

A Study of the Effects of Parental Attention Deficit and Hyperactivity Disorder (ADHD) and Parental Emotion Regulation Processes on Adolescent Self-Regulation Skills

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Abstract

Self-regulation is a concept that is frequently studied in the literature and is crucial for humans in their capacity as beings with deliberate will. However, there is a lack of research examining ADHD, which is characterized by difficulties in self-regulation and emotion regulation, particularly in terms of adolescent self-regulation skills via parenting practices. The purpose of this study was to investigate the relationship between parents' emotion regulation approaches toward their children and children's self-regulation skills based on a comparison of self-regulation skills in adolescent children of parents who met and did not meet ADHD diagnostic criteria. 572 parents and their 12-15-year-old children took part in the study. The study was designed as a correlational survey model. The data collected from children and their parents who met and did not meet the ADHD diagnostic criteria were compared using the T-test and then subjected to stepwise regression analyses separately. According to the study's findings, the children of parents who met the diagnostic criteria had lower self-regulation success scores than those who did not. The study discovered that avoidance and orientation to a child's emotions by parents who met ADHD diagnostic criteria were determinants of self-regulation failure. Another finding from the study was that avoidance of emotions by parents who met the ADHD diagnostic criteria was negatively related to self-regulation success. The findings for parents who did not meet ADHD diagnostic criteria revealed that no emotion regulation approach of such parents had a significant contribution to self-regulation failure, whereas the emotion orientation approach had a positive and significant contribution to adolescents' self-regulation success. Finally, the study discusses the findings in light of previous research findings and makes some recommendations for future work.

Keywords: Self-regulation, adult ADHD, parental emotion regulation

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INTRODUCTION

Self-regulation is an essential concept for humans in their capacity as beings with a deliberate will, a concept that refers to humans' ability to change their reactions or inner state in a goal-oriented manner (Vohs and Baumeister, 2004). In this process, people activate and monitor their behaviour, attention, emotion, and cognitive strategies in line with both external and internal stimuli, as well as feedback from others, maintaining their behaviour resolutely or changing it based on the requirements of the situation they are in (Moilanen, 2007). It can be seen that self-regulation abilities determine a person's functional level in almost every aspect of life. Robson et al. (2020) discovered that self-regulation skills from early childhood predicted success in academic, social, and professional life, as well as a healthy lifestyle in good mental health in later years of life, in a meta-analysis study combining the results of 150 studies. Any disorder in one or more components of self-regulation causes a variety of social and psychological issues. Endler and Kocovski (2000, pp. 571) found that many self-regulation issues, such as setting unrealistically high goals, constantly monitoring or evaluating themselves or abandoning monitoring themselves, and acting in ways they would not act in other situations, were all linked to various problems such as anxiety, depression, and addiction. Several authors have also provided evidence that self-regulation abilities are linked to externalization and internalization issues (Doan et al., 2012; Lengua, 2003; White et al., 2012).

During self-regulation activities, people frequently encounter situations that elicit emotional responses. As a result, it is suggested that self-regulation processes are closely related to emotion regulation processes (Koole et al., 2011). Emotion regulation refers to the physiological, cognitive, motivational, and/or behavioral processes that determine the emergence, shape, intensity, or duration of emotional states that people initiate, sustain, inhibit, avoid, or adjust in order to achieve biological or social adaptation or to achieve individual goals (Eisenberg & Spinrad, 2004). Emotion regulation plays a critical role in self-regulation processes and forms the basis of motivation to persevere in the pursuit of one's goals (Barkey, 2011). Emotion regulation, as defined by Moilanen (2007), could be frequently addressed as a dimension of self-regulation processes. It has, however, been the subject of separate investigations by some authors. Difficulties with emotion regulation lead to situations such as excessively experiencing emotions, expressing them in ways that are not in accordance with norms, experiencing rapid and uncontrolled emotional transitions, and focusing excessively on emotional stimuli, all of which harm the interests of the individuals involved and prevent them from achieving their goals (Shaw et al., 2014).

According to research, emotion regulation is both an external and an internal process (Thompson, 2011). Emotion regulation in the context of parenting is an important and complementary dimension of both adaptive parenting (Sanders & Mazzucchelli 2013) and emotion regulation (Boden & Thompson 2015; Dix 1991; Thompson 1994). Parents' emotional regulation can be linked to their children's emotional competence via a number of mechanisms. Emotional socialization processes such as parents expressing their own emotions, serving as models in emotion regulation, and reacting to their children's emotional experiences are examples of these. Parents' awareness of the child's emotions, acceptance and approval/validation of the child's emotions, talking about emotions, and assisting the child in understanding and regulating her or his own emotions are examples of supportive responses (Havighurst & Kehoe, 2017). Non-supportive and/or non-adaptive parental responses, on the other hand, generally include child-rearing styles based on responses such as punishment, ignoring, and anger (Brand & Klimes-Dougan, 2010, p. 91). According to research, the children of parents who use non-adaptive emotion regulation approaches have a variety of internalization and externalization issues (Garner et al., 2008; Shipman et al., 2007; Suveg et al., 2008). Non-adaptive parental responses are also related to how effective parents are at regulating their own emotions (Buckholdt et al., 2013).

Attention deficit and hyperactivity disorder (ADHD) is defined as a neuro-developmental disorder characterized by chronic inattention and/or hyperactivity-impulsivity that impairs functionality or development (DSM V, 2013). According to research, this disorder, which was previously diagnosed primarily in children and adolescents, is now being diagnosed in an increasing number of adults (Brown, 2009). ADHD is generally regarded as a reflection of a person's difficulties

in goal-oriented activities as a result of self-regulation disorders (Nigg, et al., 2006). In terms of emotion regulation, previous research again underlines the correlation between ADHD and difficulties with emotion regulation in both adolescence and adulthood (Barkley & Fischer, 2010; Bunford et al., 2015). Barkley (2014, p. 81) suggests that these people have difficulties with emotion regulation because they are prone to emotional impulsivity and lack emotional inhibition. Difficulties with emotion regulation may also result in non-adaptive reactions of parents in emotion regulation in the context of parenting. Both parents and children have been diagnosed with ADHD in the same family, according to research (Minde et al., 2003), indicating that genetic transition plays an important role in this regard (Faraone & Larsson, 2019). However, parental ADHD is also linked to the prevalence of other internalization and externalization problems in children (Humphreys et al., 2010; Minde, et al., 2003), and research has increasingly focused on the role of several factors in this relationship, including home environment and the nature of intra-family interactions, as well as genetics.

For example, Park et al. (2017) discovered a positive relationship between ADHD symptoms and harsh and lax parenting in general in a meta-analysis combining the findings of 32 studies on parenting behaviours of parents with ADHD. Other studies have looked into the parenting behaviours of parents with ADHD that may contribute to their child's ADHD and other psychopathologies. According to Tung et al. (2015), negative parenting (i.e., corporal punishment, inconsistent discipline, and poor monitoring) is a mediator of the relationship between ADHD observed in both parents and their children. Breaux, Brown, and Harvey (2017) report in another study that maternal over-reactivity mediated the relationship between ADHD symptoms observed in mothers and those observed in children in another study.

However, evaluating parental ADHD in terms of the child's overall cognitive and psychological development, rather than just its relationship with ADHD or other psychopathologies observed in the child, can provide a more inclusive perspective. Given the important contributions made by parenting practices into the development of children's self-regulation skills (Spruijt et al., 2017), it is possible that the various parenting practices of parents with ADHD are more broadly related to the development of self-regulation skills than the psychological problems of their children. Furthermore, given the role of emotion regulation in parenting practices and the importance of ADHD and self-regulation, it is critical to investigate the role of parents' emotion regulation behaviours in this relationship. Adolescents experience more intense positive and negative emotions, and their emotional instability is higher than adults, which has been observed in parallel with biological, psychological, and social changes (Bailen et al., 2019). As a result, how parents respond to their adolescent children's increasing emotional regulation needs may be a determinant in the self-regulation skills of adolescents still in development.

The study's goal was to look into the relationship between parents' emotional regulation processes toward their children's negative emotions and adolescents' self-regulation processes, specifically as a parenting practice. ADHD, which is characterized by difficulties with self-regulation and emotion regulation, can be especially expected to be associated with adolescent self-regulation skills through parenting practices. To that end, the study compared the self-regulation skills of children of parents who met and did not meet the ADHD diagnostic criteria, as well as the relationship between the emotional regulation approaches of parents who met the ADHD diagnosis criteria and their children's self-regulation processes. The study not only determines the nature of the contribution of parents' emotional socialization processes in the development of self-regulation skills in adolescence, but it also provides insights into the variables that should be considered in the intervention of parenting approaches of adults diagnosed with ADHD.

To that end, this study seeks to address the following questions:

1. Is there a significant difference between the self-regulation success and failure scores of adolescent children of parents who meet and who do not meet ADHD diagnostic criteria?

2. Are parental emotion regulation scores of parents who meet ADHD diagnostic criteria significant predictors of adolescent children's self-regulation success scores?
3. Are parental emotion regulation scores of parents who meet ADHD diagnostic criteria significant predictors of adolescent children's self-regulation failure scores?
4. Are parental emotion regulation scores of parents who do not meet ADHD diagnostic criteria significant predictors of adolescent children's self-regulation success scores?
5. Are parental emotion regulation scores of parents who do not meet ADHD diagnostic criteria significant predictors of self-regulation failure scores in adolescent children?

METHOD

Participants

The study included 572 participants, including 286 parents with children aged 12 to 15 and their children (N=286). There were 172 mothers (60.1%) and 114 fathers among the parents (39.9%). The participants' average age was 42.19 (Range=24-68). According to the self-report scale evaluation, 103 (36%) of the parents met the ADHD criteria, while 183 (64%) did not. There were 138 girls (48.3%) and 148 boys among the children (51.7%). The children's average age was 13.41 (Range = 12-15).

Measures

Parental Emotion Regulation Scale (EPAS): The Parental Emotion Regulation Skills Scale was developed by Pereira et al. (2017) as a multidimensional scale to be used to evaluate parents' approaches to regulating negative emotions in the context of parenting. It consists of 20 items and four sub-dimensions, namely the parent's orientation to the child's emotions, the parent's avoidance of the child's emotions, the parent's lack of emotional control, and the parent's acceptance of the child and his/her emotions.

The scale's adaptation study in Turkish was conducted on parents with children aged 3-15 (Gültekin Ahçı et al. 2020). The Confirmatory Factor analysis produced a structure consisting of 13 items and three sub-dimensions. Parental orientation to the child's emotions, parental avoidance of the child's emotions, and parental acceptance of the child and his/her own emotions were the sub-dimensions generated. While the overall scale's internal consistency value was .76, the split-half reliability value was .71. While internal consistency coefficients for the sub-dimensions were set at .78, .79, and .75, respectively, split-half reliability values for the sub-dimensions were found to be .73, .74, and .71, respectively.

ADHD DSM Scale: Metin et al. (2018) translated the ADHD DSM Scale, which was originally developed by Kooij et al. (2005). The scale is a 23-item self-report scale used to assess symptoms of Attention Deficit and Hyperactivity Disorder in adults using DSM IV and DSM V criteria. Attention deficit and hyperactivity sub-dimensions are evaluated on a four-point Likert-type scale on the 23-item scale (0 = never or rarely, 1 = sometimes, 2 = frequently, and 3 = very frequently). A score of 2 or higher in any item indicates the occurrence of that symptom, indicating that the criterion measured has been met.

It was given to 225 adults aged 18 to 62 in the adaptation study. While the Cronbach's alpha value obtained from the overall ADHD DSM Scale for internal validity was 0.9, it was 0.89 for the attention deficit sub-scale and 0.84 for hyperactivity/impulsivity. The study discovered a correlation of 0.84 ($p < 0.001$) between ADHD DSM scale scores and ASRS scores, and one of 0.79 ($p < 0.001$) between hyperactivity scores, based on an examination of the scale's correlations with the ASRS ADHD scale and the DIVA interview inventory performed for the scale's concurrent validity. An

investigation into the relationship between the ADHD DSM Scale sub-dimensions and the DIVA sub-dimensions in terms of the number of criteria met revealed a value of $r = 0.48$ ($p < 0.001$) for attention deficit and one of $r = 0.34$ ($p = 0.02$) for hyperactivity.

The Self-Control Skills Scale in Adolescents: The scale, developed by Moilanen (2005) and translated into Turkish by Harma (2008), aims to assess adolescents' self-regulation abilities. It is designed as a self-report scale with 32 items that is graded on a four-point Likert-type scale. The scale has two sub-dimensions: self-regulation success and self-regulation failure, which are designed to assess an individual's ability to activate, monitor, maintain, and prevent attention, thoughts, emotions, and behaviours. According to the findings, the scale's sub-dimensions of self-regulation success and self-regulation failure explained 19.15% and 10.07% of the variance, respectively. Internal consistency coefficients for self-regulation success were 0.85 and 0.79 for self-regulation failure.

Procedure

The relational survey model was used to design the study, which aimed to determine the relationships between the variables (Gürbüz & Şahin, 2017). The study's data collection tools were developed in an online environment using the Google form platform. The forms to be completed by parents and children aged 12 to 15 were designed separately. The study's ethics committee approved it, and the adolescent participants were asked to respond to the section of the form assigned to them if their parents agreed that they could participate in the study and indicated it on the form. The responses of five parents whose children were not between the ages of 12 and 15 were excluded. Data from 9 people with extreme value characteristics were removed from the data set as a result of extreme value analysis. The results of the kurtosis and skewness values examined to investigate the normality of the data show that the values remained between -1 and +1, and the results of the histograms show that the distributions of the data met the assumption of normality. The parents in the study were diagnosed with Attention Deficit and Hyperactivity as a result of the data obtained from the ADHD DSM Scale, based on coding done by the psychiatrist, the third author of the study, by categorizing the participants into two groups, namely those who met the diagnostic criteria in at least one of the three subfields of attention deficit, hyperactivity, or mixed type, or those who did not meet the criteria in any of the fields. SPSS 22.00 was used to analyse the data. The T-test was used to compare the self-regulation success and failure scores of the adolescents in the two groups to see if there was a difference in self-regulation skills between the children of parents who met ADHD diagnostic criteria and the children of those who did not. Then, stepwise regression analysis was used to see if the PERS scores of the parents who met and did not meet the ADHD diagnostic criteria predicted the adolescents' self-regulation scores.

FINDINGS

To see if the self-regulation success scores of children whose parents met and did not meet the ADHD diagnosis criteria differed significantly, the children's self-regulation success and failure scores were compared using the Independent Samples T-test. Table 1 displays the findings of this analysis.

Table 1: The Independent Sample T-test results used to investigate the self-control success and self-control failure scores of children of parents diagnosed with and without ADHD

Self-regulation Success						Self-regulation Failure				
	N	X	Sd	t	p	N	X	Sd	t	p
Parents who met ADHD diagnostic criteria	103	44,29	8,48			103	37,58	5,93		
				-3,14	,002				1,73	,083
Parents who did not meet ADHD diagnostic criteria	183	47,66	8,83			183	36,27	6,21		

* $p < .05$

** $p < .01$

Table 1 shows that the self-regulation success scores of children whose parents meet ADHD diagnosis criteria are significantly lower than those of children whose parents do not ($t_{(286)}=-3,145$; $p<0.01$). The study, on the other hand, discovered no significant difference in the self-regulation failure scores of the children of the two parent groups ($t_{(286)}=-1,73$; $p>0.05$). Based on these findings, it is possible to conclude that parental ADHD is unrelated to their children's inability to self-regulate. It is, however, related to their children's success with self-regulation.

Results of the Regression Analysis

Separate stepwise regression analyses were performed for parents who met and did not meet the ADHD diagnostic criteria to determine how much parental emotion regulation scores influence their children's self-regulation success and failure. To begin, correlation analysis values were examined to see if the data met the assumptions of multiple linear regression, and whether the correlation coefficients had a value of 80 or more. Durbin Watson, VIF, and Tolerance values were examined in the second step. The research questions were tested by establishing a regression model after the results indicated that the obtained data were within the statistically desired limits. Table 2 displays the variables' mean, standard deviation, and correlation coefficients.

Table 2: The mean, standard deviation, and correlation coefficients of PERS scores from parents who met ADHD diagnostic criteria, as well as scores from children regarding self-regulation success and failure (N = 103)

Variables	X	Sd	1	2	3	4
1. Self-regulation failure in children	37,5825	5,93184	-			
2. Self-regulation success in children	44,2913	8,48370	-,339**			
3. PERS Avoidance	10,4854	2,87608	,283**	-,223*		
4. PERS Orientation	14,7961	3,05941	-,129	,048	,207*	
5. PERS Acceptance	8,7767	1,60228	-,013	-,087	,313**	,141

*P < .05

**p < .01

Table 3 shows the results of the stepwise regression analysis.

Table 3: The findings of the stepwise regression analysis on the prediction of self-regulation success and failure in children of parents who do not meet ADHD diagnostic criteria

	Self-regulation Success				Self-regulation Failure						
	Variable	B	Sd	β	t	Variable	B	Sd	β	t	
Model 1 R ² =.05	Constant	51,96	3,1		16,46*	Model 1 R ² =.08	Constant	31,47	2,14		14,7**
Adjusted R ² =.04	PERS Avoidance	-,65	,30	-,223	-2,30*	Adjusted R ² =.07	PERS Avoidance	,58	,19	,28	2,9**
						Model 2 R ² =.11	Constant	36,21	3,13		11,542**
						Adjusted R ² =.10	PERS Avoidance	,66	,19	,32	3,36**
							PERS Orientation	-,38	,18	-,19	-2,04*

*P < .05

**p < .01

Only avoidance of parental emotion regulation by parents meeting ADHD diagnostic criteria has a negative and significant predictive effect on their children's self-regulation success ($F_{(1,101)} = 5.29$ $p < .05$), according to Table 3. The regression model excluded PERS orientation and PERS acceptance because they had no predictive effect. PERS avoidance also explains 4% of the variance in children's self-regulation success (Adj. R² value = .04).

The PERS orientation and PERS acceptance of parents meeting ADHD diagnostic criteria were excluded by the regression model in the first model designed to predict self-regulation failure

because they did not have a predictive effect. The data show that the PERS Avoidance has a statistically significant contribution ($F_{(1,101)} = 8,77, p < .01$). The R^2 value after correction is 0.07. As a result, the sub-dimension of PERS avoidance can be said to explain 7% of the variance in self-regulation failure in children. PERS acceptance was excluded from Model 2 because it had no predictive effect. The regression of the PERS orientation explained 3% of the additional variance, which was found to be significant ($F_{(2,100)} = 6.60, p < .01$). According to the findings, all of the independent variables explain 10% of the overall variance in self-control failure in children.

Table 4: The mean, standard deviation, and correlation coefficients for PERS scores of parents who were not diagnosed with ADHD and their children's scores for self-regulation success and failure (N= 183)

Variables	Mean	Standard Deviation	1	2	3	4
Self-regulation Failure of children	36,2732	6,21958	-			
Self-regulation Success of children	44,2913	8,48370	-.353**			
PERS Avoidance	10,4208	2,82318	,131	,018		
PERS Orientation	15,6557	2,78863	-,079	,321**	,161*	
PERS Acceptance	8,5902	1,67769	-,071	,224**	,290**	,290**

*P < .05

**p < .01

Table 5 displays the results of the regression analysis.

Table 5: The Findings of the Stepwise Regression Analysis Concerning the Prediction of Self-Regulation Success and Failure in Children of Parents Who Meet ADHD Diagnostic Criteria

	Self-regulation Success					Self-regulation Failure				
	Variable	B	Sd	β	t	Variable	B	Sd	β	t
Model 1	Constant	31,76	3,548		8,951	Constant	37,569	3,371		11,143
$R^2 = .10.3$						PERS	,323	,164	,146	1,962
Adj. $R^2 = .098$	PERS Orientation	1,016	,223	,321	4,55**	Avoidance				
						PERS Orientation	-,197	,174	-	-1,134
									,088	
						PERS Acceptance	-,183	,285	-	-,641
									,049	

Table 5 shows that only PERS-orientation in parents who do not meet ADHD diagnostic criteria has a positive and significant predictive effect on their children's self-regulation success ($F_{(1,181)} = 20.73, p < .01$). The regression model excluded PERS avoidance and PERS acceptance because they had no predictive effect. PERS orientation also explains 10% of the variance in their children's self-regulation success (corrected R^2 value = .098). The findings show that emotion regulation approaches directed at children of parents who have not been diagnosed with ADHD have no predictive effect on their children's self-regulation failure ($F_{(3,179)} = 1,822, p > .05$).

DISCUSSION

The purpose of this study was to compare the self-regulation skills of adolescent children of parents who met and did not meet ADHD diagnostic criteria to investigate the relationship between parents' emotion regulation approaches toward their children and their children's self-regulation skills. To that end, the self-regulation success and failure scores of parents who met ADHD diagnostic criteria and adolescent children of parents who did not were compared, revealing that there was no difference in self-regulation failure between the two groups' children. The results, however, show that the children of parents who met ADHD diagnostic criteria had lower self-regulation success than those who did not. Although there was no significant difference in self-regulation failure, it is possible to interpret the significant difference in self-regulation success as an indication that self-regulation skills

in adolescents are associated with parental ADHD characteristics, regardless of pathology. McQuillan and Bates (2017, pp.85-86) argue that parents with limited cognitive and emotional resources can, in particular, make instant and impulsive decisions and do not pay attention to their children's positive behaviours, or react in a way that creates fear and anger in the child, and do not reinforce the child's positive behaviours, as a result of which they may reduce their children's regulatory functions, and that this is especially true for parents with ADHD low regulatory skills. According to a study that supports this finding, Biederman et al. (2002) report that ADHD diagnoses in parents are not associated with an increased risk of dysfunction, except for those associated with disorders in their children with ADHD, but they are associated with poor school performance in children who do not have ADHD.

The role of parents' emotional socialization processes in their adolescent children's self-regulation was investigated in the following stage of the research. Based on the findings, it is possible to conclude that the avoidance of emotions and orientation toward emotions of parents who met the ADHD diagnostic criteria were related to self-regulation failure. As a result, while the parents' negative beliefs about the child's negative emotions and efforts to get rid of these emotions, a condition defined as emotion avoidance, are associated with an increase in self-regulation failure, efforts to deal with and understand the child's emotions, which is defined as an orientation to emotions, are associated with a decrease in self-regulation failure. This condition suggests that the emotion regulation strategies of adolescent children of parents who met ADHD diagnostic criteria may be a determinant factor in their children's self-regulation failure. On the other hand, it has been discovered that the avoidance of emotions of parents who met ADHD diagnostic criteria is also negatively related to self-regulation success. These findings suggest that parents' avoidance of negative emotions and general orientation toward emotions play an important role in the development of self-regulation in their interactions with their adolescent children. With efforts in the development of emotion regulation in children, Eisenberg, Smith, and Spinrad (2011, p.275) emphasize the importance of parents' responses in a way that teaches their children effective strategies to control their emotions. By avoiding their adolescent children's emotions, parents may be denying their adolescent children the opportunity to adopt strategies that are important for the development of self-regulation skills. In a study supporting the results observed in the present study, Buckholdt et al. (2014) report that parental neglect and punishment mediated the relationship between parents and adolescents' emotion dysregulation, and argue that they can be important mechanisms in the transmission of emotion regulation difficulties. Other studies have found that methods such as criticizing, avoiding, and minimizing negative emotions are negatively related to emotional and behavioral regulation skills (Eisenberg, Fabes and Murphy, 1996; Lunkenheimer et al., 2007). On the other hand, making an effort to understand children's emotions and showing interest in them may help them regulate their emotions and, as a result, improve their general self-regulation skills.

The findings for parents who did not meet the ADHD diagnostic criteria show that no emotion regulation approach by parents has a significant contribution to self-regulation failure. The findings, on the other hand, show that the emotion orientation approach has a positive and significant impact on adolescent self-regulation success. This finding suggests that, in general, parents' interest in and efforts to understand their children's emotions are important in terms of self-regulation, and that this holds true in adolescence.

When the findings of the two groups were compared, it was discovered that the emotional socialization approaches of the parents were more determinant, particularly for the children of parents who met ADHD diagnostic criteria. Emotion regulation approaches of parents who met ADHD diagnostic criteria were associated with both self-regulation success and failure. Emotion regulation appears important in terms of self-regulation success for children of parents who did not meet ADHD diagnostic criteria, but it does not contribute to self-regulation failure.

One possible explanation for this situation is that the home environment of ADHD parents is more chaotic, with inconsistent and negative parenting behaviours observed more frequently in such environments (Mokrova et al., 2010; Park et al., 2017). Previous research has highlighted the significance of the home environment and parenting behaviour in the development of self-regulation

skills (Finkenauer et al., 2005; Holmes et al., 2019). Therefore, in a chaotic home environment, whether parents' emotion regulation towards the adolescent's emotions is supportive or not may play a critical role in the adolescent's self-regulation skills. Furthermore, it could be suggested that children of parents who are diagnosed with ADHD are genetically in the risk group even if they are not diagnosed themselves, and that parental behaviors and whether the home environment is supportive or not are particularly important in the development of self-regulation.

A review of the literature reveals that the majority of studies on ADHD and parenting have focused on parents of children with ADHD, with only a few studies on parenting of parents with ADHD symptoms and its effects on their children's development (Johnston and Mash 2001). Aside from its contributions to the current body of literature, the current study has some limitations. To begin with, some important variables in emotional socialization were not investigated in the study. It should be noted, for example, that a variety of factors such as the general emotional climate in the family and the general emotional reactions of parents in a household may contribute to the development of children's self-regulation processes. Another significant limitation was that the ADHD diagnosis research team's psychiatrist doctor established the ADHD diagnosis on the parents based on the data obtained from the self-report scales while taking the DSM-5 criteria into consideration. This limitation should be taken into account when interpreting the statements of ADHD-diagnosed parents. Previous research, however, has argued that adults can provide a reliable explanation for their current symptoms (Murphy & Schachar, 2000). The study was also limited by the fact that the gender difference in parents' ADHD could not be represented by a large enough sample size. Finally, longitudinal studies should be conducted in the future to evaluate ADHD symptoms in parents separately.

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