



RESEARCH ARTICLE

THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE, STRESS, AND EMPATHY IN TEACHER EDUCATION STUDENTS

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ABSTRACT

Teachers with high emotional intelligence, low levels of stress, and strong empathy are more likely to support students, foster mutual understanding, and successfully build relationships. However, the relationships between these variables remain insufficiently explored. Therefore, this study aimed to assess these relationships using a cross-sectional, correlational design. The survey included the Trait Emotional Intelligence Questionnaire (TEIQue), the Perceived Stress Scale (PSS), and the Interpersonal Reactivity Index (IRI). Data were collected from a random sample of 46 final-year students majoring in teacher education. The data were analyzed using mean and standard deviation, Pearson's correlation, and multiple linear regression methods. The analysis of means and standard deviations revealed that the teacher education students scored higher than average on emotional intelligence, had moderate levels of stress, and displayed empathy. Pearson's correlation indicated a positive relationship between emotional intelligence and empathy levels, a moderate negative relationship between emotional intelligence and stress levels, and a weak negative relationship between stress and empathy. Finally, the multiple linear regression analysis showed that emotional intelligence and stress levels together predicted empathy tendencies. This suggests that teacher education students with higher emotional intelligence (EQ) are more likely to have lower stress levels and stronger empathy tendencies. Therefore, this study recommends that teacher training programs include activities that enhance emotional intelligence (EQ), stress management, and empathy development through seminars and training sessions to better prepare future teachers.

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INTRODUCTION

The teaching profession is not only about transferring knowledge but also about supporting the emotional, psychological, and intellectual development of students. The success of teaching depends on the teacher's ability to understand and manage students' emotions, intellect, and stress levels. Emotional intelligence, stress, and empathy all play critical roles in the effectiveness of teacher education students. The relationships between these factors influence the success of the teacher's profession and the outcomes of education. Emotional intelligence is the ability to recognize, understand, and regulate one's own and others' emotions to make sound decisions (Mayer, 1990). This skill helps teachers respond to students' emotions and effectively manage their psychological states. Emotional intelligence is essential for reducing stress levels, improving collaboration, and responding appropriately in high-stress situations. Stress is a negative physical and psychological response to pressure or challenges, often impacting teachers' ability to focus, learn, and interact with others. For teacher education students, stress can affect concentration, learning, and interaction with others. Therefore, the ability to manage stress and use it positively is vital for their psychological and professional success. Empathy is the ability to understand and respect others' emotions, supporting and responding to

their emotional needs. Teacher education students who develop empathy can better understand their students' emotions and respond accordingly. Empathy plays an important role in teaching methods and teacher-student interactions, positively impacting learning outcomes. This introduction highlights the need to study the relationship between emotional intelligence, stress, and empathy in teacher education students. This research is crucial for improving teaching methods, student well-being, and educational outcomes, potentially having a positive impact on both students and teachers in the educational process (Goleman, 1995).

Stress: Stress is defined as the mental or emotional strain caused by challenging or demanding situations. It is a natural response to challenges or threats in life and can help individuals address difficulties. Everyone experiences stress to some extent, but how we respond to it significantly impacts our health. Managing stress effectively involves establishing routines, ensuring regular sleep patterns, and minimizing the use of electronic devices before bed, as recommended by the World Health Organization (WHO, 2023). Stress is a part of life and helps protect individuals from physical dangers (Greenberg, 2016). However, excessive stress can lead to depression and increased risks of physical illness (Cohen & Janicki-Deverts, 2012). The Perceived Stress Scale (PSS) is a widely used

tool to measure stress levels. This study aims to assess individuals' perceptions of stress in their daily lives. The PSS was developed in 1983 by Sheldon Cohen and his colleagues to evaluate how individuals experience and perceive stress.

Emotional Intelligence: Emotional Intelligence (EI), or Emotional Quotient (EQ), refers to the ability to recognize, use, understand, manage, and regulate emotions. High emotional intelligence means being able to identify one's own and others' emotions, use emotional information to guide thinking and behavior, recognize different emotions, and adjust one's emotions to adapt to the environment. This also includes emotional literacy. The term was first introduced in 1964 and gained significant attention when psychologist and science journalist Daniel Goleman published his book *Emotional Intelligence* in 1995. Some researchers believe that emotional intelligence can be learned and strengthened, while others consider it an inherent ability. Emotions and feelings guide our interactions with the environment. These emotional responses are referred to as mental intelligence (Goleman, 2009). Recognizing, utilizing, and managing emotions is crucial in everyone's daily activities (Goleman, 2009; Ravikumar et al., 2017). Why is emotional intelligence important? Based on new discoveries in brain science and behavior, Goleman illustrated how individuals with high IQs can fail and how those with average IQs can achieve extraordinary success. These factors include self-awareness, self-regulation, compassion, and other abilities, which constitute another way of being smart. These skills are not innate and can be developed through early life experiences, yet they can also be developed and enhanced throughout adulthood. This directly positively impacts health, relationships, and work success (Goleman, 2005).

Empathy: Empathy, or empathetic concern, refers to the expression of emotions like compassion, mercy, and sympathy (Daniel Batson, 2023). It is the ability to imagine how someone else feels. *Concern* refers to a sense of worry or distress that something might cause those feelings (Cambridge Dictionary, 2021). The Interpersonal Reactivity Index (IRI) is a research tool used to assess one's ability to understand their own emotions and recognize the feelings of others. This scale measures the psychological complexity of individuals, typically assessing empathy (understanding others' emotions) and their personal responses. The IRI, developed by Mark Davis in 1979, consists of 28 questions and is divided into four main components:

- **Empathic Concern:** The ability to pay attention to the emotions of others.
- **Perspective Taking:** The ability to think from someone else's perspective.
- **Fantasy Scale:** The ability to immerse oneself in the emotional state of others.
- **Personal Distress:** The personal emotional distress and response to difficult situations.

RESEARCH PROCESS AND RESULTS

Research Objective: This study aims to explore the correlation between emotional intelligence, stress, and empathy among teacher education students at the Mongolian University of Science and Technology (MUST) in Arkhangai Province. We believe there is a significant relationship between emotional intelligence, stress, and empathy. Additionally, we hypothesize that the levels of emotional intelligence and stress play a crucial role in predicting empathy responses.

Research Participants: A total of 46 fourth-year students enrolled in the teacher education program at MUST's Arkhangai campus were selected randomly to participate in this study.

Age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-23	34	73.9	73.9	73.9
24-29	12	26.1	26.1	100.0
Total	46	100.0	100.0	

Explanation: The majority of the participants in the study are female (87.0%), while a relatively smaller number are male (13.0%). This indicates an unequal distribution in gender, with female students showing more interest in pursuing a teaching profession.

Enrolled Class

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Primary School Teacher	23	50.0	50.0	50.0
Kindergarten Teacher	15	32.6	32.6	82.6
Mongolian Language and Literature Teacher	5	10.9	10.9	93.5
History and Social Studies Teacher	3	6.5	6.5	100.0
Total	46	100.0	100.0	

The majority of the participants are students in the Primary School Teacher and Kindergarten Teacher programs, comprising 82.6% of the total. Students in Mongolian Language and Literature Teacher and History and Social Studies Teacher programs make up a smaller proportion which is due to the fewer number of students in these programs.

		Descriptive Statistics				
		N	Range	Mean	Std. Deviation	Variance
Emotional Intelligence (TEIQue)	Emotional Awareness (TEIQue)	46	1.0	4.4	.49	.24
	Emotional Regulation (TEIQue)	46	2.00	3.4	.83	.69
	Understanding Others' Emotions (TEIQue)	46	3.00	3.4	1.3	1.8
	Relationships (TEIQue)	46	2.00	4.21	.75	.57
Empathy Skills (Interpersonal Reactivity Index)	Empathy	46	3.00	3.6	1.0	1.0
	Perspective Taking	46	2.00	3.5	.80	.64
	Empathy Concern	46	2.00	3.6	.80	.64
	Personal Distress	46	2.00	2.8	.74	.56
Stress PSS	PSS (Perceived Stress Scale)	46	1.00	2.6	.49	.24
	Valid N (listwise)	46				

Explanation: Emotional awareness (TEIQue) shows a strong positive correlation with other variables such as Understanding Others' Emotions TEIQue ($r = 0.964, p < 0.01$), Relationships TEIQue ($r = 0.876, p < 0.01$), and Emotion Regulation TEIQue ($r = 0.628, p < 0.01$). This indicates that emotional awareness is strongly related to other emotional intelligence factors and interpersonal skills. Relationships TEIQue is positively and negatively correlated with Empathy Concern ($r = 0.868, p < 0.01$), Personal Distress ($r = -0.276, p < 0.05$), and Perspective Taking ($r = 0.527, p < 0.01$). Emotional awareness (TEIQue) and Understanding Others' Emotions TEIQue have a high level of correlation, and these variables are also strongly associated with other emotional intelligence aspects and interpersonal skills. Empathy is linked to understanding others' emotions, stress, and personal distress, which may play an essential role in reducing stress. Stress levels vary depending on emotional intelligence, relationships, and empathy, with higher levels of empathy and concern likely helping to reduce stress.

Reliability Statistics	
Cronbach's Alpha	N of Items
.772	9

Explanation: A Cronbach's Alpha value of 0.772 indicates that the research instrument is reliable and consistent. This ensures the credibility of the responses and data, demonstrating that the tool used in the study is valid and capable of supporting accurate results, conclusions, and practical use.

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Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	Stress Level PSS, Emotional Awareness TEIQue		Enter

a. Dependent Variable: Empathic Concern
 b. All requested variables entered.

Explanation: In this analysis, the variables of emotional awareness (TEIQue) and stress level (PSS) are involved in influencing the change in the empathy variable.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.463 ^a	.215	.178	.72716

a. Predictors: (Constant), Stress Level PSS, Trait Emotional Intelligence TEI Que

Explanation: $R = 0.463$ indicates a positive (relatively weak) correlation. This suggests that there is some level of correlation between Emotional Awareness TEIQue and Stress Level PSS variables. $R^2 = 0.215$ indicates that only 21.5% of the variance in the dependent variable (predicted by the predictors: Emotional Awareness TEIQue and Stress Level PSS) can be explained by this model. The remaining 78.5% of the variance is unexplained or influenced by other factors. While Emotional Awareness TEIQue and Stress Level PSS do have some impact on the success or level of a variable or other emotional factors, the model can only explain 21.5% of the changes.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.2	2	3.110	5.881	.006 ^b
	Residual	22.7	43	.529		
	Total	28.9	45			

a. Dependent Variable: Empathic Concern
 b. Predictors: (Constant), Stress Level PSS, Trait Emotional Intelligence TEIQue

Explanation: Statistical Significance: The p-value (0.006) is less than 0.05, which confirms that the model's variables, Stress Level PSS and Trait Emotional Intelligence TEIQue, have a statistically significant correlation with the Empathy Respect variable. Although the model only explains 6.22% of the variation, it still provides statistically significant results. The Empathy Respect variable is associated with Stress Level PSS and Trait Emotional Intelligence TEIQue, but more detailed analytical tools or additional variables may be required for a deeper understanding.

DISCUSSION

- **Need for Empathy Development Programs:** Empathy is an essential skill both psychologically and socially, and there is a need for training and programs to develop it. Enhancing empathy could potentially help reduce the stress levels of students.

- A study should be conducted with a random sample of 300 students enrolled in higher education for the teaching profession, and based on the results, relevant programs should be implemented.
- **Stress Management Seminars:** It is necessary to regularly conduct lectures and seminars on stress management for students pursuing a teaching career.
- **Practical Implementation in Education:** Developing emotional intelligence, empathy, and stress management skills can have a significant impact on teachers' daily work and the education of their students. Measuring the impact of emotional intelligence, empathy, and stress management programs on teachers' effectiveness is crucial for the education sector.

General Conclusion

- The study results confirm that there is a clear relationship between the emotional intelligence, empathy, and stress levels of students pursuing a teaching profession. Specifically, there is a negative correlation between Empathy Respect and Stress Level.
- This study highlights the need for interventions in the educational sector aimed at understanding the emotional intelligence, empathy, and stress levels of teacher trainees. It emphasizes the need for psychological counseling and programs to develop empathy in the educational field.
- Since there is a slight positive correlation between Emotional Intelligence and Empathy, it is necessary to implement programs that target improving these aspects and reducing stress.
- To develop Empathy Skills, it is important to implement programs that focus on active listening, perspective-taking exercises, using empathetic language, and practicing self-respect and respect for others. It is also necessary to measure the outcomes of these programs.

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