

## PSYCHOSOCIAL STRUCTURE OF A CADET VOLLEYBALL NATIONAL TEAM

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### Abstract:

Psychological preparation in sports encompasses observing, registering, following-up, and intervening in the areas of motivation, concentration, self-confidence enhancement, the teaching-learning process, group cohesion, communication and others. Adequate psychological preparation is a segment of the general preparatory process (conditioning), that enables the physical capacities (physical conditioning), the technical and tactical skills and the knowledge of an athlete to be manifested maximally under the strenuous conditions of a competition. A complete psychological preparation programme was incorporated into the general, comprehensive preparation programme of the Croatian cadet volleyball national team for the World Championship. This professional paper deals with the first phase of the psychological preparation programme - the analysis of the psychosocial structure of the team. The following procedures were employed: sociometric techniques, individual interviews, group work, and observation of the group dynamics as manifested at training sessions. On the basis of the data obtained some broad guidelines were established how to induce positive changes in the team. The guidelines were the basis for the psychological preparation programme design, which was implemented later as a part of the general preparation programme. The World Championship achievement of the team was evaluated as a success.

**Key words:** psychological preparation, psychological structure, Croatian cadet volleyball team

### PSYCHOSOZIALE STRUKTUR DES KADETT-NATIONALTEAMS IM VOLLEYBALL

#### Zusammenfassung:

Psychologische Vorbereitung im Sport umfasst die Betrachtung, die Aufzeichnung, die Befolgung und die Intervention in den Bereichen der Motivation, Konzentration, des Selbstvertrauens, der Aufmerksamkeit, des Lehr- bzw. Lernprozesses, der Gruppenkohäsion und der Kommunikation. Adequate psychologische Vorbereitung ist ein Segment des allgemeinen Vorbereitungsprozesses, der darauf zielt, dass die körperlichen Fähigkeiten sowie die technischen und taktischen Fertigkeiten eines Sportlers in den anstrengenden Wettkampfbedingungen maximal ausgeprägt werden. Ein ganzes Programm zur psychologischen Vorbereitung wurde in das allgemeine umfangreiche Weltmeisterschaftsvorbereitungsprogramm des kroatischen Volleyball-Kadetteams inkorporiert. Diese Arbeit befasst sich mit der ersten Phase des psychologischen Vorbereitungsprogramms: mit der Analyse der psychologischen Struktur des Teams. Es wurden die folgenden Verfahren benutzt: soziometrische Techniken, individuelle Interviews, Gruppenarbeit und die Beobachtung der Gruppendynamik beim Training. Auf Grund der erworbenen Daten wurden einige allgemeine Richtlinien gesetzt, um positive Umwandlungen in das Team einzuführen.

Auf diesen Richtlinien gründete das psychologische Vorbereitungsprogramm, das später im Rahmen des allgemeinen Vorbereitungsprogramms implementiert wurde. Die Weltmeisterschaftsleistung wurde als erfolgreich bewertet.

**Schlüsselwörter:** psychologische Vorbereitung, psychosoziale Struktur, kroatisches Volleyball-Kadetteam

### Introduction

Successful engagement in sports and aspirations for high sport results today set a wide range of demands upon athletes. To achieve top sport performance one must be thoroughly committed to sport. At the same time, rivalry is becoming more competitive, rivals are becoming stronger and more in numbers; the training process volume has increased enormously. Continuous,

comprehensive preparations are indispensable in addition to the ever-growing number of tours, competitions, and matches which occur. Obviously, it is more than necessary to include other experts, besides the head coach (team manager), in the process of preparation, such as the assistant coaches with specific assignments, then physiotherapists, sport physicians and other medical practitioners, especially nutritionists, and psychologists, who together make up the professional team.

Assistant coaches are involved in various segments of training (conditioning, technique, tactics etc.), in precompetition preparation, in scouting (monitoring of capabilities and strategies of the opponents) and in other activities. A physician and a physiotherapist, each in his/her particular domain and manner, take care of the health and fitness status of the athletes. A nutritionist suggests diets appropriate to a particular sport, whereas a psychologist is allotted the duty of preparing the athletes psychologically.

Psychological preparation embraces observing, registering, following-up, and intervening in the areas of motivation, concentration, self-confidence enhancement, the teaching-learning process, group cohesion, communication and others (Horga, 1993; Tancig, 1987). Since the impact of psychological factors on overall sport performance is more than well known, it is obvious how important it is to control them (Davies, 1989; Gould et al., 1999). Nevertheless, no matter how much all the involved experts are aware of the crucial influence of psychological factors; it still happens rarely in Croatia that psychologists are used in order to conduct a complete psychological preparation programme. Adequate psychological preparation is a segment of the general preparatory process (conditioning) that enables the physical capacities (physical conditioning), technical and tactical skills and knowledge of an athlete to be manifested maximally under the strenuous conditions of competition.

## Methods and procedures

The selector of the Croatian cadet volleyball team included psychological conditioning into the general preparation programme prior to the World Championship (the programme was initiated immediately after the European Championship, at which Croatia achieved 7th place). During the process of creating a basis for the application of a psychological preparation programme for the Croatian volleyball cadets, the following goals were established:

- to get an insight into and to register the

features of the psychosocial status of the team;

- to create some possible guidelines on the interventions on the basis of the data collected;
- to introduce some basic knowledge and skills to the volleyball cadets, indispensable for the utilisation of certain intervention techniques.

## Methods

To accomplish the first goal the following instruments were employed:

- various inventories
  - (a) an introductory questionnaire for athletes - UP1 (Kačić, Štimac, Zulić, 1994);
  - (b) a questionnaire for coaches - UT1 (Kačić, Štimac, Zulić, 1994);
  - (c) a sociometry questionnaire - SM1 (Kačić, Štimac, Zulić, 1994);
  - (d) the Profile Index of Emotions - PIE (Baškovic-Milinković et al., 1987)
- individual interviews
- observation of training sessions and manifested group dynamics.

Group organisational working forms were used to introduce the basic knowledge and skills necessary for the psychological techniques implementation as a means of intervention. They included:

- 1) establishing communication within the group
- 2) communication work-shops about predetermined topics (educational and projective)
- 3) introduction to relaxation exercises:
  - (a) breathing exercises
  - (b) isometric exercises
  - (c) concentration exercises
- other exercises
  - (a) calibration exercises
  - (b) support exercises.

## Procedure

The aforementioned goals were realised in Zagreb, Croatia, during a two-month period. The observation initially embraced 13 players, but three of them failed to give all the requested data. Therefore, the final sample of volleyball players consists of 10 players, who are denoted by capital letters in the following text.

The entire programme was carried out through the following activities:

- individual interviews - 12 hours
- group sessions - 15 hours
- training session observations - 7 hours
- questionnaire application - 4 hours
- analysis of the data gathered - 25 hours.

## Results and discussion

### General report on the psychosocial status of the team

Insufficient awareness and focus on the psychological aspects of the game were noticed in the initial observations: under the psychological preparation players indicated factors quite inappropriate to that domain. They assigned the reasons for failing to the secondary, not to the primary causes, and restricted themselves exclusively to the physical, technical and tactical components of the preparation process.

A medium level of team cohesion was observed. Communication between separated groups (consisting of 3-4 players) was predominant, whereas some players were isolated (either emotionally or functionally). In other words, there were players who performed well in the game (they co-operated with their team-mates and were good at accomplishing the assigned tasks), although they were emotionally separated (less informal communication and exchange of support). On the other hand, there were players who were well positioned in the emotional domain, but were less successful in the game performance and co-operation.

Further, it was determined that the players assessed the pertinence to informal groups, such as peers from school or residential areas, as more important than the pertinence to the team as a group. The expected homogeneity of the team was missing in certain situations, particularly when one member was under special pressure. The group usually left that individual to cope with the problem alone, instead of taking over a portion of that pressure.

Players differed among themselves in the perception of the role volleyball played in their lives. Some players had already committed themselves thoroughly to playing volleyball, whereas others were still uncertain about it. The differences were probably due to their age and the varying quality of the players.

Generally speaking, the observed psychosocial status restricted the team's capacity to adjust effectively to the situations that were saturated with specific pressure (e.g. matches against an equal or superior opponent, biased, unfavourable judgements by the referee, pressure coming from the spectators, etc.) and/or with a long-lasting type of tournament or competition and therefore a long period of preparation.

### Sociometric structure of the team

Research on the sociometric structure of a group has often been used to determine group performance and its efficacy in solving various tasks (Lucius and Kuhnert, 1997; Šnajder, 1984; Petrovič, 1973). The employed sociometric inventory allowed an insight into the emotional and functional (performance in a team) component of the team's psychosocial status, then into the players' perception of who would be best capable of representing others, as well as who should be on the first six set and who could be a substitution on the team representing Croatia at the World Championship. The authors based their interpretation of the obtained results on the inferences and conclusions presented in previous research studies on the personality of athletes (Bosnar and Horga, 1981; Horga and Bujanović-Pastuović, 1987) and on the

influence of the conative regulatory mechanisms on performance in volleyball (Horga et al., 1983).

**Emotional component.** The obtained indicators of the emotional component suggested the following:

1) Players J, C and G (Table 1) are prominent in the creation of a good social atmosphere (informal communication on journeys, during preparation, in socialising activities). From the wider aspect of the entire team two particularly conspicuous groups of players with mutual unreserved acceptance emerged (players J, C, G, and A, on the one hand, and players G, I, and F, on the other), as well as two pair-relations (D-B and B-J). Players H and E belonged to neither of these relations. H player was in mutually negative relations to the players B, D, and A. He was the worst accepted player on the team.

*Table 1: Ranking of players with regard to the question "On a tour or during preparation, I wish to share the room with:"*

rank	player	scores
1	J	8
2	C	7
3	G	6
5	F	4
5	I	4
5	A	4
7	B	1
8	E	0
9	D	-2
10	H	-8

2) Players G and C were the players the most often referred (Table 2) when the need for "serious", confidential communication was necessary. Their co-players had the greatest trust in them. Two characteristic subgroups, with absolute mutual acceptance, (J, C, and G and C, G, and I), as well as one pair of players (A-G) were determined in relation to confidence. In this aspect players H, D, B, E, and F were separated from the rest of the team. F player had trust in most of his team-mates, but no one manifested any great confidence in him. The players also displayed distrust towards players B and D. Player B expressed mistrust in all his co-

players. Hence, players H and B were the most isolated ones on the team, whereas player B displayed a tendency of self-rejection, and player H was rejected by the others.

*Table 2: Ranking of players in the question: "I would confide my personal problems to:"*

rank	player	scores
1	G	5
2	C	4
3	J	2
4	I	1
5	A	-1
6	E	-2
7	F	-3
8	B	-4
9	D	-5
10	H	-9

Regarding the entire emotional component (Table 3), the tendency of establishing slightly more positive than negative relations became obvious. The emotional component analysis allowed for identifying persons that were crucial to the creation of a pleasant team atmosphere, which was a prerequisite for the cohesion of a good group. In that sense emotional acceptance of players C, G, and J became remarkable, as well as the opposite status of player H, and to a lesser extent the emotional rejection of player D. The confirmed existence of subgroups, pairs and isolated individuals indicated there was enough space to work on the team's homogeneity improvement.

*Table 3: Ranking of players with regard to the emotional componen (answers to the 1st and 2nd questions together)*

rank	player	scores
1.5	C	11
1.5	G	11
3	J	10
4	I	5
5	A	3
6	F	1
7	E	-2
8	B	-3
9	D	-7
10	H	-17

In the case of player H it could be stated that his personality traits were the basic causes for his momentary position in the

emotional structure of the team (his behaviour was characterised by a low tolerance threshold, then by oppositionism, i.e. a rejection in social contacts, and intensive self-orientation), which was confirmed in the training session observations and during group work.

Introversion and expressed emotional sensitiveness were noticed in player B. Therefore, he experienced and expressed problems in accepting and accommodating to changes of duties and responsibilities, caused by different training programmes and by being in a new team and milieu.

Player D was also emotionally sensitive, but he was an extrovert and his behaviour was characterised by intolerance and low level of self-control. Poor adaptability to a new environment was indicated.

The freer emotional connections of player E with the rest of the team could be explained by the fact that he was the youngest, least experienced volleyball player who had joined the team last.

### Functional (performance) component

As far as the functional component is concerned, the following was revealed:

1) Team-mates established the best co-operation in the game with players C and G. Four subgroups of players emerged (C, F and I; C, J and F; I, F and G; G, F and J) in which mutual co-operation was assessed to be the best, and three two-way connections were recognised: A - G, A - C and C - J. In a game, on the court, only the groups C, F, and I and C, J and F could exist, because players G and F would hardly ever be on the same set due to the same role they had to accomplish in the game. Therefore, it was interesting to have player F next to player C, instead of player G, who was functionally better ranked. Further, it was determined that between players C and G no satisfactory co-operation had been established. Namely, player C estimated that his collaboration was better with the other five players than with player G, whereas player G assessed he was getting on well with player C and four other co-players. Players H and B

assessed their mutual co-operation as poor. Additionally, player H said he did not collaborate well with player D (Table 4).

**Table 4:** Ranking of players in the question: "I can co-operate well in the game with:"

rank	player	scores
1.5	C	7
1.5	I	7
3.5	G	6
3.5	F	6
5	J	3
6	B	2
7.5	D	1
7.5	H	1
9	A	0
10	E	-1

2) With regard to the knowledge of volleyball the players estimated that the most competent (volleyball) advice could come from players G and C (Table 5). Mutual competence respect was noticed only between players C and G. No one would ask players E and B for advice, whereas players B and D would not ask anybody for advice.

**Table 5:** Ranking of players in the question: "Regarding volleyball competence, good advice can probably come from:"

rank	player	scores
1.5	C	5
1.5	G	5
3.5	F	-1
3.5	I	-1
5	H	-2
6	D	-4
7.5	A	-5
7.5	J	-5
9	B	-6
10	E	-7

In the functional (performance) component the total number of positive choices slightly outnumbered the negative ones. The analysis of the functional component enabled the identification of players with whom the co-players on the team collaborated, performed best, and those players with the highest level of volleyball knowledge and skill. Players C and G were the most remarkable in that sense, and then followed players I and F (Table 6). Player E was apparently the worst in the functional

component. It should be noted here that player J was not remarkably positioned in a functional sense, although he had one of the best ranks with regard to emotional component. His role in the game was therefore very important.

**Table 6:** Ranking of players with regard to the functional component/performance in a team (answers to the 3rd and 4th question together)

rank	player	scores
1	G	7
2	C	6
3	F	-1
4	I	-2
5.5	A	-3
5.5	J	-3
7.5	H	-5
7.5	D	-5
9	E	-7
10	B	-8

**National team members as assessed by the players.**

The players estimated that the initial game set of players for the cadet World Championship should be composed of the players: C, G, I, H, D and B. The first four were equally ranked in the selection according to the quality of their performance (Table 7).

**Table 7:** Ranking of players with regard to the question: "Which players do you think should represent Croatia at the World Championship - define the first-six-set and substitutions:"

rank	player	scores
1	C	12
2	G	11
3	I	6
4	F	5
5	H	-1
6	J	-2
7	D	-3
8	B	-4
9	A	-5
10	E	-8

When the first six had been scrutinized, it became obvious that player F was not among them (although he was ranked relatively high in relation to performance and function in the team). It was probably due to the fact that he and player C played the same role in the game. When players K and L were also included in the process of selecting the first six

set and substitutions, they were functionally better ranked than players J and A, whereas player M was placed ahead of player E.

Ability to represent others as assessed by the players. Co-players denoted players G and C as potentially good representatives of the team (Table 8). Three two-way relations (mutual selection) became conspicuous: C - G, C - F and G - I. Obviously, the most prominent players in this sense (G and C) evaluated each other as good delegates also. All the players selected player G and/or player C, with the exception of player B whose evaluation was that no one was capable to represent the others.

**Table 8:** Ranking of players with regard to the question: "We, the co-players, could be successfully represented by:"

rank	player	scores
2.5	C	20
2.5	G	20
2.5	I	20
2.5	H	20
5	D	19
6	B	15
7	K	13
8	L	11
10	F	10
10	J	10
10	A	10
12	M	8
13	E	4

Not only were players C and G evaluated as potentially good representatives, they appeared in the co-players' evaluations as the most prominent and complete players (according to both the emotional and functional component) on the team. Such attributes made either of them potentially suitable to assume the role of the team captain. The data obtained in the individual analysis, however, indicated they differed from each other in personality traits. So, player G, when compared to player C, manifested a higher level of openness to others and the required level of aggressiveness in his behaviour, whereas player C was more responsible, but emotionally a more sensitive person. Therefore we concluded that player G was more apt for the team captain, which corresponded to the decision of the national

team selector. However, the training session observations revealed that the behaviour of player G was not always appropriate to a team captain image - he was not always a positive example of adherence or of a task accomplishing oriented person.

### Guidelines for positive changes in the team

The analysis of the observed status offered guidelines on some possible interventions regarding the improvement of the general psychosocial situation in the team and enabled an execution of the psychological precompetition preparation for the forthcoming World Championship for cadets. In accordance with the aforementioned and on the basis of the inferences and cognitions from the field of sport psychology (Horn, 1992), the following goals were designated as the ones to be accomplished in the next step:

- (a) enhancement and improvement of team homogeneity by means of:
  - verbal and non-verbal communication reinforcement
  - mutual reliance and acceptance reinforcement
  - feeling of belonging to the group reinforcement
  - competitiveness development
- (b) enhancement and improvement of psychological fitness of every team member by means of:
  - frustration resistance enhancement
  - communication skills improvement
  - self-confidence and concentration enhancement
  - personal motivation optimisation
  - defining distinctly the role of each individual in a group.

The proposed guidelines on the positive changes in the team could be accomplished by:

- developing characteristic collective "game actions" which would promote team identification

- developing modes of mutual support in a match
- developing sensitiveness in players to perceive the features of the opponent's game techniques in order to be used actively
- encouraging players to apply group solutions to problems
- enabling players to get better acquainted
- organising educational-projective group work-shops and discussions on certain topics, such as: communication, personal and group motivation, and support
- individual counselling concerning the observed needs and problems
- employing techniques to enhance empathy in the team members
- enhancing consistency of the performance quality

The basic preconditions to apply psychological techniques as instruments of possible interventions were provided while observing the psychosocial status of the team. The whole team experienced breathing, relaxation, concentration, and calibration exercises. The players responded positively to the exercises done and acquired the necessary skills.

### Epilogue

The plan and programme of the psychological preparation of the Croatian cadet volleyball team was elaborated according to the determined guidelines. The psychological preparation programme was executed within the framework of a comprehensive, general preparation in Dubrovnik and Zagreb during the period of one month. The final ranking of the Croatian team at the World Championship was the 8th place that was evaluated as a considerable success.

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