Aggression among Preschool Children within the Framework of Temperament, Attachment and Parental Attitudes

Mizaç, Bağlanma ve Ebeveyn Tutumları Çerçevesinden Okul Öncesi Çocuklarında Saldırganlık

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BSTRACT

Aggression is a common problem in preschool children. The relationship between aggressive behaviors in early ages and psychopathologies in later years has been shown in previous studies. Therefore, it is imperative to understand both the causes of childhood aggression and identify the sustaining factors. This review discusses aggression in the context of temperament, parental attitudes, and attachment factors. The concept of temperament was explained with the terminology of difficult and easy temperament, emotionality, activity, sociability, and impulsivity factors, especially from the perspectives of Thomas and Chess, Goldsmith and Plomin, and Cloninger, and associated with aggression in the preschool period. In addition, possible causes of aggression in children were assessed with attachment theory. Finally, the relationship between parents, their attitudes towards aggression, socioeconomic determinants in the family, and the possible relationship between aggression in children were discussed. This study examines the determinants of preschool children's aggression to solve aggression problems, focusing on family and temperamental characteristics. A more holistic assessment of aggression with child and parent characteristics is intended.

Keywords: Aggression, preschool, attachment, temperament, parental attitudes

Anahtar sözcükler: Saldırganlık, okul öncesi, bağlanma, mizaç, ebeveyn tutumları

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Saldırganlık, diğer bir adıyla agresyon, okul öncesi çocuklarda sıklıkla rastlanılan bir sorundur. Erken yaşlarda görülen saldırgan davranışların ileriki yıllardaki psikopatolojilerle ilişkisi daha önceki çalışmalarda gösterilmiştir. Dolayısıyla çocukluk dönemindeki saldırganlığın hem nedenlerinin anlaşılması hem de sürdürücü faktörlerin belirlenmesi oldukça önemlidir. Bu derlemede saldırganlık mizaç, ebeveyn tutumları ve bağlanma faktörleri bağlamında ele alınmıştır. Mizaç kavramı, Thomas ve Chess, Goldsmith ve Plomin, Cloninger'in bakış açıları başta olmak üzere zor ve kolay mizaç terminolojisi; duygusallık, aktiflik, sosyallik ve dürtüsellik faktörleri ile açıklanarak okul öncesi dönemdeki agresyonla ilişkilendirilmiştir. Ek olarak bağlanma kuramı ile ilişkilendirilerek çocuklardaki agresyonun olası sebepleri değerlendirilmiştir. Son olarak ebeveynlerin kendi arasındaki ilişki, saldırganlığa yönelik tutumları, ailedeki sosyoekonomik belirleyiciler ve çocuktaki agresyonun olası ilişkisi açıklanmıştır. Bu çalışma, özellikle aile ve mizaç özelliklerine odaklanarak saldırganlığını bern çocuk hem de ebeveyn özellikleriyle birlikte daha bütüncül olarak değerlendirilmesi amaçlanmıştır.

Introduction

As per social norms, aggression is defined as hostile attitudes that intentionally aim to harm or hurt other people physically or emotionally (Ballard et al. 2004, Türkoğlu 2019). Like adults, children sometimes feel tense or angry and display this unfavorable emotion in ways such as proactive, relational, reactive, or physical aggression. Proactive aggression is aggression shown to achieve a goal; relational aggression is shown for social manipulation and manifested verbally; reactive aggression is shown for revenge-retaliation (Evans et al. 2012); physical aggression is defined as physical/physically hurting someone. While physical aggression decreases with age, it is likely to turn into relational aggression, verbal manipulation, or humiliation (Swit et al. 2018). However, regardless of its type, aggression negatively affects children and adults.

In recent years, studies on aggression have focused on preschool children (Honig 2006, Wong et al. 2017, Swit et al. 2018, López-Romero et al. 2019,) and this topic remains popular in studies in Türkiye (Gülay Ogelman 2013, Türkoğlu 2019, Ersan and Tok 2020). The overall prevalence rate of conduct disorder in preschool children was reported to be 6.6%, 9.9% in boys, and 3.5% in girls (Kim-Cohen et al. 2005), and these prevalence rates are consistent with other studies (Keenan and Shaw, 1994, Bowie, 2007, Kiff et al. 2011, Ersan and Tok 2020). In previous studies, boys are considered to be more aggressive than girls (Sears 1951, Hay 2017). One study conducted with 697 preschool-age children in Turkey revealed that boys are more prone to aggression than girls (Gülay Ogelman 2013). In addition, gender differences are also reflected in the aggression type. Accordingly, boys exhibit more physical aggression, while girls show relational aggression (Perhamus and Ostrov 2023). Even in children under two years of age, gender differences in aggression tendencies can be observed (van Adrichem et al. 2019).

From a developmental perspective, self-regulation is not a typical feature of infancy. Emotional and behavioral regulation is expected to improve as the child grows older. The developmental processes related to the child's ability to regulate anger or aggression gain momentum in the third year of life, corresponding to cognitive development (Röll et al. 2012). In parallel with this, aggression often decreases between the ages of three and five (Ersan and Tok 2020). Therefore, as infants age, they are expected to react less and show less aggression after their mother leaves the room and to be able to regulate themselves and their emotions more quickly. In line with these findings, in a study examining the relationship between age and aggression in Turkey, age was a significant predictor of susceptibility to aggression. In the study mentioned, three-year-old children were reported to engage in more aggressive behaviors than six (Gülay Ogelman 2013). Another study examined aggression based on language development in the preschool period. The results revealed that as language development increases, relational and physical aggression decreases (Ersan 2020). This finding may partially account for the variability of anger, violence, and aggression in developmental periods. According to the results of another study, as children grow up, their capacity to understand their environment increases, they store the solutions and strategies they have learned or experienced from their parents or peers in their minds, and they can solve their problems more quickly through this multidimensional development (Su et al. 2020). This perception of self-efficacy makes them less aggressive when they grow up. Besides, these experiences make it easier for them to be more acceptable in society upon the development of their social lives (Su et al. 2020). With the increase in cooperation skills in this process, they start to use cooperation skills instead of dealing with problems alone, causing them to be less aggressive (Raisor et al. 2021). However, in addition to age or gender factors that affect children's aggressive behavior, the child's temperament, parental attitudes, and attachment patterns are also significant. This review will focus on aggression as a widespread behavioral problem in preschool children within this framework.

Aggression in Preschool Children

Aggression and behavioral problems in the preschool period have different underlying causes. For example, the mother's use of alcohol or stimulants during pregnancy may predict the child's tantrums. In addition, the mother's antisocial personality disorder may affect the child in the prenatal period due to the secreted hormones and lead to possible tantrums (Herman 2021). Aggression in early childhood is also attributed to several other reasons, such as being a member of a split family, parental attitudes, the child's temperament, exposure to violence, attachment dynamics, or neurodevelopmental factors (Raaijmakers 2008, Herman 2021). This review discusses aggression in the context of temperament, attachment, and parental attitudes.

While aggression in the period called "terrible 2 syndrome" can be considered normal in two-year-old children, aggression in other periods is both intolerable and causes some social problems (Herman 2021). The recognition of aggression as normal at an early age is explained by the fact that although the child's language development is not yet sufficiently developed, they have almost completed their physical development and use physical aggression as a means of self-expression through a sense of autonomy (Campbell 2002). This aggression is expected to decrease as the child socializes and develops ways of self-expression. In this case, the school is critical in children's aggressive behaviors. Children first encounter a regulated and systematic environment during the school period. Until they start school, some of the child's aggressive behaviors can be tolerated in the family environment, so aggression may go unnoticed (DeLisi and Vaughn 2014). Preschool children with aggressive and disruptive behaviors have more difficulty adapting to classroom rules, cannot cooperate during play, are maladaptive and restless, and may be socially excluded in kindergarten or nursery school because of these problems (DeLisi and Vaughn 2014).

Given this information, the school has a crucial place for preschool children to support cognitive development and contribute to the child's social and emotional development. School, which serves as a social environment, enables children at the kindergarten or nursery level to be reconciliatory with their peers and teachers because it has many rules to maintain a social life. Thus, the school requires academic achievement, cooperation, empathy with peers, and compliance with specific rules. All these can be challenging and therapeutic experiences for preschool children's aggressive behaviors. For this purpose, some intervention processes, such as the "Buddy Up Intervention," have been developed. Teachers in this intervention technique encourage children to become group members and learn the rules of belonging. This information makes them feel they belong to the class and adopt the classroom rules. These activities usually last for the first few weeks. Afterward, children's interaction skills improved as they grew (Hanish et al. 2021). Such an intervention may reduce aggression in children and help them adapt quickly to the school environment (Xiao et al. 2022).

Late Clinical Mental Consequences of Aggression in Early Childhood

Given that aggression leads to behavioral problems at an early age, understanding the underlying causes of aggression is very important for the child's subsequent psychopathology. Although aggression in early childhood is not always a diagnostic precursor of conduct disorder, it may result in some behavioral problems in adulthood (Keenan and Wakschlag 2004, Kim-Cohen et al. 2005). Therefore, childhood aggression and abnormal behavioral problems considered "excessive" may be associated with later psychopathology. One of the best-known studies in this sense is Robins' (1996) study. In this study, observational and longitudinal data showed that those who had behavioral problems as children turned into problematic adults (Robins 1996). Controlling a child's aggressive behavior at an early age is critical (Kim-Cohen et al. 2005, DeLisi and Vaughn 2014, Anaya and Pérez-Edgar 2019). It is often easier to deal with aggression and conduct disorders through brief interactions when the child is young. However, in later years, the treatment and the consequences of aggression and conduct disorders can become more complex (Herman 2021).

In a study aiming to evaluate what kind of psychopathologies preschool children with temper tantrums will have in adolescence, children who hit themselves when annoyed were predicted to have some psychopathologies in later periods. Temper tantrums were divided into two basic categories, "self-directed and other-directed," to understand the types of temper tantrums that predict psychopathological diagnoses in later years. This study revealed that self-directed aggression is closely related to the severity of depression, anxiety, oppositional defiant disorder, and conduct disorder in adolescence (Hoyniak et al. 2022). Moreover, adolescents who show aggression in childhood and adolescents who do not show such behaviors have been clearly shown to differ in their aggression characteristics during this developmental period (Brame et al. 2001). Therefore, the severity of physical aggression may increase the likelihood of early-onset psychopathology.

Aggressive behaviors increase with the age of the child and become more challenging to control and more likely to cause significant problems (Kim-Cohen et al. 2005, DeLisi and Vaughn 2014, Anaya and Pérez-Edgar 2019). In their longitudinal study, Kim-Cohen et al. (2005) reported that children aged 4.5-5 years with conduct disorder had antisocial personality traits accompanied by low IQ and attention deficit hyperactivity disorder (ADHD) symptoms at a later age. In other words, preschool aggression combined with other childhood pathological traits predicts psychopathology in adulthood.

Some psychopathological variables need to be understood to make sense of aggression in preschool children. For example, self-control is associated with aggression in childhood and behavioral problems in adulthood. DeLisi and Vaughn (2014), in a longitudinal study on delinquent behavior disorder, proposed a model that infants with difficulties in self-regulation will have a problematic infancy, be less controllable in childhood, exhibit more disapproved behaviors in adolescence, and experience low self-control problems in adulthood. The results of this longitudinal study suggest that a child's negative affect remains the same from 4 months to 4 years of age, and anger characteristics between infancy and 7 years of age continue in a similar pattern. These children will likely have externalization problems (DeLisi and Vaughn 2014). In addition, in a longitudinal study examining substance use in adolescence as critical psychopathology, those who were aggressive in childhood had significantly higher rates of intrapsychic problems and substance use in the future (Brook et al. 1995). Therefore, it is imperative to examine aggression from the preschool period and to understand its causes.

Temperament, Attachment, Parental Attitude, and Aggression

According to Thomas and Chess (1977), who made a significant contribution to the literature with their longitudinal study, temperament can be observed especially intensely in infants because infancy is the period

when human beings are least exposed to environmental stimuli or variables and learned behaviors are very limited in this period (Thomas and Chess 1977). According to Thomas et al. (1968), infants and children have three types of temperament: "easy, difficult and slow warming temperament." The concept of "difficult temperament," characterized by high levels of negative affectivity and difficult adaptation to new stimuli, is frequently addressed in temperament studies (Thomas et al. 1968). Thomas and Chess's definition of difficult temperament conceptualize children's inability to adapt to new stimuli immediately and their tendency to negativity, and also underlines that the reactions of these children are excessive. Children who find it difficult to adjust to novelty and change, have difficulty sleeping and eating, are angry, cry a lot, and are challenged to calm down are children with a difficult temperament. Parents have more difficulties with these children. In contrast, children who are moderate in expressing their emotions, have high self-regulation skills, and have positive moods are defined as having an easy temperament (Thomas et al. 1982). A slow-warming temperament refers to children with slow reactions, low energy levels, and a while to get used to new places and people.

Goldsmith and Plomin introduced a new perspective to the concept of temperament with a definition consisting of four factors. These factors are emotionality, activity, sociability, and impulsivity. According to Goldsmith and Plomin (1987), temperament is evaluated on a scale between "0 and 100" in each factor. When these values change from person to person and compose a whole, they reveal individual differences (Revelle 1976, Goldsmith et al. 1987). Plomin carried his theory to another dimension by examining the neural infrastructure of temperament.

Like Plomin's temperament approach, Rothbart (1989) also underlined the biological origin of temperament and drew attention to the permanent/stable nature of this innate trait (Revelle 1976, Goldsmith et al. 1987). Rothbart (1989) conceptualized temperament differently, such as effortful control, extraversion, or negative emotionality. Accordingly, behavior has attentional and emotional-motivational dimensions, and negative affectivity and effortful control are independently related to aggression (Rothbart 1989, Evans and Rothbart 2009). In this respect, effortful control is correlated with externalizing problems such as destructive behavior and aggression (Olson et al. 2005).

Cloninger (1987), an eminent theorist for current temperament studies, proposed a psychobiosocial theory that includes four temperaments and three character dimensions. According to Cloninger (1987), who emphasized that temperament emerges in the first years of life and is hereditary, these four temperament types (novelty seeking, harm avoidance, persistence, reward dependence) are defined by individual differences in behavioral learning mechanisms, reaction to novelty, danger or reward/punishment, avoidance of repulsive stimuli and reaction to reward (Cloninger 1987). Novelty seeking is identified by openness to new experiences, exploring behavior and impulsivity, and mobility; harm avoidance is defined by frequent inhibitory behavior and avoidance behaviors to stay safe. Individuals with high levels of harm avoidance are characterized as pessimistic, anxious, and introverted. Individuals with high reward dependence are characterized as people who force themselves and continue their behaviors to get the approval of others. The last one, persistence, includes individuals continuing their behaviors even if there is no consequential reward, even if they feel frustrated or tired (Kose et al. 2009). In addition to "difficult temperament" as a risk factor, Cloninger's harm avoidance temperament dimension has been linked to externalizing problems such as aggression. At the same time, low reward dependence and persistence have been associated with internalizing problems such as depression or anxiety (Rubin et al. 2017).

Temperament traits are one of the prominent factors influencing child aggression. Numerous studies have shown that especially difficult temperament, effortful control, and harm avoidance are associated with psychopathologies such as depression, conduct problems, aggression, or impulsivity (Earls and Jung 1987, Ortiz and Gándara 2006, Tackett 2006, Rubin et al. 2017, Wu et al. 2022). So when we consider temperament as emotional difficulty, difficult temperament is reported to cause aggression-related psychopathologies. Besides, negative reactivity as a temperament trait in infancy predicts later negative behaviors (Nielsen et al. 2019, Kostyrka-Allchorne et al. 2020, Padilla et al. 2020). For example, children who are temperamentally highly sensitive to stimuli have difficulty concentrating, are resistant to accepting novelty in their social relationships, exhibit "effortful control" in self-regulation processes, and are more prone to destructive behaviors and aggression (Goldsmith et al. 1987, Evans et al. 2012, Kostyrka-Allchorne et al. 2020, Wolff et al. 2020). Even delinquency, such as substance abuse, bullying, or engaging in illegal acts in later life, should be considered in conjunction with such psychopathological traits. Stressful life events undermine interpersonal relationships and reduce social interaction, so difficult temperament is considered the basis for such psychopathologies (Wolff et al. 2020). A difficult temperament sometimes manifests itself only with aggressive behaviors, and sometimes it can lead to more adverse consequences, such as being involved in criminal activity.

Although temperament is of biological origin, it can also influence environmental factors. The child can be effective on the stimuli in their environment according to their temperament and can shape the environment accordingly. Temperament characteristics predisposing children to negative affect should also be considered within the attachment framework. Bowlby's (1979) attachment theory suggests that the attachment period has a lasting effect on children's differences, and one of the factors that determine the infant's attachment style is their temperament (Lengua 2006, Kiff et al. 2011, Ezpeleta et al. 2019). For example, the infant's distress or restlessness after separation from the caregiver is closely related to their temperament. While some infants experience more distress depending on their temperament, others may be more relaxed (Groh et al. 2017). An infant with a low arousal threshold may be more easily affected by adverse stimuli entirely due to the infant's temperament (Anaya and Pérez-Edgar 2019). Therefore, it is necessary to consider the infant's internal characteristics instead of assessing all factors in caregiver-infant attachment as external characteristics.

Many studies consistently suggest that the attachment style established in infancy will determine the child's future interpersonal relationships and psychological health (Earls and Jung 1987, Beduna and Perrone-McGovern 2019, Brenning et al. 2019, Lathren et al. 2021). Despite the precise impact of attachment patterns on mental health, the outcomes of studies examining the relationship between temperament and attachment are inconsistent. While some studies argue that the infant's temperament impacts attachment styles (Weinfield et al. 2008, Hart and Behrens 2013), some research results suggest that regardless of the infant's temperament, attachment patterns will cause permanent individual differences (Weinfield et al. 2008, Hart and Behrens 2013, Groh et al. 2017). A relationship between attachment patterns and temperament was observed in a metaanalysis analyzing the effect of temperament on infant attachment patterns. However, it did not reach a statistically significant level (Groh et al. 2017). Recent studies have shown that the attachment styles of caregivers and infants may vary according to the infant's temperament. The insecure attachment was significantly associated with negative temperament. Children with avoidant or anxious attachment styles may generally exhibit negative temperament characteristics (Groh et al. 2017, Leerkes and Zhou 2018, Bonacquisti et al. 2020). On the other hand, infants' attachment patterns with different caregivers (e.g., mother, father, caregiver) may have different characteristics. Infants with a secure attachment style with their mothers may have an avoidant attachment style with their fathers.

Parenting, naturally, has a very crucial role in the child's attachment pattern (Cipriano-Essel et al. 2013). Attachment theory suggests that mothers' ignoring the infant crying and inconsistent reactions can lead to insecure attachment. A child who cries and needs unmet will develop attachment problems toward the caregiver. This situation may lead to behavioral problems and the need for more emotional regulation and self-regulation. Children with difficulties in self-regulation are more likely to engage in aggressive behaviors. However, the mother's warmth and autonomy-supportive attitude toward her child are protective of children with negative temperaments. Finally, both temperament and parenting significantly impact self-control, which is a predictor of children's aggressive behaviors (Cipriano-Essel et al. 2013).

Aggression and Parental Attitudes in Preschool Children

Although parenting affects the child's aggression by interacting with the child's temperament and attachment styles, it is also a critical variable in its own right. Therefore, parental attitudes are considered a significant factor in determining child aggression. Many studies suggest that aggression is associated with poor or conflictual relationships between parents and parental attitudes (Keenan and Shaw 1994, Brook et al. 2001, Mäntymaa et al. 2012, Emery 2014, Dixon and Slep 2017, Pu and Rodriguez 2021). Aggression between mother and father is frequently reported together with child aggression (Dixon and Slep 2017). From a theoretical perspective, this phenomenon is explained by the "spillover and crossover effect" in the family system (Pu and Rodriguez 2021). With this effect, the child as a subsystem will be influenced by the parents as a supersystem. This impact appears because the family has a dynamic structure that affects units interacting with each other (Emery 2014). The parent's relationship and the characteristics of this interaction are highly influential on the child's aggressive behaviors (Marcus et al. 2001). On-going conflicts between parents affect the child's social cognitions and peer relations and explain the cause of aggression and behavioral disorders in children (Marcus et al. 2001, Hentges et al. 2015). The conflict between parents leads them to exhibit different and inconsistent disciplinary attitudes toward children. Child aggression may increase due to these inconsistent parental attitudes (Tanaka et al. 2010). When accompanied by a child with a difficult temperament prone to negative affect, the destructive conflict between parents significantly reduces the child's coping capacity (Hentges et al. 2015). In contrast, parental constructive conflict resolution skills determine the social coping and adjustment skills of preschool children aged 5-7 years (Marcus et al. 2001, McCoy et al. 2013).

Anxiety, a significant factor in aggression, emerges more frequently in ambiguous and conflictual family relationships. Conflicts within the family increase the child's anxiety; parental conflict may also cause preschool children to perceive insecurity toward their families (Davies et al. 2020). Parental conflict causes high levels of stress in the child because it undermines the child's trust in the outside world, and the child externalizes this stress as aggression. From another aspect, the conflict between parents causes two parents to exhibit different and inconsistent disciplinary attitudes, and aggression can result from these inconsistent behaviors (Tanaka et al. 2010). While inconsistent parental attitudes and conflictual family relationships cause aggression in children, consistent and harmonious parenting and positive and close relationships between parents significantly prevent aggression in preschool children. Therefore, apart from the characteristics and quality of the parental relationship, another significant factor in child aggression is parental attitudes. Responsive parental attitudes contribute significantly to the infant's emotional regulation and self-regulation. Poor or ineffective parental attitudes, such as parents providing inadequate emotional support and cognitive stimulation, can be a precursor to behavioral problems in children in the following years (Padilla et al. 2020). Moreover, aggression, which causes behavioral disorders in children, can be prevented when parents help children think about what and how they are doing using reflective practice (Wong et al. 2017).

Irritability in preschool children may be a consequence or symptom of child depression, anxiety, or oppositional defiant disorder. Since these psychopathologies cause children to have problems understanding the reward-punishment relationship, behavioral methods may have no effect (Ezpeleta et al. 2019). Therefore, in psychopathologies such as depression, anxiety, or conduct disorder, parenting is more important and functional than behavioral techniques. Parenting that includes more reflective thinking and functional parental attitudes allows the child to develop emotion regulation skills. Thus children who can regulate their negative emotions, such as anger, often do not exhibit aggressive behavior.

Parents' reactions to the child's aggressive behavior can be behaviorally reinforcing. For example, positive reinforcement of the child's aggressive behavior by the parents may cause the child's aggression to increase (Ezpeleta et al. 2019), and even the parents' passivity towards the child's aggression may act as a reinforcer in some cases (Swit et al. 2018). However, when parents reinforce the child's orderly, balanced, and cooperative behaviors, the child will avoid aggression (Ezpeleta et al. 2019). Several studies suggest that parental violence against the child may enhance the child's antisocial tendencies (Mäntymaa et al. 2012, Lee et al. 2015). This tendency is accounted for by children learning to use violence as a coping method from their parents. In this way, children assume they can only resolve their relational conflicts through aggression and apply it.

Another critical factor influencing parenting and family relationships is families' education and socioeconomic level. The socioeconomic level (SES) is one of the determinants of the quality of the child-parent relationship. While low-income families have the potential to punish their children more harshly, high-income families are more advantageous in fulfilling their children's social support and cognitive needs (Padilla et al. 2020). Being low-income leads to financial difficulties for parents and negatively affects parenting, and this parental stress is an underlying factor in the child's poor social behaviors and aggression (Ward and Lee 2020). Hence, SES has a substantial effect on children's aggression. Parental education level has a similar effect to SES. While parents with a high level of education are more aware of satisfying their children's needs, parents with a low level of education experience more parental stress (Beckmann et al. 2021). Many studies have shown that low parental education is associated with problematic behaviors such as irritability (Véronneau et al. 2014, Cabello et al. 2017).

The determinant in the relationship between parental education level and aggression is parental inhibitory control skills. In this respect, the parent's ability to control the child's inappropriate behaviors is positively related to the increase in parental education, and the ability of the parent to prevent these inappropriate behaviors significantly reduces aggressive behaviors. Therefore, parental education level is considered an essential protective factor for preschool children's tendency towards aggression (Cabello et al. 2017).

Educated parents' more consistent behavior, more conscious approach to the child, and reinforcement of the child's positive behaviors rather than aggression also reduce aggressive behaviors. One study concluded that highly educated parents communicate less with their children due to busy working hours and thus are less exposed to the child's aggression (Beckmann et al. 2021). On the other hand, studies focusing on the difference between spending little time and spending quality time have reached different results (Levac et al. 2008). Accordingly, a study indicating that mothers with higher levels of education spend more and better quality time with their children shows that working and educated mothers allocate more time for education, entertainment, travel, and basic care of their children (Guryan et al. 2008). This finding suggests that working and educated

parents may spend more time with their children, and therefore the differences may not be related to the fact that they are less aware of their children's aggression.

Conclusion

Aggression is a common behavioral problem in preschool children that parents find challenging, often making them desperate. However, aggression is a significant problem for parents and many people around the child. Aggressive behaviors in children are frequently discussed and researched in the triangle of mental health professionals, teachers, and parents. Therefore, the dynamics of aggression should be well-researched and determined.

Attachment styles, known to be very important for infancy, are an essential concept that should be emphasized to understand the aggressive behaviors of preschool children. The child's attachment style is not only determined by the attention and warmth shown to the child by the parents but is also closely related to some of the child's characteristics, such as temperament. In addition, one factor that strongly influences parental attitudes and structure is parental education and the family's socioeconomic level. Families with higher socioeconomic status can invest more in their children's mental health and education. In addition, since family members who do not have financial concerns can spend more comfortable and quality time with their children, they can prevent communication problems at a higher rate, reducing aggressive behaviors. Education level, which is parallel to socioeconomic level, also helps us understand children's aggression and behavioral disorders. As the level of education and SES increases, the likelihood of children exhibiting aggressive behavior decreases.

Children learn to control and regulate their emotions and behaviors as they grow up. Developmentally, children cannot be expected to control themselves/ their emotions in difficult situations. Self-regulation and emotion regulation develop as the child grows up with increasing verbal skills and observing their parents. Therefore, the aggression shown by the child due to the child's inability to regulate his/her own emotions and behaviors when faced with a negative situation is tried to be explained by the attitude of the child's parents, how the child is attached to the parents, and the temperament of the child. The importance of self-regulation and emotion regulation in aggression is related to regulating anger as a strong and negative emotion. Indeed, anger is followed by aggression (Ersan 2020). Although emotion regulation is not addressed comprehensively here because it is beyond the scope of this study, it is recommended that this issue be addressed in future research

Kaynaklar

Anaya B, Pérez-Edgar K (2019) Personality development in the context of individual traits and parenting dynamics. New Ideas Psychol, 53:37-46.

Ballard ME, Rattley KT, Fleming WC, Kidder-Ashley P (2004) School aggression and dispositional aggression among middle school boys. RMLE Online, 27:1-11.

Beckmann L, Bergmann MC, Fischer F, Mößle T (2021) Risk and protective factors of child-to-parent violence: a comparison between physical and verbal aggression. J Interpers Violence, 36:1309-1334.

Beduna KN, Perrone-McGovern KM (2019) Recalled childhood bullying victimization and shame in adulthood: the influence of attachment security, self-compassion, and emotion regulation. Traumatology, 25:21-32.

Bonacquisti A, Geller PA, Patterson CA (2020) Maternal depression, anxiety, stress, and maternal-infant attachment in the neonatal intensive care unit. J Reprod Infant Psychol, 38:297-310.

Bowie BH (2007) Relational aggression, gender, and the developmental process. J Child Adolesc Psychiatr Ment Health Nurs, 20:107-115.

Brame B, Nagin DS, Tremblay RE (2001) Developmental trajectories of physical aggression from school entry to late adolescence. J Child Adolesc Psychiatr Psychol, 42:503-512.

Brenning K, Soenens B, Mabbe E, Vansteenkiste M (2019) Ups and downs in the joy of motherhood: maternal well-being as a function of psychological needs, personality, and infant temperament. J Happiness Stud, 20:229-250.

Brook JS, Zheng L, Whiteman M, Brook DW (2001) Aggression in toddlers: associations with parenting and marital relations. J Genet Psychol, 162:228-241.

Brook J, Whiteman M, Finch S, Cohen P (1995) Aggression, intrapsychic distress, and drug-use—antecedent and intervening processes. J Am Acad Child Adolesc Psychiatry, 34:1076-1084.

Cabello R, Gutiérrez-Cobo MJ, Fernández-Berrocal P (2017) parental education and aggressive behavior in children: a moderated-mediation model for inhibitory control and gender. Front Psychol, 8:1181.

CampbellSB (2002) Behavior Problems in Preschool Children: Clinical and Developmental Issues 2nd edition. New York, Guilford Press.

Cipriano-Essel E, Skowron EA, Stifter CA, Teti DM (2013) Heterogeneity in maltreated and non-maltreated preschool children's inhibitory control: the interplay between parenting quality and child temperament. Infant Child Dev, 22:501-522.

Cloninger CR (1987) A systematic method for clinical description and classification of personality variants: a proposal. Arch Gen Psychiatry, 44:573-588.

Davies PT, Thompson MJ, Hentges RF, Coe JL. Sturge-Apple ML (2020). Children's attentional biases to emotions as sources of variability in their vulnerability to interparental conflict. Dev Psychol, 56:1343-1359.

DeLisi M, Vaughn MG (2014) Foundation for a temperament-based theory of antisocial behavior and criminal justice system involvement. J Crim Justice, 42:10-25.

Dixon L, Slep AMS (2017) Intimate partner violence and child maltreatment. The Wiley Handbook of What Works in Child Maltreatment: An Evidence-Based Approach to Assessment and Intervention in Child Protection (Eds L Dixon, DF Perkins, C Hamilton-Giachritsis, LA Craig):97-109. Hoboken, NJ, Wiley.

Earls F ve Jung KG (1987) Temperament and home environment characteristics as causal factors in the early development of childhood psychopathology. J Am Acad Child Adolesc Psychiatry, 26:491-498.

Emery RE (2014) Families as systems: some thoughts on methods and theory. In Emerging Methods in Family Research (Eds SM McHale, P Amato, A Booth):109-124. New York, Springer.

Ersan C (2020) Early language development and child aggression. World Journal of Education, 10:1-11.

Ersan C, Tok \$ (2020) The study of the aggression levels of preschool children in terms of emotion expression and emotion regulation. Egitim ve Bilim, 45:359-391.

Evans CA, Nelson LJ, Porter CL (2012) Making sense of their world: sensory reactivity and novelty awareness as aspects of temperament and correlates of social behaviours in early childhood. Infant Child Dev, 21:503-520.

Evans DE, Rothbart MK (2009) A two-factor model of temperament. Pers Individ Dif, 47:565-570.

Ezpeleta L, Penelo E, de la Osa N, Navarro JB, Trepat E (2019) Irritability and parenting practices as mediational variables between temperament and affective, anxiety, and oppositional defiant problems. Aggress Behav, 45:550-560.

Goldsmith HH, Buss AH, Plomin R, Rothbart MK, Thomas A, Chess S et al. (1987) Roundtable: What is temperament? Four approaches. Child Dev, 58:505-529.

Groh AM, Narayan AJ, Bakermans-Kranenburg MJ, Roisman GI, Vaughn BE, Fearon RMP et al. (2017) Attachment and temperament in the early life course: a meta-analytic review. Child Dev, 88:770-795.

Guryan J, Hurst E, Kearney M (2008) Parental education and parental time with children. J Econ Perspect, 22:23-46.

Gülay Ogelman H (2013) Aggression levels of 5- to 6-year-old turkish children in terms of gender, age, and peer relations variables. J Res Child Educ, 27:1-16.

Hanish LD, Martin CL, Cook R, DeLay D, Lecheile B, Fabes RA et al. (2021) Building integrated peer relationships in preschool classrooms: the potential of buddies. J Appl Dev Psychol, 73:101257.

Hart SL, Behrens KY (2013) Affective and behavioral features of jealousy protest: associations with child temperament, maternal interaction style, and attachment. Infancy, 18, 369-399.

Hay DF (2017) The early development of human aggression. Child Dev Perspect, 11:102-106.

Hentges RF, Davies PT, Cicchetti D (2015) Temperament and interparental conflict: the role of negative emotionality in predicting child behavioral problems. Child Dev, 86:1333-1350.

Herman RI (2021) Aggressive behavior in preschoolers, explanatory theoretical solutions for educators and parents. J Plus Educ, 28:153-161.

Honig AS (2006) Infants ve Toddlers: Understanding confusing expressions of emotion. Early Childhood Today, 20:17-19.

Hoyniak CP, Donohue MR, Quiñones-Camacho LE, Vogel AC, Perino MT, Hennefield L et al. (2022) Developmental pathways from preschool temper tantrums to later psychopathology. Dev Psychopathol, doi: 10.1017/S0954579422000359.

Keenan K, Shaw DS (1994) The development of aggression in toddlers: a study of low-income families. J Abnorm Child Psychol, 22:53-77.

Kiff CJ, Lengua, LJ, Zalewski M (2011) Nature and nurturing: parenting in the context of child temperament. Clin Child Fam Psychol Rev, 14:251-301.

Kim-Cohen J, Arseneault L, Caspi A, Tomás MP, Taylor A, Moffitt TE (2005) Validity of DSM-IV conduct disorder in 4½–5-year-old children: a longitudinal epidemiological study. Am J Psychiatry, 162:1108-1117.

Kose S, Sayar K, Kalelioglu U, Aydın N, Celikel FC, Gulec H et al. (2009) Normative data and factorial structure of the turkish version of the temperament and character inventory. Compr Psychiatry, 50:361-368.

Kostyrka-Allchorne K, Wass SV, Sonuga-Barke EJS (2020) Research review: do parent ratings of infant negative emotionality and self-regulation predict psychopathology in childhood and adolescence? A systematic review and meta-analysis of prospective longitudinal studies. J Child Psychol Psychiatry, 61:401-416.

Lathren CR, Rao SS, Park J, Bluth K (2021) Self-compassion and current close interpersonal relationships: a scoping literature review. Mindfulness, 12:1078-1093.

Lee SJ, Altschul I, Gershoff ET (2015) Wait until your father gets home? mother's and fathers' spanking and development of child aggression. Child Youth Serv Rev, 52:158-166.

Leerkes EM, Zhou N (2018) Maternal sensitivity to distress and attachment outcomes: interactions with sensitivity to nondistress and infant temperament. J Fam Psychol, 32:753-761.

Lengua LJ (2006) Growth in temperament and parenting as predictors of adjustment during children's transition to adolescence. Dev Psychol, 42:819-832.

Levac AM, McCay E, Merka P, Reddon-D'Arcy ML (2008) Exploring parent participation in a parent training program for children's aggression: understanding and illuminating mechanisms of change. J Child Adolesc Psychiatr Nurs, 21:78-88.

López-Romero L, Romero E, Colins O, Andershed H, Hare R, Salekin R (2019) Proposed specifiers for conduct disorder (PCSD): preliminary validation of the parent version in a spanish sample of preschoolers. Psychol Assess, 31:1357-1367.

Mäntymaa M, Puura K, Luoma I, Latva R, Salmelin RK, Tamminen T (2012) Predicting internalizing and externalizing problems at five years by child and parental factors in infancy and toddlerhood. Child Psychiatry Hum Dev, 43:153-170.

Marcus NE, Lindahl KM, Malik NM (2001) Interparental conflict, children's social cognitions, and child aggression: a test of a mediational model. J Fam Psychol, 15:315-333.

McCoy KP, George MRW, Cummings EM, Davies PT (2013) Constructive and destructive marital conflict, parenting, and children's school and social adjustment. Soc Dev, 22:641-662.

Nielsen JD, Olino TM, Dyson MW, Klein DN (2019) Reactive and regulatory temperament: longitudinal associations with internalizing and externalizing symptoms through childhood. J Abnorm Child Psychol, 47:1771-1784.

Olson SL, Sameroff AJ, Kerr DCR, Lopez NL, Wellman HM (2005) Developmental foundations of externalizing problems in young children: the role of effortful control. Dev Psychopathol, 17:25-45.

Ortiz MÁC, Gándara VB (2006) Study on the relations between temperament, aggression, and anger in children. Aggress Behav, 32:207-215.

Padilla CM, Hines CT, Ryan RM (2020) Infant temperament, parenting and behavior problems: variation by parental education and income. J Appl Dev Psychol, 70:101179.

Perhamus GR, Ostrov JM (2023) Inhibitory control in early childhood aggression subtypes: mediation by irritability. Child Psychiatry Hum Dev, 54:366-378.

Pu DF, Rodriguez CM (2021). Spillover and crossover effects: mothers' and fathers' intimate partner violence, parent-child aggression risk, and child behavior problems. Child Maltreat, 26:420-430.

Raaijmakers M (2008) Aggressive behaviour in preschool children: neuropsychological correlates, costs of service use, and preventive efforts. (Doctoral thesis). Utrecht, University of Utrecht.

Raisor JM, Zhulamanova I, Berridge G (2021) Sparkly princess shoes: a case study examination of a social hierarchy among preschool aged girls. International Electronic Journal of Elementary Education, 13:599-609.

Revelle W (1976) Review of a temperament theory of personality development by Arnold H. Buss, Robert Plomin. Am J Psychol, 89:341-342.

Rothbart M (1989) Temperament in childhood: a framework. In Temperament in childhood (Eds GA Kohnstamm, JE Bates, MK Rothbart):59–73. Hoboken, NJ, Wiley.

Röll J, Koglin U, Petermann F (2012) Emotion regulation and childhood aggression: longitudinal associations. Child Psychiatry Hum Dev, 43:909-923.

Rubin DH, Crehan ET, Althoff RR, Rettew DC, Krist E, Harder V et al. (2017) Temperamental characteristics of withdrawn behavior problems in children. Child Psychiatry Hum Dev, 48:478-484.

Sears PS (1951) Doll play aggression in normal young children: influence of sex, age, sibling status, father's absence. Psychol Monogr, 65:1-42.

Su S, Pettit GS, Lansford JE, Dodge KA, Bates JE (2020). Children's competent social-problem solving across the preschool-to-school transition: developmental changes and links with early parenting. Soc Dev, 29:750-766.

Swit CS, McMaugh AL, Warburton WA (2018) Teacher and parent perceptions of relational and physical aggression during early childhood. J Child Fam Stud, 27:118-130.

Tackett JL (2006) Evaluating models of the personality–psychopathology relationship in children and adolescents. Clin Psychol Rev, 26:584-599.

Tanaka A, Raishevich N, Scarpa A (2010) Family conflict and childhood aggression: the role of child anxiety. J Interpers Violence, 25:2127-2143.

Thomas A, Chess S (1977) Temperament and Development. New York, Brunner/Mazel.

Thomas, A, Chess S, Birch HG (1968) Temperament and Behavior Disorders in Children. New York, New York University Press.

Thomas A, Chess S, Korn SJ (1982) The reality of difficult temperament. Merrill Palmer Q, 28:1-20.

Türkoğlu B (2019) Preschool teachers' perspectives on aggressive behaviors in children: a qualitative study. J Educ Train Stud, 7:169-183.

van Adrichem DS, Huijbregts SCJ, Van der Heijden KB, van Goozen SHM, Swaab H (2019) Prenatal risk and physical aggression during the first years of life: the gender-specific role of inhibitory control. Infancy, 24:807-826.

Véronneau MH, Racer KH, Fosco GM, Dishion TJ (2014) The contribution of adolescent effortful control to early adult educational attainment. J Educ Psychol, 106:730-743.

Ward KP, Lee SJ (2020) Mothers' and fathers' parenting stress, responsiveness, and child wellbeing among low-income families. Child Youth Serv Rev, 116:105-218.

Weinfield N, Sroufe L, Egeland B, Carlson E (2008) Individual differences in infant-caregiver attachment: conceptual and empirical aspects of security. In Handbook of Attachment: Theory, Research, And Clinical Applications (Eds J Cassidy, PR Shaver):78–101. New York, Guilford Press.

Wolff KT, Baglivio MT, Klein HJ, Piquero AR, DeLisi M, Howell JC (2020) Adverse childhood experiences (aces) and gang involvement among juvenile offenders: assessing the mediation effects of substance use and temperament deficits. Youth Violence Juv Justice, 18:24-53.

Wong K, Stacks AM, Rosenblum KL, Muzik M (2017) Parental reflective functioning moderates the relationship between difficult temperament in infancy and behavior problems in toddlerhood. Merrill-Palmer Q, 63:54-76.

Wu TCH, Meehan AJ, Rijlaarsdam J, Maughan B, Fearon P, Barker ED (2022). Developmental pathways from toddler difficult temperament to child generalized psychopathology and adult functioning. J Affect Disord, 301:14-22.

Xiao SX, Hanish LD, Malouf LM, Martin CL, Lecheile B, Goble P et al. (2022) Preschoolers' interactions with other-gender peers promote prosocial behavior and reduce aggression: an examination of the buddy up intervention. Early Child Res Q, 60:403-413.

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