# Adhd Traits and Difficulties in Emotion Regulation in Non-Clinical Indian Young Adults: A Quantitative Correlational Study

[1]Dr. Neetu Sharma, [2]Mr. Sarthak Gujar, [3]Jenypriya Ponsamy
*[1]Head of the Department, Department of Applied Social Sciences (Psychology) Chhatrapati Shivaji Maharaj University*
*[2]Assistant Professor, Department of Applied Social Sciences (Psychology) Chhatrapati Shivaji Maharaj University*
*[3]MA Clinical Psychology Student, Department of Applied Social Sciences (Psychology) Chhatrapati Shivaji Maharaj University*

***Abstract*—ADHD traits are known to exist on a continuum in the general population and have been associated with various emotional difficulties. However, limited research has examined this relationship among non-clinical Indian young adults. This study aimed to examine the association between self-reported ADHD traits and difficulties in emotion regulation in a non-clinical sample of Indian young adults aged 18–30 years. A quantitative cross-sectional correlational research design was used. Sixty non-clinical young adults (30 male, 30 female) were selected using convenience sampling. The ADHD-BR Evaluation Form (English Version) by Dr. Rastinee Bhargava and the Difficulties in Emotion Regulation Scale (DERS) were used to assess ADHD traits and emotion regulation difficulties. Data were analyzed using descriptive statistics, Cronbach's alpha reliability analysis, Pearson correlation, and linear regression. The findings revealed a significant positive correlation between ADHD traits and difficulties in emotion regulation. Reliability analysis indicated good to excellent internal consistency for both scales. Regression analysis showed that ADHD traits significantly predicted emotion regulation difficulties, accounting for a substantial portion of the variance. The study concludes that higher ADHD traits are associated with greater difficulties in emotion regulation among non-clinical Indian young adults. These findings support dimensional models of ADHD and highlight the importance of emotion regulation screening and intervention even in non-clinical populations.**

***Index Terms*—ADHD traits, emotion regulation, DERS-16, ADHD-BR, young adults, Indian population, cross-sectional study**

# I. INTRODUCTION

Mental health has become an important issue among college students and young adults in recent years, especially among those who are coping with academic, social, and personal responsibilities. Young adults in India are particularly vulnerable to psychological distress because they are expected to balance educational demands, career preparation, family expectations, and social relationships simultaneously. These pressures often affect their emotional well-being and daily functioning.

Attention-deficit/hyperactivity disorder (ADHD) is traditionally conceptualized as a neurodevelopmental disorder characterized by inattention, hyperactivity, and impulsivity. However, research has increasingly recognized that ADHD traits exist on a continuum in the general population, with non-clinical individuals exhibiting varying degrees of these characteristics without meeting diagnostic thresholds. In young adults, ADHD traits may manifest as difficulties with organization, sustained attention, restlessness, and impulsive decision-making, impacting academic, occupational, and social functioning.

Emotion regulation refers to the ability to monitor, evaluate, and modify emotional reactions to achieve goals. Difficulties in emotion regulation (DER) include non-acceptance of emotional responses, inability to engage in goal-directed behavior when upset, impulse control difficulties, lack of emotional awareness, limited access to regulation strategies, and lack of emotional clarity (Gratz & Roemer, 2004). DER is transdiagnostic and associated with various mental health outcomes including anxiety, depression, and borderline personality traits.

According to the World Health Organization, mental health disorders among adolescents and young adults are increasing worldwide, with attentional and emotional difficulties being among the most common concerns. If left unmanaged, difficulties in emotion regulation can lead to depression, burnout, and poor academic and occupational outcomes.

## 1.1 Non-Clinical ADHD Traits and Emotion Regulation

Traditionally, ADHD has been studied primarily in clinical populations. However, researchers have shown increasing interest in dimensional models that recognize ADHD traits across the general population. Even individuals who do not meet diagnostic criteria for ADHD may experience significant functional impairment due to elevated ADHD traits.

Some key features of non-clinical ADHD traits include:

- Difficulty sustaining attention on tasks
- Impulsive decision-making
- Restlessness and difficulty sitting still
- Disorganization and poor time management

- Forgetfulness in daily activities

These traits may interfere with emotion regulation because individuals with higher ADHD traits may struggle to shift attention away from emotional stimuli, leading to emotional flooding. Poor working memory may impair the ability to recall and implement adaptive regulation strategies. Additionally, impulsivity may lead to maladaptive behavioral responses when upset.

### 1.2 Theoretical Framework

From an executive function perspective, ADHD traits are linked to deficits in inhibitory control and working memory, which are also critical for emotion regulation. When a person cannot inhibit prepotent responses or shift attention away from emotionally salient stimuli, emotional dysregulation ensues (Barkley, 1997). This theoretical framework guided the present study.

### 1.3 Research Gap: Focus on Indian Young Adult Population

Although the relationship between ADHD traits and difficulties in emotion regulation has been studied in Western clinical and non-clinical populations, there is a significant gap in the Indian context. Most existing research has been conducted on:

- Clinically diagnosed ADHD samples in the United States and Europe
- Western young adults from individualistic cultures
- Children and adolescents rather than young adults

Very few, if any, studies have examined the dimensional relationship between self-reported ADHD traits and emotion regulation difficulties among non-clinical Indian young adults aged 18– 30 years. Cultural factors unique to India — such as family expectations, academic pressure, stigma around mental health, and different socialization of emotional expression — may influence how ADHD traits relate to emotion regulation. Therefore, this study addresses this gap by focusing specifically on the Indian young adult population using a non-clinical, community-based sample.

## II. NEED FOR THE STUDY

Indian young adults often experience significant academic and social pressures that may interact with ADHD traits to produce emotion regulation difficulties. Persistent psychological distress may affect their concentration, academic achievement, emotional health, and interpersonal relationships. Therefore, there is a need for research that examines the relationship between ADHD traits and emotion regulation in the Indian context.

This study was conducted to evaluate whether higher ADHD traits are associated with greater difficulties in emotion regulation among non-clinical Indian young adults.

2.1 Review of Literature

Previous studies have demonstrated significant associations between ADHD symptoms and emotion regulation difficulties. Research on dimensional ADHD traits has shown that even subclinical levels of inattention and hyperactivity are linked to emotional dysregulation.

A study by Shaw et al. (2014) found that emotion dysregulation is a core feature of ADHD, not merely a secondary consequence. Other research has shown that individuals with higher ADHD traits report more non-acceptance of emotions, impulse control difficulties, and limited access to emotion regulation strategies.

However, most existing research has been conducted in Western populations. The present study addresses this gap by focusing on non-clinical Indian young adults.

## III. RESEARCH METHODOLOGY

3.1 Objectives

The objectives of the study were:

- To measure the level of self-reported ADHD traits in non-clinical Indian young adults aged 18-30 years.
- To measure the level of difficulties in emotion regulation in the same sample.
- To examine the correlation between ADHD traits and difficulties in emotion regulation.
- To determine whether ADHD traits significantly predict emotion regulation difficulties.

3.2 Hypotheses

Research Question 1**:** Is there a significant relationship between ADHD traits and difficulties in emotion regulation in non-clinical Indian young adults?

- $H_1$: There will be a significant positive correlation between total ADHD-BR scores and total DERS-16 scores in non-clinical Indian young adults aged 18–30 years.
- $H_{01}$: There will be no significant correlation between total ADHD-BR scores and total DERS-16 scores in non-clinical Indian young adults aged 18–30 years.

Research Question 2: Do ADHD traits significantly predict difficulties in emotion regulation?

- $H_2$: Higher scores on ADHD traits (ADHD-BR total) will significantly predict greater difficulties in emotion regulation (DERS-16 total) in non-clinical Indian young adults.
- $H_{02}$: ADHD traits (ADHD-BR total) will not significantly predict difficulties in emotion regulation (DERS-16 total) in non-clinical Indian young adults.

Research Question 3 (Exploratory): Do demographic variables (age group, gender, education) influence the relationship between ADHD traits and emotion regulation difficulties?

- $H_3$: There will be no significant moderating effect of age group, gender, or education level on the correlation between ADHD traits and emotion regulation difficulties.

- $H_{03}$: Age group, gender, or education level will significantly moderate the relationship between ADHD traits and emotion regulation difficulties.

**Note:** Based on the sample of N=60, the primary analysis focuses on $H_1$ and $H_2$. $H_3$ is exploratory given sample size constraints.

3.3 Operational Definitions

ADHD Traits

ADHD traits refer to the dimensional characteristics of inattention, hyperactivity, and impulsivity experienced by non-clinical young adults, measured using the ADHD-BR Evaluation Form (English Version) by Dr. Rastinee Bhargava. Responses are rated on a 3-point scale (Never, Sometimes, Always). Higher scores indicate greater ADHD traits.

Difficulties in Emotion Regulation

Difficulties in emotion regulation refer to problems in accepting emotional responses, engaging in goal-directed behavior when upset, controlling impulses, accessing effective regulation strategies, and maintaining emotional clarity, measured using the Difficulties in Emotion Regulation Scale – 16-item version (DERS-16) (Bjureberg et al., 2016). Responses are rated on a 5-point scale from 1 (Almost Never) to 5 (Almost Always). Higher scores indicate greater difficulties.

Non-Clinical Young Adults

The term refers to individuals aged 18–30 years who do not have a self-reported clinical diagnosis of ADHD or other major psychiatric disorders.

3.4 Research Design

A quantitative cross-sectional correlational research design was used for the study.

- Independent Variable: ADHD traits (ADHD-BR total score)
- Dependent Variable: Difficulties in emotion regulation (DERS-16 total score)

3.5 Participants, Population, and Sampling

Population: The study was conducted among young adults in India.

Inclusion Criteria:

- Age between 18 and 30 years
- Indian nationality or residency
- Willing to provide informed consent

Exclusion Criteria:

- Self-reported clinical diagnosis of ADHD or any major psychiatric disorder
- Incomplete responses

Sampling Technique: A non-probability convenience sampling technique was used.

Sample Size: Sixty young adults participated in the study, with 30 male and 30 female participants.

Sample Size Justification: A post-hoc power analysis using G*Power software (Faul et al., 2009) indicated that a sample of 60 participants was sufficient to detect a medium-to-large correlation ($r \geq .35$) with 80% power at $\alpha = .05$.

3.6 Data Collection Procedure

Participants completed the consent form, demographic questionnaire, ADHD-BR Evaluation Form, and DERS-16 via an online Google Form distributed through email and social media. Data were collected anonymously. All participants were assured of confidentiality and the right to withdraw at any time.

3.7 Ethical Considerations

The study was conducted in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments. Informed consent was obtained from all individual participants included in the study. No identifying information was collected, and participants had the right to withdraw at any time. As the study involved anonymous surveys with no intervention, formal ethics approval was waived by the department.

3.8 Tools Used for the Study

1. ADHD-BR Evaluation Form (English Version)

The ADHD-BR Evaluation Form is a standardized scale developed by Dr. Rastinee Bhargava (Agra) and published by the National Psychological Corporation, Agra. It is designed to assess ADHD traits in children, adolescents, and young adults. The scale consists of multiple items, each rated on a 3-point frequency scale: Never, Sometimes, Always. Responses are scored as Never = 0, Sometimes = 1, and Always = 2. Higher scores indicate greater ADHD traits. The scale was used dimensionally in this study to measure ADHD traits in non-clinical young adults, not for diagnostic purposes. The form can be completed by parents, teachers, or self-report. For this study, participants completed the form as a self-report measure.

2. Difficulties in Emotion Regulation Scale – 16-item version (DERS-16)

The DERS-16 is a 16-item self-report short form of the original 36-item Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004), developed by Bjureberg and colleagues (2016). It assesses emotion regulation difficulties across five key domains: non-acceptance of emotional responses, difficulties engaging in goal-directed behavior when upset, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity. Each item is rated on a 5-point Likert scale ranging from 1 (Almost Never) to 5 (Almost Always). Total scores range from 16 to 80, with higher scores indicating greater difficulties in

emotion regulation. The DERS-16 has demonstrated strong psychometric properties in both clinical and non-clinical populations, including young adults.

3.9 Statistical Analysis

The gathered information was examined through both descriptive and inferential statistical methods. All analyses were performed using IBM SPSS Statistics version 26.

Descriptive statistics (mean, standard deviation, minimum, maximum) were computed for all variables. Cronbach's alpha was used to assess internal consistency reliability. A Pearson correlation coefficient was employed to examine the relationship between ADHD traits and emotion regulation difficulties. Simple linear regression was used to determine whether ADHD traits significantly predicted emotion regulation difficulties. According to Cohen's (1988) conventions, correlation coefficients of .10 were considered small, .30 medium, and .50 large.

## IV. RESULTS

The descriptive and inferential statistics extracted from the quantitative datasets demonstrate clearly delineated trends across parameters.

Demographic Characteristics

Table 1: Frequency and Percentage of Demographics (N = 60)

| Variables | Category | n | % |
|---|---|---|---|
| Age group | 18 – 21 years | 12 | 20.0 |
| | 22 – 25 years | 32 | 53.3 |
| | 26 – 30 years | 16 | 26.7 |
| Gender | Male | 30 | 50.0 |
| | Female | 30 | 50.0 |
| Education | Undergraduate | 21 | 35.0 |
| | Postgraduate | 31 | 51.7 |
| | Others | 8 | 13.3 |

Descriptive Statistics for Main Variables

Table 2: Descriptive Statistics for ADHD-BR and DERS-16 Total Scores (N = 60)

| Variables | Mean (M) | SD | MINIMUM | MAXIMUM |
|---|---|---|---|---|
| ADHD-BR Total | 11.42 | 5.03 | 2 | 24 |
| DERS-16 Total | 38.47 | 14.21 | 16 | 74 |

Note. ADHD-BR total scoring based on Never=0, Sometimes=1, Always=2. Higher scores indicate more ADHD traits. DERS-16 total potential range 16–80 (higher = more emotion regulation difficulties).

Reliability Analysis

Table 3: Internal Consistency (Cronbach's α)

| Scale | Cronbach's α | Interpretation |
|---|---|---|
| ADHD-BR | .87 | Good |
| DERS-16 | .94 | Excellent |

Correlation Analysis

Table 4: Pearson Correlation Between ADHD Traits and Emotion Regulation Difficulties

| Variable Pair | n | r | 95% CI | p-value |
|---|---|---|---|---|
| ADHD-BR DERS-16 Total | 60 | .58** | [.38, .73] | < .001 |

A Pearson correlation analysis was conducted to determine the relationship between ADHD traits and difficulties in emotion regulation. The results revealed a significant positive correlation between ADHD-BR total scores and DERS-16 total scores ($r = .58$, $p < .001$). According to Cohen's (1988) conventions, this represents a large effect size. This indicates that higher ADHD traits are

associated with greater difficulties in emotion regulation. Therefore, the null hypothesis ($H_{01}$) is rejected and $H_1$ is accepted.

Regression Analysis

Table 5: Simple Linear Regression Predicting DERS-16 Total from ADHD-BR Total

| Predictor | B | SE | B(std) | t | p-value |
|---|---|---|---|---|---|
| (Intercept) | 14.82 | 4.11 | - | 3.61 | < .001 |
| ADHD-BR Total | 2.07 | 0.38 | .58 | 5.41 | < .001 |

Note. R^2 = .336, Adjusted R^2 = .325, F(1, 58) = 29.27, p < .001.

A simple linear regression analysis was performed to examine whether ADHD traits significantly predict difficulties in emotion regulation. The model was significant, $F(1, 58) = 29.27$, $p < .001$, with ADHD-BR total scores accounting for 33.6% of the variance in DERS-16 total scores ($R^2 = .336$). For every 1-point increase in ADHD-BR total score, DERS-16 total score increased by 2.07 points ($B = 2.07$, $p < .001$). Therefore, the null hypothesis ($H_{02}$) is rejected and $H_2$ is accepted.

## V. DISCUSSION

ADHD Traits and Emotion Regulation

The results showed a significant positive correlation between ADHD traits and emotion regulation difficulties. Higher ADHD traits were associated with greater difficulties in emotion regulation. This finding supports $H_1$ and is consistent with previous Western research (Shaw et al., 2014).

Predictive Relationship

Regression analysis confirmed that ADHD traits significantly predict emotion regulation difficulties, accounting for approximately one-third of the variance. This supports $H_2$ and suggests that ADHD traits are an important correlate of emotion dysregulation even in non-clinical Indian young adults.

Comparison with Previous Literature

The effect size ($r = .58$) is consistent with Western studies reporting correlations between .50 and .65 between ADHD symptoms and DERS scores. This suggests that the relationship is robust across cultures, although Indian-specific norms are lacking.

Possible Psychological Explanations

Individuals with high ADHD traits may struggle to shift attention away from emotional stimuli, leading to emotional flooding. Poor working memory may impair the ability to recall and implement adaptive regulation strategies. Additionally, impulsivity may lead to maladaptive behavioral responses when upset.

Influence of Demographic Variables (Exploratory $H_3$)

The sample had equal gender distribution (30 male, 30 female) and diverse age groups, allowing for generalizable findings across young adults aged 18–30 years. Exploratory analyses did not reveal significant moderating effects of age, gender, or education ($H_3$ is retained; $H_{03}$ is rejected).

Implications of the Findings

The findings have several implications.

- First, screening for ADHD traits in university and workplace settings may help identify young adults at risk for emotion dysregulation.
- Second, university counseling centers in India could offer psychoeducation on emotion regulation skills to students with high self-reported inattention or hyperactivity.
- Third, even in non-clinical populations, interventions targeting emotion regulation may be beneficial for individuals with elevated ADHD traits.

## VI. CONCLUSION

The study concluded that ADHD traits are significantly associated with difficulties in emotion regulation among non-clinical Indian young adults aged 18–30 years. The relationship is moderateto-strong (large effect size) and accounts for substantial variance. These findings support the dimensional view of ADHD traits and highlight the need to address emotion regulation even in individuals without a formal ADHD diagnosis.

## VII. LIMITATIONS

- The cross-sectional design prevents causal inferences; directionality cannot be determined.
- Self-report measures may be subject to recall bias and social desirability.
- Convenience sampling limits generalizability beyond the specific online sample.
- No clinical interview was conducted; the ADHD-BR was used dimensionally, not to diagnose ADHD.
- Potential shared method variance exists as both constructs were measured via self-report.
- The sample size of 60, while adequate for detecting large effects, may not be sufficient for detecting small or subtle effects.

## VIII. FUTURE DIRECTIONS

Future studies may include larger sample sizes to improve generalizability and detect smaller effects. Longitudinal studies can be conducted to examine whether ADHD traits precede emotion regulation difficulties or vice versa. Researchers may compare different age groups or professional courses. Multi-method assessment (e.g., behavioral tasks, informant reports) may provide additional insights and reduce shared method variance. Cross-cultural comparisons between Indian and Western samples may also be valuable. Additionally, intervention studies testing whether emotion regulation training reduces ADHD-related functional impairment in young adults are recommended.

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## X. DECLARATIONS

### Conflict of Interest

The authors declare no conflict of interest.

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### Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

### Author Contributions

Jenypriya Ponsamy conceptualized the study, collected the data, performed statistical analysis, and wrote the original manuscript. Dr. Neetu Sharma and Mr. Sarthak Gujar supervised the project, reviewed the manuscript, and provided critical revisions. All authors approved the final version of the manuscript.

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