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Quantitative Article

Parenting Styles and Behavioral Problems among Preschoolers in Thailand

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Abstract

Background/problem: Children exposed to domestic violence face a higher risk of behavioral problems, which can lead to several problems progressing into adulthood. Among the disciplinary methods used by families, known as parenting styles, harsh discipline can lead to child abuse, and negatively influence emotional development.

Objective/purpose: The purpose of this study was to investigate the relationships between parenting styles, child abuse, and behavioral problems in preschoolers in Thailand.

Design and Methodology: Data from 5,345 children aged 3 to 4 years was analyzed using the Thailand multiple indicator cluster survey 2019 (MICS6/2019). Multiple probit regression was used to predict behavioral problems based on each parenting style and socio-environmental factors.

Results: The findings indicated that inattention was the most prevalent behavior issue (40.2%). Authoritarian, hybrid, and neglectful parenting styles were identified as forms of child maltreatment that significantly impact aggressive behavior, with neglectful parenting showing a strong association with aggressive behavior (boys: AVE = .18, $p = .00$; girls: AVE = .16, $p = .00$). No significant association was found between parenting styles and children's inability to get along. Permissive parenting was not significantly associated with behavior problems compared to authoritative parenting. Other factors, including gender, screen time, location, income, and single-parent family structure, were significantly associated with behavioral issues.

Conclusion and Implications: The study clarifies the significant impact of parenting styles on child behavior, particularly child abuse and heightened aggression. These findings hold substantial implications for caregivers and preschool instructors, emphasizing adopting nonviolent parenting and considering socio-environmental factors to effectively manage behavioral issues and promote child well-being.

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Originality/Value for the Sustainable Development Goals (SDGs)

This study's findings highlight the need for social policies and strategies for guiding families and educators regarding child rearing and parenting styles for shaping child behaviors and contribute to achieving SDG-5, the sustainable goal that seeks to create a world where women and girls have equal rights, especially for SDG-5.2 that seeks to eliminate all forms of violence against children and girls.

Behavior problems in preschool-aged children are of significant concern in contemporary society, substantially impacting a child's well-being and future development (Tomlinson et al., 2021; World Health

Organization [WHO], 2018). Parenting styles, particularly those involving abusive practices, play a significant role in shaping behavior problems in young children (Campbell et al., 2016; Chen et al., 2024; Cuartas, 2021; Wang et al., 2024); domestic violence is the most common form of child abuse, particularly among young children who are unable to advocate for their rights to be protected from physical and mental harm, neglect, and exploitation in various ways when experiencing violation. While parents or primary caregivers in the household have the responsibility to protect children's rights against maltreatment, legal frameworks under Thailand's Civil and Commercial Code in Article 1567 can obscure this duty by blurring the line between acceptable discipline and child abuse (Sonthikasetrin, 2008). This ambiguity may result in ongoing harsh disciplinary practices within Thai society (Varma et al., 2018; Watakakosol et al., 2019), potentially concealing child abuse under the guise of legal parental authority and affecting the formation of children's behavior and personalities (Lee et al., 2013).

During this stage, children observe and imitate the behavior exhibited by their primary caregivers, the adults who regularly assume care for children full-time in the household, like parents or family members (Bandura, 1977). Due to the process that occurs between the ages of three and five with rapidly developing critical cognitive ability and the ability to control their behavior, known as self-regulatory capacities, caregivers need to acknowledge the distinct temperament that each child has their unique personality traits and typical reactions to situations, which significantly affects how caregiver raise each child (Thomas et al., 1970). Children subjected to parental abuse experience long-term effects on personality formation transition into adulthood (Heilmann et al., 2021). To foster a positive environment for children to grow up in, parents and caregivers need to be involved in offering an appropriate nurturing environment. Due to insufficient data, Thailand faces significant challenges in addressing child well-being and protection. Child victimization through violence continues to rise in 2022; 53.8 percent of children experienced physical punishment or psychological aggression by caregivers (SDG indicator 16.2.1). Additionally, 7.1 percent of partnered girls and women reported physical or sexual violence from an intimate partner in 2018 (SDG indicator 5.2.1) (United Nations Economic and Social Commission for Asia and the Pacific [ESCAP], 2024). Previous studies assessing parenting styles mainly employed small sample sizes and focused on specific target groups or spatial considerations (Eso et al., 2024; Pichayapinyo et al., 2008; Wattanakosol et al., 2019; Wattanatchariya et al., 2024).

Utilizing a national dataset, the Thailand multiple indicator cluster survey 2019 (National Statistical Office of Thailand [NSO], 2020), this study focuses on parenting styles based on violent punishment to shed light on the covert existence of violence against children committed by parents who have become accustomed to employing punitive measures as a form of disciplinary action. Research on domestic violence and child abuse in Thailand is limited, with these issues often obscured within parenting styles. Insufficient studies focus on preschool-aged children, and parental discipline remains legally permitted. The present study aimed to investigate the relationship between parenting styles, child abuse, and behavioral problems in preschoolers, considering gender perspectives to establish appropriate parenting guidelines for reducing violence.

Literature Review

This section provides the fundamental concepts related to children's development and behavior. The section begins with a theoretical discussion of the development of social-emotional skills and the child's temperament, highlighting the caregiver-child interaction. The next part examines how parenting practices are integrated with domestic violence. Lastly, the section discusses the role of socio-environmental factors in forming child behavior in conjunction with parenting practices.

Perspective on Child Development and Behavior

The behavior patterns established during preschool significantly affect future outcomes, as they are the foundation for development. Concepts and theories related to social-emotional development and

behavior provide a deeper understanding of behaviors in preschoolers. Children acquire and adopt behaviors during this period by witnessing and imitating their caregivers and peers (Bandura, 1977). This imitation may extend to violent behaviors that they observed or experienced. Caregivers are instrumental in developing children's behaviors by employing parenting approaches that can either promote or hinder their development. Negative parenting styles, including parental rejection and violence, can contribute to the development of behavior problems in children, while positive role models provide the necessary nurturing (Ostrov et al., 2023).

Cognitive development stages involve children developing social skills, language patterns, and problem-solving abilities (Piaget, 1952). Secure caregiver-child attachments are crucial during this period, fostering emotional well-being and shaping behavior (Bowlby, 1982). Each child's unique personality traits, such as adaptability, emotional intensity, and temperament, significantly influence shaping their interactions and responses (Thomas et al., 1970). Children with difficult temperaments, such as irritability, fearfulness, or anger, are more likely to receive aggressive, violent, or controlling parenting, which may signal insecure attachments and lead to self-regulation difficulties and aggressive behaviors (Kagan et al., 2018). Furthermore, temperamental differences, particularly gender-related, influence parenting styles and behavior management (McKee et al., 2008).

The child's surrounding environment, including family, community, cultural, and societal structures, influences parenting practices and behavioral outcomes (Bronfenbrenner, 1979). In the Thai context, parenting styles are substantially shaped by cultural values involving respect for hierarchy and communal support, which are core to the Thai family structure. Accordingly, Thai parents adopt authoritative and authoritarian parenting approaches to align with societal expectations (Pichayaoinyo et al., 2008).

Role of Parenting Styles and Inappropriate Disciplinary Practices

Parenting styles are categorized based on two dimensions of parental behavior: responsiveness (warmth) and demandingness (control). The main styles are authoritative, authoritarian, permissive, and neglectful (Baumrind, 1967; Maccoby & Martin, 1983). Authoritative parenting is characterized by high warmth and control, uses supportive and reasonable discipline, promoting secure attachment and positive behavior (Santrock, 2014). Authoritarian parenting (low warmth and high control) emphasizes punitive punishment without explanation, restricting child autonomy and potentially leading to aggression, negative social interactions, and mood disorders (Thompson et al., 2003). Permissive parenting shows high warmth but low control with a lack of discipline, resulting in impulsivity, low self-control, and antisocial behavior (Piotrowski et al., 2013). Neglectful parenting, defined by low warmth and control, involves indifference and lack of attention, often resulting in emotional and behavioral problems (Knutson et al., 2005).

Inappropriate parenting styles, including punitive punishment and neglect, can lead to adverse outcomes in children (Cuartas, 2021; Gershoff & Grogan-Kaylor, 2016; Heilmann et al., 2021), including aggression, inattention, and prosocial difficulties (Claussen et al., 2022; Lee et al., 2013). These behaviors can predict severe violence in adolescence and adulthood (Tremblay et al., 2004). In Thailand, corporal punishment is legally permissible, and certain parenting styles combined with punitive measures can contribute to environments resembling domestic violence. These practices, including physical punishment, verbal abuse, psychological harm, and neglect, are considered forms of child maltreatment (United Nations Children's Fund, 2014) and negatively impact parent-child relationships and children's social-emotional development (Campbell et al., 2000; Cuartas, 2021).

This study categorizes parenting into five styles based on the parenting styles framework and forms of violent punishment: authoritative (explaining), authoritarian (violent), permissive (lack of discipline), neglectful (abandonment), and hybrid (moderate punishment without severe physical harm). It explores how punitive child-rearing practices might position caregivers as abusers. This classification aligns with the MICS survey and is informed by the parent-child conflict tactics scale (Straus et al., 1998) and the World-

SAFE survey (Sadowski et al., 2004). Expert interviews and surveys from various regions established the validity of the questionnaires, and an international panel of experts evaluated their efficacy (Kariger et al., 2012).

Role of Environmental Factors in Child Behavior

The ecological system theory (Bronfenbrenner, 1979) explains the division of the factors influencing child behavior into personal and socioeconomic categories in the literature review. This theory posits that multiple nested environmental systems shape children's behavior. The "socioeconomic" encompasses parenting style, family dynamic, neighborhood, and household income, influencing child-rearing practices, caregiver-child interactions, and developmental support. In this study, a caregiver is defined as a person who provides full-time care to children in the household; thus, caregivers play a crucial role in influencing child-rearing practices, developmental support, and preschool behavioral problems.

Caregivers with higher levels of education are associated with increased resources and support for children's development, such as books and toys, which positively impact behavior outcomes. Children's exposure to books and toys enhances cognitive and social-emotional development (Buain & Pholhirul., 2022). In contrast, screen time has complex effects on growth, influencing cognitive, language, physical, and social-emotional domains, with self-regulation both positively and negatively depending on the content and duration of exposure (Eso et al., 2024; McArthur et al., 2022). Nevertheless, excessive screen time and exposure to violent or age-inappropriate content may lead to desensitization or imitation of aggressive behaviors (Anderson & Bushman, 2001; Eirich et al., 2022). The caregiver-child relationship significantly impacts emotional development, while factors such as the child's gender and age influence behavior, reflecting developmental differences and societal expectations that may lead to gender-specific parenting styles (Honig & Su, 2000; McKee et al., 2007).

Household structure also affects child behavior, with single-parent households facing distinct challenges. Additionally, cultural factors, such as religion and ethnicity, shape parenting styles and expectations, while the family's residential location affects family dynamics and access to community support (Coulton et al., 2007). Economic status further influences access to resources and support for child development, with lower-income families facing additional stressors that may contribute to behavioral problems and exposure to violent parenting styles (Choi et al., 2019; Ward et al., 2021). According to social-emotional development theories, children's behavior is shaped by a complex interaction of personal traits, socioeconomic conditions, and environmental factors that affect child development. Literature indicates that caregiver interactions, resource accessibility, and family dynamics significantly impact children's behavior and long-term growth. This complexity emphasizes the need to address child behavior, parenting approaches, and child abuse.

Research Objective

The primary objective of this study was to investigate the relationship between parenting styles, child abuse, and behavior problems, with a focus on differences in violence against boys and girls in terms of the nature and intensity of violence they experience under different parenting methods. In Thai society, caregivers retain legal rights to use physical discipline in the home setting (End Corporal Punishment, 2021) despite the child protection act (2003), which prohibits child abuse and neglect. Cultural norms and provisions within the domestic violence victim's protection act (2007), which limit the practice of criminal enforcement, further normalize physical punishment. Although legislative efforts exist, societal attitudes toward child punishment remain persistent (NSO, 2020); this investigation tries to uncover the impact of child abuse within different parenting styles to support legal reforms to address all forms of violence against children.

Method

Research Design

The study utilized a quantitative approach to investigate the relationship between parenting styles, socioeconomic factors, and preschool behavior problems. The cross-sectional secondary data used in this

study was derived from the Thailand multiple indicator cluster survey 2019 (MICS6/2019), a collaborative effort between the National Statistical Office, Thailand (NSO) and the United Nations Children's Fund (UNICEF) conducted from May to November 2019.

Data Collection

Data were collected through face-to-face interviews with mothers or guardians of children under five years. The gathered data was documented in real-time on a tablet and inputted into a computer using the computer-assisted personal interviewing (CAPI) application and the census and survey processing system software (CSPro by the National Statistical Office [NSO], Thailand) (NSO, 2020).

The researchers chose the MICS6 dataset because it includes questions on social-emotional development that focus on general behavioral indicators without comparing children's emotional and behavioral states to peers. In contrast, MICS7 introduces comparative measures, using scales and more specific questions, such as frequency of behaviors compared to peers, and assessments of cognitive aspects like persistence. While MICS7 offers a broader developmental perspective, it is less focused on behavioral outcomes directly related to parenting and abuse. Although MICS6 and MICS7 share similar methodologies, the differences in social-emotional development questions make MICS6 more consistent and relevant to the study's objectives.

Sample

The NSO used a multi-stage stratified, cluster sampling method for sample selection, which involved two stages: first, selected enumeration areas (EAs) proportional to size, and then, selected households within each EAs based on whether they had children under five. The study targets children aged 3 to 4 throughout the country, including 1,958 EAs and 40,660 households, with 13,689 children under five (NSO, 2020). The study focuses on child behavioral problems regarding social and emotional development in preschoolers; 5,787 children aged 3 to 4 were the sample group. After checking duplicates and removing missing cases, the study sample consists of 5,345 children (2,733 boys and 2,612 girls) from all the country's regions surveyed to assess social-emotional skills.

Measurement

This study utilized children's social-emotional competencies to identify three behavioral outcome variables: inattention, aggression, and inability to get along. UNICEF used these criteria in the early child development index (ECDI) to evaluate emotional regulation and social interaction in children aged 0 to 5 (Loizillon et al., 2017). The ECDI uses a standardized scoring system that combines direct assessments of children with caregiver interviews. Caregivers provide information on the child's social competence and emotional regulation through structured questionnaires or interviews.

The researchers operationalized the outcome variables using binary (yes or no) caregiver responses to specific social-emotional development questions in the MICS6 survey. Inattention was identified by responding "yes" to the question about a child being easily distracted. Aggression was indicated by responding "yes" to the question about a child engaging in kicking, biting, or hitting other children or adults. The inability to get along was determined by responding "no" to the question about a child getting along well with other children. Parenting styles were the primary explanatory variable, classified into five categories: authoritative, authoritarian, permissive, neglectful, and hybrid, including violent and nonviolent disciplinary measures. The control variables consist of child characteristics, developmental supports, household characteristics, and caregiver characteristics, as detailed in Table 2.

Data Analysis

We conducted all data analyses using STATA software. In the bivariate analysis, we used a chi-square test to examine the association between behavior problems, parenting styles, and child gender. We applied multiple probit regression to predict the relationship between explanatory variables and behavioral issues. We

tested two models: one ran regression without controlling for socio-environmental factors, and another adjusted for these factors. The regression results show marginal effects derived from the average variable effect (AVE), along with a 95% confidence interval (CI) to prove the precision of the estimates.

Results

The study findings were divided into three main sections: the first section provided the characteristics of the sample, the second section presented an association between parenting styles and behavior problems, and the final section stressed the association between parenting styles and socioeconomic factors in child behavior problems.

Sample Characteristics

The sample characteristics of preschoolers according to different parenting styles, stratified by gender (Figure 1), and the prevalence of behavior problems by gender (Figure 2) are presented. Most children in the sample were boys aged three rather than four. Additionally, over half of the children had a mother as their primary caregiver, with an average maternal age of 38. Predominantly, children were from low-income families and represented all regions of Thailand, including Bangkok, with the majority residing in rural areas.

Figure 1

Comparison between Boys and Girls with Different Parenting Styles

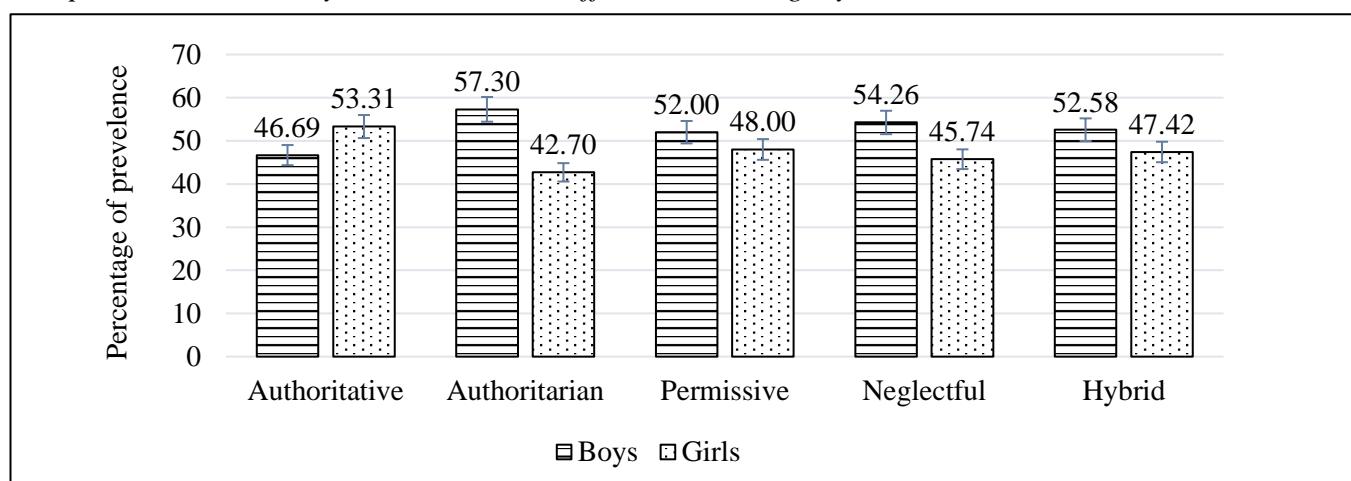


Figure 2

Behavior Problems in Boys and Girls

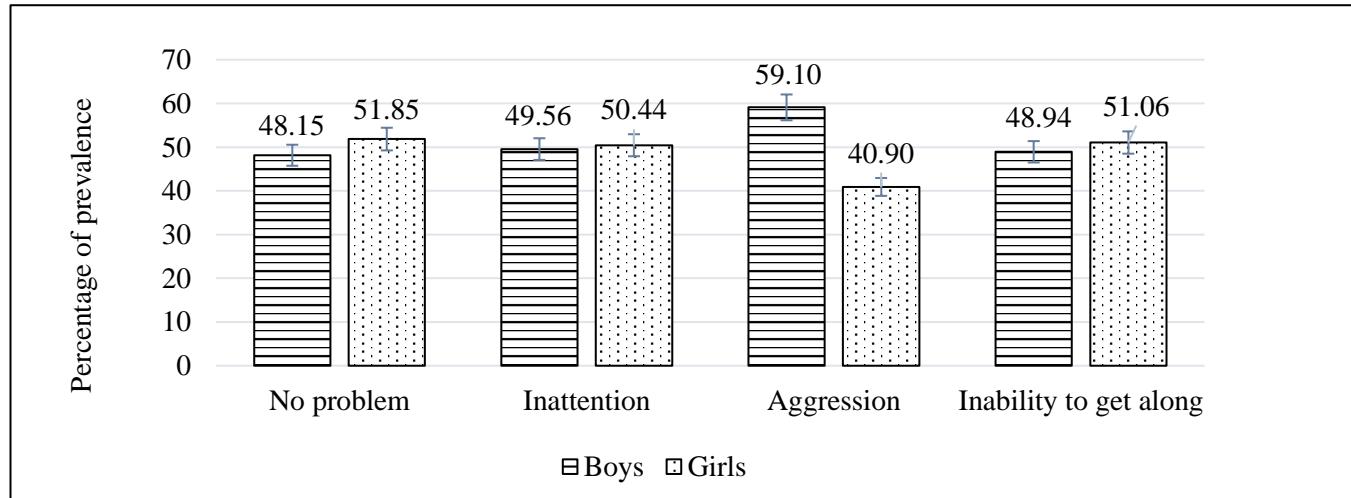


Figure 1 illustrates the percentage of comparisons between boys and girls with different parenting styles. The Chi-square test of independence revealed a statistically significant association between parenting styles and child gender, $\chi^2(4) = 18.1$, with degrees of freedom (df) = 4, and a p -value of .001, indicating that the distribution of parenting styles is related to the child's gender. The findings show that boys had a higher proportion of the authoritarian parenting style (57.3%) compared to girls (42.7%). Likewise, boys comprised 52% of permissive, 54.3% of neglectful, and 52.6% of hybrid parenting styles, while girls comprised 48%, 45.7%, and 47.4%, respectively. Interestingly, in the authoritative parenting style, girls had a higher percentage (53.3%) than boys (46.7%).

The prevalence of behavior problems in boys and girls, as seen in Figure 2, shows that aggression was more common among boys (59.1%) than girls (40.9%). In contrast, boys (49.6%) and girls (50.4%) showed nearly equal prevalence of inattention. Meanwhile, the problem of inability to get along was slightly different in boys at 49% and girls at 51.1%. The Chi-square test of independence revealed a statistically significant association between child behavior and child gender, $\chi^2(3) = 39.11$, $p = .00$, indicating a strong relationship between the two variables.

Parenting Styles and Behavior Problems

The study examined the relationship between parenting styles and child behavior. Table 1 provides the prediction of behavior problems across parenting styles without controlling for other intervening factors; the results suggested that parenting styles show no association with inattention problems in boys and girls compared to authoritative parenting. Regarding children's aggression, the results indicate significant associations with three of five parenting styles: authoritarian was associated in both boys (AVE = .12, $p = .00$) and girls (AVE = .16, $p = .00$), as was neglectful parenting in boys (AVE = .19, $p = .00$) and girls (AVE = .17, $p = .00$), when hybrid showed significant associations in boys (AVE = .14, $p = .00$) and girls (AVE = .13, $p = .00$). Permissive parenting, on the other hand, was not associated with these issues. For the inability to get along problem, permissive parenting had an association with the behavior both in boys (AVE = .01, $p = .08$) and girls (AVE = .01, $p = .03$), while authoritarian parenting had a significant association only in the case of girls (AVE = .02, $p = .03$). Neglectful and hybrid parenting styles showed no association with a child's ability to get along compared to authoritative parenting style.

The findings underscore that violent parenting styles, particularly neglectful parenting, have a robust statistical association with aggressive behavior in children. Boys and girls raised in neglectful environments are more likely to exhibit aggression than those exposed to authoritative parenting, with the magnitude of this association being greater compared to other parenting styles.

Table 1
Predicted of Behavior Problems Across Parenting Styles

Parenting Styles (Ref: Authoritative)	Behavior Problems					
	Inattention		Aggression		Inability to get along	
	Boy	Girl	Boy	Girl	Boy	Girl
Constant	-.33	-.21	-.98	-1.28	-2.38	-2.50
Authoritarian	.05	.02	.12***	.16***	.00	.02**
Permissive	.09	-.06	-.10	-.03	.01*	.01**
Neglectful	-.06	-.08	.19***	.17***	.01	.01
Hybrid	.02	.01	.14***	.13***	-.01	.01
<i>R</i> ²	.00	.00	.02	.03	.01	.03

Note. * $p < .10$, ** $p < .05$, *** $p < .01$.

Parenting Styles and Behavior Problems, Controlling for Socioeconomics Characteristics

Table 2 displays the results from the investigation of the relationship between parenting styles and behavior problems, controlling for socioeconomic characteristics (internal and external factors), which the results reported as a marginal effect.

Table 2

Regression Analysis Predicting Behavior Problems with Internal and External Factors

Outcome	Inattention		Aggression		Inability to get along	
	Boys	Girls	Boys	Girls	Boys	Girls
Constant	-.42	-.41	-.65	-1.08	-1.31	-1.17
Parenting Styles (Ref: Authoritative)						
Authoritarian	.06	.02	.10**	.16***	.00	.03
Permissive	.08	-.08	-.07	-.02	.00	.02
Neglectful	-.07	-.10*	.18***	.16***	-.04	.00
Hybrid	.03	.01	.11***	.13***	-.04	.00
Age of child (4 years = 1)	.00	.03	-.01	-.05***	.00	-.01
Books (Ref: No book)						
1-5 books	.01	.00	-.01	.04**	-.01**	-.01
6-9 books	.04	.00	-.07*	-.03	—	—
Ten books or more	.03	-.03	-.03	.02	—	.01
Toy (yes = 1)	.02	-.01	-.03*	-.01	-.01	-.00
Screen times with electronic devices (Ref: No)						
Less than one hour	.01	-.02	.01	.04**	-.02***	-.02***
1-3 hours	-.05**	-.04	.08***	.05***	-.01	-.02***
More than three hours	-.07	.04	.21***	.07	.04	—
Area (rural = 1)	-.05**	-.01	-.02	.00	-.01	-.00
Region of residence (Ref: Bangkok)						
Central	.09*	.17***	.00	-.01	-.02	—
North	.02	.12***	.06	.00	-.01	—
Northeast	.10**	.16***	-.01	-.01	.00	—
South	.12*	.18***	.03	.04	-.02	—
Wealth Index Quintile (Ref: Poorest)						
Poorer	.01	.00	-.04	.03	.00	-.01
Middle	.01	.02	-.04	-.03	.00	-.01
Richer	-.03	.04	-.05*	-.03	.01	-.01
Richest	-.10***	-.00	-.07**	-.03	—	—
Household structures (Ref: Nuclear family)						
Single-parent family	-.07	-.06	.11**	-.01	.00	-.01
Extended with parents	.01	-.01	.01	-.02	-.00	-.00
Extended with one parent	.00	.00	.01	-.01	-.00	.00
Skipped Generation	-.00	.05	.00	-.06	.53	.62
Child in home of relative	-.08	-.04	.05	-.06	.55	.63
Ethnicity (Other = 1)	.07*	.02	-.06*	-.03	.01	.02
Religion (Ref: Buddhism)						
Islam	-.06	-.02	-.01	-.02	.04	-.02
Christianity	.10	-.04	-.04	-.08	—	—
Relationship with child (Ref: Mother)						
Father	-.10*	-.10	.05	.10*	.04	—
Grandmother	.00	.05	.05	.09	-.29	-.35
Other	.09	.15	-.00	.07	—	—
Age of caregiver	.00	-.00	-.00**	-.00	.00	.00

Table 2 (continued)

Outcome	Inattention		Aggression		Inability to get along	
	Boys	Girls	Boys	Girls	Boys	Girls
Caregiver education level (Ref: Pre-primary or none)						
Primary	-.02	-.08	.03	-.02	.00	-.02
Lower secondary	.01	-.05	.05	.00	—	-.02
Upper secondary	-.05	-.07	-.01	-.01	-.00	—
Higher	-.02	-.07	-.00	-.06	.01	-.03
Observation	2733	2612	2733	2612	1523	1281
<i>R</i> ²	.02	.02	.04	.05	.16	.17

Note. * $p < .10$. ** $p < .05$. *** $p < .01$. — in the column were not estimated with a perfectly correlate problem.

The results indicate that parenting styles remained significantly and positively associated with aggressive behavior. Children in the authoritarian parenting style had a 10% higher predicted probability of exhibiting aggression in boys and 16% in girls. Conversely, those with the neglectful parenting style had an 18% higher likelihood in boys and 16% in girls. Additionally, boys in the hybrid parenting style showed an 11% higher likelihood, while girls exhibited a 13% higher likelihood of aggression than those in the authoritative style. The observed influence of neglectful parenting on inattention shows a statistically significant negative association in girls (AVE = -.10, $p = .08$). Unexpectedly, the inclusion of these variables rendered insignificant the previously identified association of authoritarian and permissive parenting styles on the inability to get along problem in both boys and girls.

Regarding the child's age, the results show girls aged four years were less likely to have aggressive behavior than those aged three years (AVE = -.05, $p = .00$), while the boys' model shows no association between age and the problem. As for the environment that a child encounters to support development, boys in households with more children's books (6 - 9 books) had less aggression (AVE = -.07, $p = .09$), and boys in households with 1-5 books had less inability to get along problem (AVE = -.01, $p = .03$) than those in households with no book. On the contrary, the girl's model shows a statistically significant positive association of 1-5 books on aggression (AVE = .04, $p = .02$) compared to those with no book in the household. Furthermore, boys who had experienced engagement with toys were significantly less likely to have aggression than boys who had not experienced playing with any toys (AVE = -.03, $p = .09$).

Interestingly, screen time impacted all outcomes. Boys who spent 1-3 hours had fewer inattention problems than those who did not play (AVE = -.05, $p = .03$). Additionally, children who spent time not over three hours also tended to have better social skills to get along well with another child than those who did not play in both boys and girls (AVE = -.02, $p = .00$). The results highlighted a robust positive relationship between screen times and aggression behavior among boys and girls. Children who spent excessive time on screens were more likely to exhibit aggressive behavior than those who did not; boys who spent more than three hours with electronic devices were more likely to display aggression than those who did not play (21%). Children who spent 1-3 hours had an 8% higher probability of exhibiting aggression in boys and 5% in the case of girls. Girls who spent less than one hour showed more aggression than those who did not play (4%).

Concerning residential location, children residing in Bangkok, both boys and girls, were 9-18 % less likely to have inattention problems than those from other regions, except boys in the North. The findings show that boys in south (AVE = .12, $p = .05$), northeast (AVE = .10, $p = .03$), and central (AVE = .09, $p = .07$) tend to exhibit inattention problems than boys who reside in Bangkok. In the case of girls, the findings highlight the stronger association between region and inattention problem ($p = .00$) in all regions compared to Bangkok (south: AVE = .18; central: AVE = .17; northeast: AVE = .16; and north: AVE = .12). Areas, household economic status, household structures, and ethnicity are associated with inattention and aggression problems only in the case of boys. There was no significant association between religion and

child behavior problems. Both models analyzing a child's ability to get along showed that location, economic status, household structure, beliefs, and caregivers' traits were not statistically significant.

Boys residing in rural areas were less likely to have inattention problems compared to boys living in urban areas ($AVE = -.05, p = .03$). Additionally, boys from the wealthiest families exhibited fewer inattention problems ($AVE = -.10, p = .00$) and less aggression behavior ($AVE = -.07, p = .04$) than those from the poorest families. Furthermore, boys in wealthier families had reduced likelihood of displaying aggression behavior when compared to those in the lowest economic strata ($AVE = -.05, p = .08$). In addition, boys in single-parent families showed higher likelihood of aggression compared to those in nuclear families ($AVE = -.11, p = .03$). Besides, Thai boys were more likely to have inattention problem than those belonging to a different ethnicity ($AVE = .07, p = .08$). In contrast, they tended to have lower probability of having aggression problem than those of another ethnicity ($AVE = -.06, p = .07$).

Concerning the caregiver, children whose primary caregiver was the father had a statistically significant positive association with aggression behavior in girls ($AVE = .10, p = .07$) compared to those whose caregiver was the mother. Conversely, there was a significant negative association with inattention problems in boys ($AVE = -.10, p = .09$). Boys living with older caregivers were less likely to display aggression compared to those living with younger caregivers ($AVE = -.00, p = .04$), despite the prediction showing a modest influence or practically negligible, the estimate has a statistically significant negative association with aggression behavior. The analysis found no association between caregivers' education levels and child behavior problems; however, higher education levels showed a negative association.

Discussion and Conclusion

This study investigated the intricate relationships between parenting styles, child abuse, and behavior problems in preschoolers. The findings revealed that parenting styles and socioeconomic factors are significantly associated with behavior problems, highlighting the effects of child abuse through violent discipline in parenting practice, even when controlling for other factors. The child experiences, gender-specific practices, and environmental support were three pivotal points under personal and socioeconomic factors that emerged from the study. The findings are in accordance with the core concept of children's socio-emotional, which asserts that multiple environmental factors shape behavior (Bandura, 1977; Bowlby, 1982; Bronfenbrenner, 1978; Piaget, 1952).

Despite the dataset utilized in this study being five years old, it accurately reflects pre-COVID-19 societal conditions and avoids the influence of external factors. Conversely, the 2022 dataset (MICS7) potentially introduces additional intervening variables during the post-crisis recovery period, encompassing variables associated with the epidemic's social, economic, and psychological aspects caused by the epidemic. This study investigated the impact of child abuse by analyzing parenting styles categorized by punishment forms and severity; data from a stable context is more relevant than recent data from abnormal circumstances. The findings showed that girls are mainly raised with authoritative parenting, while boys experience authoritarian parenting more. This evidence aligns with previous studies indicating that authoritarian methods are more common for boys and authoritative for girls (McKee et al., 2007). Due to the different natures of boys and girls, there is a possibility that boys are more likely to be physically active and explorative, which could lead to physical punishment from parents. The analysis clearly illustrated that authoritarian parenting was the most prevalent average percentage in Thailand, indicative of the persistent use of violent disciplinary practices (Varma et al., 2018; Watakakosol et al., 2019).

The findings addressed the research objective, showing an association between parenting styles and behavioral problems in preschoolers, particularly the relationship between authoritarian, neglectful, and hybrid parenting styles and aggression problems. These parenting styles were deemed as child abuse, even when punished rationally in hybrid parenting. The influence of each parenting style aligns with the theories

formed by Baumrind (1967), Macoby and Martin (1983), which indicated that children subjected to these parenting styles were more likely to have behavioral problems than those raised in authoritative parenting (Campbell et al., 2000; Cuartas, 2021; Gershoff & Grogan-Kaylor, 2016; Heilmann et al., 2021; Lee et al., 2013). Neglectful parenting shows a robust association with aggression behavior, consistent with previous studies stating that neglect negatively impacts children's coping abilities, self-regulation, and problem-solving (Knutson et al., 2005).

The analysis revealed that girls raised in neglectful parenting showed less inattention problems than those in authoritative parenting, contradicting established parenting theory and previous research suggesting neglected children are more likely to display inattention (Claussen et al., 2022). Violence against girls is a serious concern, as girls subjected to violence were more likely to exhibit aggression than expected in boys due to increased vulnerability and emotional regulation challenges (Calkins et al., 2019; Ostrov et al., 2023; Thomas et al., 1970). Additionally, girls in father care are 10% more prone to aggression. In contrast, boys in father care have fewer inattention issues than those in mother care, aligning with previous studies revealing higher emotional problems in children with opposite-gender custodial parents (Honig & Su, 2000). Consequently, addressing the gender dimension is crucial to combating violence against women and girls.

The study highlights that excessive screen time, more than one hour per day, can lead to increased aggression and behavior problems (8-12%), consistent with prior studies (Anderson & Bushman, 2001; Eirich et al., 2022) as well as guidelines advocating for children aged 2 to 5 years to have no more than one hour of screen time per day (McArthur et al., 2022). Caregivers should limit violent media exposure and screen time to under three hours to reduce the risk of inattention and social issues (Eso et al., 2024; McArthur et al., 2022). Children from low-income families are 5-10% more likely to exhibit aggression and inattention, possibly due to financial restrictions, which may lead to domestic violence (Choi et al., 2019; Ward et al., 2021). Access to books and toys can reduce aggression, aligning with previous studies (Buain & Pholpirul, 2022). Household structure, location, and ethnicity are also associated with child behavior; particularly, single-parent families have a higher likelihood of displaying aggressive behavior (Coulton et al., 2007). This study emphasizes the role of family factors and appropriate parenting styles, which can address policy and legal reform to shift societal attitudes away from violent punishment and break the cycle of domestic violence.

Limitations

This study employs cross-sectional data, which limits the ability to infer causality and directional relationships, revealing only associations between variables. Honesty and bias may influence the data, which relies on caregiver self-reports. The possibility of socially undesirable behaviors, such as harsh discipline, may be underreported, while desirable attributes, such as warmth or attentiveness, may be overreported. Similarly, recall bias may affect the accuracy of the responses, as caregivers may struggle to remember past events or behaviors accurately, particularly those that are sensitive or emotionally charged.

Implications for Behavioral Science

Domestic violence against children often remains hidden under punitive measures, leading to internalized and replicable behavior in adulthood due to diminished self-control skills. The study provides evidence for interventions against caregiver violence, addressing the establishment of an appropriate environment and shifting parental behavior to foster positive behavior in children. Intervention programs such as parent training, which involves teaching parents and primary caregivers how to address their children's problem behaviors, are evidenced to have positive outcomes for children's behaviors (Long et al., 2017). Simultaneously, reforming legislation is imperative to protecting children and ensuring legal systems discourage abuse. Legislative reforms in Sweden and Japan banning corporal punishment aimed to reshape societal views on child discipline and promote nonviolent parenting. Sweden's 1979 reform under the children and parent code markedly declined physical punishment as public opinion shifted and awareness of alternative discipline methods grew. Similarly, Japan's 2020 ban helped raise awareness of nonviolent

parenting, though cultural challenges remained. These reforms strengthened child protection systems in both countries, enhancing welfare outcomes for children (Gershoff et al., 2017; Waterston & Janson, 2020).

Ultimately, these insights have implications for behavioral science by shedding light on child abuse effects and advocating for positive parenting approaches to enhance child well-being. Further research should explore gender-specific parenting dynamics and household features influencing the selection of parenting styles to support appropriate parenting methods. For instance, policies should focus on reducing violence against girls, considering the heightened aggression in girls subjected to violent parenting, as well as their increased vulnerability in father-only care situations. Also, a longitudinal study should investigate more deeply into the behavioral alterations observed in children exposed to violence in Thailand. Key variables include observing shifts from authoritarian to authoritative parenting, tracking the long-term effects of early violent discipline on aggression, emotional regulation, and attention-related issues, examining emotional vulnerability and aggression in girls, monitoring changes in children's media habits in the digital age, and evaluating family-specific support such as income, resources, education, employment, and domestic stressors. This tracking can inform targeted policy and intervention strategies to improve parenting practices and child outcomes.

Conclusion

The purpose of this study was to investigate the complex relationship between parenting styles, child abuse, and behavior problems in preschoolers in Thailand. The finding reveals that parenting styles involving child abuse and abandonment are associated with aggression and inattention problems. Neglectful parenting exacerbates aggression problems, while socioeconomic factors exhibit diverse associates with behavioral problems based on the child's gender. Permissive parenting shows no significant ties to problems; parenting styles do not impact a child's inability to get along. Additionally, screen time is strongly related to increased aggression, emphasizing the need for balanced electronic device exposure. The study highlights the essential of hastening efforts to eradicate violence, advocate gender-neutral, effective child-rearing practices, and offer evidence for policymakers and caregivers involved in shaping child behavior and eliminating all forms of violence against children by supporting legal reform to prevent abuse of children's rights.

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Declarations

Conflicts of Interest: The authors declare no conflicts of interest.

Ethical Approval Statement: The study was conducted in accordance with the Declaration of Helsinki and approved by the Research Ethics Committee of Office for Human Research Protections, Chulalongkorn University (protocol ID:662019 on January 15, 2024) for studies involving humans.

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