



RESEARCH ARTICLE / ARAŞTIRMA YAZISI

# The Effect of Maternal Depression on Screen Exposure in Early Childhood

## Erken Çocukluk Döneminde Ekran Maruziyetine Anne Depresyonunun Etkisi

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### Abstract:

The study was conducted to determine the effect of maternal depression on screen exposure of children aged 12-72 months. Data for the descriptive study were collected from 11 Family Health Centers in a medium-sized city. Three hundred twenty-nine mothers aged 18-49 with at least one child aged 12-72 months were included in the sample. Data were collected using the Mother-Child Information Form and the Beck Depression Inventory-II. It was determined that 50.5% of the mothers in the study were between the ages of 25 and 34, 55.3% were unemployed, 51.7% of the employed worked during the day shift, and 61.4% received help with childcare. It has been found that mothers aged 35-42, working shifts, having an average income level, and having two children under the age of 6 are more depressed. 100% of participants had a television and a smartphone in their homes. It was determined that in addition to the living room, a television was also in the children's room in 14% and in the kitchen in 54.1%. The median Beck Depression Inventory-II score of mothers who did not control the screen time and content of their children was found to be significantly higher. ( $z=-2.681$ ,  $p=0.007$ ;  $z= -3.308$ ,  $p=0.001$ , respectively). The probability of children of mothers with moderate depression spending one hour or more on-screen time is higher than that of children of mothers with minimal and mild depression ( $\chi^2 =32,621$ ,  $p = 0.000$ ). As a result, mothers' depression levels affect their children's screen exposure.

**Keywords:** Maternal Depression, Early Childhood, Screen Exposure.

\* This study was produced from a master's thesis.

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**Öz:**

Bu çalışma anne depresyonunun 12-72 ay arasındaki çocukların ekran maruziyeti üzerine etkisini belirlemek amacıyla yapılmıştır. Tanımlayıcı türde planlanan araştırmanın verileri orta ölçekli bir şehrin 11 Aile Sağlığı Merkezinden toplanmıştır. Araştırmanın örneklemini ise; evreni bilinen durumlarda örneklem hesabı formülü ile %95 güven aralığında 381 olarak belirlenmiştir. 18-49 yaş aralığında 12-72 aylık en az bir çocuğu bulunan 329 anne örnekleme dahil edilmiştir. Araştırmanın verileri Anne-Çocuk Bilgi Formu ve Beck Depresyon Ölçeği-II (BDÖ-II) kullanılarak toplanmıştır. Araştırma kapsamındaki annelerin %50,5'inin 25-34 yaş aralığında olduğu, %55,3'ünün çalışmadığı, çalışanların %51,7'sinin gündüz vardiyasında çalıştığı ve %61,4'ünün çocuk bakımı konusunda yardım aldığı belirlenmiştir. 35-42 yaş, vardiyalı çalışan, ortalama gelir seviyesinde, 6 yaşından küçük iki çocuğu olan ve 6 yaş altındaki ikinci çocuğunun yaşı 2-3 yaş arasında annelerin daha depresif olduğu saptanmıştır. Katılımcıların evlerinde televizyon ve akıllı telefon bulunma sıklığı %100'dü. Televizyon oturma odası haricinde %14 çocuk odasında ve %54,1 mutfakta da bulunduğu saptandı. Çocuklarına ekran süresi ve içeriği denetimi yapmayan annelerin Beck Depresyon Envanteri-II puan ortancası anlamlı düzeyde daha yüksek bulundu ( $z=-2,681$ ,  $p=0.007$ ;  $z=-3,308$ ,  $p=0.001$ , sırasıyla). Orta depresyona sahip annelerin çocuklarının ekran sürelerinin bir saat ve üzerinde olma ihtimali minimal ve hafif depresyondaki annelerin çocuklarına göre daha yüksekti ( $\chi^2=32,621$ ,  $p=0,000$ ). Sonuç olarak; annelerin depresyon düzeyleri çocuklarının ekran maruziyetini etkilemektedir.

**Anahtar Kelimeler:** Anne Depresyonu, Erken Çocukluk Dönemi, Ekran Maruziyeti.

**Introduction**

Time spent with digital devices such as televisions, tablets, computers, and smartphones has been defined as screen exposure (Keskindemirci and Gökçay, 2020; McArthur, Volkova, Tomopoulos, and Madigan, 2022). Currently, studies indicate that screen exposure begins at an early age (Kılıç and Metin, 2024; Gökçe, Arslan, Ülgen, Mete, Taşçı, and Yengil, 2021). It is known that worldwide, the percentage of children under 5 years old who adhere to recommended screen time ranges from 2% to 83%. Although screen time varies, the most common type of screen exposure is television. Additionally, it is a fact that televisions are present in 98% to 100% of all homes. This proves that the time spent in front of the television has become an important developmental context for young children (McArthur et al., 2022; Yang-Huang et al., 2018). Children are exposed to television for an average of 1 to 4 hours per day (Shah et al., 2021). In other words, about 25% of the time that young children are awake is spent in front of the television (McArthur et al., 2022). Not only the duration but also the age at first exposure to screens is considered to be very important (Ponti, 2023). A study of 3,254 children aged 0-2 years found that 50% watched TV by 2 months old, 75% by 4 months old, and 90% by 24 months old (Anand, Downs, Bauer, and Carroll, 2014).

It has been found that screen exposure in children can lead to various health and behavioral issues such as decreased playtime, delayed language development, poor academic performance, cognitive dysfunction, attention deficit, hyperactivity, problems in social relationships, postural problems, eye health issues, and sleep disturbances (Lee et al., 2016; Kaur, Gupta, Malhi, and Grover, 2019; Mustonen, Torppa, and Stolt, 2022; Madigan, McArthur, Anhorn, Eirich, and Christakis, 2020; Bağcı, 2024; Elkin and Kılınçel, 2024). Therefore, organizations like the American Academy of Pediatrics (AAP), the Canadian Pediatric Society (CPS), and the Australian Department of Health (AHD) do not recommend screen use for children under 2 years old. After age 3, screen time should be set at age x 10 minutes. For ages 3-6, limit to 30 minutes; for ages 6-9, 45-60 minutes; and for ages 12 and older, no more than 2 hours per day. For children aged 2-5, non-educational screen time should be limited to about 1 hour

on weekdays and 3 hours on weekends. Screen content should be limited to educational programs watched together with a caregiver (Kuzik et al., 2017; Ponti, 2023).

When examining the factors that affect screen exposure in children, it is observed that children from disadvantaged families are at an increased risk (Parks et al., 2018). Being a male child, low socioeconomic status, weak family relationships, less time spent on screens (television, smartphones, etc.) outside of family interactions, and parental depression are accepted as risk factors for screen exposure (Kaur et al., 2019). In this context, the amount of time spent with the mother during early childhood is also considered a risk factor, along with certain maternal characteristics. The focus is on factors that indirectly or directly influence the child-mother relationship. For example, children of depressed mothers tend to develop more social disturbances and withdrawal, and their screen time also tends to increase. Studies indicate a particularly significant increase in television viewing time (Parks et al., 2018). It is known that depressed mothers tend to be more indifferent toward their children at different age stages compared to non-depressed mothers (Ferber, Feldman, and Makhoul, 2008; Brummelte and Galea, 2016).

Early childhood is a period when the time spent with the mother is greater than in other periods. Therefore, it is important to evaluate the effects of maternal depression on children. Existing studies have investigated the impact of maternal depressive states on parenting behaviors, and it has been observed that they are not directly related to screen exposure (Bağcı, 2024; Goodman and Garber, 2017). Regarding children's screen exposure, more behavior-based studies have been conducted (Kılıç and Metin, 2024). The literature indicates that these concepts are examined separately, but there are no research findings that analyze them together (Ammerman et al., 2015; Anand et al., 2014; McArthur et al., 2022). Based on this, the current study was conducted to investigate the effect of maternal depression on children's screen exposure.

**Research Hypotheses**

H1: The severity of the mother's depression affects the child's screen time.

H2: The severity of the mother's depression influences the child's screen time supervision.

H3: The severity of the mother's depression affects the child's content supervision.

## Materials and Methods

### Type of Research

This research is planned as a descriptive type.

### Population and Sample

In the study conducted between January 1, 2023, and May 30, 2023, at Family Health Centers in the city center of Kırşehir, data for children aged 12-72 months were unavailable for the research population. Therefore, the research population consisted of 39,793 women of reproductive age (15-49 years) registered at 11 family health centers in the city center. The sample size for the study was determined using the formula for known populations, with a 95% confidence interval ( $p = 0.5$ ,  $d = 0.5$ ,  $q = 0.5$ , and  $z = 1.96$ ), yielding 381 participants. To ensure homogeneity, the sample distribution was

calculated using stratified sampling from the female population aged 15-49 registered at the 11 family health centers (Table 1). The stratification method provided a statistically significant distribution of the sample within the city center population. Subsequently, purposive sampling was used to select participants from the family health centers to reach the obtained sample sizes. Mothers were included in the study according to inclusion criteria determined through purposive sampling (Campbell et al., 2020). The inclusion criteria were mothers aged 15-49 with at least one healthy child aged 12-72 months, without communication barriers, and proficient in Turkish. During the study, 383 mothers were reached, and data collection was completed. However, due to inconsistencies (such as discrepancies in baby age, birth date, etc.) and missing data (screen time, mother's age, omitted items on scales, etc.) in the data of 54 mothers, their data were excluded during data entry. As a result, data from 329 participants were included in the study. The study's power was calculated to be 95% based on post-GPower analysis, and data collection was concluded.

**Table 1.** Distribution of the Number of Mothers Sampled

Stratum No	Family Health Center (FHC)	Number of Women	Stratum weight $W_h=N_h/N$	Number of Mothers to Be Sampled ( $W_h \times N_h$ )
1	FHC no.1	3112	0.0782	30
2	FHC no.2	3869	0.0972	37
3	FHC no.3	6404	0.1609	61
4	FHC no.4	2941	0.0739	28
5	FHC no.5	4319	0.1085	42
6	FHC no.6	3193	0.0802	30
7	FHC no.7	4884	0.1227	47
8	FHC no.8	3801	0.0955	37
9	FHC no.9	2952	0.0741	29
10	FHC no.10	2007	0.0504	20
11	FHC no.11	2311	0.0580	22
	<b>Total</b>	<b>39793</b>	<b>0.9416</b>	<b>383</b>

### Data Collection Tools

The study's data were collected using the Mother-Child Information Form and the Beck Depression Inventory (BDI).

The Mother-Child Information Form: The researcher-prepared mother-child information form consists of 18 questions about the child's characteristics, such as gender, age range, screen viewing duration, screen time supervision, content supervision, speech problems, overweight, and vision problems, as well as demographic and descriptive features of the mother, including age, employment status, income level, family type, number of children, screen time, number of smartphones and televisions at home, and the rooms where the tv is located (Anand et al., 2014; Parks et al., 2018; Brummelte and Galea, 2016).

Beck Depression Inventory-II (BDI-II): The BDI-II is a self-assessment tool used to determine the severity of depression. Developed by Aaron T. Beck and colleagues

in 1961, the scale allows for subjective identification of depression symptoms. It was adapted into Turkish by Hisli in 1989, and its reliability has been proven. It is a measure that evaluates the characteristic features and symptoms of depression. The purpose of the scale is not to diagnose depression but to quantify the severity of depression symptoms over the past week with numerical data. The scale contains 21 items. Each item has four options, arranged from least to most severe, scored 0-3. 0: No or minimal symptoms. 3: Very intense symptoms. The total score determines the severity of depression: up to 9 points indicates minimal depression, up to 16 points indicates mild depression, up to 29 points indicates moderate depression, and up to 63 points indicates severe depression (Hisli, 1989). The BDI-II is a psychometrically reliable and valid instrument. It covers cognitive, emotional, physiological, and behavioral symptoms of depression. However, since it is based on self-report, it depends on the individual's honesty and subjective perception. The Cronbach's alpha for this study was 0.91.

**Data Collection Process**

After obtaining the necessary permissions, data was collected from January 1, 2023, to May 30, 2023. At the Family Health Center, the mother-child information form and scale were administered by researchers after obtaining mothers' consent.

**Data Analysis**

The IBM SPSS 23.0 software package was used. The level of statistical significance was accepted as  $p \leq 0.05$ . Mann-Whitney U and Kruskal-Wallis tests were applied for non-normally distributed data. Bonferroni correction was used for significant data. The Pearson Chi-Square test was used to compare categorical variables.

**Ethical Aspect of the Research**

Necessary permissions have been obtained from the Kırşehir Provincial Health Directorate and the Kırşehir Ahi Evran University Clinical Research Ethics Committee to conduct the study (Decision No: 2022-22/192, Date:

12/06/2022). Additionally, written consent has been obtained from mothers aged 18-49 who participated in the study.

**Findings**

It was found that 54.4% of the children participating in the study are boys, 50.8% are between 2 and 3 years old, 26.4% have excess weight, 14.9% have visual problems, and 89.1% have speech delay. The most common activity during the day was watching videos, with 66.9% of children engaging in it. All participants' homes had smartphones and televisions; 51.4% had tablets, and 30.1% had gaming consoles. Televisions were found not only in the living room but also in 14% of children's bedrooms and 54.1% of kitchens (Table 2). Sociodemographic data of the mothers participating in the study are summarized in Table 2.

**Table 2. Characteristics of Children**

Characteristic	n	%
<b>Child gender</b>		
Girl	150	45.6
Boy	179	54.4
<b>Age range of the child</b>		
0-1	31	9.4
2-3	167	50.8
4-6	131	39.8
<b>Caregiver other than mother (n=202)*</b>		
Caregiver	100	49.5
Extended family member	102	50.5
<b>Overweight status of the Child</b>		
Yes	87	26.4
No	242	73.6
<b>Vision problems in the child</b>		
Yes	49	14.9
No	280	85.1
<b>Delayed speech in the child</b>		
Yes	293	89.1
No	36	10.9
<b>Most frequent daily activity of the child</b>		
Watching videos	220	66.9
Playing games	109	33.1
<b>Technological devices available at home</b>		
Television – Yes	329	100.0
Television – No	0	0.0
Tablet – Yes	169	51.4
Tablet – No	160	48.6
Game console – Yes	99	30.1
Game console – No	230	69.9
Smartphone – Yes	329	100.0
Smartphone – No	0	0.0
<b>Rooms with a television at home</b>		
Child's room – Yes	46	14.0
Child's room – No	283	86.0
Living room – Yes	329	100.0
Living room – No	0	0.0
Kitchen – Yes	178	54.1
Kitchen – No	151	45.9

The average age of the mothers is  $29.10 \pm 5.81$  years; 50.5% are between 25 and 34 years old. While 55.3% of the mothers are not working, 51.7% of those who are employed work during the day. Among the participants, 68.7% live with their nuclear family, 88.4% reside in the city center, and 45.9% report that their income is less than their expenses. Regarding children, 35.6% of mothers have

two children, while the rest have only one child. Of the first children, 54.4% are boys; for the second children, 69.2% are girls. The first and second children are, respectively, in the 2-3-year age range at rates of 50.8% and 58.1%. Additionally, 61.4% of mothers receive help with child care, and the most common helper is a family elder (50.5%; Table 3).

**Table 3.** Distribution of Mothers' Descriptive Characteristics and Beck Depression Scale Scores

Characteristics	N (%)	Median (min-max)	p	Test statistic
<b>Age groups</b>				
19-24	91 (27.7)	14.0 (6.0-28.0)	0.000	KW=28.500
25-34	166 (50.5)	14.5 (5.0-29.0)		
35-42	72 (21.9)	18.0 (10.0-27.0)*		
<b>Employment status</b>				
Employed	147 (44.7)	18.0 (10.0-29.0)	0.000	z=-3.845
Unemployed	182 (55.3)	14.0 (5.0-28.0)		
<b>Working time</b>				
Daytime	76 (51.7)	17.0 (10.0-19.0)	0.000	z=-6.232
Day & night	71 (48.3)	19.0 (12.0-29.0)		
<b>Family type</b>				
Nuclear family	226 (68.7)	12.0 (5.0-29.0)*	0.000	KW=108.472
Extended family	63 (19.1)	19.0 (17.0-28.0)		
Separated family	40 (12.2)	19.0 (17.0-24.0)		
<b>Income level</b>				
More than expenses	62 (18.8)	14.0 (10.0-29.0)	0.000	KW=24.573
Equal to expenses	116 (35.3)	18.0 (10.0-24.0)		
Less than expenses	151 (45.9)	12.0 (5.0-28.0)*		
<b>Number of children aged 12-72 months</b>				
One	212 (65.4)	14.0 (5.0-29.0)	0.044	z=-2.016
Two	117 (35.6)	18.0 (5.0-24.0)		
<b>Age range of the first child</b>				
0-1	31 (9.4)	15.0 (6.0-22.0)	0.295	KW=2.297
2-3	167 (50.8)	14.0 (6.0-21.0)		
4-6	131 (39.8)	15.0 (5.0-29.0)		
<b>Age range of second child (n=117)</b>				
0-1	49 (41.9)	12.5 (6.0-18.0)	0.000	z=-3.701
2-3	68 (58.1)	17.0 (5.0-29.0)		
<b>Receiving help in childcare</b>				
Yes	202 (61.4)	18.0 (10.0-29.0)	0.000	z=-6.189
No	127 (38.6)	12.0 (5.0-28.0)		
<b>Person providing help</b>				
Caregiver	100 (49.5)	18.0 (10.0-24.0)	0.058	z=-1.892
Extended family member	102 (50.5)	18.0 (11.0-29.0)		
<b>Daily screen time</b>				
Less than 1 hour	61 (18.5)	15.0 (6.0-22.0)	0.287	KW=2.497
1-3 hours	60 (18.2)	14.0 (6.0-21.0)		
More than 3 hours	208 (63.2)	17.0 (5.0-29.0)		
<b>Screen time supervision</b>				
Yes	217 (65.9)	14.0 (5.0-29.0)	0.007	z=-2.681
No	112 (34.1)	18.0 (6.0-28.0)		
<b>Screen content supervision</b>				
Yes	199 (60.4)	14.0 (5.0-29.0)	0.001	z=-3.308
No	130 (39.6)	18.0 (6.0-28.0)		

\* Bonferroni-adjusted test; z = Mann-Whitney U test; KW = Kruskal-Wallis test

When comparing total scores from the scale across mothers' age groups, a statistically significant difference was found (KW=28.500,  $p=0.000$ ). When comparing scale total scores by mothers' employment status, working mothers scored significantly higher than non-working mothers ( $z = -3.845$ ,  $p = 0.000$ ). Among working mothers, those working in rotating shifts had higher BDÖ scores than those working in day shifts ( $z = -6.232$ ,  $p = 0.000$ ). When comparing median scale scores across family types, a statistically significant difference was observed (KW = 108.472,  $p = 0.000$ ). When comparing scale scores by mothers' residential areas, those living in the city center had statistically significantly higher scores than those

living in districts ( $z = -3.701$ ,  $p = 0.000$ ). When comparing BDÖ scores according to income levels, a statistically significant difference was observed among the groups (KW=24.573,  $p=0.000$ ). Mothers with two children aged 12-72 months had significantly higher BDÖ scores than mothers with only one child ( $z=-2.016$ ,  $p=0.044$ ). The total scale scores of those receiving help with child care were statistically significantly higher than those who did not receive help; however, there was no statistically significant difference in scale scores when the person providing care was a family elder or a caregiver (respectively,  $z=-6.189$ ,  $p=0.000$ ;  $z=-1.892$ ,  $p=0.058$ ) (Table 3).

**Table 4.** Relationship Between Screen Time, Content, and Duration Control According to Maternal Depression Severity

Depression severity	Yes	No	Total	$\chi^2$	p
Minimal depression	34	19	53 (16.1)	27.194	0.000
Mild depression	93	17	110 (33.4)		
Moderate depression	90	76	166 (50.5)		
Total	217	112	329		
<b>Screen content supervision</b>					
Depression severity	Yes	No	Total	$\chi^2$	p
Minimal depression	34	19	53 (16.1)	47.278	0.000
Mild depression	93	17	110 (33.4)		
Moderate depression	72	94	166 (50.5)		
Total	199	130	329		
<b>Child's daily screen time</b>					
Depression severity	< 1 hour	$\geq 1$ hour	Total	$\chi^2$	p
Minimal depression	32	21	53 (16.1)	34.568	0.000
Mild depression	54	56	110 (33.4)		
Moderate depression	37	129	166 (50.5)		
Total	123	206	329		

There is a statistically significant difference between screen time regulation and the severity of mothers' depression ( $\chi^2 = 27.194$ ,  $p = 0.000$ ). Mothers with mild depression are significantly more likely to regulate screen time minimally and moderately more than those with moderate depression ( $\chi^2 = 25.428$ ,  $p = 0.000$ ) (Table 4). There is a significant difference in terms of content regulation based on the severity of mothers' depression ( $\chi^2 = 47.278$ ,  $p = 0.000$ ). Mothers with moderate depression are significantly more likely not to regulate screen content compared to those with mild depression and minimal depression ( $\chi^2 = 41.053$ ,  $p = 0.000$ ); mothers with mild depression are significantly more likely to regulate screen time minimally and moderately than those with moderate depression ( $\chi^2 = 40.022$ ,  $p = 0.000$ ) (Table 4). There is a significant difference in the amount of time children spend in front of screens based on the severity of mothers' depression, and this difference stems from mothers with moderate depression ( $\chi^2 = 34.568$ ,  $p = 0.000$ ). Children of mothers with moderate depression are more likely to spend an hour or more in front of screens compared to children of mothers with minimal and mild depression ( $\chi^2 = 32.621$ ,  $p = 0.000$ ) (Table 4).

## Discussion

This study was conducted to determine the relationship between the depression levels of women and children's screen exposure in a medium-sized city in Central Anatolia. Additionally, this section will include a discussion on maternal depression and other descriptive factors related to children's screen exposure.

The presence of depression in women, especially when combined with the maternal role, can lead to changes in the home environment where children are present (Goodman and Garber, 2017). Early childhood is a period when the time spent with the mother is longer than with other family members. There is evidence in the literature that the presence of depressive mood in mothers affects their children's screen time and the age at which they are introduced to screens (Anand et al., 2014). Therefore, the presence of depression in mothers is also an important finding for child health. In this study, based on mothers' BDÖ-II scores, it appears that there are more mothers with mild and moderate depression. Similarly, a multicenter study conducted in Turkey found that 24.9% of women had mild, 4% had moderate, and another 4% had severe depressive symptoms, indicating that depression

symptoms are more common in women (Yıldız, Aydın, Aydın, Phiri, and Yıldız, 2024). Depression is negatively associated with age, education level, income, physical activity, and chronic illness (Ammerman et al., 2015; Taşkıran, 2025). Additionally, along with socioeconomic factors, variables such as pregnancy, childbirth, and the frequency of births have been shown to influence depression in women. Women with multiple small children are more prone to depression. Although this seems related to increased caregiving burden, prenatal depression has been identified as an underlying risk factor. Postnatal and later-stage maternal depression are also significant factors (Goodman and Garber, 2017). In this study, mothers who have two children under the age of 6, with the second child's age between 2 and 3 years, were found to be more depressed.

Research indicates that young children are most frequently exposed to the television screen, and they can be continuously exposed to the television that remains on in the room, including in the background (Shah et al., 2021; Yang-Huang et al., 2018). The presence of multiple televisions in different rooms increases screen exposure. In this study, it was observed that all homes had televisions and smartphones, and that a second television was present in the kitchen and children's room. In Turkey, the average household television viewing time is 6 hours and 22 minutes, with an individual average of 3 hours and 44 minutes (TİAK, 2024). Compared to other Asian countries, Turkey has a higher television viewing time, resulting in significantly higher screen exposure. Since watching cartoons on television during early childhood is known to be longer than the time spent on tablets and computers, the presence of multiple televisions is clearly a factor that increases children's screen exposure (Yang-Huang et al., 2018).

In adult women, depression manifests as a lack of interest in behaviors and indifference. While this indifference toward the parental role does not interfere with child care, it can lead to less communication during time spent with the child and negatively affect the maintenance of effective parenting (Bağcı, 2024; Goodman and Garber, 2017; Tunçay, Aydemir ve Çakıcı, 2024). Additionally, it can be assumed that the time spent with the mother outside of screen time also decreases. In this study, it was found that depressive mothers watch more television and have significantly less control over their children's screen time and content compared to non-depressive mothers.

The level of depression significantly affects women's self-efficacy, roles, and relationships to varying degrees. It is known that at moderate to severe depression levels, these functions are impacted, posing a risk (Foster et al., 2008). When considering depression severity, mothers with moderate depression are more likely to have children with screen time of an hour or more compared to mothers with mild depression; additionally, they tend to have less screen supervision. The intensity of depressive episodes has a considerable impact on mothers' role functions (Brummelte and Galea, 2016). In this regard, the negative effects of depression on parenting behaviors can also lead to earlier exposure of children to screens (Parks et al., 2018). Experts agree there is no proven reason for introducing children to screens before age 2. Furthermore, the duration of screen exposure and the age at first screen contact are emphasized as important factors (Ponti, 2023). In this context, children of depressed mothers are more

likely to be exposed to screens more frequently and at an earlier age, which can negatively affect their social, physical, and cognitive development. The study found issues such as vision problems, excess weight, and delayed speech in the children of participating mothers. Of course, these issues cannot be solely attributed to screen exposure. However, in a society where depression is prevalent, the presence of such problems among related factors intensified by depression is not coincidental.

## Results

In conclusion, it was found that the severity of depression in mothers participating in the study affects the monitoring of their children's screen time and content by the mother, as well as the screen time itself. Depressed mothers tend to monitor their children's screen time and content less, and their children's screen time increases. It was observed that children of mothers with moderate depression are more likely to have a screen time of one hour or more, and that children of mothers with mild depression have less screen time compared to those with moderate depression. It was also determined that mothers aged 35-42, working in shifts, from extended or fragmented families, with an average income level, who have two children under 6 years old, and whose second child is between 2 and 3 years old, tend to be more depressed.

## Suggestions

First, increasing depression screenings in adults is recommended. Since mothers with a depressive mood are known to have children at risk, this group of mothers and children can be supported and counseled through community mental health services. Additionally, the Ministries of Health and National Education should collaborate to set clear goals to reduce children's screen exposure and minimize developmental issues.

Second, seminars involving families can be implemented in the community regarding the importance of having children at appropriate times and in appropriate numbers, which are significant factors in maintaining maternal mental health. To sustain healthy parenting, continuous and integrated support should be provided to mothers; this aims to support mothers in their parenting role, reduce children's screen exposure, and minimize developmental problems.

## Limitations

The data and findings of this study are limited to the population from which the sample was drawn. It was based on self-reported data from mothers who visited the family health center. All data related to children were based on the mothers' statements. Due to limitations in the data set, regression analysis could not be performed, which restricted the explanatory power of the results.

## Declarations

### Ethics approval and participation consent

Necessary permissions for the study have been obtained from the Kırşehir Provincial Health Directorate and the Kırşehir Ahi Evran University Clinical Research Ethics Committee (Decision No: 2022-22/192, Date: 12/06/2022). Additionally, written consent has been obtained from mothers aged 18-49 who participated in the study.

### Publication Permission

Not Applicable

**Availability of Data and Materials**

Not Applicable

**Conflict of Interest Statement**

There are no conflicts of interest in our research.

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**Author Contributions**

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**References**

- Ammerman, R. T., Altaye, M., Putnam, F. W., Teeters, A. R., Zou, Y., & Van Ginkel, J. B. (2015). Depression improvement and parenting in low-income mothers in home visiting. *Archives of Women's Mental Health, 18*, 555-563. <https://doi.org/10.1007/s00737-014-0479-7>
- Anand, V., Downs, S. M., Bauer, N. S., ve Carroll, A. E. (2014). Prevalence of infant television viewing and maternal depression symptoms. *Journal of Developmental & Behavioral Pediatrics, 35*(3), 216-224. <https://doi.org/10.1097/DBP.0000000000000035>
- Bağcı Çetin, B. (2024). 4-6 Yaş aralığındaki çocukların problemli teknoloji kullanımı ve annelerin ebeveynlik stres düzeylerinin çocukların dikkat düzeylerini yordayıcı rolü. *Türk Eğitim Bilimleri Dergisi, 22*(2), 1147-1171. <https://doi.org/10.37217/tebd.1417347>
- Brummelte, S., & Galea, L. A. (2016). Postpartum depression: Etiology, treatment and consequences for maternal care. *Hormones and behavior, 77*, 153-166. <https://doi.org/10.1016/j.yhbeh.2015.08.008>
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., ... & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of research in Nursing, 25*(8), 652-661. <https://doi.org/10.1177/1744987120927206>
- Ferber, S. G., Feldman, R., & Makhoul, I. R. (2008). The development of maternal touch across the first year of life. *Early human development, 84*(6), 363-370. <https://doi.org/10.1016/j.earlhumdev.2007.09.019>
- Foster, C. E., Webster, M. C., Weissman, M. M., Pilowsky, D. J., Wickramaratne, P. J., Rush, A. J., ... & King, C. A. (2008). Course and severity of maternal depression: Associations with family functioning and child adjustment. *Journal of youth and adolescence, 37*, 906-916. <https://doi.org/10.1007/s10964-007-9216-0>
- Goodman, S. H., & Garber, J. (2017). Evidence-based interventions for depressed mothers and their young children. *Child development, 88*(2), 368-377. <https://doi.org/10.1111/cdev.12732>
- Gökçe, A., Arslan, İ., Öz, S. Ü., Mete, U., Taşcı, D., ve Yengil Tacı, D. (2021). Yedi yaş altı çocuklarda mobil ekran maruziyeti. *Medical Journal of Ankara Training & Research Hospital, 54*(2), 188-193. <https://doi.org/10.20492/aeahtd.543807>
- Hisli, N. (1989). Beck depresyon envanterinin üniversite öğrencileri için geçerliliği, güvenilirliği. (A reliability and validity study of Beck Depression Inventory in a university student sample). *J. Psychol., 7*, 3-13.
- Kaur, N., Gupta, M., Malhi, P., & Grover, S. (2019). Screen time in under-five children. *Indian pediatrics, 56*, 773-788. <https://doi.org/10.1007/s13312-019-1638-8>
- Keskindemirci, G., & Gökçay, G. (2020). Dil gelişimi gecikmiş olan çocuklarda ekran maruziyeti: ön çalışma sonuçları. *Istanbul Tıp Fakültesi Dergisi, 82*(4), 29-30. <https://doi.org/10.26650/IUITFD.2019.0020>
- Kılıç, C. ve Metin E.N. (2024). 12-36 aylık çocukların ekran sürelerinin ebeveyn davranışları açısından incelenmesi. *Hacettepe University Faculty of Health Sciences Journal, 11*(3), 648-670. <https://doi.org/10.21020/husbfd.1101868>
- Kuzik, N., Poitras, V. J., Tremblay, M. S., Lee, E. Y., Hunter, S., & Carson, V. (2017). Systematic review of the relationships between combinations of movement behaviours and health indicators in the early years (0-4 years). *BMC public health, 17* (Suppl 5), 849. <https://doi.org/10.1186/s12889-017-4851-1>
- Lee, S. T., Wong, J. E., Ong, W. W., Ismail, M. N., Deurenberg, P., & Poh, B. K. (2016). Physical activity pattern of Malaysian preschoolers: environment, barriers, and motivators for active play. *Asia Pacific Journal of Public Health, 28* (5-suppl), 21S-34S. <https://doi.org/10.1177/1010539516638155>
- Madigan, S., McArthur, B. A., Anhorn, C., Eirich, R., & Christakis, D. A. (2020). Associations between screen use and child language skills: a systematic review and meta-analysis. *JAMA pediatrics, 174*(7), 665-675. <https://doi.org/10.1001/jamapediatrics.2020.0327>
- McArthur, B. A., Volkova, V., Tomopoulos, S., & Madigan, S. (2022). Global prevalence of meeting screen time guidelines among children 5 years and younger: a systematic review and meta-analysis. *JAMA pediatrics, 176*(4), 373-383. <https://doi.org/10.1001/jamapediatrics.2021.6386>
- Mustonen, R., Torppa, R., & Stolt, S. (2022). Screen time of preschool-aged children and their mothers, and children's language development. *Children, 9*(10), 1577. <https://doi.org/10.3390/children9101577>
- Park, S., Chang, H.Y., Park, E-J., Yoo, H., Jo, W., & Kim S-J. (2018). Maternal depression and children's screen overuse. *Journal of Korean Medical Science, 33*(34), 1-5. <https://doi.org/10.3346/jkms.2018>
- Ponti, M. (2023). Screen time and preschool children: Promoting health and development in a digital world. *Paediatrics & Child Health, 28*(3), 184-192. <https://doi.org/10.1093/pch/pxac125>
- Shah, P. E., Hirsh-Pasek, K., Kashdan, T. B., Harrison, K., Rosenblum, K., Weeks, H. M., ... & Kaciroti, N. (2021). Daily television exposure, parent conversation during shared television viewing and socioeconomic status: Associations with curiosity at kindergarten. *PloS one, 16*(10), 216-224. <https://doi.org/10.1371/journal.pone.0258572>
- Taşkıran, A. (2025). Yaşlı Bireylerde Sosyal Medya Kullanımının Sosyal Bağların Geliştirilmesine ve Bilgi Erişimine Etkisinin İncelenmesine Yönelik Bir Derleme. *Avrupa Sosyal Bilimler Arşivleri Dergisi, 2*(1). <https://doi.org/10.35365/eass.25.2.05>
- Tunçay, Şeyma, Aydemir, D., & Çakıcı, A. (2024). Özel Öğrenme Güçlüğüne Sahip Çocuklar Ve Ebeveynlerinin Kaygı ve Depresyon Düzeyleri İle İlgili Yapılan Çalışmalar: Geleneksel Derleme. *Avrupa Sosyal Bilimler Arşivleri Dergisi, 1*(2). <https://doi.org/10.35365/eass.24.2.04>
- TİAK. (2024). 2023 Yılı Televizyon İzleme Davranışları Özet Veriler. Televizyon İzleme Araştırmaları Komitesi A.Ş. Erişim tarihi: 20 Şubat 2025, <https://tiak.com.tr/upload/files/kunye.pdf>
- Yang-Huang, J., van Grieken, A., Wang, L., Jaddoe, V. W., Jansen, W., & Raat, H. (2018). Ethnic background and children's television viewing trajectories: The Generation R. Study. *PLoS One, 13*(12), 1-14. <https://doi.org/10.1371/journal.pone.0209375>
- Yıldız, N. G., Aydın, K., Aydın, H. Z., Phiri, Y. V., & Yıldız, H. (2024). Türkiye'de Depresyonun Yaygınlığı ile İlişkili Faktörler: Nüfusa Dayalı Bir Çalışma. *Turkish Journal of Psychiatry, 35*(3), 167-177. <https://doi.org/10.5080/u2717>