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Understanding the Impact of Parent-Child Relationships ^{Pa} on Emotion Regulation: A Comprehensive Review

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ABSTRACT

This paper explores the impact of parenting on adolescents' self-regulation, emphasizing the importance of parental socialization in shaping individuals' beliefs, worldviews, and behaviors. It highlights that effective emotion regulation in children is associated with parents' emotional support, positive affect, emotion coaching, and joint strategies. Conversely, difficulties in emotion regulation in adolescents are linked to parents' psychological control, permissiveness, expressed anger, and criticism. Furthermore, the study reveals that adolescents experience more positive affect when in the presence of their parents compared to when they are alone, indicating ongoing parental influence on emotion regulation throughout adolescence. Consequently, the paper underscores the need for practitioners working with parents and families to develop intervention and prevention efforts targeting three primary ways parents impact emotion regulation: modeling/observation, specific parenting practices related to emotion, and families' emotional climate. These efforts should focus on enhancing parents' emotion-regulation skills and teaching emotion-coaching techniques that emphasize warmth, responsiveness, and setting limits.

Keywords: Parent-Child Relationships, Emotion Regulation, Adolescents, Parenting Practices, Intervention

INTRODUCTION

The foremost priority for parents is to safeguard their children's welfare and steer them away from adverse outcomes in their developmental journey. Previous studies have highlighted the crucial role of self-regulation in preventing children from engaging in risky behaviors or experiencing maladaptive outcomes [1, 2]. Effective self-regulation is also linked to social and cognitive competence, whereas deficits in self-regulation are associated with problem behaviors during childhood and adolescence [2, 3]. However, most research examining the relationship between self-regulation and psychological adjustment has primarily focused on adolescents [2, 4]. In contrast, investigations into the influence of contextual and familial factors, such as parenting, on self-regulation have predominantly centered on children $\lceil 5, 6 \rceil$. Specifically, there is a lack of sufficient research on how parenting practices during adolescence impact self-regulation.

Previous studies have not thoroughly investigated the influence of family context variables on adolescents' self-regulation abilities apart from parenting behaviors. The emotional atmosphere within a family is manifested through various factors such as family dynamics, parent-child relationships, parenting styles, attachment bonds, and overall emotional tone at home [7]. A secure parent-child relationship is crucial for fostering emotional safety

and support, allowing children to freely express their emotions, which in turn is essential for effective emotion regulation [8]. Environments characterized by warmth and closeness facilitate the comfortable expression of emotions by children. Moreover, mothers who exhibit effective emotion and cognitive regulation tend to be more engaged and responsive parents $\lceil 9 \rceil$, thus better attuned to their children's emotional needs and providing supportive responses. Alongside warmth and support, positive parenting often includes clear boundaries and expectations regarding emotional expression, which enable children to understand and express their emotions in socially appropriate ways (e.g., "It's okay to feel angry, but not okay to hit"), thus enhancing emotional security through predictability $\lceil 10 \rceil$. Numerous studies consistently highlight the positive impact of emotional support on effective emotion regulation. For instance, in a study involving children from military families [11], both maternal and paternal support, as perceived by the youth, were linked to better self-regulation (specifically measured as effortful control). Additionally, maternal support was correlated with lower levels of conduct issues and emotional symptoms, such as internalizing problems like depression and anxiety.

Similarly, another study found a positive correlation

between the quality of parent-child relationships

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(e.g., acceptance, warmth) and emotion regulation. Furthermore, research involving adolescents exposed to frequent neighborhood violence revealed that family adaptability and cohesion, as perceived by the adolescents, were associated with improved anger regulation through parental support. This suggests that cohesive and supportive family environments foster more effective emotion regulation, particularly in challenging or high-risk circumstances.

Studies indicate that children may struggle with regulating their emotions when parents exhibit overly harsh, controlling, or permissive behaviors. Overly harsh parenting practices often involve psychological control, where parents intrude on children's behavior and psychological development to enforce their own desires, undermining children's autonomy [12]. For instance, research involving adolescents primarily from low-income families revealed that parents' psychological control was linked to increased internalizing and externalizing issues in adolescents through its impact on anger regulation $\lceil 13 \rceil$. These findings align with another study where adolescent anger mediated the relationship between harsh and inconsistent discipline and adolescents' overall health. Such studies suggest that negative parenting behaviors affect children primarily through their influence on emotion regulation. Additionally, research indicates that parenting can significantly impact emotion regulation and adjustment in certain children. For example, in a study of preschoolers, psychological control was more strongly associated with internalizing and externalizing problems in children with high levels of negative emotionality, implying that negative parenting may be more detrimental to children who struggle with regulating their emotions $\lceil 12 \rceil$.

Children's emotion regulation is influenced by how emotions are expressed within the household and in interpersonal relationships. Specifically, researchers have investigated the association between parents' negative and positive emotional expressions and children's emotional and physiological regulation. For instance, in studies assessing young children's emotions during free play and teaching tasks through observer ratings, parents exhibiting high levels of positive affect (e.g., warmth, smiling) and low levels of negative affect (e.g., anger) were linked to positive affect in their children. Additionally, parents' expression of anger was positively correlated with children's own expression of anger. These findings align with research by [14], which examined respiratory sinus arrhythmia (RSA) as an indicator of parasympathetic functioning and cardiac vagal regulation. It was found that parents' anger during conflict discussions with their teenagers was associated with lower RSA in the adolescents,

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whereas parents' positive affect was associated with higher RSA. In other words, adolescents exhibited more optimal cardiac vagal regulation when their parents displayed high levels of positive affect and low levels of anger during conflict discussions. Moreover, studies utilizing Ecological Momentary Assessment (EMA) to evaluate emotions found that adolescents generally reported more positive and less negative emotions when interacting with their parents compared to when they were alone [15]. This underscores the significance of the parent-child relationship in influencing emotion regulation.

Concept of Self-regulation

There isn't a universally agreed-upon definition of self-regulation. Traditional definitions often emphasize behaviors such as the ability to follow instructions (particularly in children and adults) or the capacity to adapt behavior to specific situations. Alternatively, some definitions focus on cognitive control, such as the ability to manage attention, demonstrate effective problem-solving skills, or engage in independent activities. Across various theoretical perspectives, self-regulation encompasses the control of emotions and behaviors, as well as cognitive processing and the ability to engage in age-appropriate prosocial behavior [16]. [17] propose that the self-possesses an executive function that selects actions, filters irrelevant information, and determines suitable responses, using both automatic and conscious processes to understand and control the external world. Recent selfregulation theories explore how individuals resist temptations, persist in efforts, and make careful decisions to achieve their goals. In contrast, [18] defines self-regulation in terms of external behaviors, including the ability to follow instructions, initiate and stop actions as needed, adjust behavior in social contexts, delav gratification, and adhere to socially accepted norms without external supervision.

encompasses Self-regulation only not the internalization of external expectations but also selfinitiated behaviors and goals [19]. While some researchers differentiate between self-regulation, self-control, and self-discipline, these terms are often used interchangeably. Self-regulation is typically considered the broadest concept, as it encompasses both conscious and unconscious processes of selfalteration. Self-control is closely related to selfregulation but implies a more deliberate and conscious process of self-alteration, specifically involving the inhibition of unwanted responses. Similarly, self-discipline is related to self-regulation but is a narrower concept focused on an individual's intentional plans to improve themselves in various domains [17].

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Development of Self-Regulation and Implications for Parenting

Developmental changes greatly influence the ability of self-regulation. [18] outlined the developmental trajectory of self-regulation, suggesting that it begins in infancy around the second month and progresses through five stages. The first stage, termed neurophysiological modulation, involves the organization of reflex movements and arousal states, along with the modulation of external stimuli. By around two to three months, infant behaviors become more predictable, with caregivers playing an assisting role by responding to the infant's varying states and providing external support and modulation. The second stage, sensory-motor regulation, occurs from approximately three months to 12 months, during which infants develop the capacity to modify their behavior in response to environmental events. Although this regulation is not intentional and lacks motivational processes, behavior modifications occur accidentally and are reinforced through conditioning.

[18] emphasizes the crucial role of caregiver sensitivity and responsiveness during the early stages of self-regulation development. Caregivers typically react to the basic habits of the infant, such as thumb sucking, which shapes the infant's dependence on the caregiver's impressions. The third phase, occurring from 12 to 18 months, marks the beginning of awareness of social demands and the acquisition of some control skills. Children start to initiate and stop activities in response to external demands, achieving compliance with caregiver demands and the ability to initiate behavior. Language development progresses during this stage, with caregivers assuming a more organizational role in directing the child's behavior. In the fourth stage, from 18 to 24 months, self-control evolves with the development of representational thinking and memory recollection. Children can remember past events and adjust behaviors accordingly, even in the absence of caregivers or external control figures. However, applying these memories to new situations remains somewhat inflexible.

In the fifth stage, around 2 years of age, children exhibit clear signs of self-regulation as their selfawareness emerges. [18] distinguishes between selfcontrol and self-regulation, noting that selfregulation involves using multiple contingency rules to guide behavior, maintaining monitoring for extended periods and across various situations, and gradually approximating standards of expectations. This transition from self-control to self-regulation parallels the gradual growth of cognitive skills during the early preschool years. True selfregulation, according to [18], fully develops during the preschool years when children become capable of complying with requests and behaving appropriately without external monitoring. During this period, children increasingly rely on internal self-regulation mechanisms, such as rules and goal-directed plans, to regulate their emotions and behaviors appropriately [6].

[1] posited that preschool-aged children are expected to demonstrate the ability to delay, defer, and accept substitutions without resorting to aggression or becoming disorganized due to frustration, challenge, or fatigue. While numerous studies have highlighted the self-regulation skills of young children, there has been a relative lack of focus on the regulatory abilities of early adolescents $\lceil 5 \rceil$. Given the pivotal nature of these formative vears, the success or failure of self-regulation in youth carries significant weight. Consequently, the present study aims to examine self-regulatory abilities during early adolescence. The quality of the caregiver-child relationship during the preschool vears profoundly influences the maturation of regulatory abilities. There is a consensus in the literature that self-regulation evolves from external to internal control during early childhood [18], with children acquiring self-regulatory skills primarily from their caregivers, especially their mothers. Therefore, the impact of caregivers on the development of self-regulation is paramount.

The development of self-regulation in childhood is often attributed to parental socialization, wherein individuals adopt and internalize beliefs, worldviews, and behaviors consistent with their parents' values [18]. According to socialization theories on parenting, children's socialization is facilitated by various parental behaviors, skills, and attitudes embedded within the broader context of interparental and parent-child relationships [20]. Parents' actions communicate the boundaries of acceptable behavior and model regulatory strategies, while the relational context can either enhance or diminish the likelihood that children will adopt the behaviors prescribed by caregivers. For instance, a mother's attempts to model strategies for managing negative emotions in public may go unheeded if the mother-child relationship is characterized by hostility or distance.

Concept of Parental Control

The term parental control encompasses multiple dimensions and possesses a complex structure, leading to ambiguities and controversies [21, 22]. [22] highlighted this ambiguity by identifying different conceptualizations of the term "control." The concept of control is often associated with two distinct notions: "being in control," which is typically linked to positive developmental outcomes for children, and "being controlling," which is usually associated with negative developmental effects. A parent who is "in control" provides a nurturing environment conducive to child

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development by establishing age-appropriate expectations, setting boundaries, and monitoring behavior appropriately [22]. This form of control is commonly referred to as behavioral control in the literature [21]. Conversely, a parent who is "controlling" emphasizes compliance, imposes specific goals on children, and discourages open dialogue [22]. These parents often disregard their children's perspectives. This type of control is typically termed psychological control and encompasses various dimensions such as conditional regard, love withdrawal, corporal punishment, developmentally disciplinary measures, inappropriate demands, intrusiveness, punishment, guilt induction, and verbal restriction.

The distinction between psychological and behavioral control is based on two main assumptions related to the requirements of child development. Firstly, it involves fostering sufficient psychological autonomy for children to learn social interactions and develop personal identity. Secondly, it assumes that adequate regulation of behavior enables children to understand the rules and structures of social interactions, thus becoming competent members of society [23]. Researchers have also investigated the effects of parental control on child and adolescent development. These effects can range from weak to strong, positive to negative, and linear to non-linear [21].

Parental Control and Adolescent Self-Regulation While some studies on parental control have assumed a linear relationship between parental behaviors and adolescent adjustment [24, 25], others have discovered a U-shaped, curvilinear association between parental control and adolescent outcomes [26]. Although findings from these studies vary, parental psychological control is generally regarded as uniformly negative, while behavioral control is perceived as uniformly positive.

CONCLUSION

The topic of self-regulation is gaining increasing attention in psychology, with growing research highlighting its significance as a predictor of crucial developmental outcomes, including mental and physical health during adolescence. This paper explores the influence of parenting on adolescents' self-regulation, emphasizing various parental behaviors and practices that impact emotion regulation in children. Research suggests that parents' emotional support, positive affect, use of emotion coaching, and joint strategies are linked to more effective emotion regulation in children. psychological Conversely, parents' control, permissiveness, expressed anger, and criticism are associated with difficulties in emotion regulation among children. Moreover, emotion regulation serves as a pathway through which parenting influences children's adjustment, particularly among

According to [24], excessive psychological and/or behavioral control hinders a young child's ability to develop appropriate prosocial behaviors, while insufficient behavioral control is associated with peer problems in adolescence. In essence, excessive control inhibits autonomy development, essential for self-control, while insufficient control can result in adolescent waywardness [26, 28]. Similarly, [29] suggests that moderate levels of acceptance and control positively influence adolescent well-being, contrary to the hypothesis that "moderate control is the best." However, some researchers have reported steep increases in adolescents' psychological competence at higher levels of control [30]. Different patterns in the relationship between parenting and child outcomes may stem from cultural variations. [31] propose that parenting practices vary across different cultural contexts as parents may have different goals influenced by cultural norms through which children are socialized. For example, [32] found that aspects of psychological control, such as shaming, guilt induction, and love withdrawal, are prevalent in Chinese children's socialization, where these behaviors are perceived as corrective and acceptance-driven. Similarly, in Turkish cultural settings, some intrusive or overprotective parental behaviors are perceived as parental warmth and involvement [33].

Limited studies have documented the interplay between different parental control variables influencing adolescent adjustment [34, 24, 25, 32, 35]. [34] found that high levels of maternal psychological control negatively predicted children's academic performance in mathematics when behavioral control was low. Similarly, [32] reported that parental psychological control had the strongest association with antisocial behavior when parental support was low.

USION emotionally reactive individuals. Adolescents report experiencing more positive affect when in the presence of their parents compared to when alone, indicating the ongoing influence of parents on emotion regulation throughout adolescence. Therefore, it is crucial for practitioners working with parents and families to develop intervention and prevention efforts targeting three primary ways parents influence emotion regulation: modeling/observation, specific parenting practices related to emotion, and the overall emotional climate

within families. These efforts should focus on enhancing emotionregulation skills in parents and teaching them emotion-coaching techniques that prioritize warmth, responsiveness, and setting limits effectively. By addressing these aspects, interventions can

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effectively support parents in promoting healthy

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