaya maruz kalma ve ebeveyn ilişkileri bu dönemde araştırmacılar için önemli konular olmuştur. Bu çalışmada, 3-6 yaş arasındaki çocukların medyaya maruz kalma, uyku alışkanlıkları ve anne-baba tutumları arasındaki ilişkilinin incelenmesi amaçlanmıştır.

Gereç ve Yöntem: İlişkisel tarama modelinde betimsel olarak tasarlanan araştırmanın katılımcıları, çocuk psikiyatrisi polikliniğinde görülen 3-6 yaş arası 70 erkek (%64,2) ve 39 kız (%35,8) çocuk ve ebeveynleridir. Araştırmada veri toplama araçları olarak, "Kişisel Bilgi Formu", "Çocuk Uyku Alışkanlıkları Anketi" ve "Anne–Baba Çocuk Yetiştirme Tutum Ölçeği" kullanılmıştır.

Bulgular: Bu çalışmada çocukların %44'ünün tablet, %67'sinin cep telefonu kullandığı bildirilmiştir. 6-9 saat uyuyan çocukların uyku alışkanlıkları ve uyku sorunları puan ortalamaları 10 saat ve üzeri uyuyanlara göre daha yüksek idi. Günde iki saatten fazla televizyon izleyen çocukların ortalama uyku alışkanlıkları puanları, günde bir ile iki saat arasında televizyon izleyen çocuklarınkinden anlamlı derecede daha yüksek. Günde iki saat veya daha fazla televizyon izleyen çocukların ebeveyn kontrol ortalama puanları diğer çocuklardan daha düşüktü. Haftalık dijital cihaz kullanımı 8 saate kadar olan çocukların hem ebeveyn kontrolü hem de ebeveyn sıcaklığı puan ortalamaları, haftalık dijital cihaz kullanımı 8 saatten fazla olan çocuklara kıyasla daha yüksekti.

Sonuç: Çocukların önemli bir kısmının medyaya maruz kaldığı ve aile tutumları, çocukların medya kullanımı ve uyku alışkanlıkları arasında ilişki bulunmuştur.

Anahtar kelimeler: Medya maruziyeti, uyku, ebeveyn tutumları, uyku alışkanlıkları, okul öncesi, çocuk.

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INTRODUCTION

The widespread use of digital media has made media tools such as computers, tablets, smartphones, and television (TV) very important and has greatly changed the way parents use and allow their children to use media[1]. Furthermore, the emergence of novel coronavirus disease 2019 (COVID-19) has profoundly impacted children's lifestyles, resulting in a global decline in their psychological well-being[2]. Current data highlight the increased screen time of children during the lockdown period of the initial COVID-19 outbreak in many countries[1-5]. Rapid changes in digital media have prompted concerns among parents regarding its potential influence on their children[3,5,6]. The use of screen media by children can yield both beneficial and harmful consequences for their developmental trajectory[7,8]. Numerous publications from the last decade have investigated the adverse effects of extended screen exposure on children's development[3,9,-11]. Evidence indicates that excessive screen time in early childhood has adverse effects on children's physical and mental health[11]. A systematic review revealed a negative correlation between screen time and behavioural outcomes[2]. A meta-analysis and review showed that excessive screen time increases the risk of obesity and shortens sleep in toddlers and preschoolers and increases depression, anxiety, and aggressive behaviour in children[8,11].

The association between sleep disturbances and internet addiction in the paediatric population has become a main concern of parents[12]. Mounting evidence indicates that media use is associated with children's sleep habits[8,11,13,14]. Furthermore, digital media has increasingly been integrated into children's bedtime rituals and the process of falling asleep[15].

Factors such as children's family environment and their sleep patterns, relationships with their primary caregivers, and the social environment at home affect children's media use and sleep patterns[6]. For example, greater use of TV/DVDs has been associated with parenting practices that aim to engage with or calm children[3]. The relationships established with the family during the early years of childhood, a crucial period of development, are of paramount importance. During this period, experiences are evaluated in a one-way manner. Despite the pervasive issues associated with media use, the literature reveals a paucity of available data on the impact of mobile device usage on parent–child relationships and outcomes[17,18]. Parent's attitudes, which may be characterized as oppressive, authoritarian, democratic, relaxed, overprotective or negligent, have a profound effect on children's lives[18].

Further investigation is needed to determine the potential consequences of electronic media for children's sleep. However, the long-term neurodevelopmental effects of media exposure can be anticipated. An examination of the longitudinal associations between sleep difficulties and internet addiction may contribute to the development of prevention and treatment strategies[12]. In Turkey, the relationship between media habits and sleep has been studied more frequently in adolescents and adults, but research on the media habits of preschool children, especially with regard to parents' attitudes, is limited. This study aimed to investigate the relationship between sleep habits and media exposure in children between the ages of 3 and 6 years. Additionally, the relationships between parental attitudes and children's sleep habits and media exposure were investigated. An association was assumed between the duration of children's exposure to media and their media consumption and the reported prevalence of sleep problems in children. We hypothesize that more media use will correlate with poorer sleep outcomes and less optimal (e.g., authoritarian and tolerant) parental attitudes.

MATERIALS AND METHODS

Sample

The present study adopts a descriptive, cross-sectional approach within the relational scanning model, using an easily accessible sampling method[19,20]. Thus, this study aims to establish the current status without any manipulation. Participants were selected from the patients who applied to the Child and Adolescent Psychiatry Clinic of the Çukurova University Faculty of Medicine between 01.05.2021 and 30.08.2021, and a total of 109 participants aged 3-6 years were selected from a cohort of 341 children aged 0-6 years.

The study included children aged 3-6 years who voluntarily applied to our outpatient clinic between May 2021 and August 2021. Type I error was 0.05, sample size was 109, effect size was 0.27 and power was 0.88 for the relationship between sleep habits and authoritarian attitudes. For the relationship between

parental control and democratic attitudes: type I error 0.05, sample size 109, effect size 0.49, power 0.99.For the relationship between parental warmth and democratic attitudes, the type I error was 0.05, the sample size was 109, the effect size was 0.59 and the power obtained was 0.99.

Participants in the study were children aged 3-6 years who were referred to the child and adolescent psychiatry clinic. Individuals diagnosed with autism spectrum disorder, mental retardation, bipolar disorder, psychotic disorders according to DSM-5 criteria, or severe neurological disorders were excluded.

Medical history, anamnesis and mental health diagnosis according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) were conducted by child and adolescent psychiatrists and residents. Written informed consent was obtained after parents were given clear and detailed information about the study. The personal information form, the child sleep survey and the parent-child parenting attitudes scale were then given to the participants in person by the researchers. 232 patients were excluded due to a diagnosis of autism spectrum disorder, mental retardation, severe neurological disease, being outside the age range of 3 to 6 years, or missing data.

Procedure

Ethical approval was obtained at the Ethics Committee of Cağ University Ethics Committee (date:21.04.2021 and number: E-2386-7972-0442100003691) and Çukurova University Faculty of Medicine, Balcalı Hospital Chief Physician's Office (date:17.06.2021 and number: E-18649120-774.02.01-118130). The study was conducted in line with the principles of the "Helsinki Declaration".

Measures

Demographic data

The researchers developed a personal information form within the context of the participants' socio-demographic variables. The form included questions on gender, age, parental education, school attendance and sleep duration, as well as media exposure (e.g. time spent per day on tablets, phones and telly).

The Children's Sleep Habits Questionnaire (CSHQ)

The abbreviated version of the scale developed by Owens et al. (2000) for examining children's sleep patterns and associated issues comprises a total of 33 items. The scale, which underwent translation into Turkish by Fiş et al. (2010), was found to possess a coefficient of internal consistency of .78, while the test-retest correlation coefficient was determined to be .81[21,22]. When applying the measurement tool, parents are asked to score their child's sleep habits retrospectively in the previous week, and the total test score is obtained by adding up the scores obtained from the items one by one. The items on the scale are evaluated using a 3-point Likert scale. The value of 3 indicates that the specified behavior occurs 5-7 times a week; the value of 2-4 times a week indicates 'sometimes', and the value of 1 indicates that the behavior occurs 0-1 times a week, which is classified as 'rarely'. The items that have been reverse-coded are items 1, 2, 3, 10, 11 and 26. A total score of 41 points is deemed to be the cut-off point on the scale, and values above this score are considered clinically significant. And, the higher the score, the more sleep problems. In the present study, the Cronbach alpha internal consistency coefficient was calculated as 0.85 for the administered questionnaire.

Parent Attitudes Scale (PAS)-A

The scale developed by Özyürek (2017) is designed to ascertain parents' attitudes towards child-rearing in the context of preschool children[23]. The scale is completed by the parents and comprises three sub-dimensions. Three sub-dimensions are identified, namely democratic attitude (comprising 15 items), repressive and authoritarian attitude (comprising 12 items), and overly tolerant attitude (comprising 11 items). The responses to the items on the five-point Likert scale are enumerated as follows: The scale ranges from 1 (strongly disagree) to 5 (strongly agree). The scale is evaluated by determining the highest score within each sub-dimension, which indicates the dominant attitude. The subscales are used on an individual basis, with no cut-off points for scoring. The Cronbach's alpha reliability coefficients for the scale were found to be 0.84 for the democratic attitude sub-dimension, 0.80 for the repressive and authoritarian attitude sub-dimension and 0.72 for the tolerant attitude sub-dimension.

Internet Parenting Styles Scale (IPS)

Developed by van Rooij and van den Eijnden (2007), the scale comprises 25 items on a 5-point Likert scale and has been modified for Turkish and English use[24-26]. The scale has two factors: parental control (11 items) and parental warmth (14 items). The Cronbach's alpha was 0.86 for parental control and 0.92 for warmth. Low parental control and warmth may indicate a negligent internet use attitude. Conversely, a high level of control and low warmth may indicate an authoritarian attitude. A permissive attitude is indicated by low control and warmth, while a democratic attitude is indicated by high control and warmth.

Statistical analysis

Before moving on to the analyzes to test the hypotheses of the research, skewness and kurtosis values and the Kolmogorov Smirnov normality test were used to examine whether the variables used in the research met the normality assumptions. Table 1 shown the distribution of scores from the scales and the reliability assessment results using Cronbach's Alpha coefficient. In consideration of the findings, parametric statistical analyzes were used for variables that met normality assumptions, and non-parametric statistical analyzes were used for variables that did not.

The Mann-Whitney U test, the non-parametric equivalent of the t-test for unequal variances, was employed because the distributions of the tolerant attitude and sleeping habits scores did not comply with a normal distribution. The objective was to examine whether these two variables differed in terms of gender, age, tablet and phone usage status, and sleep duration.

On the other hand, while one-way analysis of variance was used in the study to examine whether parental attitudes and sleep habits differ in terms of television use, the only way to examine whether these two variables differ in terms of television use was due to the fact that the distributions of the tolerant attitude and sleep habits scores, which are among the sub-dimensions of the parental attitudes scale, do not comply with the normal distribution. The Kruskal-Wallis test, which represents a non-parametric alternative to the directional analysis of variance, was employed in 26 cases. Finally, in examining the relationships between parental attitudes and sleep habits, Spearman Rank Difference Correlation Coefficient was used because some variables did not comply with normal distribution. The obtained data were analyzed with SPSS Version 21.00 Windows package program. In the study, the upper limit of error was accepted as 0.001 and 0.05.

RESULTS

The study included a total of 109 participants, 70 boys (64.2%) and 39 girls (35.8%), 43 of whom were aged 3-4 years and 66 of whom were aged 5-6 years. Examination of the socio-demographic variables revealed that the mean scores of children's parental attitudes did not differ significantly by gender for democratic ($t= 0.351$, $p> 0.05$), authoritarian ($t= 1.087$, $p> 0.05$) and tolerant attitudes ($U= 1293.50$, $p> 0.05$), and for sleep habits ($U= 1355.50$, $p> 0.05$). The mean ranks of sleep habits of children who slept 6-9 hours were significantly higher than those of children who slept for 10 hours or more ($U= 927.50$, $p< 0.01$). However, there was no significant difference in the mean scores for democratic ($t= -1.524$, $p> 0.05$), authoritarian ($t= .839$, $p >0.05$) and tolerant ($U=1254$, $p >0.05$) parental attitudes according to children's sleep duration. The sleep habits score of 86 (79.9%) of the children fell within the range classified as problematic (41 points and above) according to the relevant criteria. For a full analysis, see Table 2.

Children who used tablets had higher mean scores for parental control ($t= -2.078$, $p= 0.04$) and parental warmth ($t= -2.090$, $p= 0.04$) than those who didn't use tablets (Table 3). The children who did not use mobile phones had higher scores for parental control ($t= 2.098$, $p< 0.05$), warmth ($t= 2.602$, $p< 0.05$), and democratic attitudes ($p< 0.06$), but exhibited lower mean scores for sleep habits ($U= 1044$, $p> 0.05$) (see Table 4).

The results showed that children whose weekly use of digital devices was up to 8 hours had higher mean scores for both parental control ($t= 2.11$, $p= 0.004$) and parental warmth ($t=1.79$, $p= 0.08$) than children whose weekly use exceeded 8 hours (Table 5). In addition, 53.8% of girls and 44.2% of boys used tablets and mobile phones for more than 8 hours per week; 48.7% of girls and 48.5% of boys watched TV for less than 8 hours per week (see Table 5).

Table 1. The distribution of the scores from the scales employed in this study

		PAS		IPS		CSHQ
	Democratic	**Authoritarian**	**Tolerant**	**Parental control**	**Parental warmth**	**Sleeping Habits**
Frekans	109	109	109	109	109	109
Mean	64.20	40.72	28.40	41.53	53.44	47.03
Median	65	40	28	42	54	45
Mode	71.00	38.00	28.00	42.00	56.00	41.00
SD	7.30	5.87	5.67	7.18	9.49	9.62
Variance	53.26	34.45	32.17	51.57	90.05	92.60
Skewness	-0.36	0.40	0.95	-0.39	-0.41	1.42
The standard errors for skewness	0.23	0.23	0.23	0.23	0.23	0.23
Kurtosis	-0.83	0.45	2.35	0.47	-0.04	3.28
The standard errors for kurtosis	0.46	0.46	0.46	0.46	0.46	0.46
Range	27	29	33	33	43	56
Minimum	48	28	16	22	27	32
Maximum	75	57	49	55	70	88
Kolmogorov Smirnov	0.099	0.086	0.131	0.087	0.074	0.143
p	0.010	0.046	0.000	0.041	0.180	0.000
Cronbach α	0.861	0.662	0.616	0.833	0.904	0.854

SD: standard deviation, PAS: Parent Attitudes Scale, PCRAS: Parental Child Raising Attitude Scale, IPS: Internet Parenting Styles Scale, CSHQ: Children's Sleep Habits Questionnaire.

Table 2. Analysis of parental attitude, family internet attitude and sleeping habits scores according to sleep duration

	Sleep Time (Hours/day)					
Variable	6-9 hours (n=36, 33.1%)		10 hours ≤ (n=73, 66.9%)			
	Xavg	Mean ±Sd	Xavg	Mean ±Sd	t/U	P
PAS						
Democratic	61.5	62.6 ±7.5	66.0	64.9±7.1	-1.524	0.13*
Authoritarian	40.5	41.3±5.1	40.0	40.3±6.2	0.839	0.40*
Tolerant	28.0	28.1±6.3	28.0	28.5±5.3	1254.50	0.70**
IPS						
Parental control	40.0	40.4±8.6	42.0	42.0±6.3	-1,083	0.28*
Parental warmth	53.0	52.8±10.7	54.0	53.7±8.8	-0.467	0.64*
CSHQ						
Sleeping Habits	48.0	50.4±10.7	44.0	45.3±8.6	927,50	0.01**

*: T test, **: Mann Whitney U test, Sd: standard deviation, PAS: Parent Attitudes Scale, IPS: Internet Parenting Styles Scale, CSHQ: Children's Sleep Habits Questionnaire.

Table 3. Analysis of parental attitudes, family internet attitudes, sleeping habits scores according to tablet use

	Tablet Use					
Variable	**No (n=60, 55.1%)**		**Yes (n=49, 44.9%)**		**t/U**	**P**
	Xavg	Mean ±Sd	Xavg	Mean ±Sd		
PAS						
Democratic	63.5	63.3±7.7	66.0	65.2±6.6	-1.408	0.16*
Authoritarian	42.0	41.1±5.4	39.0	40.2±6.3	0.821	0.41*
Tolerant	27.0	27.8±5.9	28.0	29.0±5.2	1219.0	0.13**
IPS						
Parental control	41.0	40.3±8.0	42.0	43.0±5.7	-2.078	0.04*
Parental warmth	52.0	51.7±9.8	56.0	55.5±8.7	-2.090	0.04*
CSHQ						
Sleeping Habits	45.5	48.2±9.9	44.0	45.5±9.1	1213.5	0.12**

*: T test, **: Mann Whitney U test, n: number, Sd: standard deviation, PAS: Parent Attitudes Scale, IPS: Internet Parenting Styles Scale, CSHQ: Children's Sleep Habits Questionnaire.

Table 4. Analysis of parental attitudes, family internet attitudes, sleeping habits scores according to phone use

	Phone Use					
Variable	No (n=36, 33.1%)		Yes (n=73,66.9%)			
	Xavg	Mean ±Sd	Xavg	Mean ±Sd	t/U	P
PAS						
Democratic	68.0	66.1±7.3	63.0	63.2±7.1	1.943	0.06*
Authoritarian	39.5	40.8±7.3	40.0	40.6±5.0	0.130	0.90*
Tolerant	28.0	29.2±6.0	28.0	27.9±5.4	1156.5	0.31**
IPS						
Parental control	42.5	43.5±6.7	41.0	40.5±7.2	2.098	0.04*
Parental warmth	56.0	56.7± 9.3	52.0	51.8±9.2	2.602	0.01*
CSHQ						
Sleeping Habits	42.5	46.3±12.5	73.0	47.3±7.8	1044.0	0.08**

*: T test, **: Mann Whitney U test, Sd: standard deviation, PAS: Parent Attitudes Scale, IPS: Internet Parenting Styles Scale, CSHQ: Children's Sleep Habits Questionnaire.

Table 5. The distribution and analysis of parental attitudes, family internet attitudes and sleeping habits scores according to weekly phone and tablet use.

	Tablet and Phone Use Time (Weekly)					
	8 hours ≤ (n=57, 52.3%)		8 hours > (n=52, 47.7%)			
	Xavg	Mean ± Sd	Xavg	Mean ± Sd	t/U	p
PAS						
Democratic	66.0	65.0±7.3	62.0	63.2±7.2	1.30	0.19*
Authoritarian	40.0	40.8±6.4	40.0	40.5±5.2	0.33	0.74*
Tolerant	28.0		27.5		1206.5	0.09**
IPS						
Parental control	43.0	42.8±6.3	40.5	40.0±7.8	2.11	0.04*
Parental warmth	56.0	54.9±8.6	52.0	51.7±10.1	1.79	0.08*
CSHQ						
Sleeping Habits	43.0		46.0		1215.0	0.10**

*: T test, **: Mann Whitney U test, Sd: standard deviation, PAS: Parent Attitudes Scale, IPS: Internet Parenting Styles Scale, CSHQ: Children's Sleep Habits Questionnaire.

Table 6. Distribution and analysis of scores for parental attitudes, family internet attitudes and sleeping habits according to TV use

		Television Viewing Duration (Daily)							
		1hour< (1)	**1 -2 hour(s)(2)**		**2 hours>(3)**				
Variable	Xavg	Mean ± Sd	X	Mean ± Sd	Xavg	Mean ± Sd	X2	F	P
PAS									
Democratic	66.0	65.0±7.1	64.5	65.6±6.2	60.0	61.3±7.8		3.308	0.04a
Authoritarian	40.0	40.9±6.5	38.5	39.7±6.0	42.0	41.1±4.2		0.430	0.62
Tolerant	28.0	29.0±7.0	28.0	28.0±3.5	27.0	27.4±4.0	2.0		0.37
IPS									
Parental control	43.0	42.5±7.3	42.0	43.4±5.0	38.0	37.9±7.4		5.523	0.005a
Parental warmth	56.0	55.3±8.9	54.5	55.1±5.6	50.0	48.2±11.3		6.453	0.002b
CSHQ									
Sleeping Habits	44.0	46.5±8.8	42.0	44.4±11.3	52.0	50.3±8.7	9.7		0.01c

a: 3<1,2 and p<0.05, b: 3 and 2<1 and p<0.05, c: 2<3 and p<0.05, Sd:s tandard deviation, PAS: Parent Attitudes Scale, IPS: Internet Parenting Styles Scale, CSHQ: Children's Sleep Habits Questionnaire

A mean score showed a significantly higher level of parental democratic attitudes among children who watched less than two hours of television per day than among those who watched more (F= 3.308, p= 0.04). The mean ranks of sleep habits of children who watched TV for more than two hours a day were significantly higher than those of children who watched between one and two hours a day (X2 = 9.73, p< 0.016). Furthermore, children who watched two hours or more of TV were lower parental control scores than the other two groups (p< 0.005). The study found that children who watched up to one hour of television per day had significantly higher parental warmth scores than those in the other two groups (p<0.002). Table 6 shows the results.

A review of the results in terms of Spearman's rank difference correlation coefficients in Table 7 shows that the relationships between children's sleep habits and parental control (rho = -0.223, p<0.05), parental warmth (rho= -0.207, p< 0.05), democratic attitudes (rho= -0.231, p< 0.05), and authoritarian attitudes (rho= -0.266, p< 0.01) were negative and at a low level. In addition, a positive and moderate relationship was observed between democratic attitudes and parental control/warmth (rho= 0.491, p< 0.00; rho= 0.594, p< 0.001).

Table 7. Bivariate correlations between parental attitudes, family internet attitudes and sleep habits

	Parental control	Parental warmth	Democratic Attitudes	Authoritarian Attitudes	Tolerant Attitudes
Sleep Habit	-0.223*	-0.207*	-0.231*	-0.266**	0.0216
Parental control	-	-	0.491**	0.1003	-0.1082
Parental warmth	-	-	0.594**	0.0429	-0.0920

*p<0.05, **p<0.01

DISCUSSION

The results of this study, which examined parental attitudes, media exposure and the sleep habits of children aged 3-6, indicated that children have considerable exposure to media. The results demonstrate a positive correlation between a democratic attitude and both parental warmth and control. A more democratic attitude and greater levels of parental control and parental warmth are associated with a reduction in sleep problems. In this study, individuals who did not use mobile phones presented significantly higher scores for parental control, parental warmth and democratic attitudes than those who did.

The present study revealed that 44% of children used tablets and 67% used mobile phones. Furthermore, the prevalence of children using tablets and television for more than eight hours per week was 53.8% among girls, compared to 44.2% among boys. Similarly, the percentage of boys and girls aged 2-5 years with screen time exceeding two hours per day was found to be 47.5%[27]. In the United States, the findings demonstrate that children under the age of 5 use approximately 2 hours for media[1,28]. A study of children aged 3-7 from six countries demonstrated that they spent over 50 minutes more per day in front of screens during the pandemic compared to the pre-pandemic period[4]. A Turkish study once again revealed that 102 children aged between two and six used digital devices for a minimum of one hour each day[7].

The Italian Paediatric Association recommends that parents exercise caution and monitor their children's media exposure during the early childhood years[3,29]. A number of factors, including parental attitudes, inadequate supervision, excessively permissive behaviours, neglect and parents'own excessive media use, influence the media use of preschool children. The literature has demonstrated a significant correlation between familial/parental factors (e.g., parenting styles, attachment) and internet use among children[30,31,32]. This relationship is explored within the framework of three theoretical models[31]: the cognitive–behavioural model[33], self-determination theory[34], and attachment theory[35]. A recent study indicated that the majority of research in this area has focused on parenting styles, mediation, attachment,

and family functioning[30]. Furthermore, a three-level meta-analysis was conducted to examine the association between parenting styles and adolescents 'problematic internet use. The results of this analysis indicated that positive parenting styles were significantly negatively correlated with problematic internet use, whereas negative parenting styles were positively correlated with problematic internet use[31]. Children's basic psychological needs can be satisfied quite well with positive parenting styles (e.g., warmth, caring, and nonrejection by parents), so children do not need to engage in compensatory behaviours such as problematic internet use[31]. However, negative parenting styles (e.g., strict, punitive or tolerant parental attitudes) can leave children's needs for competence, autonomy and connectedness unmet, which may result in problematic internet use[31,36,37]. Our study revealed that the families of children who used tablets and phones for less than eight hours per week exhibited a more tolerant attitude.

There is evidence to suggest that families may use media in the context of their relationships with children for reward, bonding and educational purposes, or as a means of behaviour management, child occupation or calm, or due to the presence of emotional and mental disorders in children[3,28,38,39,40].

It was suggested that adolescents more likely to have an insecure relationship with their parents if they are raised in adverse parenting styles[41], which can result in poor self-regulation[42] and an increased risk of problematic internet use[31,41]. A recent comprehensive meta-analysis included a total of 167 trials, published between 2005 and 2024, with 173 samples and 145,011 participants[32]. The results confirmed a negative correlation between attachment security and problematic internet use, whereas attachment anxiety and attachment avoidance showed positive correlations with problematic internet use[32]. In addition, it is emphasized that some research has shown that parental behavioural control is negatively correlated with adolescents' problematic Internet use, while parental psychological control is positively correlated.[31]. These findings are supported by our study, which showed that mean levels of parental control and parental warmth were significantly higher in children who did not use mobile phones, and in those who used tablets and mobile phones up to eight hours a week, compared to children who used more than eight hours. Our study shows that parental warmth and control can promote secure attachment.

In the study, 50.5% of children watched more than 1 hour per day. Poor quality, inappropriate and unsupervised media use is associated with negative outcomes for children, including poorer sleep, reduced physical activity, impaired social skills and behavioural and cognitive difficulties[3,43,44,45]. The results of this study are consistent with previous research showing that increased television viewing is associated with sleep problems, poor sleep quality and irregular sleep patterns[3,46,47,48,49].

Given the potential negative effects of prolonged television viewing on children's sleep patterns, setting appropriate limits and monitoring the content consumed may have a positive impact on sleep habits. In this study, children who watched less than 1 hour of television had higher parental control scores than the other two groups, while those who watched 2 hours or more had lower parental control scores than the other two groups. In the study, democratic attitudes were higher among parents of children who watched less than 2 hours of television than among parents of children who watched more than 2 hours of television. However, a study of children aged 3-7 in Turkey found no significant relationship between family attitudes and television viewing[17].

The American Academy of Sleep Medicine recommends that children between the ages of three and five maintain a regular sleep schedule of 10 to 13 hours per 24 hours for optimal health and development[50]. In our study, 33% of school-aged children slept 6-9 hours a day. Sleep duration of 6-9 hours per night was associated with an increased likelihood of sleep problems in children. A review of the literature shows a consistent association between inadequate sleep duration and the development of children's cognitive abilities, language skills, emotional regulation, executive function, memory and reactivity[50,51]. In addition, a meta-analysis of 35,956 children aged 5-12 years found that longer sleep duration was associated with improved cognitive performance and a reduced incidence of behavioural problems[52]. If preschool children do not get the minimum 10 hours of sleep recommended by experts, it is likely that their sleep habits will be negatively affected, leading to a range of mental health problems.

Recent studies have reported that exposure to screen-based media during infancy and early childhood is negatively associated with sleep duration and quality[3,14,53,54]. On the other hand, there is evidence

that sleep duration is positively associated with emotion regulation and cognitive skills in preschool children[55,56]. And sleep problems in preschool children can lead to physical or behavioural problems[9], academic-cognitive problems, social development difficulties, aggression, obesity and insulin resistance[12,13,57,58]. Our data confirm the findings of previous research. In this study, children who did not use mobile phones had significantly lower mean sleep habits scores than children who used mobile phones, suggesting that sleep problems were less prevalent.

Four potential mechanisms have been postulated for the relationship between media use and sleep[3,53]: (i) screen time displaces sleep time; (ii) media content may lead to increased time to sleep and nighttime awakenings; (iii) the bright blue light from screens may suppress melatonin release; and (iv) impulsivity and psychological problems may be associated with sleep disturbance and may lead to increased media exposure[59].

A transactional model, which incorporates biological, individual family practices and cultural factors, has been identified as a key factor influencing infant sleep patterns[3,60]. The results of the study show a correlation between an increase in parental control and parental warmth and a reduction in sleep habits problems. A correlation was found between an increase in democratic attitudes and a significant decrease in sleep problems, as well as an increase in parental warmth and control. A review of the literature shows a correlation between an increase in negative parenting attitudes and an increase in children's sleep problems, which is consistent with the results of the present study[61,62]. It can be argued that positive outcomes such as a sense of trust, independence and the ability to express thoughts in children who are approached with a democratic attitude[63], particularly the ability to take responsibility and give feedback, which are crucial to sleep habits, have a positive impact on children's sleep habits.

Limitations of this research include the cross-sectional nature of the study and the fact that most of the data was based on parental self-report, so the results cannot prove causality. In addition, the lack of prospective, long-term studies means that outcome data are not available. The fact that the sample size was not determined at baseline is another limitation of the study.

The study revealed significant findings in relation to parents' attitudes towards parenting, children's sleep habits and media use. Significant differences were found in children's weekly use of mobile phones and tablets and its relationship to their sleep habits. Future studies could include objective measures of sleep or media use, patient diagnoses, and a control group, which would provide more detailed and comprehensive results. In addition, it is suggested that future studies should examine the impact of children's media exposure on mental health. Guidelines are needed to help pediatricians, educators and parents implement screen time limits and promote positive bedtime routines, democratic parenting styles and attachment. These guidelines will also facilitate the planning of family-based interventions targeting screen time limits and sleep hygiene.

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