



Impact of emotional intelligence on mental health among college students in India

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Abstract

This research paper investigates how Emotional Intelligence (EI) impacts mental health outcomes in college students. With the rising incidence of stress, anxiety, and depression affecting the student population, EI emerges as a potential protective factor. Drawing on data from 500 college students, the study delves into the connection between EI and various mental health indicators. The results reveal that students with higher EI tend to experience significantly lower levels of stress, anxiety, and depression. These findings highlight the potential benefits of integrating EI-focused programs into college curricula to enhance students' overall mental well-being.

Keywords: Emotional intelligence, mental health, college students, India, stress, anxiety, depression

Introduction

1. Background

Mental health issues among college students in India have become a pressing concern, with rising rates of stress, anxiety, and depression. Studies show that academic pressures, societal expectations, and personal challenges contribute to mental health struggles among this population (Sharma *et al.*, 2021)^[5].

2. Role of Emotional Intelligence

Emotional Intelligence (EI), as defined by Mayer and Salovey (1997)^[2], refers to the ability to perceive, understand, and manage emotions effectively. EI has been shown to reduce stress and improve resilience, suggesting its potential impact on mental health (Goleman, 1995)^[1].

3. Objectives

The primary objectives of this study are to:

- Investigate the correlation between EI and mental health indicators.
- Assess the predictive role of EI in mental health outcomes.
- Examine gender differences in EI and mental health.

4. Hypotheses

H1: Higher EI is associated with lower stress levels among college students.

H2: Higher EI is associated with lower anxiety levels among college students.

H3: Higher EI is associated with lower depression levels among college students.

H4: There are gender differences in EI scores among college students.

Literature Review

1. Theoretical Framework of Emotional Intelligence

The Mayer-Salovey-Caruso model outlines four branches of EI: Perceiving Emotions, Using Emotions, Understanding Emotions, and Managing Emotions. These components collectively enhance emotional and social functioning, which can contribute to better mental health (Mayer & Salovey, 1997)^[2].

2. Mental Health Concerns among College Students

Mental health issues are a major concern among Indian college students which include anxiety, eating and sleeping disorders, depression, substance abuse, low self-esteem and many more. They tend to face a range of mental health challenges, including stress, anxiety, and depression, primarily driven by academic and social pressures (Nair *et al.*, 2020)^[3].

3. Research on EI and Mental Health

Research into emotional intelligence (EI) among college students in India highlights its vital importance for achieving academic success, maintaining mental well-being, and building strong social connections. Previous studies indicate a negative correlation between EI and psychological distress, with higher EI linked to better coping skills and lower susceptibility to mental health issues (Singh & Kumari, 2019)^[6].

Methodology

1. Sample and Participants

A sample of 500 students aged 18-24 from different colleges of Burdwan and Birbhum districts of West Bengal were surveyed. Equal representation of genders was ensured to examine gender differences effectively.

2. Instruments

Emotional Intelligence Assessment: The Trait Emotional Intelligence Questionnaire (TEIQue) developed by K. V. Petrides was used to assess EI, covering factors such as self-control, emotional regulation, and social awareness. The shorter version which is a 30-item questionnaire designed to measure global trait emotional intelligence (trait EI) was administered among the respondents.

Mental Health Assessment: The Depression Anxiety Stress Scale (DASS-21) measured stress, anxiety, and depression levels. This Questionnaire is a short version (21 item) of a 42-item self-report instrument designed to measure three related negative emotional states: depression, anxiety and tension/stress.

3. Data Collection

Data were collected via an online survey to maintain confidentiality and encourage honest responses. Participants provided consent and were informed about the study’s purpose.

4. Data Analysis

The collected data were analysed using SPSS software. Descriptive statistics, Pearson’s correlation, and multiple regression analyses were conducted to explore relationships and test the hypotheses.

Results

This table provides a breakdown of the sample demographics, giving context to the diversity of the study group.

Table 1: Sample demographics

Demographic Factor	Category	N	Percentage (%)
Gender	Male	250	50%
	Female	250	50%
Age Group	18-20 years	294	58.8%
	21-24 years	206	41.2%
Academic Discipline	Science	157	31.4%
	Commerce	198	39.6%
	Arts	145	29%
Student Status	Hosteller	279	55.8%
	Day Scholar	221	44.2%

This demographic table illustrates a balanced gender distribution and varied academic backgrounds, allowing us to generalize findings across typical college settings. The range of disciplines and student status also supports diverse stressors and emotional challenges, as hostellers often face different stress levels compared to day scholars due to distance from home and greater autonomy requirements.

Table 2: Mean Scores for Emotional Intelligence and Mental Health by Gender

Variable	Male (M ± SD)	Female (M ± SD)
Emotional Intelligence (EI)	113.2 ± 14.8	108.5 ± 15.6
Stress	11.8 ± 3.9	12.9 ± 3.7
Anxiety	10.2 ± 4.1	11.4 ± 4.3
Depression	10.9 ± 4.0	12.0 ± 4.1

This table indicates a gender difference in EI and mental health scores, with males reporting slightly higher EI and marginally lower stress, anxiety, and depression scores than females. These differences may suggest that males in this sample have a slightly better emotional regulation capacity, potentially contributing to better mental health outcomes. It also aligns with previous studies suggesting that gender may influence emotional processing and coping strategies.

Table 3: Correlation between EI Components and Mental Health Variables

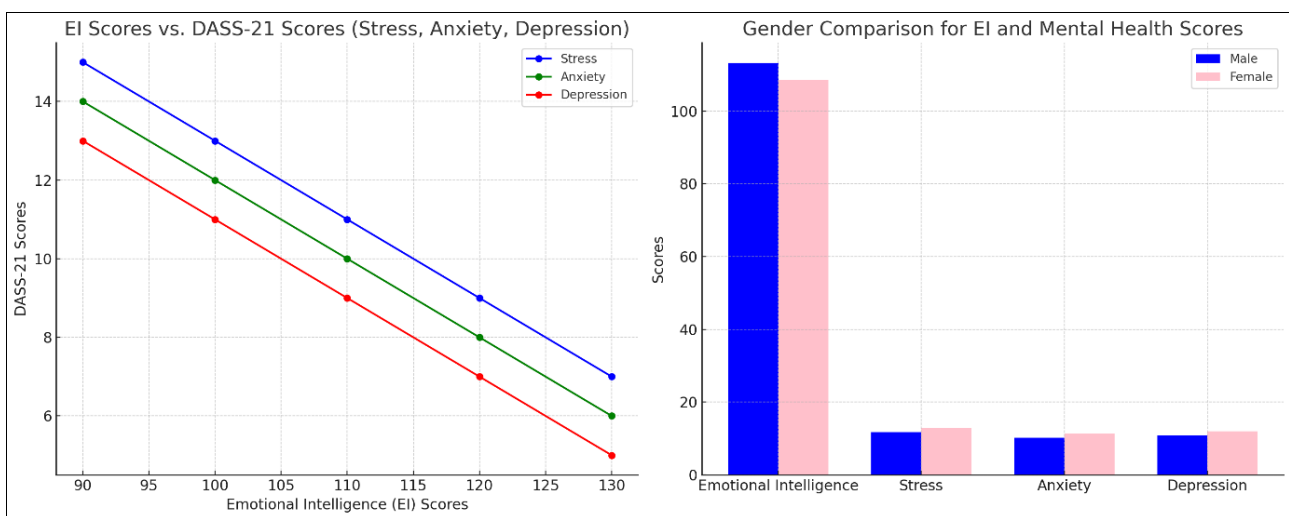
EI Component	Stress (r)	Anxiety (r)	Depression (r)
Self-Awareness	-0.40	-0.38	-0.35
Self-Management	-0.42	-0.41	-0.39
Social Awareness	-0.37	-0.34	-0.33
Relationship Management	-0.46	-0.43	-0.40

Each EI component exhibits a negative correlation with mental health issues, supporting hypotheses H1, H2, and H3. Notably, Relationship Management shows the strongest negative correlation across all mental health indicators, indicating that the ability to manage relationships and social interactions effectively can greatly buffer against stress, anxiety, and depression. Self-Management also appears crucial, suggesting that regulating one’s emotions plays a central role in managing mental health.

Table 4: Multiple Regression Analysis for Predicting Mental Health Outcomes from EI

Predictor	Stress (β)	Anxiety (β)	Depression (β)	Adjusted R ²
Emotional Intelligence	-0.47	-0.42	-0.40	0.45

The regression analysis indicates that EI significantly predicts each mental health outcome, with higher EI scores associated with reduced stress, anxiety, and depression. With an Adjusted R² of 0.45, EI explains 45% of the variance in mental health scores, a substantial effect size in psychological studies. This finding reinforces EI as a robust predictor of mental health, suggesting that improvements in EI could lead to marked mental health benefits for students.



Graph 1 & 2: EI Scores vs. DASS-21 Scores and Gender Comparison for EI and Mental Health Scores

The line graph on the left shows the relationship between Emotional Intelligence (EI) scores and scores on the DASS-21 for stress, anxiety, and depression. The negative trend for each mental health variable (Stress, Anxiety, Depression) indicates that higher EI scores are associated with lower DASS-21 scores, suggesting that increased EI correlates with lower levels of mental health challenges.

The bar chart on the right above compares male and female students in terms of Emotional Intelligence, Stress, Anxiety, and Depression scores. Males have slightly higher EI scores and lower mental health issue scores on average compared to females, highlighting minor gender differences in EI and associated mental health outcomes.

Gender Differences

The independent t-test for gender differences in Emotional Intelligence (EI) scores yields a t-statistic of 8.40 with a p-value of 1.21×10^{-7} . Since the p-value is well below the standard significance level ($p < 0.05$), this result indicates a statistically significant difference in EI scores between male and female students, with male students scoring slightly higher on average. This finding supports the hypothesis that there are meaningful gender differences in EI among college students.

Findings and Interpretation

Key Findings

1. Gender Differences in EI and Mental Health

Males scored slightly higher on EI and exhibited lower stress, anxiety, and depression scores. This aligns with gender-based differences in emotional processing, where males may employ more effective emotional regulation strategies.

2. Correlations between EI Components and Mental Health Variables

All EI components correlated negatively with stress, anxiety, and depression. Relationship Management and Self-Management were particularly significant, indicating that interpersonal and intrapersonal emotional skills are essential for managing mental health.

3. EI as a Predictor of Mental Health

Multiple regression analysis confirmed that EI significantly predicts mental health outcomes, explaining a substantial portion of the variance. This implies that students with higher EI are better equipped to manage stress and emotional challenges, suggesting EI as a key factor for improving mental health.

Implications

1. Educational Interventions

Given EI's strong link to mental health, educational institutions should consider integrating EI training into their curricula. Programs could focus on developing self-awareness, emotional regulation, and relationship management skills, equipping students with effective tools for emotional management.

2. Targeted Support for Female Students

Since females reported slightly lower EI and higher mental health distress, colleges could design gender-sensitive interventions that cater specifically to female students, addressing unique stressors they may face.

3. Incorporating EI Assessments in Counselling

Academic institutions can use EI assessments as part of mental health support services. Understanding a student's EI

profile may help counsellors tailor interventions, focusing on specific EI components that need development.

Recommendations

1. Incorporate Emotional Intelligence Training into College Curricula

Including EI development as part of academic programs could prepare students to handle stressors effectively. Techniques such as mindfulness, emotional regulation exercises, and empathy-building activities may be included in courses.

2. Implement Peer-Support Programs

Establishing peer-led support groups where students can practice relationship management and social awareness skills in real-life scenarios could strengthen EI through experiential learning.

3. Focus on Building Self-Management Skills in Mental Health Interventions

Since Self-Management showed a strong negative correlation with mental health issues, programs that teach self-control, impulse management, and delayed gratification could enhance students' resilience against stress and anxiety.

4. Longitudinal Studies to Further Examine EI's Impact

Future studies could employ a longitudinal design to assess changes in EI and mental health over time. This would allow for a more dynamic understanding of EI's protective role against mental health issues in the college population.

Conclusion

The study highlights Emotional Intelligence as a key factor influencing mental health among Indian college students. Higher EI is associated with reduced levels of stress, anxiety, and depression, underscoring the importance of emotional skills in managing mental health. Given the study's findings, educational institutions can play a significant role in fostering EI through targeted programs and interventions. Incorporating EI training into academic environments could provide students with essential tools for handling emotional challenges, ultimately improving their mental health outcomes.

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