



ARAŞTIRMA MAKALESİ / RESEARCH ARTICLE

FACTORS ASSOCIATED WITH SMARTPHONE OVERDEPENDENCE IN PRESCHOOL CHILDREN AND ITS EFFECT ON SOCIAL BEHAVIORAL PROBLEMS

OKUL ÖNCESİ ÇOCUKLARDA AKILLI TELEFONA AŞIRI BAĞIMLILIKLA İLİŞKİLİ FAKTÖRLER VE SOSYAL DAVRANIŞ PROBLEMLERİ ÜZERİNDEKİ ETKİSİ

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ÖZ

Okul öncesi çocuklar arasında akıllı telefon kullanımı giderek artmaktadır. Hatta kullanım yaşının erken çocukluk dönemine kadar düştüğü söylenebilir. Okul öncesi çocuklarda ekrana maruz kalma çeşitli davranış sorunlarına yol açmaktadır. Amaç: Bu çalışmada okul öncesi çocuklarda bağımlılığı ile ilişkili faktörleri ortaya koymak ve problemlili akıllı telefon kullanımının sosyal davranış bozukluğu üzerindeki etkilerini belirlemek amaçlanmıştır. Çalışma kesitsel desen ile hazırlanmıştır. Analizlerde parametrik ve non-parametrik yöntemler kullanılmış ve regresyon analizi yapılmıştır. Çocuğun günlük ve haftalık akıllı telefon kullanım süresi ve annenin eğitim düzeyi değişkenlerine göre ölçekler farklılaşmaktadır. Problemlili akıllı telefon kullanımının sosyal davranış bozukluğu üzerinde etkisi bulunmaktadır. Sosyal davranış bozukluğuna yol açtığı için okul öncesi çocuklarda akıllı telefon kullanımının sınırlandırılması, başka aktiviteler için alternatifler üretilmesi, ebeveyn eğitimi verilmesi ve çocukların akıllı telefon kullanımına ilişkin öz-düzenlemelerini güçlendirecek stratejiler geliştirilmesi önerilmektedir.

Anahtar Kelimeler: Okul öncesi çocuklar, akıllı telefon bağımlılığı, sosyal davranış bozuklukları, Türkiye.

JEL Sınıflandırma Kodları: I20, I21, I29.

ABSTRACT

Smartphone use among preschool children is increasing. It can even be stated that the age of use has decreased until early childhood. Screen exposure in preschool children leads to various behavioral problems. This study aimed to reveal screen addiction in preschool children, to reveal the factors associated with screen addiction, and to determine the effects of problematic smartphone use on social behavior disorder. The study was prepared with a cross-sectional design. Parametric and nonparametric methods were used in the analysis, and regression analysis was performed. The problematic or social behavior disorder scale differs according to the variables of daily and weekly smartphone usage time of the child and mother's education level. Problematic smartphone use has an effect on social behavior disorder. Since it leads to social behavior disorder, it is recommended to limit the use of smartphones in preschool children, to produce alternatives for other activities, to provide parental education, and to develop strategies to strengthen children's self-regulation regarding smartphone use.

Keywords: Preschool children, Smartphone addiction, Social Behavioral Disorders, Türkiye

JEL Classification Codes: I20, I21, I29

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GENİŞLETİLMİŞ ÖZET

Amaç ve Kapsam:

Dünyada ve Türkiye’de internet ve sosyal medya kullanımı giderek artıyor. Okul öncesi çocuklarda akıllı telefon kullanımı artıyor. “We Are Social” 2023 “İnternet ve Sosyal Medya Kullanıcı İstatistikleri” raporuna göre dünya nüfusunun %68’i cep telefonu kullanıyor. Bu oran 2022’ye göre %3 artarak 5,44 milyar kullanıcıya ulaştı. Akıllı telefonlar hayatı kolaylaştırmasının yanı sıra günlük yaşamı etkileyen olumsuzluklara da yol açıyor. Hatta sosyal medyanın olumsuz kullanım yaşının erken çocukluk dönemine kadar düştüğü bile söylenebilir. Okul öncesi çocuklarda ekran maruziyeti çeşitli davranış sorunlarına yol açıyor.

Metot:

Veriler 25.02.2024-30.06.2024 tarihleri arasında Türkiye'nin Diyarbakır ilinde dijital olarak toplanmıştır. Okul öncesi çocuğu olan ebeveynlerin cep telefonlarına gönderilmiştir. Bu araştırma kesitsel, tanımlayıcı/ilişkisel bir çalışmadır. Araştırmanın çalışma grubunu okul öncesi çocuğu olan 210 ebeveyn oluşturmaktadır. Çalışmada demografik bilgi formu kullanılmıştır. Formda katılımcı ebeveyn ve çocuğa ilişkin bilgiler, annenin mesleği, annenin yaşı, ailenin ortalama geliri, annenin eğitim düzeyi, çocuğun cinsiyeti, kardeş sayısı, çocuğa kimin baktığı, çocuğun akıllı telefon kullanmaya başladığı yaş, çocuğun günlük olarak akıllı telefonda geçirdiği süre, çocuğun haftalık akıllı telefon kullanımı, ailenin çocuğa akıllı telefon verme nedeni ve annenin akıllı telefonla geçirdiği süre yer almaktadır. Sorunlu Medya Kullanım Ölçeği, Domoff ve arkadaşları tarafından geliştirilen ölçeklerdir. 2017 yılında 4-11 yaş arası çocuklarda sorunlu medya ve akıllı telefon kullanımını ölçmek için ve 1976 yılında Behar tarafından davranış sorunlarını ölçmek için kullanılmıştır. Fark analizi için t-testi, Ki-Kare Testi ve Mann-Whitney U testi gibi parametrik ve parametrik olmayan analiz yöntemleri uygulanmıştır. Sosyal medya bağımlılığının sosyal davranış bozukluğu üzerindeki etkisini ortaya koymak için regresyon analizi yapılmıştır.

Bulgular:

Katılımcı annelerin büyük çoğunluğu ev hanımı olup, çoğunlukla tam zamanlı çalışmaktadırlar. Annelerin büyük çoğunluğu 35 yaş altındadır. Annelerin büyük çoğunluğunun üniversite mezunu olduğu bulunmuştur. Anne ve baba çocuğa en çok birlikte bakmaktadır (%45,5), bunu anne takip etmektedir. Çocukların büyük çoğunluğunun (%37) akıllı telefon kullanmaya 3 yaşında başladığı görülmüştür. Çocukların günde en az yarım saat ile 2 saat arasında telefon izlediği anlaşılmaktadır. Çocuklar haftada beş günden fazla telefon izlemektedir. Aile telefonu çocuğa çoğunlukla oyun, eğlence ve beslenme amaçlı vermektedir. Anne genellikle günde 1-2 saatini telefonda geçirmektedir. Yaş, cinsiyet, annenin mesleği, çocuğun yaşı, çocuğun cinsiyeti, kardeş sayısı, bakım veren kişi, aile geliri, çocuğa telefonu verme nedeni ve çocuğun telefonu kullanmaya başladığı yaş açısından bir fark bulunmamıştır. Öte yandan hem problemli akıllı telefon kullanımı hem de sosyal davranış bozukluğu ölçekleri açısından çocuğun günlük akıllı telefon kullanım süresi açısından anlamlı farklılıklar bulunmuştur. Çocuğun haftalık telefon kullanım süresi açısından da problemli akıllı telefon kullanımı ölçeği açısından fark bulunmamaktadır. Sosyal davranış bozukluğu ölçeği anne eğitim düzeyi değişkenine göre farklılaşmaktadır. Problemli akıllı telefon kullanımının sosyal davranış bozukluğu ve alt boyutları üzerinde anlamlı ve açıklayıcı bir etkiye sahip olduğu görülmektedir. Genel olarak problemli sosyal medya kullanımı ölçeği Sosyal Davranış Bozukluğu Ölçeği'nin Kavga-Saldırganlık alt boyutu üzerinde anlamlı ve açıklayıcı bir etkiye sahiptir ($p<0,001$). Regresyon katsayısı incelendiğinde bu boyutun yaklaşık %27'sini açıkladığı görülmektedir. Kaygılı-Gözyaşlı alt boyutu üzerinde de anlamlı ve açıklayıcı bir etkiye sahip olup ($p<0,001$) bu boyutun %16'sını açıklamaktadır. Hiperaktif-Dikkatsiz alt boyutu üzerinde de anlamlı ve açıklayıcı bir etkiye sahip olup ($p<0,001$) bu boyutun %11'ini açıklamaktadır. Genel olarak problemli sosyal medya kullanımının sosyal davranış bozuklukları üzerindeki etkisi incelendiğinde varyansın yaklaşık %25'ini açıkladığı görülmektedir.

Tartışma ve Sonuç:

Akıllı telefon ve sosyal medya uygulamalarının kullanım eğilimi tüm dünyada hemen hemen her yaş grubunda artarken, telefon kullanma yaşı da düşmektedir. Aileler çeşitli nedenlerle okul öncesi çocuklarına telefon verebilmekte ve telefon takibine göz yumabilmektedir. Çalışma kapsamında problemli akıllı telefon kullanımının sosyal davranış bozuklukları üzerinde etkili olduğu belirlenmiştir. Genel olarak problemli akıllı telefon kullanımı sosyal davranış bozukluklarının %25'ini açıklamaktadır. Ayrıca problemli akıllı telefon kullanımı sosyal davranış bozukluklarının alt boyutları olan Kavga-Saldırgan Alt Boyutu, Endişeli-Ağlayan Alt Boyutu ve Aşırı Aktif-Dikkatsiz alt boyutlarını etkilemektedir. Sonuç olarak okul öncesi çocuklarda problemli akıllı telefon kullanımını önlemek için toplam önerilen ekran süresi azaltılmalı veya okul öncesi çocuklar için tamamen ekransız akıllı telefon kullanımına yönelik olası alternatifler geliştirilmelidir. Ayrıca aileler ekran bağımlılığının yol açtığı sosyal davranış sorunları konusunda bilinçlendirilmeli ve yetkililer tarafından stratejiler geliştirilmelidir.

1. INTRODUCTION

The rapid development of technology has led to innovations in many areas of life. In particular, smart devices and phone-supported mobile applications are gaining an increasing usage area due to their facilitating aspects of life. "We Are Social" 2023 "Internet and Social Media User Statistics" report shares very striking data with readers. According to these data, 68% of the world's population uses cell phones. This rate increased by 3% compared to 2022 and reached

5.44 billion users, with an increase of 168 million new users. According to the report, the number of internet users reached 5.16 billion, and the number of social media users reached 4.76 billion. According to the same report, 95.4% (81.68 million users) of the population in Turkey use mobile phones, 83.4% (71.38 million users) are internet users, and 73.1% (62.55 million users) are active social media users in 2023 (We are Social 2023). These rates can be considered as quite high figures. Especially the number of mobile phone users can be considered as an indicator that more than one mobile phone is used in households and the age of phone use has decreased to quite young ages. It has been reported that even those who are against digitalization use digital facilities in areas such as banking, shopping, communication and receiving news, and as a result, changes in environmental elements have been observed (Sağlam, 2024; Aral 2022). Considering the first areas of use, cell phones used for making calls and messaging have been replaced by smartphones. Today, these smartphones attract attention with their facilitating aspects in all areas of life (Daysal & Yılmazel, 2020). Today, many operations that can be done with a computer can be done with smartphone applications (Şata et al., 2016). Providing these mobile devices with integrated internet access with the help of operators has given users the opportunity to use the opportunities provided by the internet as well as the operations that can be done on the computer (Bal & Balcı, 2020). The ease of access and portability of smartphones make it possible to use them in every place and condition (Cha & Seo, 2018). This situation causes widespread use of the devices and causes them to be used for different purposes. Smartphones facilitate people's work, help them study, obtain or share information, establish or maintain social relationships, and engage in leisure activities (Park & Park, 2021). In addition to making life easier, smartphones also cause negativities that affect daily life (Çakır& Oğuz, 2017). Common problems are that they cause physical problems such as head, neck, back and wrist pain (Fidan, 2016). It is supported by the literature that excessive use of smartphones causes addiction (Panova & Carbonell, 2018), is associated with mental problems in children and young people (Sohn et al., 2019), causes anxiety and depression (Elhai et al., 2017), and has many risk factors (Fischer-Grote et al., 2019). Smartphone use also causes arguments and problems within the family (Matthes et al., 2021). While young people are enthusiastic about new digital technologies, parents are concerned about their immediate adoption. Parents think that excessive use of technology has negative effects on children's family relationships and negatively affects children's cognitive and social development (Neilsen & Van den Bulck, 2018). There are many studies in this direction in the literature. For example, Park 2020 revealed that the increase in smartphone addiction causes children to increase the frequency of smartphone use and to turn only to game applications for entertainment and pleasure, while parents should have a consistent attitude about the right smartphone applications (Park, 2020). Fischer-Grote et al. 2021 conducted a comprehensive literature review in Google Scholar and Scopus and published articles on the impact of problematic smartphone use on the quality of life of children and adolescents. The study produced nine articles that met the inclusion criteria, five of which examined health-related or general quality of life, two evaluated life satisfaction, and two evaluated child well-being in relation to problematic smartphone use. The study revealed that more research is needed on the outcome variables of problematic smartphone use in children and adolescents (Fischer-Grote et al., 2021). Smartphones are present in almost all families and are used in all age groups, including preschool children. This means that children communicate with smartphones more easily than adults and use the phone as a play tool. Sometimes, families give smartphones to children to keep them occupied, to feed them or to keep them busy. In this case, the child who is busy with the phone is occupied and does not occupy the family, which causes a perception of relaxation in parents (Kızıldaş & Ertör, 2018). As in adults, spending too much time with smartphones in children also brings many negativities. It has been stated that prolonged screen time in preschool children may cause attention problems, aggressive behaviors, obesity, sleep problems and physical inactivity (Gökçe et al., 2021). It has been determined that children who spend a long time in front of the screen have reduced sleep time and have difficulty falling asleep (Staples et al., 2021). Problems in cognitive, linguistic and emotional development were observed in children who only watched the screen and did not speak (Mustafaoglu et al., 2018). While the effects of smartphone use in adults have been well-researched, it can be said that it has not been sufficiently researched in children, especially in preschool children (Gökçe et al., 2021). With this study, it was aimed to determine the factors associated with

over-dependence on smartphones in preschool children and to determine the effect of excessive phone use on children's social behavior problems. In this respect, researchers think that an important gap in the literature will be filled.

2. METHOD

Data Collection

Data was collected in the digital environment in Diyarbakır province of Turkey between 25.02.2024 and 30.06.2024. The questionnaires were uploaded to Google Forms by the researcher, and the relevant link was sent via the Internet to the mobile phones of parents with preschool children. In the study, parents of children receiving pre-school education were invited according to the criteria.

Study Group

This research is a cross-sectional, descriptive/relational study. The study group of this research consists of 210 parents with preschool children. In the study, the views of parents with preschool children were included.

Ethical Aspects of the Research

For this study, permission was obtained from Dicle University Social and Human Sciences Ethics Committee with the date 20.02.2024 and number 659644.

Instruments

Demographic Information Form

In the study, a demographic information form created by the researchers was used to obtain general information about the participants. The form includes questions about the information about the participating parent and the child, the mother's occupation, the mother's age, the average income of the family, the mother's education level, the gender of the child, the number of siblings, the person taking care of the child, the age at which the child started using a smartphone, the time the child spends on the smartphone on a daily basis, the weekly smartphone use of the child, the reason for giving the child a smartphone by the family, and the time the mother spends with the smartphone.

Problematic Media Use Scale (PMUS) Short Form

The Problematic Media Use Scale was developed by Domoff et al. in 2017 to identify problematic media and smartphone use in children aged 4-11 years. The 9-item short form of the scale has a single-factor structure. The scale is a 5-point Likert scale. High scores on the scale indicate problematic media use. The Turkish validity and reliability study of the scale was conducted by Furuncu and Öztürk (2020). Within the scope of this study, the reliability coefficient of the scale was found to be 0.874.

Behar Preschool Behavior Questionnaire (PBQ)

The scale developed by Behar in 1976 to measure behavior problems was adapted into Turkish by Kanlıklıçer in 2005. The scale examines and measures children's social behavior problems in the areas of "hostility-aggression," "being anxious-fearful," and "being inattentive and overactive." The scale consists of 30 items. Each item in the 3-point Likert scale is evaluated as "Not Valid" 0 points, "Sometimes Valid" 1 point and "Definitely Valid" 2 points. The total score of each individual is obtained by summing these scores. The reliability coefficient obtained from the scale in this study was found to be 0.891. Since preschool children are illiterate, this parent-assisted scales was used.

Data Analysis

For the difference analyses, parametric and nonparametric analysis methods such as t-test, Chi-Square Test and Mann-Whitney U test were performed. Regression analysis was performed to reveal the effect of social media addiction on social behavior disorder.

Ethical Statement and Permissions

The study was deemed ethically appropriate by the decision of the Dicle University Social and Human Sciences Ethics Committee dated 20.02.2024 and numbered 659644. Informed consent and necessary permissions were obtained.

3. RESULTS

When the descriptive findings obtained within the scope of the study were evaluated, 116 mothers were housewives (52.7%), 77 (35.0%) were full-time employees, and 27 (12.3%) were part-time employees. One hundred thirty-six mothers (61.8%) were 35 years of age or younger, and 84 (38.2%) were 36 years of age or older. The average family income was 25.9% minimum wage. The majority of mothers (42.7%) have university-level education. Of the children, 126 (57.3%) were boys and 94 (42.7%) were girls. The frequencies of the children according to their ages are as follows: above five years, old-under six years old, above six years old, old-under seven years old, above four years old, old-under five years old, above three years old-under four years old. Most of the children have one sibling. The child is mostly cared for by the mother and father together (45.5%), followed by the mother. It is observed that the majority of children (37%) started using smartphones at the age of 3. It is understood that children watch phones for at least half an hour to 2 hours a day. Children watch their phones more than five days a week. The family gives the phone to the child mostly for play and entertainment and to feed the child. The mother usually spends 1-2 hours a day spending time on the phone. Table 1 can be examined for more detailed information.

Table 1. Demographic Variables According to Participant Parents

Demographic Variables	Frequency	Percentage	
Mother's Occupation	Housewife	116	52,7
	Part-Time Employee	27	12,3
Age of Mother	Full-Time Employee	77	35,0
	35 years and below	136	61,8
Average Family Income	36 and above	84	38,2
	Minimum wage (17 thousand TL)	57	25,9
	Between 20,000-30,000	51	23,2
	30 to 40	34	15,5
	40 to 50	20	9,1
Mother's Education Level	50.000 TL and above	58	26,4
	Illiterate	8	3,6
	Reader Author	12	5,5
	Primary School Graduate	14	6,4
	Secondary School Graduate	24	10,9
	High School Graduate	54	24,5
Gender of the Child	University Graduate	94	42,7
	Master's degree and above	14	6,4
	Male	126	57,3
Age of the child	Girl	94	42,7
	Over three years old-Under four years old	31	14,1
	Over four years old-Under five years old	37	16,8
	Over five years old-Under six years old	102	46,4
	Over six years old-Under seven years old	50	22,7
Number of Siblings	No siblings	38	17,3
	1 Brother and Sister	100	45,5
	Two siblings	52	23,6
	She has three siblings	23	10,5
Child Caregiver	She has four siblings	7	3,2
	Her mother	87	39,5
	Father	6	2,7
	Parents Together	100	45,5
	Child Caregiver	3	1,4
	Other Family Members	13	5,9
The age at which a	Grandmother	11	5,0
	One year old	12	5,5

child starts using a smartphone	Two years old	32	14,5
	Three years old	83	37,7
	Four years old	54	24,5
	Five years old	27	12,3
	Six years old	4	1,8
	Seven years old	8	3,6
	Time a Child Spends on a Smartphone Per Day	Less than half an hour	52
Half an hour to 1 hour		62	28,2
1-2 hours		59	26,8
2-3 hours		28	12,7
Child's Weekly Smartphone Use (Days/Week)	More than 3 hours	19	8,6
	1-2 days	65	29,5
	3-4 days	64	29,1
	More than five days	91	41,4
Justification for Giving a Smartphone to a Child	To get you to eat.	57	25,9
	To be able to do my housework	37	16,8
	For play and entertainment	119	54,1
Time Mom Spends with Smartphone	To make time for yourself	7	3,2
	Less than 1 hour	43	19,5 %
	1-2 hours	94	42,7 %
	3-4 hours	50	22,7 %
	4-5 hours	33	15,0 %

Table 2 shows the difference in the analyses of problematic smartphone use and social behavior disorder scales according to the individual characteristics of the participants.

Table 2. Difference Analyses of Problematic Smartphone Use Scale and Social Behavior Disorder Scale for Participants

Variable	Problematic Smartphone Use Scale	Social Behavior Disorder Scale	Difference
Age	t= 0.0158; p>0,05	t= 2.0148; p>0,05	No
Gender	t=1,120; p>0,05	t=0,978; p>0,05	No
Mother's Occupation	Chi-Square=4,958 p>0,05	Chi-Square=3,582 p>0,05	No
Age of the child	Chi-Square=6,637 p>0,05	Chi-Square=1,160 p>0,05	No
Gender of the Child	Mann-Whitney U=5611.0 p>0,05	Mann-Whitney U=5540,500 p>0,05	No
Number of Siblings	Chi-Square=0,898 p>0,05	Chi-Square=2,750 p>0,05	No
Child Caregivers	Chi-Square=4,754 p>0,05	Chi-Square=9,685 p>0,05	No
Duration of Child's Smartphone Use (Daily/Hour)	Chi-Square=24,985 p<0,05	Chi-Square=15,765 p<0,05	Yes
	*Less than half an hour More than 3 hours (Mann-Whitney U=151,00 p<0,05) **Half hour-1 hour to more than 3 hours (Mann-Whitney U=221,500 p<0,05) *** 1-2 hours to more than 3 hours (Mann-Whitney U=256,500 p<0,05) *+ More than 3 hours with 2 -3 hours (Mann-Whitney U=170,500, p<0,05)	*Less than half an hour More than 3 hours (Mann-Whitney U=290,50 p<0,05) **Half hour-1 hour to more than 3 hours (Mann-Whitney U=282,500 p<0,05) *** 1-2 hours to more than 3 hours (Mann-Whitney U=341,000 p<0,05) *+ More than 3 hours with 2 -3 hours (Mann-Whitney U=161,500, p<0,05)	

Child's Smartphone Use (Per Day/Weekly)	Chi-Square=23,156; p<0.05 *1-2 days and more than 2 days (Mann-Whitney U=1724,000; p<0.05)	Chi-Square=0,350; p>0,05	Exist for Problematic Smartphone Scale
Mom's Daily Smartphone Usage Time	Chi-Square=5,539; p>0,05	Chi-Square=1,726; p>0,05	No
Mother's Education Level	Chi-Square=3,363; p>0,05	Chi-Square=15,753; p<0.05 *There is a Difference between Secondary School	Present for Social Behavior Disorder Scale
		Graduates and Graduates with a Master's Degree and Above (Mann Whitney U=83,500; p<0.05) ** Secondary school and university (p<0.05) ***Middle school and high school (p<0.05)	
Family Income	Chi-Square=3,425; p>0,05	Chi-Square=10,028; p>0,05	No
Justification for Giving a Phone to a Child	Chi-Square=2,382; p>0,05	Chi-Square=3,099; p>0,05	No
The age at which a child starts using the phone	Chi-Square=14.34; p>0.05	Chi-Square=6.91; p>0.05	No

When Table 2 is examined, it is found that there is no difference in terms of age, gender, mother's occupation, age of the child, gender of the child, number of siblings, caregiver, family income, reason for giving the child a phone, and the age at which the child started using the phone. On the other hand, there are significant differences in terms of both problematic smartphone use and social behavior disorder scales in terms of the child's daily smartphone usage time. There is a difference in terms of problematic smartphone use scale in terms of the weekly phone usage time of the child. The social behavior disorder scale differs according to the mother's education level variable. Table 3 presents the regression analysis results showing the effect of Problematic Smartphone use on Social Behavior Disorder

Table 3. The Effect of Problematic Smartphone Use on the Social Behavior Disorder Scale and Its Subscales

Model Coefficients		Estimate	SE	Standard Estimate	t	p	VIF
<i>Fighting-Aggressive Subscale</i>	Fixed	0.0230	0.0511		0.450		
	Problematic Smartphone Usage	0.2096	0.0234	0.520	8.978	< .001	1,0
<i>R=0.520; R²=0.270; DW Statistics=1.66; F=80.6; p<0.01</i>							
<i>Anxious-Tearful Subscale</i>	Fixed	0.0899	0.0495		1.82		
	Problematic Smartphone Usage	0.1459	0.0226	0.401	6.45	< .001	1,0
<i>R=0.401; R²=0.160; DW Statistics=1.65; F=41.7; p<0.01</i>							
	Fixed	0.418	0.0815		5.13	< .001	

Overactive - Inattentive	Problematic Smartphone Usage	0.196	0.0372	0.335	5,26	< .001	1,0
<i>R=0.335; R²=0.113; DW Statistics=1.93; F=27.6; p<0.01</i>							
Social Behavior Disorder Scale	Fixed	0,107	0,0453		2,37	0,018	
	Problematic Smartphone Usage	0,179	0,0207	0,506	8,66	< .001	1,0
<i>R=0.506; R²=0.256; DW Statistics=1.64; F=75.0; p<0.01</i>							

When Table 3 is examined, problematic smartphone use has a significant and explanatory effect on social behavior disorder and its sub-dimensions. In general, the problematic social media use scale has a significant and explanatory effect on the Fighting-Assaultive sub-dimension of the Social Behavior Disorder Scale ($p<0.001$). When the regression coefficient is analyzed, it explains approximately 27% of this dimension. It also has a significant and explanatory effect on the Anxious-Tearful sub-dimension ($p<0.001$) and explains 16% of this dimension. It also has a significant and explanatory effect on the Hyperactive-Inattentive sub-dimension ($p<0.001$) and explains 11% of this dimension. In general, when the effect of problematic social media use on social behavior disorder is examined, it explains approximately 25% of the variance.

5. DISCUSSION AND CONCLUSION

The trend towards smartphone use and the use of social media applications is increasing in almost all age groups all over the world. The age of phone use is decreasing. Families may give phones to their preschool children for various reasons and turn a blind eye to their phone viewing. Especially in modern societies, both spouses work, there is no one to take care of the children, the child has eating problems or families with limited time to spend quality time with the child can expose their children to the screen. In this study, problematic social media use was examined based on the views of parents of preschool children and the effect of problematic social media use on the child's social behavior disorders was examined.

When the literature is examined, it is possible to reach various studies on the subject. For example, in the study conducted by Lee et al. on a population of 172 preschool children, self-regulation of preschool children and children's use of smartphones for 0.5-1 hours a day were shown among the factors associated with smartphone over-reliance. Other associated factors were mothers using smartphones for 3-4 hours a day, children using smartphones for less than 0.5 hours a day (and children using smartphones 1-2 days a week). Similar findings were found in this study, and among the factors associated with problematic smartphone use, there were significant differences in terms of both problematic smartphone use, and social behavior disorder scales in terms of the child's daily smartphone usage time. There is a difference in terms of problematic smartphone use scale in terms of the weekly phone usage time of the child. It was found that the social behavior disorder scale differed according to the mother's education level variable. The increase in the duration of smartphone use and the mother's education level are among the most important determinants.

The study conducted by Park and Park (2021) in South Korea shows that one in five preschool children who use smartphones may experience problematic smartphone use. Compared to other age groups, problematic smartphone use in young children may be more related to their caregivers. In this study, problematic smartphone use differs among caregivers. It is natural to have differences between studies. For example, Park and Park (2021) used a data set consisting of ready-made data and including data from 1378 individuals.

Similar findings can be found in studies that conducted research on the subject in different cultures (Lee et al., 2020; Cheng & Cao, 2023; Abdulla et al., 2023).

Within the scope of the study, it was determined that problematic smartphone use had an effect on social behavior disorder. In general, problematic smartphone use explains 25% of social behavior disorders. In addition, problematic smartphone use affects the Fighting-Assaultive Sub-dimension, Anxious-Tearful Sub-dimension, and Overactive-Inattentive sub-dimensions, which are the sub-dimensions of social behavior disorder.

In conclusion, in order to prevent problematic smartphone use in preschool children, the recommended total screen time should be reduced, or possible alternatives to completely screen-free smartphone use should be developed for preschool children. In addition, families should be made aware of the social behavior problems caused by screen addiction, and strategies should be developed by the authorities.

Since the study sample was small, it can be considered a limitation. There is also the reliance on self-reported data from parents on such specific issues, which may lead to response bias, and the cross-sectional design, which limits the inference of causality.

Longitudinal studies to examine the long-term effects of early-life smartphone over-reliance on social behavior structures. Similar studies in different samples and larger populations are recommended. In addition, similar studies can be conducted with researchers from different disciplines.

AUTHORS' STATEMENT

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