

STUDY ON THE PSYCHOLOGICAL FACTOR WITHIN THE MIDDLE SCHOOL FOOTBALL TEAM

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ABSTRACT. The psychological factor is one of the least exploited aspects of football. In sports, developing performance capacity is the primary objective of training. Maintaining motivation and achieving performance are the foundations of the educational-instructional process and have great value as outcomes both individually and for the team. **Research hypotheses. (H1).** It is assumed that the members of the national football team have average/above-average emotional intelligence (test score => 100), significantly different from the rest of the students in grades VII-VIII, because teamwork and the psychological training included in the preparation develop the mental qualities and properties of the students who play football. **(H2).** It is assumed that there is a significant correlation between emotional intelligence and the performance of students in the experimental group. **Research methods.** In the present research, the initial testing was carried out among students in grades VII-VIII and the national football team (February 2024 – May 2024). This research was conducted at “Sf. Ilie” General School in Toplița. The research subjects were 68 students, 35 females and 33 males. Quantitative and qualitative methods were used, and the following methods were chosen: observation, emotional intelligence test (Roco, 2001), performance test (ball sense, heading the ball, complex test, shooting at two goals, bilateral game), and statistical analysis (t-test). **Results.** The level of emotional intelligence of the students is 86 and 81 in the national football team, below average, which raises a red flag. At the level of the national football team, a strong self-awareness among the students is noted. This indicator has the highest score, 500, far ahead of empathy (-180) and very far ahead of social skills (-360). After applying to the middle school team's training program, we see a significant increase in

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the level of emotional intelligence. The correlation statistical test and the t-test show a correlation of $r=0.86$ and a significance of $p=0.00$ between the initial and final test results. The Pearson correlation shows a strong link between emotional intelligence and the bilateral game ($r=0.76$), but does not show a significant relationship between emotional intelligence and the other performance indicators. To confirm if the value of r is statistically significant, i.e., if the two variables are correlated, the t-value was calculated. **Conclusions.** This research confirms that the psychological factor cannot be absent from the preparation of school representative teams. It was confirmed that a high level of emotional intelligence improves the performance of football players, especially in team play, increasing group cohesion.

Keywords: *football, psychological factor, performance, athletes, school team*

REZUMAT. Factorul psihologic este unul dintre cele mai puține exploatate aspecte legate de fotbal. În domeniul sportiv, dezvoltarea capacității de performanță este principalul obiectiv al pregătirii. Menținerea motivației și obținerea performanței stau la baza procesului instructiv-educativ și au o valoare mare ca și rezultat pe plan individual și pe echipă. **Ipotezele cercetării.** (I1). Se presupune că membrii echipei reprezentative de fotbal au o inteligență emoțională medie/peste medie (scor test ≥ 100) semnificativ diferit de restul elevilor din clasele VII-VIII, deoarece lucrul în echipă și pregătirea psihologică inclusă în pregătire dezvoltă calitățile și proprietățile psihice ale elevilor care joacă fotbal. (I2). Se presupune că există o corelație semnificativă între inteligența emoțională și performanța elevilor la echipa reprezentativă gimnazială de fotbal. Cu cât elevul are o inteligență emoțională mare, cu atât poate să obțină o performanță mai bună. **Metodele cercetării.** În cercetarea de față testarea inițială s-a realizat în cadrul elevilor din clasele VII-VIII și echipa reprezentativă de fotbal (februarie 2024 – mai 2024). Această cercetare s-a realizat în cadrul Școlii Generale "Sf. Ilie" Toplița. Subiecții cercetării au fost 68 de elevi, 35 de sex feminin și 33 de sex masculin. Pentru efectuarea cercetării s-au utilizat metode cantitative și calitative și am ales următoarele metode: observația, test pentru inteligența emoțională (Roco, 2001), test de performanță (simțul mingii, lovirea mingii cu capul, proba complexă, șut la două porți, joc bilateral), analiza statistică (testul t). **Rezultatele cercetării.** Nivelul inteligenței emoționale al elevilor este 86 și 81 în echipa reprezentativă de fotbal, sub medie, ceea ce ridică un steag roșu. La nivelul echipei reprezentative de fotbal se constată o puternică conștiință de sine a elevilor. Indicatorul are cel mai mare punctaj, scor 500, la mare distanță de empatia (-180) și foarte mare distanță de aptitudinile sociale (-360). După aplicarea programului de pregătire al echipei reprezentative, vedem o creștere semnificativă în nivelul inteligenței emoționale. Testul statistic de corelație și testul t arată o corelație de $r=0.86$ și o semnificație de $p=0.00$ între rezultatele testării inițiale și finale. Corelația Pearson arată o legătură puternică între inteligența emoțională și jocul bilateral

($r=0.76$), însă nu arată o relație semnificativă între inteligența emoțională și celelalte indicatori al performanței. Pentru a confirma dacă valoarea lui r este semnificativă statistic, deci dacă cei doi variabili sunt corelați, s-a calculat valoarea t . **Concluzii.** Cercetarea de față confirmă faptul că factorul psihologic nu poate lipsi din pregătirea echipelor reprezentative școlare. S-a confirmat că un nivel ridicat de inteligență emoțională îmbunătățește performanța jucătorilor de fotbal, mai ales jocul în echipă crescând coeziunea grupului.

***Cuvinte-cheie:** fotbal, factor psihologic, performanță, sportivi, echipa școlii*

INTRODUCTION

Football is a team sport where teams with very high performances exhibit high cohesion and efficiency. In football, all players have fixed positions, yet team members work together as a cohesive unit: each player aligns their specific positional efforts with those of the rest of the team, contributing collectively to the final outcome.

The psychological factor is one of the least explored aspects related to football. However, in specialized literature, there are references to the psychological preparation of players to carry out effective actions and achieve better results.

In the field of sports, developing performance capacity is the primary objective of training. Maintaining motivation and achieving performance form the basis of the instructional process and have significant value in terms of individual and team outcomes (Predoiu, 2016).

Sports psychologists have asserted that handling anger and anxiety appropriately, as well as maintaining confidence and focus, are as crucial on the football field as they are in the gym or classroom. It is evident that the psychological preparation of athletes is as important a factor as any other aspect of training (Ciocă, 2013; Predoiu, 2016).

The concept of emotional intelligence has been studied for over 20 years. Empirical studies demonstrate the decisive role of emotional intelligence in achieving high outcomes and professional success (Nisevic, 2017). As we know, cognitive intelligence refers to abilities such as concentration, planning, and organization, focusing on the informational aspect of each person such as individual memory, visual coordination, and vocabulary.

Studies inform us that our level of emotional intelligence is not genetically determined. This intelligence can develop as we age, gain personal experiences, and mature (Goleman, 2004).

Emotional intelligence in the context of sports is increasingly receiving attention from sports psychologists. It has been noted that emotional intelligence is crucial not only in individual sports but also in team sports and can be a key factor in how well an athlete functions within a team (Goleman, 2004; Lott, 2017; Berry, 2013; Săftescu, 2015).

Ideally, psychological preparation is an important dimension in the training and instructional process because it helps shape the personality of students and their mental capacities (Balint, 2007). The goal of psychological preparation is for students to learn self-control, to exhibit appropriate behavior, to react effectively in difficult situations, and to adapt to competitive environments.

Research hypothesis

H1: It is hypothesized that members of the national football team have above-average emotional intelligence (test score ≥ 100), significantly different from the rest of the students in grades VII-VIII, because teamwork and psychological training included in their preparation develop the mental qualities and properties of students who play football.

H2: It is hypothesized that there is a significant correlation between emotional intelligence and the performance of middle school students in the national football team. The higher the student's emotional intelligence, the better their performance.

Research methods

In the current research, the initial testing was conducted among students in grades VII-VIII and the middle school team (February 2024 – May 2024). The emotional intelligence test was administered, and the test score, i.e., the emotional intelligence coefficient, was used as the independent variable. The sports performance test of the middle school team, which measured ball sense, heading the ball, complex test, shooting at two goals, and bilateral game, was used as the dependent variable.

After conducting control tests, the final testing of the middle school team was initiated using the same emotional intelligence test and performance test.

Subjects

This research was conducted at "Sf. Ilie" General School in Toplița. The subjects of the research were 68 students, consisting of 35 females and 33 males. All subjects are students in grades VII-VIII: 29 students are 13 years old and 39 students are 14 years old.

Research design

For this research, both quantitative and qualitative methods were utilized. The following methods were chosen: observation, emotional intelligence test (Roco, 2001), performance test (ball sense, heading the ball, complex test, shooting at two goals, bilateral game), and statistical analysis (t-test). In our research, we have a well-structured problem, which is why we approached it quantitatively. The qualitative component helps us in explaining the phenomenon.

Motor testing

Ball sense:

- *Exercise 1:* To enhance ball control, simulate movement with inflated balloons. The student must try to maintain the balloon in the air using alternate foot strikes.

- *Exercise 2:*

- *Variante 1:* with a ball in a hand, throw it to the foot, attempt to hit it once, then return the ball to its original position.

- *Variante 2:* Drop the ball on the ground, then kick it, and return the ball to hand.

- *Variante 3:* hit the ball twice with one foot or alternatively with both feet, then return the ball to hand.

Heading the ball:

- *Exercise 1:* simulate the execution movement without the ball. Student simulate heading the ball with their forehead.

- *Exercise 2:* each student with the ball in hand throws it in the air, then heads it.

- *Exercise 3:* throw the ball against a wall. Students positioned 3-4 meters from the wall throw the ball overhead towards the wall, then cleanly head it back with their forehead upon return.

Complex test:

- *Exercise 1:* Ball control. Each student with their ball covers the entire field surface, performing dribbling in all directions, including change of direction, acceleration, technical elements. At the teacher's signal, students are required to attempt executing a technical move or element while running.

- *Exercise 2:* In pairs 5-6 meters apart, execute passing and receiving the ball, hitting it with the instep.

- *Exercise 3:* At a distance of 6-7 meters from the goal, the teacher sits facing students with their back to the goal. Students start by dribbling towards the teacher, then execute a pass. The teacher then positions the ball for a shot on goal. The student must finish by accurately hitting the goal with the ball using the full instep, inside, or outside.

- *Exercise 4:* “Traffic light game”. Students are lined up at the goal line, and the teacher stands similarly at the opposite goal (or approximately 30 meters away) holding two colored flags, red (STOP) and green (START). When shown the green flag, students start sprinting towards the teacher, and upon the red flag, they must stop as quickly as possible. They then continue sprinting until reaching the teacher, following the rules indicated by the flag colors.

Shooting at two goals

- *Exercise 1:* Students grouped in pairs 6-7 meters apart, passing the ball between them with control, shooting with the instep.

- *Exercise 2:* Students grouped in pairs 10-12 meters apart, passing on the ground with lace or instep.

- *Exercise 3:* In pairs 12-14 meters apart, long passes in the air between them, using the full instep, inside, or outside of the foot.

RESULTS

To measure emotional intelligence, a coefficient was calculated reflecting self-awareness, self-control, motivation, empathy, and social skills. The level of emotional intelligence, the dispersion of values around the mean, minimum, maximum, and the sum of values obtained from the initial emotional intelligence testing are presented in table 1.

Table 1. Initial test (I.T.) for emotional intelligence

	MEDIA	STANDARD DEVIATION	MINIMUM	MAXIMUM
CONTROL GROUP (C.G.)	86	27	30	140
EXPERIMENTAL GROUP (E.G.)	81	25	40	145

The level of emotional intelligence among students is 86 and 81 in the representative football team, which is below average, raising a red flag. As indicated in specialized literature, the emotional development and emotional intelligence of students are crucial not only for academic outcomes but also for success in life.

In analyzing the test, we grouped questions in pairs for each component of emotional intelligence:

- Self-awareness: questions 1 and 4;
- Self-control: questions 6 and 7;
- Motivation: questions 3 and 10;
- Empathy: questions 2 and 5;
- Social skills: questions 8 and 9.

Table 2. The hierarchy of emotional intelligence indicators within the experimental group

Hierarchy of indicators	Score
Self-awareness (question 1 and 4)	500
Empathy (question 2 and 5)	320
Self-control (question 3 and 10)	280
Motivation (question 3 and 10)	220
Social skills (question 8 and 9)	140

For the representative football team school, there is a strong self-awareness among the students. This indicator has the highest score of 500, significantly higher compared to empathy (-180) and substantially higher compared to social skills (-360).

After implementing the training program for the representative team, we observe a significant increase in the level of emotional intelligence. The statistical correlation test and the t-test show a correlation of $r=0.86$ with a significance of $p=0.00$ between the initial and final test results.

The performance of the representative team was evaluated using the following indicators: ball sense, heading the ball, complex test, shooting at two goals, and bilateral game. The initial (I) and final (F) performance data are presented in the graph below, showing an improvement in each indicator (table 3).

Table 3. The *t* test for significance between the initial and final tests of emotional intelligence

<i>t</i> test: Paired Two Sample for Means			
	<i>Variable 1</i>	<i>Variable 2</i>	
Mean		81.05263	107.1053
Variance		604.386	564.7661
Observations		19	19
Pearson Correlation		0.861318	
Hypothesized Mean Difference		0	
df		18	
t Stat		-8.90244	
P(T<=t) one-tail		0.0000	
t Critical one-tail		1.734064	
P(T<=t) two-tail		5.18E-08	
t Critical two-tail		2.100922	

Table 4. The correlation between E.I. and the performance of E.G.

	Ball sense	Heading the ball	Complex test/sec	Shooting at two goals	Bilateral games	EI
Ball sense	1					
Heading the ball	0.705	1				
Complex test/sec	-0.131	-0.095	1			
Shooting at two goals	0.045	-0.304	-0.509	1		
Bilateral game	0.358	0.230	-0.359	0.596	1	
E.I.	0.287	0.303	-0.105	0.190	0.760	1

The Pearson correlation shows a strong relationship between emotional intelligence and bilateral game ($r=0.76$), but it does not indicate a significant relationship between emotional intelligence and the other performance indicators. To confirm if the value of r is statistically significant, indicating whether the two variables are correlated, the t -value was calculated (table 4).

Both the correlation test and the t -test demonstrate a strong and statistically significant relationship between emotional intelligence and one of the performance indicators, bilateral game ($r=0.76$, $p<0.05$).

Table 5. The *t* test for the significance between E.I. and athletic performance

<i>t</i> test: Paired Two Sample for Means		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	81.05263158	3.489474
Variance	604.3859649	0.634327
Observations	19	19
Pearson Correlation	0.75958957	
Hypothesized Mean Difference	0	
df	18	
t Stat	14.09595985	
P(T<=t) one-tail	0.00	
t Critical one-tail	1.734063607	
P(T<=t) two-tail	0.00	
t Critical two-tail	2.10092204	

The relationship between these two variables is very strong at a significant level of $p=0.00$. Bilateral games measures not only individual and collective tactical actions but also psychomotor preparation and collaboration among players (table 5).

RECOMMENDATIONS

Preparing the representative football team should include the psychological factor because emotional skills can be developed, and the emotional intelligence coefficient can rise above average. Knowing the level of emotional intelligence helps in choosing, planning, and implementing strategies for developing football players both personally and as a team.

It can be affirmed that students need to be helped to identify and differentiate their personal emotions, learn how to control their emotions and feelings, develop empathy, demonstrate self-awareness, recognize the importance of interpersonal relationships, and teamwork to increase group cohesion.

At the team level, for efficiency, team members must recognize and address personal and interpersonal issues. When teams do not work together effectively, differences and conflicts that are difficult to resolve can arise. Emotional intelligence and especially empathy are factors that help teams solve problems and support group dynamics and efficiency.

CONCLUSIONS

This research confirms that the psychological factor is crucial in the preparation of school representative teams. It has been confirmed that a high level of emotional intelligence improves the performance of football players, especially in team play, thereby enhancing group cohesion.

In the initial phase of the research, statistical data indicated a low level of emotional intelligence among the school football team. Although self-awareness was high, very low scores in empathy, self-control, motivation, and especially social skills pointed clearly to actions needed in developing and implementing the training plan for young footballers.

Following the implementation of the training plan for the representative team, the data showed a significant improvement in the psychological factor, closely linked to improvements in performance indicators, especially in bilateral game. Hypothesis H2 was supported, finding a strong and significant correlation between emotional intelligence and the sports performance of the representative team.

Consequently, as a next step following this research, the development of a program containing exercises, activities, and ideas for psychological training for middle school football representative teams could be considered.

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