

The Effect of Gender and Locale on Emotional Regulation Patterns of Teacher Trainees: Findings from Empirical Study

Harneet Billing

Associate Professor, Department of Education,
Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab
harneetbillingedu2016@sggswu.edu.in

Navjot Kaur

Assistant Professor, Department of Education,
Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab

Abstract

Objective: Emotional regulation affects individual's physical and mental health and overall quality of life. In this paper the focus is to understand the emotional regulation patterns of teacher trainees across gender and locale that they apply to deal with the academic pressures.

Methods: A total of 100 teacher trainees from Sri Guru Granth Sahib World University, Fatehgarh Sahib participated in the research, selected using random sampling. Standardised Emotion Regulation Questionnaire prepared by the investigator was used to collect the data along with an interview schedule. Data was analysed using t-test using SPSS software.

Results: Results showed significant differences in the emotional regulation patterns of the teacher trainees across gender and locale. Thematic analysis of the responses to open ended question revealed three major areas of emotional regulation strategies employed by the trainees viz a viz Emotional identification, emotional monitoring and emotional management at cognitive, Behavioural and physiological level

Conclusion: The results of this study highlight the potential importance of developing ability of emotional regulation amongst teacher trainees for well-being. Suggestions and implication for future research are also proffered.

Key Words: Emotional Regulation, Gender, Locale and Teacher Trainees

Article History: Received: 7th February, 2026, Revised: 5th March, 2026, Accepted: 9th March, 2026, Published: 17th March, 2026

I. Introduction

Emotions provide crucial information for navigating the environment (Gendolla, 2014; Keltner & Gross, 1999). Emotions have emerged as a vital psychological process that help people adapt themselves to the dynamics of the environment for achieving their goals (Eisenberg, 2000). The changing educational landscape and paradigm generates cognitive strain, stress and negative affective states. These situations and expectations have made the ability to regulate emotions, an essential attribute.

Emotional regulation is activation of a goal to modify the emotional response (Gross, 2015). Emotional regulation plays a crucial role in safeguarding the emotional well-being of young peoples, comprises two primary components: cognitive reappraisal and expressive suppression. Emotional regulation patterns are influenced by numerous factors. Emotional regulation affects physical (Sapolsky, 2007) and mental (Gross and Munoz, 2005) health. In academic settings, emotional regulation directly impacts students' motivation, learning engagement, stress resilience, and overall mental well-being (Peixoto et al., 2021). For teacher trainees, who are future educators, developing emotional regulation skills is particularly important, as they not only affect their academic success but also

their capacity to create emotionally supportive learning environments for their students. These concerns underscore the importance of examining emotional regulation patterns as they have the potential to safeguard mental and emotional well-being of the people.

II. Effects of emotional regulation

Emotional regulation plays a fundamental role in students' academic success and psychological well-being. It enables learners to modulate their emotional responses to challenges such as academic stress, peer relationships, and classroom dynamics (Blair, 2002). Studies have demonstrated that effective emotional regulation facilitates better cognitive functioning by sustaining attention, working memory, and planning, which are essential for learning (Phillips, Bull, Adams, & Fraser, 2002). Poor emotion regulation, on the other hand, may result in behavioral difficulties, including aggression and antisocial behaviors, which negatively impact academic achievement (Masten et al., 2005; Risi, Gerhardstein, & Kistner, 2003). Furthermore, emotion regulation skills foster autonomy and independent learning in educational settings, as students who regulate their emotions well are more likely to engage actively and persist in academic tasks (Howse et al., 2003). This is especially relevant for future educators like B.A.-B.Ed. students, whose

emotional competencies will influence their teaching effectiveness and classroom environment.

III. Research on Variance in Emotional Regulation Patterns

Research specifically examining emotional regulation among school and higher education students has also illuminated how emotion regulation difficulties relate to student engagement and social relationships in academic environments (Peixoto et al., 2022). Emotional awareness, clarity, and access to regulation strategies significantly predict emotional and behavioral engagement, while interpersonal factors like peer and teacher support mediate these relationships. Interventions targeting emotional regulation skills have shown promise in improving students' well-being, self-esteem, and academic motivation (Volkaert et al., 2021).

Gender differences are a recurrent theme in the literature; female students generally display greater emotional awareness and employ more varied regulation strategies compared to males, possibly due to sociocultural and developmental factors (Mathews et al., 2021). Moreover, locality — urban versus rural backgrounds — influences regulation patterns, with rural students benefiting from communal support and lower academic competition, contributing to greater emotional stability (Peixoto et al., 2021). These findings underscore the importance of investigating diverse demographics among B.A.-B.Ed. students to tailor socio-emotional learning initiatives effectively, aligning with holistic educational policies such as India's National Education Policy (NEP) 2020.

IV. The Present Study

The primary aim of the present study was to investigate the effect of gender and locale on emotional regulation patterns in daily life. Adding the literature on emotional regulation patterns, we investigated the responses of the participants on open ended questions to identify the emerging themes of emotional regulation.

Methods

This study employs mixed method approach to understand the patterns of emotional regulation amongst the teacher trainees. All study procedure was approved by Department Research Committee.

Participants

Undergraduate teacher trainees enrolled at Sri Guru Granth Sahib World University, Fatehgarh Sahib, representing both urban and rural backgrounds were included in the study. Random sampling technique has been used to ensure representativeness. 100 teacher trainees participated in the study; 50 from urban and 50 from rural backgrounds. The gender wise distribution was 50 male and 50 females.

Procedure

Participants provided informed consent and filled the baseline questionnaire pertaining to demographic information. Upon completing the questionnaire,

participants were enrolled in the study. Participants were instructed to complete the questionnaire.

Measures

Standardized Emotional Regulation Questionnaire prepared by Kaur and Billing (2025) has been used. Reliability has been established by test retest method and is 0.90. Open-ended questions to capture in-depth insights into students' emotional regulation experiences. The questions were prepared after consultation to experts.

Statistical Analyses

The researcher employed quantitative analysis techniques to conduct statistical testing, specifically utilizing the parametric independent samples t-test after ensuring all assumptions for parametric testing were met. This approach facilitated a rigorous examination of differences between groups for effective interpretation of the emotional regulation pattern data within the sample.

Thematic analysis was used to analyze open-ended responses. This involved systematically coding the textual data to identify recurring patterns and themes related to emotional regulation patterns. After familiarization with the data, coding of the responses was done. The codes were then grouped into broader themes explaining the patterns. This enabled contextual understanding of the obtained quantitative data.

V. Results

Gender and Emotional Regulation Patterns

Table 1 presents the comparison of mean scores of the emotional regulation between male and female students. The mean score for male students was 51.06 ± 18.43 , while female students recorded a higher mean score of 54.72 ± 18.43 . The independent samples t-test yielded a calculated t-value of 2.00 at 98 degrees of freedom, which is statistically significant at the 0.05 level ($p < 0.05$).

Table 1: Mean difference in Emotional Regulation scores between male and female teacher trainees.

Gender	No.	Mean	S.D.	Calculate d (t) value	Degree of freedom (df)	Significance
Male	50	51.06	18.43	2.00	98	Significant at 0.05 level
Female	50	54.72	18.43			

Statistically significant difference in the mean emotional regulation behaviour indicates that the observed disparity cannot be ascribed to chance and leading to the rejection of null hypothesis. Female students consistently exhibited higher emotional regulation scores than males. Also identical standard deviation across genders suggests comparable variability reflecting similar stability and consistency in emotional regulation behaviours among the teacher trainees.

Gender differences in the emotional regulation patterns reflects greater flexibility in strategies employed. Bonanno and Burton (2013) revealed that emotional regulation involves sensitivity to situational demands, access to a diverse strategy repertoire and responsiveness to feedback. Consistent with Cheng (2007) and Tamers et al (2002), the present findings suggest that females may employ a broader range of strategies and invest more in emotions than males.

Locale and Emotional Regulation Patterns

Table 2 presents the comparison of mean awareness scores of Emotional Regulation between students belongs to urban and rural areas. Students from rural background recorded higher mean scores ($M=55.42\pm12.20$) than urban teacher trainees ($M=50.36\pm14.76$).

Table 2: Mean difference in Emotional Regulation scores between urban and rural teacher trainees.

Gender	No.	Mean	S.D.	Calculated (t) value	Degree of freedom (df)	Significance
Rural	50	50.36	14.76	1.98	98	Significant at 0.01 level
Urban	50	55.42	12.20			

Table 3 includes t test results for evaluating the significance of difference in mean scores of urban and urban teacher trainees. The observed results tilt in favour of rural students and can be explained in terms of stronger community bonds, close-knit family structures, and culturally rooted coping mechanisms prevalent in rural settings; rural students engage more often in spiritual or nature-based activities, which promote calmness and emotional balance. Limited exposure to fast-paced, competitive environments may also help them maintain better emotional stability and self-control.

The present study adopted mixed method approach with adopting qualitative approach to complement quantitative data and develop better insight. A semi-structured interview was designed to subjective rich experiential data on emotional regulation patterns.

VI. Findings and Emergent Themes

Responses of the participants were analysed on three emotional regulation strategies that emerged from the responses i.e. Emotional identification, emotional monitoring and emotional management at cognitive, Behavioural and physiological level. Furthermore, all participants provided comments on their understanding of areas of emotional functioning as presented by the investigator.

Emotional Identification

The participants demonstrated strong association between observable physical/ physiological changes and underlying emotional cause. They suggested that the stress or anxiety generated during evaluation resulted in restlessness, fastened heartbeat and chest heaviness. The students expressed that such changes

helped them to identify and differentiate emotions. Such an ability to identify physiological state as related to emotion helps in better emotional management.

Monitoring Emotions

Self-monitoring of emotional states to manage academic pressure was also recognised by teacher trainees as emotional regulation strategy. Few of the participants responded that approaching deadlines led to heightened anxiety and thus they make a conscious attempt to regulate these feelings through calming strategies. Few of them adopted a routine check in routine multiple times a day to assess the stress levels, which helped them to employ calming strategy immediately. The responses of the participants revealed an intentional effort by them to understand and manage the fluctuating emotions especially during increased academic demands. This behaviour helped in maintaining both psychological well-being and academic performance of the trainees.

Emotional Management

Cognitive reframing and considering options emerged as an effective cognitive emotional management strategy through which the participants opted for different ways to deal with the stimulating situation. Several participants reflected on alternative approaches or outcomes as a strategy of focussing on next opportunity after bad grades rather than feeling disappointed. The participants stated that thinking about the situation in parts instead of whole is useful as it does not overwhelm the child.

The participants generated the idea that physical actions like short exercising, walk could help them manage emotion. The teacher trainees suggested talking to friends, listening to music helped them to manage stress and promote emotional balance. One of the participants said, 'I usually take short breaks or go for a quick walk to clear my head.' On further enquiry she added that it helped as it led to leaving the stressful situation behind and broke the connection between mind and the stressor.

Finally, breathing and mindfulness was described as the physical action that could be useful as one trainee stated that, 'closing eyes and deep breathing exercises slowed down the heart rate', as another trainee stated that, 'get enough sleep and exercise because that helps me handle stress better.'

Students demonstrate strong emotional self-awareness, as evidenced by their ability to identify physical signs like pounding hearts, restlessness, and trembling hands during overwhelming academic tasks. They connect bodily sensations such as stomach tightening and sweaty palms with feelings of nervousness and anxiety before tests and presentations. This acute recognition of emotional and physiological cues is fundamental for effective emotional regulation and aligns with research emphasizing the importance of emotional self-identification in managing academic stress. Furthermore, students actively monitor their emotional

fluctuations, particularly during high-pressure periods such as approaching deadlines, showcasing a proactive approach to emotional management. They employ cognitive strategies like positive self-talk and reframing to mitigate negative feelings caused by poor academic performance, thus maintaining motivation and self-efficacy.

Behavioural techniques such as taking breaks, engaging in physical activity, and socializing are commonly used by students to alleviate emotional distress and restore balance. Physiological approaches including mindfulness exercises, deep breathing, regular sleep, and exercise further support their emotional well-being. These multi-dimensional regulation strategies reflect an integration of cognitive, behavioural, and physiological methods that are essential for navigating academic challenges. Collectively, the findings underscore the critical role of fostering emotional awareness and versatile coping strategies in educational settings, supporting holistic student development and resilience in line with contemporary educational and psychological frameworks.

VII. Limitations and Future directions

The cross sectional design and limited sample diversity puts a constraint on the generalizability and causal interpretation of the findings. Future research should adopt longitudinal designs to examine developmental trajectories of emotional regulation across gender and localities. Increasing sample size, incorporating moderating variables as socio-economic status, family environment, and academic pressure and evaluating gender or locality specific intervention programmes could provide deeper insights. Qualitative insights by including studies exploring cultural influences and individual narratives as well as by investigating the role of digital technology and social media can be drawn.

Conclusion

The findings of the study have important implications for educational practice. They are crucial for designing targeted emotional learning interventions that cater to the specific needs of teacher trainees. Systematic integration of emotional regulation training within curricula aligns with the national education policy which stresses socio-emotional learning as part of holistic student development. There is a need to foster emotionally supportive environments, where teachers are trained to model emotional competency and address students' emotional needs sensitively.

Context specific differences in emotional regulation abilities of teacher trainees stress that context specific programs that leverage community and cultural strengths are essential. Life skill education should emphasize cognitive and behavioural strategies including mindfulness and positive cognitive reappraisal to enhance students' adaptive coping mechanism. Also, strengthening peer support networks and counselling services can ensure emotional regulation resources for all students.

Data Availability Statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Author contributions

HB: conceptualization, methodology, validation, and supervision. NK: software, investigation, resources, and project administration. HB and NK: formal analysis.

All authors contributed to the writing—original draft preparation, writing—review and editing, and visualization and read and agreed to the published version of the manuscript.

VIII. References

- Blair, C. (2002). School readiness: Integrating cognition and emotion in a neurobiological conceptualization of children's functioning at school entry. *American Psychologist*, 57(2): 111-127. <https://doi.org/10.1037/0003-066X.57.2.111>
- Eisenberg N. (2000). Emotion, regulation, and moral development. *Annu. Rev. Psychol.* 51 665–697.
- Gendolla, G.H.E. (2014). Comment: Emotions are functional – so...? *Emotion Review*, 6 :317–318.
- Gross, J.J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2(3): 271–299. <https://doi.org/10.1037/1089-2680.2.3.271>
- Gross, J.J. and Thompson, R.A. (2014). Emotion regulation: Conceptual foundations. In JJ Gross (Ed.), *Handbook of emotion regulation* (pp. 3–24). Guilford Press.
- Gross J. J., Muñoz R. F. (1995). Emotion regulation and mental health. *Clin. Psychol. Sci. Pract.* 2 151–164. 10.1111/J.1468-2850.1995.TB00036.X
- Gross, J.J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, 26 (1):1-26. 10.1080/1047840x.2014.940781.
- Howse, R.B., Calkins, S. D., Anastopoulos, A.D., Keane, S.P., and Shelton, T.L. (2003). Regulatory contributors to children's kindergarten achievement. *Journal of School Psychology*, 41(4):387-415. [https://doi.org/10.1016/S0022-4405\(03\)00051-9](https://doi.org/10.1016/S0022-4405(03)00051-9)
- Keltner, D., Gross, J.J. (1999). Functional accounts of emotions. *Cognition & Emotion*, 13: 467–480.
- Masten, A.S., Desjardins, C.D., McCormick, C.M., Kuo, S.I., and Long, J.D. (2005). Interrelatedness of adaptive functioning in at-risk children: A developmental cascade model. *Development and Psychopathology*, 17(2):875-897. <https://doi.org/10.1017/S0954579405050410>
- Mathews, M. et al. (2021). Identifying the determinants of emotion regulation choice. *Cognition and Emotion*, 35(6): 1243-

1257. <https://doi.org/10.1080/02699931.2021.1945538>
- Peixoto, L.S.A. et al. (2021). Emotion regulation, stress, and well-being in academic contexts. *Frontiers in Psychology* 12. <https://doi.org/10.3389/fpsyg.2021.8382289>
 - Phillips A., Bull R., Adams E., and Fraser L. (2002). Nonverbal cues and their influence on academic performance. *European Journal of Psychology of Education*, 17(1): 21-30. <https://doi.org/10.1007/BF03173515>
 - Risi S., Gerhardstein R., and Kistner J. (2003). Co-occurrence of behavior problems and academic difficulties: A longitudinal study of children. *Journal of School Psychology* 41(3): 161-177. [https://doi.org/10.1016/S0022-4405\(03\)00030-0](https://doi.org/10.1016/S0022-4405(03)00030-0)
 - Sapolsky R. (2007). "Stress, stress-related disease, and emotional regulation," in *Handbook of emotion regulation*, ed. Gross J. J. (New York, NY: The Guilford Press), 606–615.
 - Volkaert, J., et al. (2021). School-based emotion regulation interventions: A systematic review. *Journal of Clinical Child & Adolescent Psychology*, 50(2), 175-191. <https://doi.org/10.1080/15374416.2020.1761235>