Nany Hairunisa

Multivariate Analysis of Risk Factors for Destructive Behavior in Children in Indonesia



Manuscript 14



MKMI new



Universitas Hasanuddin

Document Details

Submission ID

trn:oid:::1:3366797228

Submission Date

Oct 9, 2025, 9:55 AM GMT+7

Download Date

Oct 9, 2025, 10:01 AM GMT+7

File Name

REVISI_-_46018.docx

File Size

6.0 MB

12 Pages

5,231 Words

31,496 Characters





12% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography
- Quoted Text

Match Groups

39 Not Cited or Quoted 10% Matches with neither in-text citation nor quotation marks

9 Missing Quotations 2%

Matches that are still very similar to source material

O Missing Citation 0%

Matches that have quotation marks, but no in-text citation

O Cited and Quoted 0%
 Matches with in-text citation present, but no quotation marks

Top Sources

7% 📕 Publications

3% **L** Submitted works (Student Papers)





Match Groups

39 Not Cited or Quoted 10%

Matches with neither in-text citation nor quotation marks

9 Missing Quotations 2%

Matches that are still very similar to source material

0 Missing Citation 0%

Matches that have quotation marks, but no in-text citation

• 0 Cited and Quoted 0%

Matches with in-text citation present, but no quotation marks

Top Sources

7% 🔳 Publications

3% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1 Internet	
www.coursehero.com	<1%
2 Internet	
primary.ejournal.unri.ac.id	<1%
3 Internet	
irisjournal.org	<1%
4 Internet	
www.medrxiv.org	<1%
5 Publication	
Zuhair Al-Nerabieah, Muaaz AlKhouli, Mayssoon Dashash. "Parental Satisfaction	<1%
6 Internet	
www.researchgate.net	<1%
7 Publication	
	-40/
Widya Sepalanita, Alif Faturachman, Toto Subiakto. "The Effect of Diaphragmatic	<1%
8 Internet	
www2.mdpi.com	<1%
9 Internet	
perpustakaan.poltekkes-malang.ac.id	<1%
10 Internet	
www.frontiersin.org	<1%





Publication Vlad Alexandru Ionescu, Gina Gheorghe, Coralia Bleotu, Liliana Puiu et al. "Circul	<1%
12 Internet	
www.merckmanuals.com	<1%
ijsred.com	<1%
14 Internet	
www.biomedcentral.com	<1%
Publication Kimberly J. Harris, Kevin S. Murphy, Robin B. DiPietro, Nathaniel D. Line. "The ant	<1%
16 Internet go.gale.com	<1%
17 Internet consortiacademia.org	<1%
18 Publication Bilandi Hakim Estu Mukti, Novendy Novendy. "INTEGRATIVE MANAGEMENT OF H	<1%
Publication Fransiska Kaligis, R. Irawati Ismail, Tjhin Wiguna, Sabarinah Prasetyo et al. "Trans	<1%
20 Student papers University of Lincoln	<1%
21 Internet www.circumpolarhealthjournal.net	<1%
22 Internet advancesinresearch.id	<1%
23 Internet ejournal.poltekharber.ac.id	<1%
24 Internet ejournal.undiksha.ac.id	<1%





25 Internet	
journal.ascarya.or.id	<1%
26 Internet	
www.cambridge.org	<1%
27 Internet	
www.ncbi.nlm.nih.gov	<1%
28 Publication	
Rouwaida Halawani, Iman Kamal Ramadan, Zuhair S. Natto. "Burnout and Work E	<1%
29 Internet	
assets.cureus.com	<1%
30 Internet	
ijrp.org	<1%
31 Internet	
www.journalmpci.com	<1%
32 Publication	
Amjad H Jarrar, Pariyarath S Thondre, Leila Cheikh Ismail, Helen Lightowler et al	<1%
33 Internet	
journal.fk.unpad.ac.id	<1%
34 Internet	
jurnal.umsu.ac.id	<1%
35 Internet	
www.science.gov	<1%
36 Publication	
Roberta Rizzo, Gaia Fusto, Serena Marino, Iside Castagnola, Claudia Parano, Xena	<1%
37 Publication	
Fengqiang Gao, Chunze Xu, Qing Lv, Yufei Zhao, Lei Han. "Parent-child communic	<1%
38 Publication	
Qi Li, Sen Dong, Taiqiang Yan, Hong Zhao. "Association between intraoperative fl	<1%





Media Kesehatan Masyarakat Indonesia

Volume 18 Issue 2 2022 DOI: 10.30597/mkmi.v16i2.9090

Website: http://journal.unhas.ac.id/index.php/mkmi

© 2022 by author. This is an open access article under the CC BY-NC-SA license



Multivariate Analysis of Risk Factors for Destructive Behavior in Children in

22	Ind	on	esia

AKT	ICLE	INF	U

Article History: Received Accepted

Published online

Keywords:

Conduct disorders; children; disruptive behavior; screen time; parenting pattern

ABSTRACT

Background. Conduct disorders pose a significant global burden, affecting an estimated 5.75 million children and adolescents, especially boys. Conduct disorders involve repetitive behaviors that violate others' rights and can jeopardize normal relationships between children and those around them. Major behavioral issues in children often occur in both school and family settings and are closely linked to the roles of parents and teachers as educators and guides. Additionally, children at a young age are highly curious and eager to explore new things; the rapid growth of technology introduces new challenges for them. Without parental guidance, considering factors such as parenting styles, education level, socioeconomic status, and occupation, children's social lives may be significantly impacted. This study aims to analyze various risk factors associated with disruptive behavior among children in Indonesia. Materials and methods. This cross-sectional study used a guided questionnaire involving 301 parents/guardians of children aged 2-5 years. In this regard, the researchers were assisted by data enumerators residing at the study site. Data collection was conducted in two regions in Indonesia, Greater Jabodetabek (Jabodetabek) and Aceh, from October 2024 to January 2025. Bivariate analyses were performed using the Chi-square test, followed by binary logistic regression to determine factors independently associated with disruptive behavior. Results. Bivariate analysis indicated that type of content (p = 0.017), screen time allocation (p = 0.018), and parenting pattern (p = 0.043) were significantly associated with disruptive behavior, while other variables such as parental education, domicile, occupation, marital status, and child's age or gender showed no significant relationships. In the multivariate model, only type of content remained a significant predictor (p = 0.018). Conclusion. The study highlights that the quality of media content, rather than the amount of screen time, plays a key role in the emergence of disruptive behavior among children. Parental guidance and the selection of educational media content are essential preventive strategies. Interventions focusing on digital literacy and positive parenting may help mitigate the risk of behavioral problems in early childhood.









INTRODUCTION

Conduct disorder is a significant global burden, with an estimated 5.75 million children and adolescents experiencing this problem, especially boys. Conduct disorder involves a repetitive pattern of behavior that violates the basic rights of others and can threaten normal relationships between children and those around them. The phenomenon of significant conduct disorder in children occurs in both school and family environments, and is closely tied to the roles of parents and teachers as educators and guides. Recent research conducted in Ontario. Canada. shows consistency in the presence of behavioral disorders in the general population, namely 5.5% of children aged 4-16 years have behavioral disorders, in Queensland, 6.7% in children aged 10 years, and in Dunedin, New Zealand, 6.9% in children aged 7 years.² Meanwhile, based on RISKESDAS data from the Indonesian Ministry of Health in 2028, the prevalence of 9.8% of Indonesians suffering from mental behavioral disorders.3

Indonesia has little research on disruptive behavior in early childhood. A study conducted in 2015 by Purwati and Japar (2017:228) at PAUD Magelang found that 35% to 56% of children in each class exhibited disruptive behavior.4 This is in line with the results of research on professional practice data from the Center of Public Mental Health, Faculty of Psychology, UGM, which found that 34% of early childhood children have a tendency experience behavioral disorders.5 In addition, according to a recapitulation of emotional and behavioral problems from Cipto Mangunkusumo Hospital clinic in Jabodetabek, 27.3% of 106 early childhood experienced behavioral disorders.6

Ages 2-5 years are included in early childhood, during which children exhibit growth and development patterns in physical, cognitive, socio-emotional, creative, language, communication aspects that adapt to the environment and phases the child experiencing at that time. Children need to receive positive stimuli so that they can grow and develop in a good direction. One important stimulus is audio-visual media.7 At this age, the brain is going through a significant development phase in increasing knowledge and education, so that everything received from the stimulus given

will greatly impact and affect their personality in the future.⁸

As the world of technology continues to develop, more risk factors will impact society. The increasing use of mobile phones, also known as handphones (HP), also increases screen time (ST) for users who utilize audio-visual media, with children and adolescents often interacting with various types of screens and exploring diverse content.9 Moreover, children at an early age are inquisitive and very interested in new and this increasingly developing technology is something new for children.5 Without guidance/guidance from parents related to parenting patterns, parental education levels, socio-economic and parental work, this will affect the child's social life.9

Several researchers have conducted numerous studies on mobile phone screen time, examining its relationship with children, both positive and negative, and its impact on the child's social life and personality. It all depends on what is watched and what is seen and learned by the child at that time.^{10,11}

A longitudinal study of 491 families showed that there is a bidirectional relationship between parenting style (authoritarian, permissive, overprotective) and children's symptoms of ADHD, ODD, depression, and anxiety—that is, parenting styles shape the symptoms of the disorders, and children's symptoms also shape subsequent parenting styles.¹²

Therefore, it is hoped that this study will provide insight into the landscape and examine how various factors, such as mobile phone screen time, parenting patterns, parents' education, socioeconomic status, and parental work, are related to the emotional and behavioral health of children.

MATERIAL AND METHOD

Data collection was carried out from October 2024 to January 2025. The study took place in JABODETABEK and Aceh. The employed an analytical design with a crosssectional approach, using guided questionnaire. During this process, researcher and data enumerator interviewed parents or guardians to gather data. The accessible population consisted of parents or guardians of children aged 2-5 years in the selected areas. Purposive sampling was used to select the sample. The total sample included 301 respondents from two targeted regions in









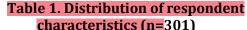
Indonesia. The inclusion criteria of this study are parents/guardians who have children aged 2-5 years who live in Jabodetabek and Aceh, and the exclusion criteria are Parents/guardians who have children with a history of certain psychological illnesses, such as intellectual disability, autism, and Down syndrome (based on observations and interviews with the parents/guardians of the child). The primary data sources included questionnaires, such as the Smartphone Addiction Scale-Short Version (SAS-SV)¹³ and the Disruptive Behavior Disorder Scale¹⁴, as well as assessments of parenting patterns.¹⁵

Additional questions were added based on research needs, including socio-economic status, education level, and parents' occupations. Participants who met the inclusion and exclusion criteria were chosen as research subjects. Information about the child's gender and age was collected from their responses to the questionnaire. Trained researchers and data enumerators conducted guided interviews with parents or guardians and assisted in completing the questionnaires to ensure all questions were answered.

Statistical analysis was performed using SPSS for Mac v.28. The chi-square test and Fisher's exact test were used for bivariate testing. Multinomial logistic regression was used to determine whether gender, age, duration of gadget use, type of media exposure, parenting style, and smartphone addiction significantly influenced a child's risk of developing a specific behavioral disorder (ADHD, ODD, or combined ADHD and ODD) categorized as disruptive behavior compared to children who did not exhibit the disorder (normal category). The accepted safety level was 95%, and a p-value <0.05 was considered statistically significant. This study received ethical approval from the Research Ethics Committee of the Faculty of Medicine. Universitas Trisakti, with No. 001/KER/FK/11/2024.

RESULTS

This study collected primary data from October 2024 to January 2025 using a validated questionnaire to gather information from parents or guardians of children aged 2-5 years in Jabodetabek, Bogor, Depok, Tangerang, Bekasi (JABODETABEK), and Aceh.



characteristics	(n=30)	1)
Variable	N	Percentage (%)
Age		(10)
20-30 y.o	90	29.9
31-40 y.o	169	56.1
41-50 y.o	42	14
Gender	42	14
	262	07.4
Female	263	87.4
Male	38	12.6
Relationship with		
Children	a=4	
Parents	271	90
Guardian	30	10
Parents/guardian		
Education level		
Secondary School	6	2
High School	74	24.6
Diploma/Bachelor degree	195	64.8
Master Degree	26	8.6
Occupation of		
Parents/Guardians		
Government employee	61	20.3
Teacher	14	4.7
Housewife	87	28.9
Private sector	56	18.6
Medical Personnel	15	5
	13	3
(doctors/nurses/midwives)	68	22.6
Self-employed	00	22.6
Marital Status of		
parents/guardian	40	4.0
Single (not	13	4.3
married/Divorced)		o = =
Married	288	95.7
Domiciled		
Aceh	142	47.2
Jabodetabek	159	52.8
Monthly income		
< Provincial Minimum	121	40.2
Wage		
≥ Provincial Minimum	180	59.8
Wage		
Children Age		
2-3 y.o	91	30.2
4-5 y.o	210	69.8
Children gender		
Male	159	52.8
Female	142	47.2
Do you work in the health		
sector?		
Yes	36	12
No	265	88
	203	00
Do you have Health Insurance?		
	265	OO
Yes	265	88
No Dalinian	36	12
Religion	200	00
Islam	298	99

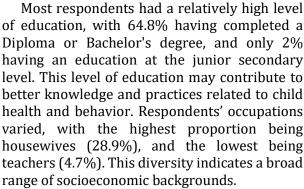




Christian/Catholic	3	1
Do you give your child		
screen time?		
Yes	260	86.4
No	41	13.6
How long do you usually		
give your child a		
cellphone/tablet?		
≤ 2 hours	254	84.4
> 2 hours	47	15.6
What kind of shows do		
you give your child?		
Education	252	83.7
Entertainment	44	14.6
Education and	5	1.7
Entertainment		
What content does your		
child usually watch/play?		
Youtube	225	74.8
Playing games	36	12.0
Television	37	12.3
Social Media	3	1.0
Smartphone Addiction		
Addicted	36	12.0
Not Addicted	265	88.0
Types of Parenting		
Patterns		
Authoritarian	91	30.2
Democratic	193	64.1
Permissive	17	5.6
Disruptive Behavior		
ADHD	14	4.7
ODD	6	2.0
ADHD + ODD	4	1.3
Normal	277	92.0

Source: Primary Data, 2024

This study included 301 participants who were parents or guardians of children aged 2 to 5 years. Based on age distribution, the majority of respondents were in the 31–40-year age group (56.1%), followed by those aged 20-30 years (29.9%) and 41–50 years (14.0%), as shown in Table 2. These findings suggest that most respondents were in their productive years, typically involved in active parenting roles. In terms of gender, the majority were female (87.4%), while only 12.6% were male. This gender disparity reflects that women, particularly mothers, tend to be more involved in caregiving and child-related decision-making. Regarding their relationship with the child, most respondents (90%) were biological parents, while 10% were guardians. This suggests that the child's own parents largely undertake caregiving and parenting responsibilities in the sampled population.



A vast majority of respondents (95.7%) were married, with only 4.3% being single or divorced. A stable marital status is often associated with a more supportive family environment, which may influence child development outcomes. Geographically, respondents came from two regions: Jabodetabek (52.8%) and Aceh (47.2%). This distribution allows for comparative analysis of regional differences in parenting practices, access to services, and child behavior. Regarding monthly income, 59.8% of respondents earned at or above the provincial minimum wage, while 40.2% earned below it. This provides a useful proxy for the economic diversity of the sample.

The age distribution of the children showed that 69.8% were between 4 and 5 years old, and 30.2% were between 2 and 3 years old. The gender of children was nearly balanced, with 52.8% male and 47.2% female. Only 12% of respondents worked in the health sector, while 88% did not, suggesting that most caregivers were not health professionals. Nonetheless, access to healthcare was relatively high, with 88% of respondents having health insurance. In terms of religion, almost all respondents identified as Muslim (99%), and only 1% identified as Christian or Catholic, indicating a predominantly Muslim population.

A high proportion of respondents (86.4%) reported giving their child screen time, and 84.4% stated they limited this to less than or equal to two hours per day. Only 15.6% allowed more than two hours, indicating general awareness of recommended screen time limits for children. When asked about the type of shows they provided to their children, most chose educational content (83.7%), while a small percentage (1.7%)opted for combination of both. Regarding the platform or type of content, YouTube was the most commonly reported (74.8%), and social media (1.0%).









Smartphone addiction was identified in 12% of the children, while 88% were not considered addicted. This suggests that problematic screen use is present among a minority of children, warranting further investigation. In terms of parenting patterns, the majority of respondents reported using a democratic style (64.1%), followed by authoritarian (30.2%), and permissive parenting (5.6%). The prevalence of democratic parenting suggests a tendency toward balanced and communicative approaches in child-rearing.

Finally, when examining behavioral outcomes, most children were classified as having normal behavior (92%). However, 4.7% were identified with Attention Deficit Hyperactivity Disorder (ADHD), 2.0% with Oppositional Defiant Disorder (ODD), and 1.3% with a combination of both. Although the overall prevalence of disruptive behavior disorders was low, early identification remains important for appropriate intervention and support.

In summary, the respondents in this study were primarily well-educated, married women of reproductive age with a relatively high rate of health insurance coverage and awareness of child health recommendations. The characteristics of both parents and children, including income, parenting styles, and media exposure, provide essential context for interpreting behavioral outcomes in early childhood.

Bivariate Analysis: Factors Associated with Disruptive Behavior in Children

Table 2 presents the results of bivariate analysis examining the relationship between various sociodemographic and behavioral factors and the presence of disruptive behavior in children (ADHD, ODD, and a combination of both).

Based on the results of the Chi-square and Fisher's exact tests, several variables were found to have a statistically significant association with the occurrence of disruptive behavior among children (p < 0.05).

The analysis revealed that domicile, child age, type of show watched, and parenting pattern were significantly associated with disruptive behavior. Children living in Aceh were more likely to exhibit disruptive behavior compared to those living in Jabodetabek (p = 0.025). In terms of age, children aged 2–3 years demonstrated a higher proportion of disruptive behavior than those aged 4–5 years (p = 0.028).

The type of shows children usually watched was also significantly related to behavioral outcomes. Children who were primarily exposed to non-educational or entertainment shows were more likely to display disruptive behavior compared to those who watched educational content (p = 0.021). Furthermore, children raised under a non-democratic parenting pattern had a significantly higher prevalence of disruptive behavior compared to those raised under a democratic parenting style (p = 0.032).

In contrast, other variables such as parental age (p = 0.165), parental education level (0.207), marital status (p = 0.278), child gender (p = 0.891), screen time duration (p = 0.184), type of media used (passive vs. interactive) (p = 0.339), and smartphone addiction (p = 0.434) did not show a statistically significant relationship with disruptive behavior (p > 0.05).

of statistically The lack significant associations across several variables suggests that disruptive behavior in early childhood may be more strongly influenced by behavioral and environmental factors—such as exposure to media-rather than solely digital by sociodemographic characteristics. However, it is possible that these factors interact in more complex patterns that are not reflected in simple bivariate analyses.

These results underscore the importance of paying close attention not only to the type of media content children consume but also to the duration of time they spend using digital media. Furthermore, they point to the necessity of conducting more comprehensive multivariate analyses to address potential confounding variables and to gain a deeper understanding of how different risk factors interact in contributing to disruptive behaviors.

Logistic Regression Analysis

The binary logistic regression model was conducted determine the factors independently associated with disruptive behavior among children. As shown in Table 3, only the type of show variable demonstrated a statistically significant relationship disruptive behavior (p = 0.018). Children who predominantly watched non-educational shows were 3.47 times more likely to exhibit disruptive behavior compared to those who watched educational programs (OR = 3.477; 95% CI = 1.240 - 9.751).



10





Other variables, including parent's age (p = 0.068), parent's education level (p = 0.089), domicile (p = 0.130), child's age (p = 0.065), screen time duration (p = 0.301), and parenting pattern (p = 0.098), were not significantly associated with disruptive behavior. However, the p-values of parental age, child's age, and parenting pattern approached the significance level, indicating a potential trend that might become significant in larger samples.

DISCUSSION

The bivariate analysis in this study revealed significant associations between domicile, child age, type of show watched, and parenting style with disruptive behavior among preschool-aged children. Children from Aceh, aged 2–3 years, primarily watched non-educational entertainment content, and those raised with non-democratic parenting styles, exhibited a higher prevalence of disruptive behavior compared to their counterparts.

The association between media disruptive behavior supports content and evidence from both global and Indonesian studies emphasizing that the *type* of screen exposure is a more critical determinant of socioemotional outcomes than duration alone. A recent Indonesian study found that exposure to entertainment-oriented or aggressive digital media content was significantly associated with increased externalizing behaviors among preschoolers.16 Similarly, research Jabodetabek reported that excessive screen exposure correlated with greater emotional difficulties among young children, especially in lower socioeconomic groups.¹⁷ These findings suggest that non-educational digital content may overstimulate model inappropriate or behaviors, contributing to early disruptive tendencies.

The observed relationship between parenting style and child behavior is also consistent with both Indonesian and international literature. Studies in Indonesia have demonstrated that authoritative (democratic) parenting is associated with better emotional regulation and prosocial behavior, whereas authoritarian and permissive approaches are correlated with higher behavioral problems. 18-20 A review of Indonesian parenting practices similarly concluded that parent-child interaction quality strongly predicts child behavioral adjustment and that parenting interventions remain underutilized nationally.21

The finding that younger children (2-3 years) were more likely to display disruptive behavior aligns with developmental theory, which posits that early toddlerhood is characterized by limited emotional regulation and emerging autonomy-factors that may manifest as impulsivity and tantrums.²² Meanwhile, the difference in disruptive behavior by domicile (Aceh vs. Jabodetabek) may reflect variations in socioeconomic conditions, parental supervision, access to early education, or cultural expectations of child behavior. Prior research has shown that Indonesian parenting and early childhood practices vary substantially across provinces and cultural contexts.²³

The multivariate logistic regression results demonstrated that the type of media content was a significant determinant of disruptive behavior among preschool children, after adjusting for parental demographic variables. Children who primarily watched non-educational or entertainmentoriented shows were 3.5 times more likely to display disruptive behavior than those who watched educational content.

This finding aligns with recent evidence showing that the *quality* of digital exposure plays a more crucial role than duration alone. A 2024 longitudinal study revealed that high screen media use was associated with poorer inhibitory control and prefrontal activation in young children.²⁴ Similarly, studies conducted during the COVID-19 pandemic found that increased screen time and parental stress were associated with heightened behavioral and difficulties among school-aged emotional children.²⁵ A global systematic review also confirmed that entertainment-based viewing remains dominant and is associated with higher behavioral risk.26

Although variables such as parental age, education, and parenting style were not statistically significant in the final model, they showed meaningful tendencies consistent with recent Indonesian studies.

Democratic or authoritative parenting was associated with lower behavioral problems, while authoritarian and permissive patterns correlated with higher externalizing behaviors.27-30

For example, Hasan et al. found that children of parents using inconsistent or





punitive approaches had greater emotionalbehavioral problems,²⁷ and Maulida et al. reported that children from single-parent or less cohesive families demonstrated more aggressive and oppositional tendencies.²⁸

The relationship between parental mediation and screen exposure is also noteworthy. Children whose parents applied active mediation—such as discussing show content and setting viewing rules—tended to have better socioemotional development.³¹ Conversely, passive or absent mediation during entertainment media exposure was associated with increased behavioral risk.²⁹ These patterns reinforce the protective role of democratic parenting in moderating the effects of screen exposure on behavior.

The environmental variation observed between urban (Jabodetabek) and semi-urban (Aceh) settings in the bivariate results may also reflect regional differences in parenting practices, socioeconomic factors, and access to educational resources. UNICEF Indonesia (2022) emphasizes that digital literacy and parental guidance vary widely across provinces, influencing children's behavioral development.³²

Overall. these findings support a multifactorial model in which media content, parenting practices, and sociocultural context interactively shape behavioral outcomes. This highlights the need for comprehensive interventions that target both media literacy and parenting education in Indonesia. Strengthening parental guidance³³ on media use, promoting educational content, and supporting democratic parenting programs could serve as culturally appropriate strategies to mitigate disruptive behaviors in Indonesian preschoolers.





Table 2. Relationship between Sociodemographic, Media Use, and Parenting Factors and Disruptive Behavior

	Diagnose				
Variable	Disruptive Behavior Normal				P-Value
	n	%	n	%	_
Age					
≤ 35 y.o	12	3.99	178	59.13	0.165^{*}
> 35 y.o	12	3.99	99	32.89	
Parents/guardian Education level					
Higher education	15	4.98	206	68.44	0.207*
Secondary education	9	2.99	71	23.59	0.207
Domiciled					
Jabodetabek	6	1.99	135	44.85	0.025*
Aceh	18	5.98	142	47.18	0.025
Occupation of Parents/Guardians	10	5.70	112	17.10	
Formal employment (Government employee,	10	3.32	133	44.18	0 = = 0 *
Teacher, Private sector, Medical Personnel)	10	0.02	100	11110	0.550^{*}
Informal employment (Housewife, Self-employed)	14	4.65	144	47.84	
Marital Status of parents/guardian					
Married	22	7.31	266	88.37	0.278+
Single (not married/Divorced)	2	0.66	11	3.65	
Children Age					
2 – 3 y.o	12	3.99	79	26.25	0.028*
4 – 5 y.o	12	3.99	198	65.78	
Child Gender					
Girl	11	3.65	131	43.52	0.891*
Boy	13	4.32	146	48.50	
Do you give your child screen time?					
Yes	21	6.98	239	79.40	0.582^{*}
No	3	0.99	38	12.62	
How long do you usually give your child a					
cellphone/tablet?	10	C 21	245	01.20	0.184^{*}
≤ 2 hours	19 -	6.31	245	81.39	
> 2 hours	5	1.66	32	10.63	
What kind of shows do you give your child?	17	T 6 4	242	00.72	
Education-related → Education, Education and Entertainment	1/	5.64	243	80.73	0.021^{*}
Non-education → Entertainment	7	2.32	34	11.29	
What content does your child usually					
watch/play?					0.000
Passive media → Television, YouTube	20	6.64	244	81.06	0.339+
Interactive media $ ightarrow$ Playing games, Social media	4	1.32	33	10.96	
Smartphone Addiction					
Not Addicted	21	6.98	255	84.72	0.434+
Addicted	3	0.99	22	7.31	
Types of Parenting Patterns					0.032^{*}





Democratic	11	3.65	187	62.12	
Non Democratic	13	4.32	90	29.90	

^{*}Chi-square test p<0.05

Table 3. Logistic Regression Result

Variables	В	SE	Wald	p-value	OR (Exp(B))	95%CI
Parent Age (>35 vs ≤35 years)	0.851	0.466	3.340	0.068	2.343	0.940 - 5.839
Parent Education (Higher vs	-0.823	0.484	2.895	0.089	0.439	0.170 - 1.133
Secondary)						
Domicile (Jabodetabek vs Aceh)	-0.820	0.541	2.296	0.130	0.440	0.153 - 1.272
Child Age (2–3 vs 4–5 years)	0.866	0.469	3.402	0.065	2.377	0.947 - 5.963
Screen Time Duration (>2 vs ≤2	-0.723	0.700	1.069	0.301	0.485	0.123 - 1.911.
hours)						
Type of Show (Non-education	1.246	0.526	5.611	0.018	3.477	1.240 - 9.751
vs Education)						
Parenting Pattern (Non-	0.790	0.477	2.744	0.098	2.204	0.865 - 5.615.
democratic vs Democratic)						
Constant	-2.787	0.636	19.232	< 0.001	0.062	

Source: Primary Data, 2024



⁺Fisher's Exact test



CONCLUSION AND RECOMMENDATION

This study identified media content type as the strongest independent predictor of disruptive behavior among preschool children. Exposure to non-educational or entertainment content significantly increased the likelihood of behavioral problems compared with exposure to educational content.

Although other variables, such as parenting style and child age, did not achieve statistical significance in the multivariate model, their observed patterns align with previous studies suggesting that they may play an indirect or moderating role in behavioral regulation. These results highlight the importance of guiding parents to focus not only on-screen time limits but also on the nature of the content and the quality of parent-child interaction during media use.

Based on the results of this study, we recommend that Parents should be encouraged to provide educational and prosocial media content, establish consistent screen routines, and engage in co-viewing and discussion to comprehension enhance children's emotional control. Pediatricians and educators should integrate screen use assessment and media counseling into routine developmental screening. Early childhood education programs should emphasize digital parenting skills and positive discipline strategies to mitigate behavioral risks. It is also important that National and local authorities should develop policies supporting child-safe programming and promote digital literacy for parents through the health and education systems. Collaboration with media producers to increase the availability of educational content is essential.

Future research should use a longitudinal design, involve a larger sample, and ensure balance in diagnostic categories to improve the external validity of the findings. Cross-sectional designs, as currently used, only capture relationships at a single point in time.

Consequently, it is uncertain whether media exposure causes behavioral disorders or whether children with behavioral difficulties are more likely to seek entertainment through media. Longitudinal designs allow researchers to follow children over time, allowing them to

observe the sequence of events and assess whether media exposure precedes the onset of disruptive behavior.

ACKNOWLEDGMENTS

We would like to express my sincere gratitude to Universitas Trisakti for its invaluable support and encouragement throughout this research. The institution's commitment to academic excellence and research has greatly contributed to the successful completion of this study.

We are also deeply thankful to all individuals and parties who have provided assistance and cooperation during the research process, particularly those from the Jabodetabek area and Aceh. Your support, insights, and contributions have been instrumental in enriching the quality of this work.

AUTHOR CONTRIBUTIONS

NH organized and planned the research concept, designed the methodology, conducted the research, analyzed the data, and drafted the manuscript. HA, ATR, YM, MAH, and AAR assisted with the research and provided feedback on the manuscript. All authors reviewed and approved the final version.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

REFERENCES

- 1. Salmanian M, Mohammadi MR, Hooshyari Z, Mostafavi SA, Zarafshan H, Khaleghi A, et al. Prevalence, comorbidities, and sociodemographic predictors of conduct disorder: the national epidemiology of Iranian children and adolescents psychiatric disorders (IRCAP). Eur Child Adolesc Psychiatry. 2020;29(10):1385–99.
- 2. Asizah. Children Disruptive Behavior Well-being: Pentingnya Hubungan Anak dan Orang Tua. 2015;Psychology Forum UMM.
- 3. Suryani L, Seto SB. Penerapan Media Audio Visual untuk Meningkatan Perilaku Cinta Lingkungan pada Golden Age. Jurnal Obsesi: Jurnal





- Pendidikan Anak Usia Dini. 2020;5(1):900–8.
- 4. Purwati, Japar M. Parents' education, personality, and their children's disruptive behaviour. International Journal of Instruction. 2017;10(3):227-40
- 5. Novitasari R. Intuisi Kecenderungan Perilaku Disruptif pada Anak Usia Prasekolah Ditinjau Dari Stres Pengasuhan Ibu. Intuisi Jurnal Ilmu Psikologi. 2016;8(2)
- 6. Wiguna T, Manengkei PSK, Pamela C, et al. Masalah Emosi dan Perilaku pada Anak dan Remaja di Poliklinik Jiwa Anak dan Remaja RSUPN dr. Ciptomangunkusumo (RSCM), Jabodetabek. Sari Pediatri. 2016;12(4)
- 7. Kemenkes RI. Laporan Nasional RISKESDAS 2018. Kementerian Kesehatan RI. Gangguan Mental Emosional. Lembaga Penerbit Balitbangkes Kementrian Kesehatan Republik Indonesia. 2018:226-228. Available from: https://repository.badankebijakan. kemkes.go.id/id/eprint/3514/1/Laporan%20Riskesdas%202018%20 Nasional.pdf
- 8. Kurniasih E. Media Digital pada Anak Usia Dini. Jurnal Kreatif. 2019;9
- 9. Aslan. Peran Pola Asuh Orang tua di Era Digital. Jurnal Studia Insania, Mei 2019;7(1):20 34.
- Fauzi Amelia R, Lestari T. Tanggapan Orang Tua Mengenai Pengaruh Youtube Terhadap Emosi Anak Usia Sekolah Dasar.
- 11. Novianti R, Garzia M. Penggunaan Gadget pada Anak; Tantangan Baru Orang Tua Milenial. Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini. 2020;4(2):1000.
- 12. Allmann AE, Klein DN, Kopala-Sibley DC. Bidirectional and transactional relationships between parenting styles and child symptoms of ADHD, ODD, depression, and anxiety over 6 years. Development and Psychopathology. 2022 Oct;34(4):1400-11.
- 13. Arthy CC, Effendy E, Amin MM, Loebis B, Camellia V, Husada MS.

- Indonesian Version of Addiction Rating Scale of Smartphone Usage Adapted from Smartphone Addiction Scale-Short Version (SAS-SV) In Junior High School. Open Access Maced J Med Sci [Internet]. 2019 Oct. 10 [cited 2025 Jul. 29];7(19):3235-9. Available from: https://oamjms.eu/index.php/mjms/article/view
- 14. Maharani EA, Puspitasari I. Deteksi gangguan emosi dan perilaku disruptif pada anak usia prasekolah. Journal of Early Childhood Care and Education. 2019 May 4;2(1):1-3
- 15. Firdaus SA, Kustanti ER. Hubungan Antara Pola Asuh Otoriter Dengan Pengambilan Keputusan Karier Pada Siswa Smk Teuku Umar Semarang. Jurnal EMPATI [Online]. 2019 Mar;8(1):212-220. https://doi.org/10.14710/empati.2 019.23596
- 16. Berutu RF. The Influence of Digital Media on Aggression in Indonesian Children: A Systematic Review. International Journal of Humanities and Social Sciences Reviews. 2024 Nov 30;1(4):07-16.
- 17. Sari W, Astrada A, Septiana V, Pamungkas RA. Screen Time and Emotional Development Among Preschoolers: Indonesian Α Comparative Study Across Socioeconomic Contexts in Jabodetabek. Media **Publikasi** Promosi Kesehatan Indonesia (MPPKI). 2025 Sep 11;8(9):1001-12
- 18. Boediman LM, Desnawati S. The relationship between parenting style and children's emotional development among Indonesian population. Jurnal Ilmiah Psikologi MIND SET. 2019 Jul 29;10(01):17-24
- 19. Riany YE, Haslam DM, Sanders M. Parental mood, parenting style and child emotional and behavioural adjustment: Australia-Indonesia cross-cultural study. Journal of Child and Family Studies. 2022 Sep;31(9):2331-43
- 20. Putra A. Parental education conditions in rural areas of





- Bengkulu: Case study on responsive gender, parenting styles, equality behavior, and learning needs. Muwazah. 2023 Dec 30;15(2):227-50.
- 21. Puspitasari MD, Rahmadhony A, Prasetyo S, Fadila W. Early childhood parenting practices in Indonesia. Population Review. 2020;59(2).
- 22. Thompson RA. Emotion dysregulation: A theme in search of definition. Development and psychopathology. 2019 Aug;31(3):805-15.
- 23. Karmila E, Kiswanto E, Sekarjati C, Hadna AH, Pitoyo AJ. Policy (In) Coherence in Early Childhood Development-Insights from Indonesia. Populasi.;33(1):1-7
- 24. Meng X, Liang X, Liu C, Cheng N, Lu S, Zhang K, Yin Y, Cheng T, Lu C, Wang Z. Associations between screen media use and young children's inhibitory control: Evidence from behavioral and fNIRS study. Computers in Human Behavior. 2024 Mar 1;152:108041.
- 25. Hmidan A, Seguin D, Duerden EG. Media screen time use and mental health in school aged children during the pandemic. BMC psychology. 2023 Jul 10;11(1):202.
- 26. Qi J, Yan Y, Yin H. Screen time among school-aged children of aged 6–14: a systematic review. Global health research and policy. 2023 Apr 19;8(1):12.
- 27. Hasan S, Teresa A, Widjaja NT. Relationship between Parenting Style, Family Relationship and Emotional Behavioral Problems among Elementary-School Children.

- Jurnal Kedokteran Meditek. 2023 May 22;29(2):120-8.
- 28. Maulida I, Abdurrahman A. Parenting Patterns and Child Behavior: A Comparative Study of Single and Full Parents. Ascarya: Journal of Islamic Science, Culture, and Social Studies. 2024 Aug 1;4(1):135-46.
- 29. Rahman FN, Hasanah U, Dewi NA. Influence of media exposure and parenting style on behavioral problems among preschool children in Indonesia. *Asian J Public Health Res.* 2024;6(3):210–219.
- 30. Haslam D, Poniman C, Filus A, Sumargi A, Boediman L. Parenting style, child emotion regulation and behavioral problems: The moderating role of cultural values in Australia and Indonesia. Marriage & family review. 2020 May 18;56(4):320-42.
- 31. Xu Y, Qiao L. Digital screen exposure and emotional symptoms in preschool children: mediation by parent-child relationship and moderation by peer relationships. Frontiers in Psychology. 2025 May 9;16:1584919.
- 32. UNICEF Indonesia. *Digital Literacy* and Child Online Safety in Indonesia: Policy Brief. Jabodetabek: UNICEF; 2022.
- 33. Salam A, Briawan D, Martianto D, Thaha AR, Arundhana AI. Efek Suplementasi Vitamin A, Minyak Fortifikasi dan Edukasi Gizi Ibu Nifas terhadap Morbiditas Ibu dan Bayi. Media Kesehatan Masyarakat Indonesia. 2018 Sep 30;14(3):209-16

