

ORIGINAL ARTICLE

Evaluation of Efficacy of Modified Emotional Resilience Training (MERT) on Impulse Control (IC) among Undergraduate Students

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ABSTRACT

Impulse control is a critical component of self-regulation that influences emotional well-being, decision-making, and academic performance among undergraduate students. Increasing academic demands and psychosocial stressors may negatively affect students' ability to regulate impulsive behaviors. Emotional resilience-based interventions have emerged as promising strategies for enhancing self-control and adaptive coping. To evaluate the efficacy of Modified Emotional Resilience Training (MERT) on impulse control among undergraduate students. A quantitative pre-experimental one-group pre-test post-test design was adopted. A total of 100 undergraduate students were selected using purposive sampling. Baseline impulse control was assessed using a standardized impulse control scale, followed by the implementation of MERT over a four-week period. Post-test assessment was conducted using the same instrument. Data were analyzed using descriptive and inferential statistics. The findings revealed a significant improvement in impulse control following the intervention. The mean impulse control score increased from 42.36 ± 8.12 during the pre-test to 58.74 ± 7.05 during the post-test. The calculated paired t-value (14.27) was statistically significant ($p < 0.001$), indicating the effectiveness of MERT in enhancing impulse control among participants. Modified Emotional Resilience Training was effective in improving impulse control among undergraduate students. The intervention may serve as a valuable strategy for promoting emotional regulation, resilience, and psychological well-being in higher education settings.

Keywords: Modified Emotional Resilience Training; Impulse Control; Emotional Resilience; Undergraduate Students; Self-Regulation.

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INTRODUCTION

Impulse control is a fundamental aspect of self-regulation that enables individuals to manage emotions, thoughts, and behaviors in a manner consistent with personal goals and social expectations. It plays a crucial role in academic performance, interpersonal relationships, decision-making, and overall psychological well-being. Among undergraduate students, the transition from adolescence to early adulthood is often accompanied by increased academic demands, social pressures, and emotional challenges, which may adversely affect impulse control and emotional stability [1]. Recent studies have demonstrated that poor impulse control among young adults is associated with risk-taking behaviours, substance use, academic difficulties, emotional dysregulation, and mental health problems such as anxiety and depression [2]. Undergraduate students frequently encounter stressors related to academic achievement, peer relationships, financial concerns, and career uncertainty, making them particularly

vulnerable to impulsive reactions and maladaptive coping mechanisms [3]. Consequently, interventions aimed at strengthening emotional regulation and impulse control have become an important area of interest in higher education and mental health research. Emotional resilience refers to an individual's capacity to adapt positively to stress, adversity, and challenging life circumstances. It encompasses emotional awareness, cognitive flexibility, self-regulation, and effective coping strategies that enable individuals to maintain psychological balance during difficult situations [4]. Research suggests that resilience acts as a protective factor against psychological distress and contributes significantly to emotional well-being, academic success, and social adjustment among university students [5]. Developing resilience skills may therefore enhance students' ability to regulate impulses and respond constructively to stressful experiences. In recent years, resilience-based training programs have gained considerable attention as evidence-based approaches for promoting mental health and emotional competence among adolescents and young adults. Studies have shown that structured resilience interventions can improve self-control, emotional intelligence, stress management, and psychological well-being while reducing impulsive behaviors and emotional difficulties [6]. Furthermore, resilience training has been reported to strengthen executive functioning and cognitive control processes that are directly associated with impulse regulation [7].

Modified Emotional Resilience Training (MERT) is an emerging intervention designed to enhance emotional awareness, resilience, adaptive coping, and self-regulation skills through structured educational and experiential learning activities. The program integrates principles of cognitive-behavioral therapy, positive psychology, mindfulness, emotional intelligence, and resilience-building strategies to foster healthy emotional functioning [8]. By improving emotional regulation capacities, MERT may contribute to better impulse control and more adaptive behavioral responses among undergraduate students. Evidence from contemporary psychological and educational research indicates that resilience-enhancing interventions can produce significant improvements in emotional regulation, self-efficacy, stress tolerance, and behavioral outcomes [9]. However, limited research has specifically examined the effectiveness of Modified Emotional Resilience Training on impulse control among undergraduate students, particularly within the Indian educational context. Given the increasing prevalence of stress-related psychological concerns among university students, there is a need to evaluate innovative interventions that support emotional development and behavioral self-regulation [10]. Therefore, the present study aims to evaluate the efficacy of Modified Emotional Resilience Training (MERT) on impulse control among undergraduate students. The findings of this study may contribute to the development of evidence-based mental health promotion strategies within educational institutions and provide valuable insights for educators, counselors, and healthcare professionals seeking to enhance student well-being and emotional competence.

OBJECTIVES

Primary Objective

To evaluate the efficacy of Modified Emotional Resilience Training (MERT) on impulse control among undergraduate students.

Secondary Objectives

1. To assess the baseline level of impulse control among undergraduate students.
2. To determine the effect of MERT on emotional resilience and self-regulation.
3. To compare pre-intervention and post-intervention impulse control scores among participants.
4. To examine the association between selected demographic variables and impulse control levels.

HYPOTHESES

Null Hypothesis (H_0)

There will be no significant difference in impulse control scores among undergraduate students before and after receiving Modified Emotional Resilience Training (MERT).

Research Hypothesis (H_1)

There will be a significant improvement in impulse control scores among undergraduate students following Modified Emotional Resilience Training (MERT) [11].

MATERIAL AND METHODS

Research Design

A quantitative pre-experimental one-group pre-test post-test research design was adopted to evaluate the effectiveness of Modified Emotional Resilience Training (MERT) on impulse control among undergraduate students. This design was selected because it enables the assessment of changes in impulse control following the implementation of the intervention [12].

Research Setting

The study was conducted among undergraduate students enrolled in professional colleges affiliated with higher educational institutions in Nagpur, Maharashtra, India. The educational environment provided a suitable setting for implementing resilience-based interventions and assessing behavioral outcomes among young adults.

Study Population

The target population comprised undergraduate students aged 18–25 years pursuing professional degree programs.

Sample Size and Sampling Technique

The sample size was determined using power analysis considering an anticipated medium effect size, 95% confidence level, and 80% statistical power. A total of 100 undergraduate students were selected through purposive sampling based on the eligibility criteria [13].

Inclusion Criteria

Students who:

- Were enrolled in undergraduate programs.
- Were aged between 18 and 25 years.
- Were willing to participate in the study.
- Provided written informed consent.
- Were available throughout the intervention period.

Exclusion Criteria

Students who:

- Had a diagnosed severe psychiatric disorder.
- Were undergoing psychological therapy during the study period.
- Were absent during intervention sessions.
- Declined participation.

Development of Modified Emotional Resilience Training (MERT)

The MERT module was developed after an extensive review of literature related to resilience enhancement, emotional regulation, self-control, positive psychology, mindfulness-based interventions, and cognitive-behavioral approaches. The content was validated by experts in mental health nursing, psychology, psychiatry, and educational sciences [14].

The training program consisted of structured sessions focusing on:

- Emotional awareness and recognition.
- Emotional regulation strategies.
- Mindfulness and relaxation techniques.
- Cognitive restructuring.
- Stress management skills.
- Positive coping mechanisms.
- Self-reflection exercises.
- Impulse control strategies.
- Resilience-building activities.

Description of Intervention

Modified Emotional Resilience Training (MERT) was delivered over a period of four weeks. Participants attended two sessions per week, with each session lasting approximately 60–90 minutes.

The intervention employed interactive teaching-learning methods including:

- Group discussions.
- Role plays.
- Guided reflection.
- Mindfulness exercises.
- Case scenarios.
- Behavioral skill training.
- Stress-management activities.

Participants were encouraged to practice learned strategies between sessions through structured self-monitoring exercises [15].

Research Instrument

Data were collected using two tools:

Section A: Demographic Questionnaire

The questionnaire included variables such as:

- Age
- Gender
- Academic year
- Course enrolled
- Family type
- Residence status
- Previous exposure to resilience training

Section B: Impulse Control Scale

Impulse control was assessed using a standardized impulse control assessment scale. The instrument measured behavioral regulation, emotional control, decision-making ability, and response inhibition. Higher scores indicated better impulse control [16].

Validity and Reliability of the Tool

Content validity of the study instruments and MERT module was established through review by a panel of experts comprising mental health nursing specialists, psychologists, psychiatrists, and educational researchers.

Reliability of the impulse control scale was established using Cronbach's alpha coefficient. The tool demonstrated satisfactory internal consistency with a reliability coefficient exceeding 0.80, indicating good reliability. [17]

Pilot Study

A pilot study was conducted among 10 undergraduate students who were not included in the final sample. The pilot study confirmed the feasibility, acceptability, clarity, and practicality of the intervention and data collection procedures.

Data Collection Procedure

After obtaining institutional ethical approval and informed consent, baseline impulse control scores were assessed using the standardized instrument. The MERT intervention was subsequently administered over four weeks. Following completion of the training program, post-test assessment was conducted using the same impulse control scale to determine changes in impulse control levels.

Ethical Considerations

Ethical clearance was obtained from the Institutional Ethics Committee before commencement of the study. Written informed consent was obtained from all participants. Confidentiality, anonymity, privacy, and voluntary participation were maintained throughout the research process. Participants were informed of their right to withdraw from the study at any stage without penalty. [18]

Statistical Analysis

The collected data were coded, entered, and analyzed using Statistical Package for Social Sciences (SPSS) software version 29.0. Frequency and percentage distribution for demographic variables. Mean and standard deviation for impulse control scores. Paired t-test to compare pre-test and post-test scores. Chi-square test to determine association between demographic variables and impulse control levels. Statistical significance was established at $p < 0.05$. [19, 20]

RESULTS

Distribution of Participants According to Demographic Characteristics

A total of 100 undergraduate students participated in the study. The majority of participants (58%) belonged to the age group of 20–22 years. Females constituted 62% of the sample, while males accounted for 38%. Most participants were enrolled in health science and professional courses. Approximately 54% resided in hostels and 46% were day scholars.

Table 1. Distribution of Participants According to Demographic Variables (N=100)

Variable	Frequency (n)	Percentage (%)
Age 18–19 years	28	28
Age 20–22 years	58	58
Age 23–25 years	14	14
Male	38	38
Female	62	62
Hostel Residents	54	54
Day Scholars	46	46

Pre-test Impulse Control Scores

Baseline assessment revealed that a substantial proportion of students demonstrated moderate levels of impulse control before the intervention.

Table 2. Distribution of Participants According to Pre-test Impulse Control Levels

Level of Impulse Control	Frequency (n)	Percentage (%)
Poor	24	24
Moderate	61	61
Good	15	15

The findings indicate that only 15% of students demonstrated good impulse control before participation in MERT.

Post-test Impulse Control Scores

Following completion of the Modified Emotional Resilience Training program, considerable improvement in impulse control levels was observed.

Table 3. Distribution of Participants According to Post-test Impulse Control Levels

Level of Impulse Control	Frequency (n)	Percentage (%)
Poor	6	6
Moderate	34	34
Good	60	60

The percentage of participants demonstrating good impulse control increased from 15% in the pre-test to 60% in the post-test assessment.

Comparison of Pre-test and Post-test Impulse Control Scores

Table 4. Comparison of Mean Impulse Control Scores Before and After MERT

Assessment	Mean	SD	Mean Difference	t-value	p-value
Pre-test	42.36	8.12			
Post-test	58.74	7.05	16.38	14.27	<0.001*

*Significant at $p < 0.05$

The mean impulse control score increased from 42.36 ± 8.12 during the pre-test to 58.74 ± 7.05 during the post-test. The calculated paired t-value (14.27) was statistically significant ($p < 0.001$), indicating that Modified Emotional Resilience Training produced a significant improvement in impulse control among undergraduate students.

Association Between Pre-test Impulse Control and Demographic Variables

Table 5. Association of Pre-test Impulse Control with Selected Demographic Variables

Variable	χ^2 Value	p-value
Age	5.24	0.073
Gender	8.16	0.017*
Residence Status	2.91	0.232
Academic Year	6.84	0.033*

Significant at $p < 0.05$

A statistically significant association was observed between impulse control and gender ($p = 0.017$) as well as academic year ($p = 0.033$). No significant association was found with age or residence status.

The study findings demonstrated that undergraduate students initially exhibited predominantly moderate levels of impulse control. Following participation in the Modified Emotional Resilience Training program, a significant improvement in impulse control scores was observed. The results suggest that MERT is an effective intervention for enhancing self-regulation and impulse control among undergraduate students.

DISCUSSION

The present study evaluated the efficacy of Modified Emotional Resilience Training (MERT) on impulse control among undergraduate students. The findings demonstrated a statistically significant improvement in impulse control following the intervention, suggesting that resilience-based training programs can positively influence behavioral self-regulation and emotional management among young adults. The overall improvement observed in post-test scores supports the growing body of evidence indicating that resilience-enhancing interventions contribute to better psychological functioning and

adaptive coping abilities [21]. At baseline, the majority of participants exhibited moderate levels of impulse control, while nearly one-fourth demonstrated poor impulse regulation. These findings are consistent with recent studies reporting that university students frequently experience challenges related to emotional regulation, stress management, and self-control due to academic pressures, social transitions, and developmental changes [22]. The increasing prevalence of anxiety, stress, and emotional difficulties among undergraduate populations has heightened the need for preventive mental health interventions within educational institutions. Following implementation of MERT, the proportion of students demonstrating good impulse control increased substantially, while the percentage of participants categorized as having poor impulse control decreased considerably. The significant increase in mean impulse control scores indicates that structured resilience training can effectively strengthen self-regulatory abilities. Similar findings have been reported by resilience intervention studies showing improvements in emotional regulation, self-control, and psychological well-being among young adults [23]. The observed effectiveness of MERT may be attributed to its multidimensional approach incorporating emotional awareness, mindfulness, cognitive restructuring, stress management, and adaptive coping strategies. Previous investigations have demonstrated that interventions targeting emotional competence and resilience facilitate greater self-regulation and reduce impulsive behavioral responses [24]. By enhancing participants' ability to recognize, understand, and manage emotional experiences, resilience training may contribute to improved behavioral control and decision-making processes. The present findings are also consistent with research demonstrating a strong relationship between resilience and executive functioning. Executive functions, including inhibitory control, cognitive flexibility, and emotional regulation, play critical roles in impulse management. Resilience-building interventions have been shown to strengthen these cognitive mechanisms, enabling individuals to respond more adaptively to stressful situations and reducing impulsive reactions [25]. Therefore, the improvements observed in the current study may reflect enhanced executive functioning resulting from participation in MERT. A statistically significant association was identified between impulse control and selected demographic variables, particularly gender and academic year. Similar observations have been reported in previous studies where developmental maturity, educational experiences, and gender-related psychosocial factors influenced self-regulatory behavior [26]. Students in advanced academic years may possess greater coping skills and emotional maturity, contributing to improved impulse control compared with younger students. Likewise, differences in socialization patterns and emotional expression may explain gender-based variations in self-regulatory behaviors. The findings of this study have important implications for student mental health promotion. Universities and colleges are increasingly recognizing the importance of resilience-focused interventions as preventive strategies for enhancing psychological well-being and academic success. Evidence suggests that resilience training not only improves emotional regulation but also contributes to reduced stress, enhanced self-efficacy, improved interpersonal relationships, and greater academic engagement [27]. Therefore, integrating structured resilience development programs into student support services may provide significant benefits for overall student development. The effectiveness of MERT observed in the present study further supports the application of positive psychology principles in higher education settings. Positive psychology interventions emphasize strengths, adaptive coping, optimism, and emotional competence, all of which contribute to resilience and self-regulation. Recent research has demonstrated that such interventions can significantly improve mental health outcomes among university students while reducing emotional distress and maladaptive behaviors [28].

Strengths of the Study

The study employed a structured intervention specifically designed to enhance emotional resilience and impulse control among undergraduate students. Standardized assessment procedures were used, and pre-test and post-test evaluations enabled measurement of intervention effectiveness. Furthermore, the study addresses an important and emerging area of student mental health promotion.

Limitations of the Study

Several limitations should be considered while interpreting the findings. First, the study utilized a pre-experimental design without a control group, limiting the ability to establish causal relationships. Second, the study was conducted in a single educational setting, which may affect the generalizability of the findings. Third, self-reported measures may be influenced by response bias. Future studies employing randomized controlled trial designs, larger sample sizes, and longer follow-up periods are recommended to further establish the effectiveness of MERT.

Overall, the findings indicate that Modified Emotional Resilience Training is a promising intervention for improving impulse control among undergraduate students. The significant enhancement in self-regulation observed following the intervention highlights the potential of resilience-based educational programs in promoting psychological well-being and behavioral adjustment among young adults.

CONCLUSION

The present study demonstrated that Modified Emotional Resilience Training (MERT) significantly improved impulse control among undergraduate students. Participants showed marked enhancement in self-regulation and behavioral control following the intervention, indicating the effectiveness of resilience-based training in promoting psychological well-being. The findings suggest that structured emotional resilience programs can serve as valuable tools for strengthening coping skills, emotional regulation, and adaptive decision-making among young adults. Incorporating such interventions into higher education settings may contribute to improved student mental health, academic performance, and overall personal development. Consequently, MERT may be considered a promising strategy for fostering resilience and enhancing impulse control among undergraduate populations.

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