Original Research / Orijinal Araştırma

Mothers' Toy Attitudes and Children's Emotion Regulation

Annelerin Oyuncak Tutumları ve Çocukların Duygu Düzenlemesi

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Abstract

Objective: Emotion regulation is a critical developmental skill in preschool children and a key focus in pediatric nursing. This study examined the effect of mothers' attitudes toward toys on children's emotion regulation.

Methods: Descriptive research was conducted between February and September 2024 with 310 mothers of children aged 36–72 months. Data were collected via an online survey using a Socio-Demographic Form, the Toy Attitude Scale, and the Emotion Regulation Checklist. Pearson correlation and multiple linear regression analyses were used.

Results: Mothers' attitudes toward toys influenced children's emotion regulation, explaining 5.4% of the variance ($p<0.001$; $R^2=0.054$). Gender was significant in children's emotion regulation. Mothers' employment status and toy-buying frequency were significant in toy attitudes ($p <0.001$).

Conclusion: Mothers' positive attitudes toward toys support children's emotion regulation. Encouraging such attitudes may foster early emotion regulation skills. Findings highlight the importance of integrating parental guidance on toy selection and play into pediatric nursing practice.

Key words: Toy attitude, Emotion regulation, Preschool children, Parenting, Pediatric nursing

Özet

Amaç: Duygu düzenleme, okul öncesi çocuklarda kritik bir gelişimsel beceri olup pediatri hemşireliğinde önemlidir. Bu çalışma, annelerin oyuncaklara yönelik tutumlarının çocukların duygu düzenleme becerileri üzerindeki etkisini incelemiştir.

Yöntem: Araştırma tanımlayıcı desende, Şubat–Eylül 2024 tarihleri arasında 36–72 aylık çocuğa sahip 310 anne ile yürütülmüştür. Veriler Sosyo-Demografik Form, Oyuncak Tutum Ölçeği ve Duygu Düzenleme Ölçeği kullanılarak çevrimiçi anket ile toplanmıştır. Pearson korelasyon ve çoklu regresyon analizleri uygulanmıştır.

Bulgular: Annelerin oyuncak tutumları, çocukların duygu düzenleme becerilerini etkileyerek varyansın %5,4'ünü açıklamıştır ($p<0,001$; $R^2=0,054$). Çocukların cinsiyeti duygu düzenlemede, annelerin çalışma durumu ve oyuncak satın alma sıklığı ise annelerin tutumlarında anlamlı bulunmuştur ($p<0,001$).

Sonuç: Annelerin olumlu oyuncak tutumları, çocukların duygu düzenlemesini desteklemektedir. Bu tutumların teşvik edilmesi, erken çocuklukta duygu düzenleme becerilerinin gelişimine katkı sağlar. Bulgular, pediatri hemşireliğinde ebeveynlere oyuncak seçimi ve oyun rehberliği sağlamanın önemini vurgulamaktadır.

Anahtar kelimeler: Oyuncak tutumu, Duygu düzenleme, Okul öncesi çocuklar, Ebeveyn, Pediatri hemşireliği

Geliş tarihi / Received: 27.10.2025 Kabul tarihi / Accepted: 26.01.2026

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Bayrak Aykan E. Dınç F. ***Mothers' Toy Attitudes and Children's Emotion Regulation.*** *TJFMPC, 2026; 20 (2):126-133*
DOI: 10.21763/tjfmpc.1811693

Introduction

Play begins at birth and continues throughout a child's life, evolving with age-specific changes over time.[1] Play reduces children's levels of stress, anxiety, and fear while enhancing skills such as happiness, positive self-perception, and creativity. Moreover, through play, children acquire the ability to introduce themselves, participate in play, wait their turn, follow rules, share, and assert their rights toward others.[2] Within the context of play, which serves as both an environment for enjoyment and learning, children engage in these activities by using toys.[3] Toys are classified as symbolic or imitative (e.g., dolls, cooking tools), motor skill-enhancing (e.g., shapes, trains), artistic (e.g., clay), language or concept-based (e.g., card games), and gross motor (e.g., tricycles). The use of such toys fosters children's imagination and allows them to experience a sense of achievement.[4,5] Additionally, toys create a secure relationship between parents and their children, offering opportunities for interaction.[1] These developmental benefits of toys naturally lead to the importance of considering the preschool period, during which children undergo rapid cognitive, social, and emotional growth.

The preschool period, known as the ages of 3–6, is characterized by intense egocentrism, rapid language development, and the presence of symbolic play and dramatizations.[6] Young children's play behaviors may vary depending on the type of toy used during play. Parents actively contribute to determining which toys are most appropriate to support their child's development.[1] Every parent exhibits a different attitude toward their child's toy preferences, directly influencing their child's toy choices.[7] Some parents prefer to provide their children with expensive, electronic, or tablet-based toys.[1] Studies have shown that toys preferred by both children and parents are often those that are fun, contribute to the educational process, provide visual richness, are easily accessible, and have low costs.[5] Understanding these parental influences on toy selection is therefore critical when considering children's overall development.

Learning to regulate emotional experiences and impulses in the early years of life is one of the critical developmental tasks for children.[8] It has been noted that children develop cognitive strategies to cope with an event before giving an emotional response, demonstrating the role of emotion regulation skills in processing and reacting to stimuli.[9] Studies have shown that the development of emotion regulation skills in children plays a vital role in establishing meaningful relationships with others and reducing aggression.[10] Importantly, the family context serves as the first environment where children begin to learn these strategies. Parents provide an appropriate play environment where children can express their emotions.[11] During play, children not only express emotions that make them happy but also reveal feelings such as jealousy, fear, and other negative emotions they struggle to manage. Through play, they learn to cope with these emotions and develop strategies to regulate them.[6] Play exhibited through appropriate toys activates children's emotional thinking and decision-making processes, shaping their behaviors and facilitating their adaptation to their environment by engaging in emotion regulation. Given this interplay between play, toys, and emotion regulation, it is also important to consider parental attitudes, particularly mothers', in influencing these developmental outcomes.

The literature includes studies on factors influencing mothers' decisions regarding their children's toy selection,[1,2,12-14] , and on the impact of parents' positive responses during play on their children's emotion regulation.[11] Understanding children's emotion regulation and toy attitudes is critical, as these early experiences influence not only immediate social interactions and self-regulation skills, but also long-term psychosocial adjustment, gender role development, and emotional well-being in later childhood and adolescence. [2,12,13,15] However, despite these findings, there is a lack of research specifically examining the effect of mothers' toy attitudes on children's emotion regulation skills. Emotion regulation is not only essential for children's healthy psychosocial development but is also an important focus area in pediatric nursing. Pediatric nurses, within the framework of family-centered care, are responsible for supporting children's emotional and behavioral well-being as much as their physical health.[15] Through play-based interventions, guidance on toy use, and parental education, pediatric nurses contribute to children's coping strategies, reduce stress, and enhance social–emotional development.[16,17] Therefore, exploring how mothers' attitudes toward toys influence preschool children's emotion regulation is crucial, not only for developmental outcomes but also for guiding pediatric nursing practice. The present study aimed to investigate the effect of mothers' toy attitudes on their children's emotion regulation skills. The study addressed the following research questions:

- Are mothers' attitudes toward toys associated with children's emotion regulation skills?
- Do children's gender and age affect their emotion regulation skills?
- Do maternal education, employment status, and frequency of toy purchasing influence mothers' toy attitudes and, in turn, children's emotion regulation skills?

Methods

Study design and setting

This descriptive study was conducted in Türkiye between February and September 2024. The study was reported in accordance with the STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines.

Population and sample of the study

The population of the study consisted of mothers with children aged 36–72 months living in Türkiye. The sample included mothers who volunteered to participate and completed the online survey. An online survey method was chosen to reach a broader population efficiently and safely, considering geographic distribution and ease of access. The survey link was shared via social media platforms (WhatsApp, Instagram, Facebook), and participants were asked to forward it to other mothers using snowball sampling. Inclusion criteria were: being over 18 years old, having a child aged 36–72 months, having a social media account and internet access, being able to read and write in Turkish, and agreeing to participate. Mothers with visual or hearing impairments or those with a child with special needs were excluded. The final sample included 310 mothers, determined using the Raosoft Sample Size Calculation program with a 95% confidence level and a 0.05 margin of error.[18]

Data collection tools

The data collection tools consisted of the "Socio-Demographic Data Collection Form," prepared by the researchers through a literature review, along with the Toy Attitude Scale and the Emotion Regulation Checklist.

Socio-Demographic Data Collection Form

The form was developed by the researchers based on the literatüre.[1,4,5] In addition to demographic characteristics of the mother and child, the form includes a total of 10 informational questions related to toys.

Toy Attitude Scale-TAS

The Toy Attitude Scale, developed by Venkatesan and Yashodharakumar (2017) to determine parents' attitudes toward toys and mothers' toy selection behaviors, was adapted into Turkish by Uzşen et al. (2023).[19,20] The scale is unidimensional, consisting of 20 items in a five-point Likert format. Scores on the scale range from 20 to 100, with higher scores indicating more positive attitudes among mothers. The Cronbach's alpha reliability coefficient for the original scale was 0.96, 0.73 for the Turkish version, and 0.76 in this study.

Emotion Regulation Checklist-ERC

The Emotion Regulation Checklist, developed by Shields and Cicchetti (1997) to assess preschool and school-age children's positive and negative emotional responses, was adapted into Turkish by Batum and Yağmurlu (2007).[21,22] The caregiver-reported scale includes 24 items and two subscales: Emotion Regulation (empathy, appropriate emotional expression, emotional awareness) and Lability/Negativity (impulsivity, moodiness, anger control, reactivity, inflexibility). It is a four-point Likert-type measure. Cronbach's alpha values were 0.96 (Lability/Negativity) and 0.83 (Emotion Regulation) in the original scale, and 0.75 and 0.73, respectively, in the Turkish adaptation. In this study, the Cronbach's alpha coefficient was 0.79.

Data collection

The data collection process began after obtaining approval from the Ethics Review Committee. Data were collected via an online survey created in Google Forms and shared with mothers through social media platforms (WhatsApp, Instagram, Facebook) using snowball sampling. The first page included an informed consent form, and only mothers who agreed could continue. The survey took approximately 15 minutes to complete. A total of 331 mothers participated, and after excluding 21 incomplete responses, the final sample consisted of 310 mothers.

Data analysis

The data were analyzed using the Statistical Package for the Social Sciences (SPSS), version 26.0. Descriptive statistics (frequency, percentage, mean, median, standard deviation, minimum–maximum) were used to summarize the data. Normal distribution was confirmed with Skewness–Kurtosis values within ±1.5.[23] Pearson correlation analysis examined the relationship between parents' toy attitudes and children's emotion regulation skills. Simple linear regression was used to assess the effect of mothers' toy attitudes on children's emotion regulation. A multiple regression model was conducted using gender, age, mother's education level, mother's employment status, number of siblings, and toy-buying frequency as predictors. Results were evaluated at a 95% confidence interval with a significance level of $p < 0.05$.

Ethics approval and patient consent

Ethical approval was obtained from the Social and Humanities Ethics Committee of a university before data collection (Protocol No: 2023-SBB-0863/1; Date: 30.01.2024). At the start of the survey, participants provided informed consent. Those selecting "I agree to participate" proceeded to the survey, while those choosing "I do not agree to participate" were shown a thank-you message and the session ended. Participants could withdraw their responses at any time. Data were stored securely on a password-protected Google Drive accessible only to the research team. The study complied with the Helsinki Declaration, ensuring voluntary participation, anonymity, and confidentiality. Permission to use the study scales was obtained from the authors via email.

Results

A total of 310 participants completed the study and were included in the final analysis. Most mothers had a daughter (69%), and more than half of the children were aged 49–60 months (52.3%). The majority had no siblings (73.5%). Regarding maternal characteristics, 42.3% had a university degree or higher and 44.5% were employed. Most mothers considered the number of toys sufficient (77.4%). Toys were mainly purchased by mothers, often as rewards (62.6%) or in response to children's requests (61.3%) (Table 1).

Table 1. *Sociodemographic characteristics (n=310)*

		n	%
Child's gender	Female	214	69.0
	Male	96	31.0
Child's age (months)	36-48	148	47.7
	49-60	162	52.3
Mother's education level	Less than high school	51	16.5
	High school	128	41.3
	University and more	131	42.3
Mother's employment status	Employed	138	44.5
	Not employed	172	55.5
Number of siblings	Without sibling	228	73.5
	One-two siblings	82	26.5
Number of toys	Sufficient	240	77.4
	Too much	70	22.6
Frequency of buying toys	Once a month	25	8.1
	Once a week	103	33.2
	Regularly	64	20.6
	Whenever the child wants	37	11.9
	When the child needs it	33	10.6
	To reward the child	48	15.5
Reason for buying toys*	As a reward	194	62.6
	Child's request	190	61.3
	As a tool for distraction	177	57.1
	Child's development	168	54.2
Person who buys the toys*	Mother	310	100.0
	Father	273	88.1
	Grandmother and grandfather	120	38.7
Factors influencing toy selection*	The suitability for child's age	310	100.0
	The suitability for child's gender	72	23.2
	Child's needs	94	30.3
	The ability to entertain child	163	52.6
	Being multifunctional	229	73.9
	Not containing violence	42	13.5
	Child's desire for the toy	96	31.0
	Supporting child's development	91	29.4
	The suitability for child's safety	105	33.9
	The durability of the toy	118	38.1
	The affordability of the toy	79	25.5

* It is multiplied by n due to multiple responses. Descriptive statistics (frequency and percentage) were used

Significant differences were observed in the emotion regulation scale subdimension scores according to the child's gender, age, mother's education level, mother's employment status, and the frequency of toy purchasing ($p < 0.05$). Similarly, the total toy attitude scale score differed significantly according to these factors, as well as additional sociodemographic variables (Table 2).

Table 2. *Comparison of scale and subscale scores by sociodemographic characteristics*

Feature	n	Emotion Regulation Checklist				Toy Attitudes Scale	
		Lability/Negativity		Emotion regulation			
		Mean	SD	Mean	SD	Mean	SD
Gender							
Female	214	40.85	3.53	25.23	1.95	71.00	5.09
Male	96	40.53	3.05	24.43	1.64	69.75	3.81
		t=0.810; p=0.419		t=0.144; **p=0.001**		t=2.401; p=**0.017**	
Age							
36-48 months	148	40.82	3.38	25.33	2.00	71.81	5.17
49-60 months	162	40.68	3.40	24.66	1.73	69.52	4.07
		t=0.360; p=0.719		t=3.159; **p=0.002**		t=4.295; **p=0.000**	
Mother's education level							
Less than high school	51	42.05	3.36	25.09	1.78	66.96	2.96
High school	128	40.88	3.75	24.54	1.77	71.83	5.17
University and more	131	40.11	2.85	25.37	1.97	70.84	4.20
		F=6.417; **p=0.002**[a]		F=6.493; p=**0.002**[b]		F=22.000; p=**0.000**[c,d]	
Mother's employment status							
Employed	138	40.76	3.49	25.31	2.03	72.25	5.02
Not employed	172	40.74	3.31	24.72	1.73	69.30	4.10
		t=0.417; p=0.966		t=2.728; **p=0.007**		t=5.566; **p=0.000**	
Number of siblings							
Without sibling	228	40.72	3.50	25.09	1.94	71.06	5.04
One-two siblings	82	40.82	3.07	24.68	1.71	69.36	3.63
		t=-0.241; p=0.809		t=1.700; p=0.090		t=3.257; **p=0.001**	
Number of toys							
Sufficient	240	40.79	3.42	24.87	1.73	71.02	4.56
Too much	70	40.61	1.73	25.35	2.32	69.20	5.16
		t=0.385; p=0.701		t=-1.593; p=0.115		t=2.860; **p=0.005**	
Frequency of buying toys							
Once a month	25	41.32	2.51	24.84	1.10	70.28	3.42
Once a week	103	41.69	3.82	25.27	1.60	71.31	5.05
Regularly	64	40.04	3.52	24.59	1.94	69.65	5.19
Whenever the child wants	37	39.89	3.25	24.24	2.01	69.24	3.97
When the child needs it	33	41.15	3.27	24.81	1.60	69.15	3.96
To reward the child	48	39.75	1.97	25.66	2.46	72.64	4.38
		F=3.881; **p=0.002**[e]		F=3.620; **p=0.003**[f]		F=4.167; **p=0.001**[g]	

Independent samples t-test and one-way ANOVA were performed to compare scale scores by sociodemographic characteristics HS: High school; Uni: University; [a]<HS vs ≥Uni; [b]HS vs ≥Uni; [c]<HS vs HS; [d]<HS vs ≥Uni; [e]Reward vs Weekly; [f]Reward vs On-demand; [g]Reward vs Regular.

Overall, children demonstrated moderate to high levels of emotion regulation, while mothers showed generally positive toy attitudes. Pearson correlation analysis revealed a statistically significant but low positive association between parents' toy attitudes and children's emotion regulation skills ($r = 0.233$, $p < 0.001$) (Table 3).

Table 3. *Relationship Between Parents' Toy Attitudes and Children's Emotion Regulation Skills (n=310)*

Scale scores (possible score range)		Mean±SD	Min	Max
Emotion Regulation Checklist (24-96)		72.35±4.50	61.00	82.00
Lability/Negativity (14-56)		40.75±3.39	34.00	49.00
Emotion regulation (8-32)		24.98±1.89	20.00	29.00
Toy Attitudes Scale (20-100)		70.61±4.76	62.00	79.00
		Children's Emotion Regulation Skills Level		
		r	P	
Parents' Toy Attitudes		0.233	0.000*	

*p<0.01 Pearson correlation analysis was performed.

Regression analysis showed that mothers' toy attitudes were significantly associated with children's emotion regulation ($p < 0.001$). Child gender was significantly associated with children's emotion regulation, whereas maternal employment status and frequency of toy purchasing were significantly associated with mothers' toy attitudes (Table 4).

Table 4. *Relationship Between Parents' Toy Attitudes and Children's Emotion Regulation Skills on sociodemographic characteristics*

Independent Variable	B	Standart Error	β	t	p	F	Model (p)	R^2
Constant	56.823	3.706	-	15.332	0.000	17.636	<0.000	0.054
Parents' Toy Attitudes	0.220	0.052	0.233	4.199	0.000			

Sociodemographic characteristics	Emotion Regulation β	Parents' Toy Attitudes β
Gender	1.599*	-1.279
Age(month)	0.796	-0.067
Mother's education level	0.615	0.164
Mother's employment status	0.862	3.488*
Number of siblings	0.483	-1.455
Frequency of buying toys	0.272	-0.664*
R	0.311	0.405
R^2	0.073	0.142
F	4.020	7.390
DW (1-3)	1.365	1.183

*p<0.05; Simple and multiple linear regression analysis was performed

Discussion

This study examined the association between mothers' attitudes toward toys and preschool children's emotion regulation skills, as well as the role of selected child and maternal characteristics. In line with the first research question, the findings demonstrated a positive association between mothers' toy attitudes and children's emotion regulation skills, indicating that more positive parental perceptions of toys are associated with better emotion regulation in children. This finding is consistent with previous studies showing that parental beliefs and attitudes toward toy materials influence children's emotional and social development. Moreover, the literature suggests that parental toy attitudes are shaped by multiple factors, including family purchasing power, maternal employment, toy characteristics, and developmental appropriateness. [2,4-26]

Regarding maternal characteristics, mothers' toy attitudes were positively associated with employment status and negatively associated with the frequency of toy purchasing. These findings suggest that employed mothers place greater emphasis on the functional and developmental value of toys, whereas more frequent purchasing may reflect differences in toy-related decision-making practices. Similar patterns have been reported in the literature, supporting the present finding that maternal employment status and toy purchasing practices are associated with mothers' toy attitudes.[20,25] In addition, a previous study has shown that involving children in toy selection and decision-making processes is associated with better emotion regulation, as it may help children calm themselves and manage emotions, which is consistent with the associations observed in the present study. [27]

In relation to the second research question, children aged 36–48 months demonstrated higher emotion regulation scores compared to older children, and girls showed better emotion regulation skills and more positive emotions than boys. These age and gender related differences are consistent with developmental literature suggesting that emotion regulation skills vary across early childhood and may be influenced by gender related socialization processes. [9, 10] The higher emotion regulation observed in girls may be partially explained by media and play content that more frequently promote aggressive or hero themed characters to boys, potentially affecting emotional expression and regulation. [10]

Although children of educated and employed mothers and those exposed to reward based toy practices showed higher levels of positive emotions, the specific effects of maternal education, employment, and reward based approaches within the younger age group were not examined separately. Therefore, these findings should be interpreted as associations rather than causal relationships.

From a pediatric nursing perspective, these results have important implications. Pediatric nurses working within a family-centered care framework can guide parents in creating developmentally appropriate play environments, selecting suitable toys, and using play-based strategies to support children's emotion regulation. Understanding parental attitudes toward toys may inform interventions aimed at reducing stress, enhancing coping skills, and promoting socio-emotional development in preschool children. Integrating these findings with existing literature highlights the critical role of parental engagement, particularly mothers, in early emotional development and underscores the importance of supporting families as facilitators of play and emotional growth.[15–17]

Limitations

In this study, children's emotional states were assessed based on mothers' reports at a single point in time, which constitutes the first limitation. Additionally, the predominance of highly educated mothers in the sample may restrict the generalizability of the findings, representing a second limitation. Potential sources of bias, such as self-reporting and social desirability, were addressed by using validated and reliable measurement tools, standardizing instructions, and ensuring participant anonymity. Nevertheless, residual bias cannot be completely ruled out.

Despite these limitations, this study has several strengths, including its focus on both toy attitudes and emotion regulation, the use of validated measurement tools, and the contribution of novel findings to an underexplored area in early childhood research. These findings provide a foundation for future research and have practical applications in pediatric nursing, guiding interventions to support children's emotional development through parent education and play-based strategies.

Conclusion

This study demonstrates that mothers' positive attitudes toward toys, along with child gender, age, maternal education, maternal employment, and frequency of toy purchasing, are significantly associated with children's emotion regulation skills. Mothers should be encouraged to choose toys that are age-appropriate, developmentally supportive, safe, and aligned with their children's interests, with particular emphasis on toys that foster creativity and imagination. Engaging children in the toy selection process may help reduce stress, anger, and fear, while enhancing happiness, emotional closeness, and positive self-perception. From a pediatric nursing perspective, these findings underscore the importance of incorporating toy-related guidance into family-centered care and parent education to support children's emotional development. Future studies, including longitudinal designs and randomized controlled trials, are recommended to further deepen understanding of this relationship.

Ethical Approval Statement

Ethical approval for this study was obtained from the Social and Humanities Ethics Committee of a university (Protocol No: 2023-SBB-0863/1; Date: 30.01.2024).

AI Usage Statement

Artificial intelligence–assisted translation tools were used during the preparation of the English version of this manuscript.

Financal Support

This research received no support

Conflict of Interest

The authors declare no potential conflicts of interest

Acknowledgements

We would like to thank all the participants.

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