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Cognitive Emotion Regulation among Adolescents: Impact of Anger and Secure Attachment

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Abstract

This study aimed to explore the role of anger and secure attachment in predicting cognitive emotion regulation strategies (CERS) among adolescents. Additionally, researchers also aimed to examine the gender differences. A total of 270 adolescents (127 males, 143 females) aged 14–19 years were recruited in the study. Standardized measures to collect data included Cognitive Emotion Regulation Questionnaire (CERQ-Hindi adaptation), Inventory for Attachment Style (IAS), and Negative Emotion Scale –Anger, Anxiety, Sadness (NET – AAS). Independent sample t-tests and multiple regression analyses were used to test the hypotheses. Results revealed a significant gender difference only in secure attachment ($t_{(257.93)} = 2.06, p < .05$), with males scoring higher than females. Regression analysis revealed that both anger and secure attachment significantly predicted the use of adaptive as well as maladaptive emotion regulation strategies. Anger negatively predicted adaptive CERS ($\beta = -.345, p < .001$) and positively predicted maladaptive CERS ($\beta = .262, p < .001$). On the other hand, secure attachment positively predicted adaptive CERS ($\beta = .508, p < .001$) and negatively predicted maladaptive CERS ($\beta = -.527, p < .001$). Secure attachment and anger jointly explained 35.3% and 32.6% of variance in adaptive and maladaptive CERS, respectively. These findings suggest that secure attachment acts as a psychological buffer that fosters constructive cognitive coping, whereas anger increases susceptibility to maladaptive cognitive patterns. The results highlight the importance of fostering emotional security to promote adaptive regulation and resilience among adolescents.

Keywords

Cognitive emotion regulation, anger, secure attachment, adolescents.

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Introduction

Adolescence is a crucial phase of life because it is characterized by heightened emotional intensity, social transition, and identity formation. During this stage, the cognitive ability to manage emotions becomes a crucial determinant of psychological well-being (Garnefski, Kraaij, & Spin oven, 2001). Adolescents are particularly vulnerable to challenges in regulating emotions such as anger, which can lead to maladaptive outcomes if unmanaged (Nolen-Hoeksema, 2012). Adaptive and maladaptive cognitive emotion regulation strategies (CERS) significantly impact adolescent psychological outcomes (Garnefski & Kraaij, 2006).

Cognitive Emotion Regulation (CER) involves conscious cognitive processes used to modulate emotional responses following stressful experiences. Adaptive strategies (e.g., positive refocusing, refocus on planning, positive reappraisal, putting into perspective) promote resilience, while maladaptive strategies (e.g., rumination, self-blame, catastrophizing) increase vulnerability to psychological distress (Gross, 2015; Garnefski & Kraaij, 2006). Emotion regulation is a critical developmental task during adolescence, influencing mental health, social relationships, and overall well-being (Gross, 2015).

Anger, as a frequently experienced negative emotion, has been linked to increased use of maladaptive CERS and decreased use of adaptive techniques (Carver, 2016). Secure attachment, characterized by trust and emotional availability in close relationships, can work as a buffer to stress and promote resilience through healthier emotion regulation (Bartholomew & Horowitz, 1991; Mikulincer & Shaver, 2019). Studies show secure attachment correlates positively with adaptive emotion regulation and negatively with maladaptive strategies (Gross & John, 2003). Adolescents, experiencing identity formation and increased emotional volatility, demonstrate pronounced effects of these factors on their emotional coping (Silvers et al., 2017). Yet, few studies have simultaneously modeled anger and secure attachment as predictors of CERS using mediation frameworks, highlighting a gap addressed in this research.

Anger and Secure Attachment

Attachment theory (Bowlby, 1988; Mikulincer & Shaver, 2019) posits that securely attached individuals internalize models of trust and emotional safety, facilitating effective regulation of affective experiences. It fosters effective emotion regulation by providing internal resources for coping with stress and negative affect (Mikulincer & Shaver, 2019). Despite robust research linking anger, attachment,

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and emotional regulation, few studies have examined their **combined predictive influence** on cognitive emotion regulation among adolescents or potential **gender variations** in these relationships. However, the interplay between anger and attachment in predicting how adolescents regulate emotions cognitively remains underexplored. This study investigates how anger and secure attachment predict the use of adaptive and maladaptive cognitive emotion regulation strategies in adolescent populations. The present study therefore aimed to (1) explore gender differences in anger, secure attachment, and CERS, and (2) examine how anger and secure attachment jointly predict adaptive and maladaptive emotion regulation strategies.

Objectives of the Study

1. To examine gender differences in secure attachment, anger, and cognitive emotion regulation strategies among adolescents.
2. To assess the predictive roles of anger and secure attachment in adaptive and maladaptive cognitive emotion regulation strategies.

Hypotheses of the Study

1. There will be significant gender differences in anger, secure attachment, and cognitive emotion regulation strategies.
2. Anger will negatively predict adaptive CERS and positively predict maladaptive CERS.
3. Secure attachment will positively predict adaptive CERS and negatively predict maladaptive CERS.

Method

Research Design: For this study, a correlational research design was adopted, utilizing *t*-tests for group comparisons and multiple-regression analysis to predict the use of adaptive and maladaptive CER.

Sample: The study included **270 adolescents** (127 males and 143 females) from four districts of West Uttar Pradesh (Saharanpur, Shamli, Muzaffarnagar and Amroha) aged **14–19 years**. The selected participants were identified as having secure attachment in an earlier study in 2020.

Measures used for Data Collection: The Following measures were used to collect the data:

1. The cognitive emotion regulation questionnaire (CERQ)-: CERQ is a 36-item, self-report questionnaire to identify the cognitive emotion regulation strategies someone uses after having experienced negative events or situations. Hindi

adaptation and standardization of this questionnaire were carried out by Kumar and Pareek (2021). Alpha coefficient ranges from .67 to .89; Split-half reliability is .812. The correlation coefficient with the original English version of CERQ ranges from .46 to .71 for the dimensions.

2. Inventory for Attachment Styles (IAS): Questionnaire to measure four attachment styles, developed by Kumar and Pareek (2021), was used to identify the adolescents with secure attachment. Internal reliability, assessed through alpha-coefficient, ranges from .71 to α=.89. Test-retest reliability ranges from .54 to .76. Correlation between IAS and Relationship Questionnaire (RQ) developed by Bartholomew & Horowitz (1991) is quite high and significant.

3. Negative Emotions Test-Anger, Anxiety, Sadness (NET-AAS): A self-report measure of negative emotions (anxiety, anger and sadness), developed by Kumar and Pareek (2021)was used to measure the anger level of adolescents. Alpha-coefficient for the subscales of anger, anxiety, and sadness have been found to be .76, .89, and .80, respectively. The test-retest reliability of the three subscales ranges from .61 to .73. The validity of this scale is satisfactory.

Results

Gender Differences

Table-01 shows the independent samples *t*-test results regarding the gender differences in secure attachment anger and adaptive as well as maladaptive cognitive emotion regulation strategies. The only significant difference emerged in the secure attachment dimension, where males (M = 18.98, SD = 1.53) scored significantly higher than females (M = 18.61, SD = 1.42; $t_{(257.93)} = 2.06$, $p < .05$). This finding suggests that men in this sample have slightly higher level of secure attachment, aligning with prior studies indicating that gendered socialization patterns may influence attachment dynamics (Bartholomew & Horowitz, 1991; Schmitt et al., 2003). However, no significant gender differences were found for anger, adaptive cognitive emotion regulation strategies (CERS), or maladaptive CERS, implying that both genders display similar levels of emotional expression and regulation (Gross & John, 2003). The non-significant findings for anger and CERS indicate that emotional coping mechanisms might be influenced more by individual or situational factors than by gender alone (Garnefski & Kraaij, 2006). These results contribute to the broader literature suggesting an increasing convergence in emotional regulation and coping strategies between men and women, possibly due to evolving gender roles and sociocultural expectations (Nolen-Hoeksema, 2012).

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Table-01: Gender difference in Criterion and Predictor Variables

Variable	Gender	Mean	SD	(Values for unequal Variance)		
				df	SE_D	t-Value
Secure	Male (127)	18.9794	1.53423	257.925	.18051	**2.055***
	Female (143)	18.6102	1.41749			
Anger	Male (127)	31.97	7.928	260.903	.946	1.238 (NS)
	Female (143)	30.80	7.572			
Adaptive CERS	Male (127)	43.8583	9.41016	259.812	1.117	1.028 (NS)
	Female (143)	45.0070	8.87352			
Maladaptive CERS	Male (127)	35.0787	6.22030	267.796	.817	1.710 (NS)
	Female (143)	36.4755	7.20410			

=Significant at .05-level; NS=NOT Significant.

Regression Analysis

Table-02 describes the multiple regression analysis aimed to examine the role of anger and secure attachment in predicting the adaptive and maladaptive cognitive emotion regulation strategies (CERS) of adolescents. For adaptive CERS, the model was statistically significant, $F_{(2,267)} = 74.48$, $p < .001$, with an $R^2 = .59$ and an adjusted $R^2 = .353$, indicating that approximately 35.3% of the variance in adaptive strategies was explained by the predictors (APA, 2020; Field, 2018). The standardized regression coefficients revealed that **anger** negatively predicted adaptive CERS ($\beta = -.345$, $t = -7.03$, $p < .001$), suggesting that higher anger levels were associated with a reduced use of adaptive regulation strategies. Conversely, **secure attachment** was a significant positive predictor ($\beta = .508$, $t = 10.35$, $p < .001$), indicating that individuals with higher secure attachment scores used more adaptive emotion regulation techniques. These findings suggest that emotional security contributes to more constructive coping mechanisms, consistent with studies emphasizing the role of attachment in emotional regulation and resilience (Mikulincer & Shaver, 2019; Gross, 2015).

Similarly, the regression model for maladaptive CERS was also significant, $F_{(2, 267)} = 65.95$, $p < .001$, with $R = .575$ and an adjusted $R^2 = .326$, showing that about 32.6% of the variance was explained by anger and secure attachment. Here, anger positively predicted maladaptive strategies ($\beta = .262$, $t = 5.22$, $p < .001$), indicating that greater anger corresponded with more frequent use of maladaptive cognitive strategies, such as rumination or catastrophizing (Garnefski & Kraaij,

2006). In contrast, secure attachment negatively predicted maladaptive CERS (β = –.527, t = –10.50, p < .001), suggesting that securely attached individuals tend to avoid maladaptive regulatory patterns. This aligns with research demonstrating that secure attachment serves as a psychological buffer against stress and emotional dysregulation (Bowlby, 1988; Mikulincer & Shaver, 2019). Overall, the results highlight that lower anger and higher secure attachment significantly predict healthier emotional coping patterns, underscoring the interconnected roles of attachment and affective control in shaping adaptive versus maladaptive emotion regulation (Gross & John, 2003; Garnefski & Kraaij, 2006).

In this analysis, the partial r values indicate the unique contribution of each predictor to the variance in emotion regulation outcomes after removing the influence of other variables. For instance, anger shows a modest negative partial correlation with adaptive CERS (r = –.395) and a positive one with maladaptive CERS (r = .304), meaning its effect remains substantial even after accounting for secure attachment. Conversely, secure attachment has strong partial correlations—positive with adaptive CERS (r = .535) and negative with maladaptive CERS (r = –.541)—reflecting its robust independent impact on emotional regulation strategies. These coefficients suggest that secure attachment is a stronger and more consistent predictor than anger when the mutual influences of variables are statistically controlled.

Table 02: Regression Coefficient for Adaptive and Maladaptive CER

	Predictors	Regression Coefficient			Correlation with Positive Refocusing			F-value
		B	Beta	t	r	Partial r	R (Ad. R^2)	
Adaptive CERS	(Constant)	45.576		21.414			**.59 (.353)**	**74.48****
	Anger	-.407	-.345	-7.028**	-.317**	-.395		
	Secure Attachment	5.787	.508	10.350**	.489**	,535		
Maladaptive CERS	(Constant)	37.596		23.286			**.575 (.326)**	**65.95****
	Anger	.229	.262	5.220**	.233**	.304		
	Secure Attachment	-4.455	-.527	-10.503**	-.512**	-.541		

CERS= Cognitive Emotion Regulation Strategies
= ρ< .01

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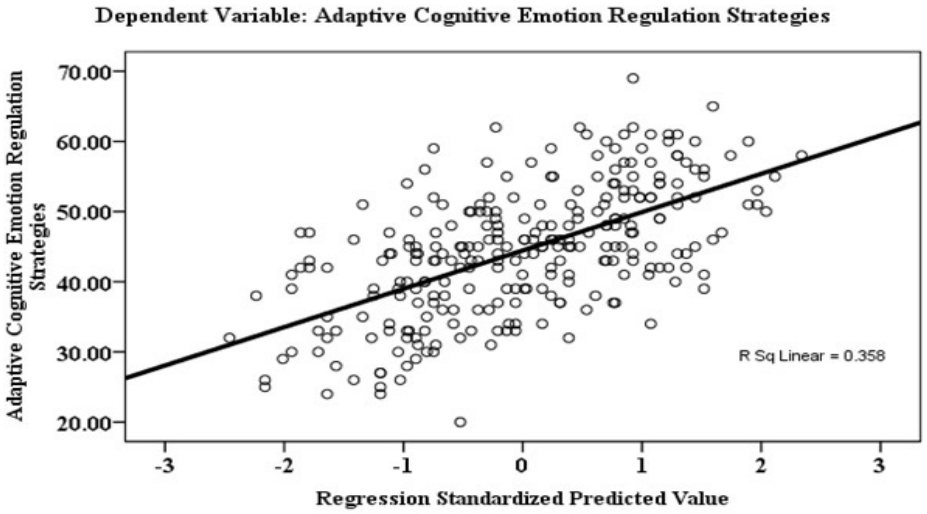

Figure 02: Scatter Graph for Adaptive CERS through Anger among Securely Attached Adolescents

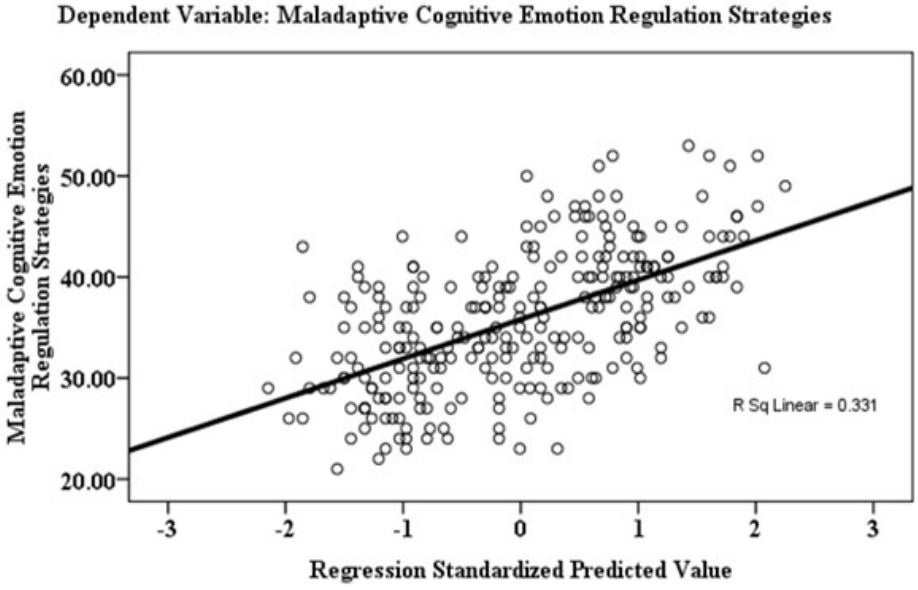

Table-03: Regression Coefficient for Maladaptive CERS through Anger among Securely Attached Adolescents

Discussion

The present findings emphasize the vital role of **secure attachment** in promoting adaptive emotional regulation among adolescents. Although gender differences in anger and emotion regulation were not significant, males showed slightly higher attachment security — possibly reflecting sociocultural shifts in emotional openness among boys (Schmitt et al., 2003). Regression results strongly supported the hypotheses:

i. **Anger** predicted poorer emotional outcomes, increasing reliance on maladaptive strategies like rumination and catastrophizing.
ii. **Secure attachment** emerged as a robust positive predictor of adaptive CERS and a strong negative predictor of maladaptive CERS.

These results are consistent with **attachment theory** (Bowlby, 1988), which suggests that securely attached individuals internalize positive working models that enable emotional balance and cognitive flexibility. Anger-prone adolescents may struggle with reappraisal and perspective-taking unless buffered by emotional security (Mikulincer & Shaver, 2019; Gross, 2015).

Conclusion

The study demonstrates that anger and secure attachment jointly shape adolescents' cognitive approaches to emotional regulation. Secure attachment functions as a strong protective factor that encourages adaptive regulation and buffers against maladaptive cognitive tendencies associated with anger. The findings revealed that male adolescents tend to show significantly more secure attachment compared to female adolescents, suggesting that gendered socialization may foster different gender roles in boys and girls. The hypothesis regarding the significant gender difference in secure attachment is accepted. However, no significant gender differences were observed in terms of emotion of anger and use of adaptive as well as maladaptive CERS, indicating that girls and boys employ similar cognitive ways of regulating emotions. The second hypothesis, proposed in the study as the anger negatively predicts the adaptive CERS and positively predicts maladaptive CERS, is also accepted confirming its detrimental influence on effective emotional control. In contrast, secure attachment positively predicted adaptive CERS and negatively predicted maladaptive CERS, and led to the acceptance of the third hypothesis too, along with highlighting its protective role in emotional adjustment. Anger and secure attachment jointly predicted both adaptive and maladaptive CERS. The partial correlations showed that secure attachment was a stronger predictor than anger, underscoring its stabilizing role in regulating emotions. In conclusion, the hypotheses

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positing significant relationships between anger, secure attachment, and emotion regulation were fully supported, whereas the gender-based hypothesis, however, was only partially confirmed, as differences emerged solely in secure attachment. Overall, the study concludes that secure attachment serves as a key determinant of healthy emotional regulation, while anger was associated with adaptive coping among adolescents.

Implications of the Study

As a theoretical implication, this study helps in strengthening the empirical bridge between **emotional control and attachment theory,** suggesting that secure attachment fosters meta-cognitive regulation and resilience against emotional distress. As a practical implication, the findings can help in addressing the importance of **family-based and school-based emotional literacy programs.** By strengthening secure attachment, it will be possible to promote healthier emotional regulation, even among those high on anger.

Limitations

This study had the following limitations:

1. Correlational research design limits the causal interpretation.
2. Data based on self-report measures for such variables may be less reliable as compared to observer or physiological indices.
3. The sample of this study is limited to a small demographical and cultural region.
4. Some other factors such as peer attachment, emotional intelligence and contextual factors can also be crucial for adaptive and maladaptive emotional regulation.

References

1. Armsden, G. C., & Greenberg, M. T. (1987). The inventory of parent and peer attachment: Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence, 16*(5), 427–454. https://doi.org/10.1007/BF02202939
2. Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61*(2), 226–244. https://doi.org/10.1037/0022-3514.61.2.226
3. Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. Basic Books.
4. Carver, C. S. (2016). Anger and emotion regulation: Implications for adolescent adjustment. *Emotion Review, 8*(3), 235–244. https://doi.org/10.1177/1754073916639677

5. Deffenbacher, J. L., Oetting, E. R., Lynch, R. S., & Yingling, D. B. (1996). Anger, aggression, and hostility: Construct validity and trait measures. *Advances in Experimental Social Psychology, 28*, 47–82.
6. Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). Sage.
7. Garnefski, N., & Kraaij, V. (2006). Cognitive emotion regulation strategies and their relationship to anxiety and depression in adolescents. *Personality and Individual Differences, 40*(8), 1659–1669. https://doi.org/10.1016/j.paid.2005.12.009
8. Garnefski, N., Kraaij, V., & Spinhoven, P. (2001). Negative life events, cognitive emotion regulation and emotional problems. *Personality and Individual Differences, 30*(8), 1311–1327.
9. Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry, 26*(1), 1–26. https://doi.org/10.1080/1047840X.2014.940781
10. Gross, J. J., & John, O. P. (2003). *Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. Journal of Personality and Social Psychology, 85*(2), 348–362. https://doi.org/10.1037/0022-3514.85.2.348
11. Mikulincer, M., & Shaver, P. R. (2019). *Attachment in adulthood: Structure, dynamics, and change* (3rd ed.). Guilford Press.
12. Nolen-Hoeksema, S. (2012). Emotion regulation and psychopathology: The role of gender. *Annual Review of Clinical Psychology, 8*, 161–187.
13. Nolen-Hoeksema, S. (2012). Emotion regulation and psychopathology: The role of gender. *Annual Review of Clinical Psychology, 8*, 161–187. https://doi.org/10.1146/annurev-clinpsy-032511-143109
14. Schmitt, D. P., Alcalay, L., Allensworth, M., Allik, J., Ault, L., Austers, I., ... & Zupančič, A. (2003). *Are men universally more dismissive than women? Gender differences in romantic attachment across 62 cultural regions. Personality and Social Psychology Bulletin, 29*(5), 559–573. https://doi.org/10.1177/0146167203251510pure.psu
15. Silvers, J. A., et al. (2017). The development of emotion regulation in adolescence: Implications for psychopathology and resiliency. *Psychological Science, 28*(9), 1446–1458. https://doi.org/10.1177/0956797617701235