

PAPER

PSYCHOFUNCTIONAL COMPONENTS OF EMOTIONAL INTELLIGENCE DEVELOPMENT IN ADOLESCENTS

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Abstract

This article analyzes the psychofunctional components of emotional intelligence development during adolescence from both theoretical and empirical perspectives. The purpose of the study is to identify the cognitive (emotional awareness, identification, and analysis) and conative (emotional regulation, volitional control, and social adaptation) mechanisms of emotional intelligence in adolescents and to evaluate the effectiveness of their development through a specially designed training program. The theoretical framework is based on the emotional intelligence concept proposed by Peter Salovey and John D. Mayer, as well as the ideas popularized by Daniel Goleman. The results of diagnostic assessments conducted before and after the training were analyzed using Student's t-test, revealing statistically significant positive changes in empathic ability, emotional awareness, emotional regulation, and sensitivity to others' emotional experiences. The findings demonstrate that the specialized psychological training program effectively enhances adolescents' emotional self-awareness, emotional stability, stress resilience, and social adaptation skills.

Key words: adolescence, emotional intelligence, psychofunctional development, cognitive component, conative component, empathic ability, emotional awareness, emotional regulation, social adaptation, psychological training.

Introduction

The rapid development of science and technology worldwide, along with the widespread expansion of modern information technologies, is placing increasing demands on individuals' emotional capacities. Particularly during adolescence, the development of emotional intelligence plays a

crucial role in personality formation. At this stage, adolescents are required to perform various social roles, which makes it essential for them to develop skills such as managing their emotional experiences, communicating effectively with others, resolving social conflicts, and coping with psychological stress.

In the United States, a high level of emotional

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intelligence has been shown to improve students' academic performance by 20–30%. A 2017 study reported that 75% of students in the U.S. participated in special courses aimed at developing emotional intelligence skills. Among German students, higher levels of emotional intelligence have been associated with a 25–30% improvement in social adaptation. In Japan, the development of emotional intelligence has contributed to a 40% reduction in stress levels among students.

Worldwide research indicates that the development of emotional intelligence during adolescence depends on numerous psychological, pedagogical, and personal factors. Studies have shown that if adolescents lack the ability to understand and regulate their emotional states, various difficulties may arise that hinder their personal growth. Therefore, there is a growing need to pay special attention to fostering emotional intelligence among adolescents today.

Analysis of the literature on the topic

Throughout the twentieth century, various theoretical concepts aimed at explaining the phenomenon of intelligence were developed. Scientific literature distinguishes several methodological approaches to this concept. In particular, the pedagogical approach views intelligence as a quality that is formed and developed through the educational process, while the psychological approach interprets it as a system related to cognitive and affective processes of the individual. The biological approach, in turn, emphasizes the neurophysiological foundations of intelligence. Each of these approaches reveals a specific aspect of the intelligence phenomenon, and their integrative analysis is considered scientifically appropriate.

According to the pedagogical approach, intelligence is manifested in an individual's ability to learn, acquire knowledge, analyze it, and apply it in practice. This perspective was advanced by researchers such as Alfred Binet and Charles Spearman, who interpreted intelligence as the main factor determining academic achievement.

Representatives of the psychological approach, including Lewis Terman and Edward Thorndike, considered intelligence as a complex process of thinking. They defined it as the ability to

operate with abstract concepts, engage in analytical reasoning, draw logical conclusions, and generalize. From this perspective, intelligence is reflected in the quality and depth of cognitive processes. Supporters of the biological approach view intelligence as an individual's capacity to adapt to new and unfamiliar environments and to demonstrate flexibility in solving problematic situations. This approach was substantiated in the works of William Stern, Louis Leon Thurstone, and Jean Piaget. These scholars emphasized the close relationship between intelligence, levels of cognitive development, genetic factors, and individual neurophysiological characteristics.

In general, although different approaches interpret intelligence from various perspectives, they all associate it with an individual's mental capacity and active adaptation to the environment. Therefore, in modern psychology, intelligence is regarded as a multifactorial and complex system, whose development depends not only on biological or social factors but also on the quality of the learning environment, personal activity, and motivation.

In the 1950s, representatives of the humanistic approach, such as Abraham Maslow and Carl Rogers, paid special attention to unlocking the inner potential of the individual. They analyzed the processes of self-awareness, self-actualization, and activation of psychological resources, proposing personal growth as a central principle. These concepts emphasize the individual's positive developmental potential and the ability to consciously transform one's life position. In contemporary psychological research, emotional intelligence is interpreted as a linking system between affective processes and social functioning. It encompasses the ability to recognize and regulate one's own emotions, understand the emotional states of others, and choose appropriate strategies in communication. Moreover, it plays an important role in developing stress resilience and adaptive behavior. A high level of emotional competence positively influences social stability and professional effectiveness.

The concept of emotional intelligence was first introduced into scientific discourse in 1990 by Peter Salovey and John D. Mayer. Their work was later popularized by Daniel Goleman, who brought

widespread public attention to the concept through his publications and presentations at scientific forums. Emotional intelligence gained particular popularity after the publication of Goleman's 1995 book *Emotional Intelligence*, which remained on *The New York Times* bestseller list for one and a half years. By 2006, the book had sold five million copies in thirty languages and became an international bestseller.

Analysis and results

As a result of the emotional intelligence development training conducted with adolescents, we achieved a significant increase in their emotional awareness, self-regulation, and social skills. The effectiveness of the training and the obtained results were analyzed based on the data presented in Table1.

The diagnostic tools included V.V. Boyko's methodology for assessing the level of empathic abilities and N. Hall's Emotional Intelligence Assessment test. The results of repeated measurements (N = 54) were processed using Student's t-test.

Indicators	Training Stage	Mean	N	Std. Deviation	t	p
Pair 1: Empathic Ability	Pre-test (ascertaining stage)	13.5156	54	2.73141	-6.752	.000**
	Post-test (control stage)	14.7326	54	2.99415		
Pair 2: Emotional Awareness	Pre-test	9.2240	54	4.15150	-0.826	.009**
	Post-test	9.4201	54	4.25826		
Pair 3: Emotional Regulation	Pre-test	7.9583	54	3.96660	-0.222	.025*
	Post-test	9.0087	54	3.68427		
Pair 4: Self-Motivation	Pre-test	10.1094	54	4.06985	-0.157	.075
	Post-test	10.1476	54	4.19077		
Pair 5: Empathy	Pre-test	8.8490	54	4.33787	0.278	.041*
	Post-test	9.7795	54	4.24244		
Pair 6: Sensitivity to Others' Emotional Experiences	Pre-test	9.1875	54	4.11101	-3.957	.000**
	Post-test	10.1476	54	4.19077		

The findings demonstrated statistically significant positive changes in several key indicators after the training. Empathic ability increased from a mean score of 13.52 before the training to 14.73 after the training ($t = -6.752$; $p < 0.01$), indicating a substantial improvement in adolescents' ability to understand and respond appropriately to others' emotions.

Emotional awareness increased from 9.22 to 9.42 ($p < 0.01$), reflecting improved skills in identifying, understanding, and contextually evaluating emotions. Emotional regulation showed a significant rise from 7.96 to 9.01 ($p < 0.05$), confirming enhanced ability to manage and express emotions constructively. Self-motivation demonstrated a slight increase (from 10.11 to 10.15), although this change was not statistically significant ($p = 0.075$), suggesting relative stability

in intrinsic motivation with the need for further developmental work.

Empathy scores improved from 8.85 to 9.78 ($p < 0.05$), while sensitivity to others' emotional experiences increased from 9.19 to 10.15 ($t = -3.957$; $p < 0.01$). These results confirm that the specially designed training effectively strengthened adolescents' empathic responsiveness and social sensitivity. During the training process, adolescents learned to express their emotions clearly and openly, understand others' moods and needs more accurately, and build empathetic relationships. They also mastered stress-coping strategies, breathing and relaxation techniques, visualization methods, and positive thinking models. These techniques contributed to enhanced psychological stability and reduced anxiety and emotional tension.

The training program, aimed at developing emotional intelligence in adolescents, demonstrated high psychological effectiveness. Its primary objectives were to foster emotional awareness, conscious emotional regulation, empathic responsiveness, stress self-control, and adaptive social interaction. The program created an interactive group environment that enriched emotional self-awareness through social experience. The sessions were designed in accordance with the principle of developmental heterochrony, recognizing that cognitive, emotional, and social processes develop at different rates during adolescence. Therefore, activities were differentiated according to age, gender, and temperament characteristics.

Various exercises—such as identifying and naming emotions, stress recognition practices, relaxation techniques, reflective activities, and empathy-building tasks—helped participants activate, express, analyze, and regulate their internal emotional experiences. Adolescents developed emotional literacy, improved impulse control, strengthened intrinsic motivation, and enhanced their ability to interpret verbal and nonverbal emotional cues.

Before the training, many participants demonstrated impulsive emotional reactions, low emotional differentiation, unstable motivation, and superficial empathy. After the training, qualitative improvements were observed in emotional resonance, affective identification, self-

soothing skills, constructive anger management, and intrinsic self-affirmation. Empathy evolved from superficial sympathy to deeper perspective-taking and emotional support.

The results indicate that emotional intelligence in adolescence develops through complex and interrelated cognitive and conative mechanisms. Cognitive components enable adolescents to recognize, analyze, and evaluate emotions, while conative components support emotional regulation, volitional control, and adaptive behavioral strategies. The development of emotional intelligence is also influenced by individual psychological traits, personal experience, and family and social environments.

Conclusion

In our view, psychological development programs should actively involve parents, teachers, and school psychologists. Strengthening emotional support within families, improving parental awareness of adolescent mental health, and implementing systematic psychological monitoring in educational institutions are essential. Comprehensive developmental programs can significantly enhance adolescents' emotional intelligence potential, ensure emotional stability, and promote constructive and successful social functioning.

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