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# Players' individual characteristics affecting football team cohesion

# Індивідуальні характеристики гравців, що впливають на згуртованість футбольної команди

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#### Abstract

The aim is to identify the individual characteristics affecting the development of team cohesion and, by taking them into account, to improve the team cohesion through special training sessions. Material: determined cohesion of the football team and individual characteristics of each team member, which affect the cohesion of the team. We tested a total of 38 male teenagers, who all study together at Ivan Piddubny Olympic College (Kyiv) and play football in their specialty. The boys aged 14-16 are currently the members of one team, and will become professional footballers in the future. They had sports training together. The teenagers are divided into teams, the players are constantly changed by the coach to achieve the best results and to analyze the game of the wards in different roles (defender, striker, goalkeeper, etc.). There are many significant correlations between a person's proneness to conflicts and his subjective assessment of team cohesion. Manifestations of aggression and hostility of some players to their team colleagues negatively affects the team cohesion. It is possible to accelerate football team uniting and, as a result, to improve the team

#### Анотація

Мета: виявити особистісні риси, що впливають на розвиток згуртованості колективу, і з їх підвищити згуртованість урахуванням колективу за допомогою спеціальних тренінгів. Матеріал: визначено згуртованість футбольної команди та індивідуальні особливості кожного учасника команди, які впливають згуртованість команди. Ми протестували підлітків чоловічої статі, загалом 38 осіб, які всі разом навчаються в Олімпійському коледжі імені Івана Піддубного (м. Київ) і займаються футболом за фахом. Хлопці віком 14-16 років зараз є учасниками однієї команди і в майбутньому стануть професійними футболістами. Спортивні тренування діляться проходять разом. Підлітки команди, гравці постійно змінюються тренером для досягнення найкращих результатів і аналізу гри підопічних в різних амплуа (захисник, нападник, воротар і т.д.). Між схильністю людини до конфліктів і її суб'єктивною оцінкою згуртованості колективу існує багато значущих кореляцій. Прояви агресії та ворожості окремих гравців до товаришів по команді негативно впливають на

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sports results through the psychological training and the team psychologist's individual work with each player.

**Keywords:** team cohesion, football team, football players, team efficiency.

#### Introduction

An individual belongs to a team, a team is a necessary condition for their personal development. We participate always in certain groups, teams, communities. Each team has its own common goals, which do not always coincide with the goals of each of its members. But team members must work over a common team task, and the ways to their achievement can coincide even with different end goals.

A role of each team member should be relevant to the team common tasks. Thanks to constructive interactions in the team, its members increase their personal flexibility, so their socialization becomes more successful. In order to unite different people into one group, to unite them to achieve a put forward group goal, it is necessary to take into account group developmental patterns (Zagajnov, 2005; 2012).

Yaniv (1996) notes in his writings that Ukrainians are inclined to individualism, which is manifested in their traditions, customs, family values, attitudes to work, and their aspiration for individual work. But at the same time, there are many examples of voluntary spontaneous cohesion in the Ukrainian history to achieve some goals. Oral folklore, including proverbs, indicates that Ukrainians understood the importance of cohesion for better efficiency of their efforts. For example: "working together is as a wedding song", "the friendlier we are, the stronger we are", "friendly work bring good crop", "friendly magpies can overcome an eagle", "even mosquitoes united into a group have power", "a house divided against itself cannot stand".

Most often, group cohesion is manifested by Ukrainians in critical situations. In particular the Ukrainians, who lived at the Mittenwald camps in Germany, Bavaria land, the American occupational zone in 1946-1951, created a theatre, gymnasium, music school and sports associations there: the Ukrainian Sports Association "Lion" and the Ukrainian Youth

формування згуртованості команди. Прискорити згуртування футбольної команди і, як наслідок, покращити спортивні результати команди можна за допомогою психологічної підготовки та індивідуальної роботи психолога команди з кожним гравцем.

**Ключові слова:** згуртованість команди, футбольна команда, футболісти, ефективність команди.

Union "Prometheus". The sports sections included digging ball (soccer), volleyball, basketball and others. In the summer (July 7-12), 1948, at the international "Olympics" in Mittenwald, the Ukrainian national team with their 77 points won the overall victory. Ukrainian soccer players "Sich" and "Lion" won all their games. Such sports results of the Ukrainian team at the camp of displaced persons testify to our ability to unite and the Ukrainians' desire for self-esteem not only in hard work, but also in sports.

The psychological and social well-being of team members, processes within the team, and effectiveness of inter-team contacts and team links with the outside world depend on the team cohesion. Accordingly, the higher team cohesion is, the higher its efficiency and its ability to achieve goals (II'in, 2004; Khudiakov & Kishchenko, 2014; Salar et al., 2012).

Oyefusi (2022) and other researchers on team cohesion consider that this phenomenon is characterized by the extent to which team members want to be a part of their team. We agree with this view but should add that for a sports team is necessary not only an individual's desire to remain a team member, but also his/her desire to work with other team members and team coaches to achieve the maximum sports result of the team.

The main factors of team cohesion are: interdependence of the team members, which is manifested during their joint activities; the democratic leadership style and absent rigid governance; shared common values, interests and priorities of the team members; exactness of a group goal, its clarity and certainty; a relatively small number of the team participants; the team image and prestige (Helsen et al., 1998; Kondrat'ev & Kondrat'ev, 2006). One or two of these factors are not enough for good team cohesion; the team efficiency can be much higher when most of them are implemented into the



team life (Pekel & Cimen, 2017; Vealey, 1988; Newman et al., 2021).

There are certain factors of team cohesion that can be influenced / corrected by a psychologist during special training sessions. In particular, exercises to increase empathy and emotional intelligence, to establish interpersonal relationships and find similarities among team members (common values, attitudes, beliefs, etc.) can be used during training sessions. That will contribute to uniting of all team members, as well as reduce aggressiveness and a number of conflicts (Bostancı et al., 2019; George, 1994; Liashenko et al., 2016; Vealey, 1988; Woodman & Hardy, 2003).

The research hypothesis was that there are individual characteristics that affect team cohesion and, taking them into account, we can increase team cohesion during special training sessions.

#### Materials and methods

Participants: The psychological characteristics of adolescent football team cohesion were determined with students - football player studying at a sportive boarding school. The study involved 14-16-old male adolescents (n = 38) studying at Ivan Piddubny Olympic College (Kyiv) and played football as their sportive specialization. The college specifics are that during general education (lessons, self-learning) sportive trainings (regular training, competitions, etc.) the students are divided by their age and sport type. This division into groups allows students to spend as much time together as possible, which in turn promotes better cohesion.

Research design: The study procedure consisted of testing the children and further analyzing the cohesion of the adolescent team on the basis of the obtained test results. During the study, the team trainer and the practical psychologist were present. The studies were conducted in the groups.

We used the following empirical methods:

- 1. Determination of a group cohesion index proposed by Seashore (Hutsalo, 2012). The technique consists of 5 questions, each of which has several answers for choice. A respondent must choose one answer for each question, the most appropriate for him/her.
- Self-assessment of proneness to conflicts (Benson et al., 2016). The technique

- contains a scale used for self-assessment with ten pairs of statements: respondents estimate with points the characteristic described in the left and right columns. The score is based on a 7-point scale: 7 points means that the evaluated characteristic is always present; 1 point indicates that this characteristic is not manifested at all. The result counting reveals a respondent's proneness to conflicts.
- Buss-Durkee Hostility Inventory (Berastegui-Martínez & Lopez-Ubis, 2022). The technique diagnoses aggressive and hostile human reactions. The Inventory consists of 75 statements; the answers are evaluated by eight scales. The inventory authors differentiate the manifestations of aggression and the manifestations of hostility and identify the following types of reactions: physical aggression, indirect aggression, irritation, negativism, insults, suspicion, verbal aggression, guilt or autoaggression.

Statistical analysis: the statistical data processing was performed using SPSS 23.0 statistical software, by taking into account the normality of sampling distribution. The correlations between subjective feeling of team cohesion and proneness to conflicts, aggression, and hostility was calculated and analyzed using the Pearson coefficient.

## Results

Seashor's techniques for determination of group cohesion helps to determine cohesion at a team that is already formed, but interpersonal relationships in it cannot be established for a long time. With this technique, team cohesion can be determined in order to identify those team members who cannot "find their place" in it, which help improve team cohesion and increase the team efficiency. The techniques determine not only team cohesion, but also a degree of each member integration to the team; it determines who prefers to act only for their own benefit, and who made the best efforts for the whole team success. According to the obtained results, the cohesion index of the examined team was 11.8 points, which indicates its average cohesion. That is, the team members usually support each other, understand each other in difficult situations or during task fulfilment; as for their relationships, they feel mainly unity, mutual support, friendliness, mutual help, positive

- emotions. But some team members do not feel real friendliness.
- The technique for self-assessment of proneness to conflicts is intended to assess one's proneness to conflict behavior. According to the assessment results, several degrees of proneness to conflicts can be determined: a high degree means that a person searches most often causes for conflicts; expressed proneness to conflicts means that such people persistently defend their opinions, even if it may adversely affect their relations with others, such people are not always loved, but usually respected; weak proneness to conflicts means that a person is able to smooth conflicts and avoid critical situations, but if it necessary he/she is ready to defend own interests firmly: unexpressed proneness to conflicts means that

tactful individuals do not like conflicts, if they have to dispute, they always take into account how it can affect their relationships with others; avoidance of conflict situations means that people can give up their interests to avoid any tension in their relationships.

The obtained research results show that 2 (5.2%) players of the football team have expressed proneness to conflicts, 18 (47.4%) of the respondents have weak proneness to conflicts and 18 (47.4%) footballers have un-expressed proneness to conflicts.

The performed correlation analysis showed significant correlations between personal proneness to conflicts and subjective assessment of team cohesion (Table 1).

**Table 1.** *Correlations between personal proneness to conflicts and subjective assessment of team cohesion.* 

		proneness to conflicts	team cohesion
proneness to conflicts	Pearson correlation	1	792**
	α (two-sided)		.000
	N	38	38
team cohesion	Pearson correlation	792**	1
	α (two-sided)	.000	
	N	38	38

<sup>\*\*</sup> The correlation is significant at 0.01 level (two-sided).

The performed correlation analysis confirmed significant negative correlations between proneness to conflicts and team cohesion.

As it is known, correlation analysis gives an accurate quantitative assessment of congruence of two (or more) variables; closeness of their links is described by the absolute value of an examined correlation coefficient. The positive correlations between two phenomena mean that the greater value, describing the first phenomenon, is, the greater value, describing the second one, also, and vice versa. The negative correlations indicate the opposite dependence: the greater value, describing the first phenomenon, is, the lower value, describing the second one (Hlants, 1998; Kybzun et al., 2002; Morhun & Titov, 2009; Sydorenko, 2002).

 Buss-Durkee Hostility Inventory (adapted by Osnitsky), assessing hostility degrees and forms, is widely used in foreign studies, which confirm its high validity and reliability. Aggressive behavior is understood as the opposite of adaptive behavior. Aggressiveness can be understood as a person trait characterized by destructive tendencies, mainly in the field of subjectsubject relations. Every person is aggressive to a certain degree. It's lack leads to passivity, conformity, etc., but too high aggressiveness begins to determine a person's behavior, who can become prone to conflicts and incapable for conscious cooperation. At this inventory, the authors differentiate manifestations of aggression and hostility and identify the following types of reactions: physical aggression, indirect aggression, irritation, negativity, insults, suspicions, verbal aggression, the feeling of auto-aggression or (Berastegui-Martínez & Lopez-Ubis, 2022).

We have a hypothesis that increased aggression and hostility characteristic for adolescents influence adversely on team cohesion formation. Table 2 presents the results of correlation analysis of indicators and forms of aggression and subjective assessment of team cohesion.



**Table 2.**Correlation coefficients between team cohesion and aggression indicators and forms by Buss-Durkee Hostility Inventory.

		Cohesion
	N	38
Constructive or destructive aggression	Pearson correlation	248
Constructive or destructive aggression	$\alpha$ (two-sided)	.133
A garaggive motivation	Pearson correlation	261
Aggressive motivation	α (two-sided)	.113
Hostility	Pearson correlation	056
Hostility	α (two-sided)	.740
A composition ass	Pearson correlation	351*
Aggressiveness	α (two-sided)	.031
Dhysical Acamassian	Pearson correlation	175
Physical Aggression	α (two-sided)	.294
Verbal Aggression	Pearson correlation	305
Verbal Aggression	$\alpha$ (two-sided)	.062
Indirect aggression	Pearson correlation	427**
munect aggression	$\alpha$ (two-sided)	.008
Nagativiam	Pearson correlation	097
Negativism	α (two-sided)	.563
Irritohility	Pearson correlation	154
Irritability	$\alpha$ (two-sided)	.355
Suspicions	Pearson correlation	129
Suspicions	α (two-sided)	.440
Insults	Pearson correlation	021
insuits	$\alpha$ (two-sided)	.900
Faaling of guilt	Pearson correlation	096
Feeling of guilt	α (two-sided)	.565

Source: (Berastegui-Martínez & Lopez-Ubis, 2022)

The performed correlation analysis confirmed the existing negative significant correlations between team cohesion and aggression (r = 0.35 at p $\leq$ 0.05) and indirect aggression (r = 0.43 at p $\leq$ 0.01).

We should note that an existing correlation between two variables does not mean that one variable is a cause and the other is a consequence. For this reason, it is impossible to describe causal relationships between the studied phenomena on the basis of the existing statistically significant correlation between the indicators.

By analyzing the profiles of each respondent, we found that the adolescents showed lower than average subjective assessment of their team cohesion did not really feel affection and sympathy for the team members, their team is associated mainly with negative feelings. These respondents, respectively, have expressed proneness to conflicts, high indexes of

aggression, irritability, verbal and indirect aggression. That is, these adolescents are ready to show negative feelings (irritability, rudeness, threats) at a slightest excitement, they are prone to gossips and bad jokes about their comrades, and can shout to them. We assume that such respondents hold back their negative attitudes toward teammates for fear of being expelled from college or punished by their coach (for example, multiple-match disqualifications).

Based on the data obtained empirically, we developed a special training program for team cohesion formation for football players. The program main goal is to increase team cohesion; this goal is achieved through decrease of conflicts, sings of aggression and hostility, development of conflict resolution skills, empathy, the abilities to achieve compromises, to perceive adequately themselves and others, to act in collaboration with team members and in mutual understanding, to make group decisions.

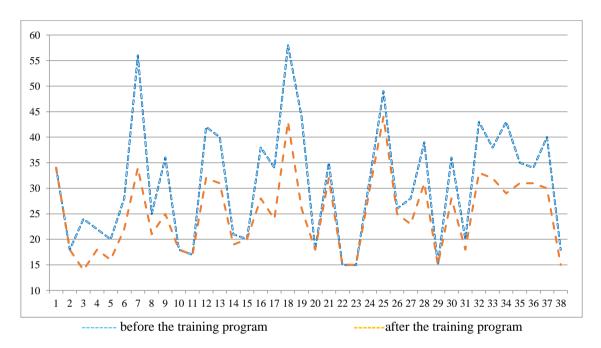
<sup>\*.</sup> The correlation is significant at 0.05 level (two-sided)

<sup>\*\*.</sup> The correlation is significant at 0.01 level (two-sided)

The program consists of 10 sessions; each of them lasts of 1.5 hours.

As a result of the training program implementation, the team cohesion increased to the above average level. According to the obtained results, the group cohesion index increased up to 15.4 points. That means that most adolescents begin to feel sympathy and positive emotions for each other, but there are still a few cases of antagonism and frustration. The conflicts in the team appear less often. The young

players were introduced to ways of conflict resolving, so now, they are able to find common grounds, to behave more constructively, they cooperate more often and can find compromises in conflict situations. As a result, their aggression and negativity decreased, the team relations became friendlier, more trusting. Team members seek to help each other; unhealthy competition, negatively influencing team efficiency, has decreased. A graphical comparison of the results before and after the training program is shown in Figure 1.



*Figure 1.* Comparison of the results obtained with self-assessment of proneness to conflicts before and after the training.

Table 3 compares the average values obtained be Buss-Durkee Hostility Inventory

(Berastegui-Martínez & Lopez-Ubis, 2022) before and after the training program.

**Table 3.**Comparison of the average values obtained be Buss Durkee Hostility Inventory before and after the training program

Indicator	Before training (average values)	After training (average value)
Physical Aggression	5.0	3.6
Verbal Aggression	8.3	6.1
Indirect aggression	6.6	4.8
Negativism	3.4	2.6
Irritability	6.2	4.4
Suspicions	4.7	3.2
Insults	3.7	2.2
Feeling of guilt	5.9	3.9
Aggressiveness	15.4	12.8
Hostility	6.7	5.2

Source: (adapted by Berastegui-Martínez, & Lopez-Ubis, 2022)





All signs of aggression and hostility appears less often.

#### Discussion

The research results confirm our hypothesis that increased proneness to conflicts, aggression and hostility adversely influence team cohesion formation.

Our results are in line with similar studies conducted with athletes playing in group sports. The study on individual characteristics of athletes playing in teams, namely, specializing in football, performed by Liashenko et al. (2016) confirmed the correlation between the factors "sociability" and "proneness to conflicts". That is, increased number of conflicts in a team leads to worsened communications of team members and, as a consequence, decreases group cohesion.

The works of Pekel and Çimen (2017) and others show relations between the football team efficiency and mutual respect and self-esteem of team players.

For productive communication, athletes must be prepared for actions in life situations that require good communication skills, the ability to handle conflict situations (Ishchenko et al., 2003; Vasiura, 2006), high self-control skills (Sopov, 2010), and an empathetic attitude toward teammates Ohromiy et al., 2014; Polat et al., 2016; Sharp, 1974), which can be formed during training sessions.

#### **Conclusions**

A team psychologist and a coach should take into account individual characteristics of each member of the football team, and all team members should participate in psychological trainings; this helps to improve team cohesion, accelerate cohesion process, and increase teamwork efficiency.

The authors see the prospects for further research in studies of individual psychological characteristics of athletes doing other group sports, and in development of training programs based on obtained results, which contribute to more effective team cohesion.

**Conflict of interests.** There is no conflict of interest that is to be declared for the article.

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