

SOCIOECONOMIC STATUS AND MICROSOCIAL STRUCTURE WITHIN FEMALE HANDBALL TEAM

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SUMMARY

In a sample of 18 players, members of the senior major league handball team, the correlation between the micro structure of handball in relation to their socioeconomic status, using the sociometric procedure, was analyzed. The research results lead to the acceptance of the hypothesis that the players of the same socioeconomic status, have better mutual emotional acceptance. The hypothesis of a better mutual functional accepting players of the same socioeconomic status, may be only partially accepted, in a field of the trend of cooperation in the game, but not in relation to the selection of players with the authority of leaders or handball knowledge. Hypothesis about the hierarchical microsocial structure of groups can be fully accepted. In relation to sociometric status players are differentiated into four levels of hierarchy, while at the top of this hierarchy is team captain. Selection of team captain by players is directed towards one player ("leader"), according to the functional and emotional criteria.

Key Words: handball, sociometry, connection, contingency, hierarchy.

INTRODUCTION

The problem of the micro-structure of a group, the sociometry practically have reduced to determining sociometrical structure of the group and to defining sociometrical status of an individual in a group (Žugić, 1996, 2000). Interpersonal relationships within small groups are determined as the ratio of the attraction and repulsion. Standards for predicting human responses to certain situations on micro-sociological, inside-group level were obtained through the psychological, biological and sociological determinants (Bjelajac, 2006; Tušak, Misja, & Vičić, 2003). The fundamental issues faced by sociologists in the study of social dynamics are: why the studies of small groups in general (a); why the studies of small groups in the field of sport, (b). In answering the first question it is possible to specify the basic pragmatic, socio-psychological, sociological and comparative reasons (Mills, 1966; Mills & Rosenberg, 1970): a collective decisions are often of a crucial influence on the development of small communities and fluctuations in their historical dimension, and therefore the group dynamics significantly affects the way of everyday life

of individuals (1), small groups are suitable for experimental interplay of the psychological and sociological elements and from them emerge the interpersonal and collective pressures and charges (2), by studies of small groups we want to know the dynamics of society and individuals (3); finally, small groups are a special case of social systems - they reflect its' particular properties: ethical principles, the division of labor, mythology of the history and everyday life, ideologies, to the ranking depending of a prestige, coordination and subordination, etc. (4) (Milić, 1978). Sport group is of special interest to researchers because it's original (natural) and not artificial or laboratory designed and shaped unit. It is possible to control the variables that represent the microstructure of the component group: group size, group structure, leadership styles, management style. The sport group has a common goal: depending of its realization, we can follow the development of competitive relationships, conflicts and homogenization, conditioned by external or internal reasons. Finally, the studies of sport groups provide accurate and efficient measurement of a group's result, that can be quantified in a number of

balls lost or won, repeated errors, etc. (Loy, McPherson, & Kenyon, 1979; Shaffer, 2005; Spink, 1992).

Former sociometric studies are numerous. Petrović and Pavlović (1969) conducted a study on a high-quality basketball team, using Moreno's (1960) test to determine the degree of its integration. Despite the high average experience in playing in the team (7.2 years), the group was not highly socially integrated. The players were cohesive just in playing basketball, while outside the basketball hall they were not socialized with each other in other ways. It turned out that the lack of the sociometric technique appears in the analysis of deeper psycho-social relationships and processes (so the sociometric technique should be supplemented with qualitative methods of personality tests). Šnajder (1984) conducted a sociometric analysis of a top volleyball team ("Mladost" from Zagreb) before and immediately after an important international tournament, where the team achieved a great result. Taxonomic structure of the team had changed considerably after the finish of the tournament. A successful outcome on this tournament had a positive impact on the micro-structure in the team's next season, in terms of forming the sub-groups, related by functional criteria. Šnajder and Hošek (1985) repeated the study on the same team. They measured social status and analyzed sociometric structure of the group. The highest positions in the sociometric hierarchy structure of the team had three the oldest players, chosen according to the functional criterion. At the second level were the other players (something of inferior quality), which were chosen using the combined criteria (both the functional and emotional criteria). Players of the inferior quality had less favorable social status. Šimenc (1985) analyzed the micro-structure of the players from 12 teams in first national water polo league in the former Yugoslavia, in the season 1981. Sociometric structure showed that the water polo teams are fairly homogeneous, as a whole: the teams have 2 to 4 subsets of players, with one or two leaders on the top positions in the structure of the team, who are generally older players, more experienced and better than the others. The homogeneity of the team significantly affects the score that the team has at home, while the quality and age of the first six players in the pool have the significant impact on the success of the team as a guest. Lučić and Viski-Štalec (1994) used the Moreno's sociometric method of a sociogram on a sample of members of the top basketball team ("Cibona" from Zagreb) at two generations of junior players, confirming the thesis about the changing status of an individual within the group membership variations. Distribution of responses

obtained by sociometric test at the A and B selection of a Croatian national football team in 1994, separated two major players of both teams. It turned out that the in A selection there is a hierarchy based on the division between the elderly and young team members, while in the younger B selection this division does not exist (Marelić et al., 2001). Marelić, Đurković, and Rešetar (2007) examined cadet volleyball teams at the European Championship, using sociometric method. They showed that the teams are in general divided into two subgroups, with a major roles of a team captain and best player of the team. Significant differences were found in measurements performed before and after the European Championship in the variables of functional type. The status of team captain proved to be different in the initial and final measurement. Janković and Žugić (as cited in Milanović & Gabelica-Šupljika, 1997) investigated the pattern of men volleyball team players of Slovenia. The results of a sociometric procedure indicated the existence of two subgroups within the team. In the first two subgroups were six participants, mostly older and more experienced players. In the second subgroup were the the other players, with a fairly uneven number of choices according to emotional and functional criteria. Borić (1997, as cited in Hošek & Pavlin, 1983) conducted a sociometric testing for junior footballers of FC "Slaven Belupo" from Koprivnica. Distribution of responses by emotional and functional criteria allocated four highly ranked players, including two current leading authorities in the group ("leaders"), while the next two players are younger juniors, probable future "leaders" in the team. The sociometric study of the structure of the basketball teams of the first B Division (men) in the Republic of Serbia (102 players in eight basketball teams), revealed that every team has quite different sociometric structure (Dragić, 2008). Using sociometric techniques, Hotuleva (2009) showed that psychotechnical exercising has the influence to improve the quality of group cohesion in basketball.

Handball is a complex polystructural kinesiological activity. The success in handball largely depends on cooperation and communication of the handball subjects in the exercise group and in collective tactical actions. It is important that the handball team is emotionally and functionally balanced (without the polarization or dispersion to a number of homogenous but not focused subgroups). In addition to the individual performance and creativity of individual players, or personality traits such as honesty (Rogulj, Nazor, Srhoj, & Bozin, 2006), the necessity are the actions with a prevalence of a discipline and social responsibility. Milanović and Gabelica-Šupljika (1997) investigated

the impact of the psychodiagnostics on a change of the psychosocial status at the members of sports teams, testing the handball team in the first women's division in Croatia. Bebetos, Theodorakis, and Tsigilis (2011) emphasize the importance of a negative relationship between role ambiguity and role satisfaction in the handball team, which can also affect the alignment of team actions. In these aspects, the vital role has the leadership of the coaches, but also within teams, such the role of a team captain (Murray, 2006; Serpa, Pataca, & Santos, 1991). Pavlin (1972, as cited in Hošek & Pavlin, 1983) used sociometric procedures for the assessment of interpersonal relationships outside the functional activities of players, in the study of handball teams in the federal Women League in Yugoslavia. It has been shown that the neuroticism is not associated with social relationships in the team, while both personal relationships and neuroticism were not associated with being a quality player. Therefore, handball coach pursues a high degree of cohesiveness within the team, trying that a single common purpose become above the individual ones. Lorentzen (1994) considered the handball team as a group matrix, in which individuals are open systems, so the guided group discussion and the conversation between team members may contribute to a better cohesion and to a better functioning team. Starting from the importance of the analysis of interpersonal relationships within the handball team, in this article we will analyze some aspects of the micro-structure of a top handball team, in a relation with the social status of players.

The research aim is to determine the micro-structure and the relationship between the micro-structure of the first division women handball team, expressed by emotional and functional status of players within the team, with their objective socioeconomic status. As the particular problems, we defined finding the determination to what extent is the socioeconomic status of the players associated with their position within the microstructure of the team, according to emotional criteria (1) and according to functional criteria (2). Finally, we intended to determine whether players are nominated each other hierarchically structured (3). Based on the objectives and problems, and previous studies, we have formulated the specific research hypotheses: players of the same socioeconomic status, will be better mutually accepted, according to the emotional criterion (1); players of the same socioeconomic status, will be better mutually accepted, according to the functional criterion (2); mutually nominating each other, players will define the hierarchical

structure of the group, on whose top will be the team captain (3).

METHOD

Participants

The sample represents 18 female handball players from the premiership team (First Croatian handball league), clinically healthy, continuously kinesiological active top handball players, aged from 18 to 26 years, who are actively involved in handball at least 7 years. The average chronological age of 21 years indicates that this are relatively young participants. In terms of educational background, highly skilled workers (the equivalent of four years of high school - 39%) are the most numerous, as well as those with high school or college (33%). College completed 17% of participants, while skilled workers have the prevalence of 11%. In the occupational structure of parents, largely dominated the category of other occupations (39%). We assume that in this category most parents are unemployed, housewives or retirees. Other occupations have the prevalence: private tradesmen 11%, skilled or highly skilled workers 17%, officials with the college 5% and professionals with university degree 23%. according to the position in the occupation of parents, dominate the lower positions, such as employees (39%) and lower managers (28%). The relatively low position in the profession suggest that the majority of players come from the families of lower socioeconomic status. Half of the total number of participants (50%) falls into the category with a monthly income of more than 3000 kuna (better players with professional contracts), while the younger players have grant contracts with much lower incomes. Players are mostly (56%) born in a small town (indigenous citizens of Trogir), and the others were from Split-Dalmatia County. The largest number of players are living with their parents (61%). Some of the players (22%) live in their own apartment or house. Most of the players and their families (67%) belongs to the middle class. The most numerous is number of five players' family members (55%) or four members (28%). The greatest number of families (50%) has total income between 7000 and 9000 kuna. Income per family member also indicated that most of the families have low socioeconomic status (44% of families with incomes up to 2500 kuna, 50% from 2500-3000 kuna, and only 6% over 3000 kuna). Therefore, on average, players usually have low socioeconomic status.

Instrument

The sample of variables is defined by the questionnaire with a total of 15 questions, open and closed types. The introductory section of the questionnaire (*demographic variables*), along with basic information (name, date of birth, occupation and place of residence of subjects) contains nine questions used to describe the social status of players and their families.

The second section contains the variables that define the *micro-social (the emotional and functional) status* of the players within the team. Participants were asked to nominate an unlimited number of co-players according to the some criterion of choice and a particular category. The 6 selection criteria were used, of which the first three were emotional criteria (1-3) and the last three functional criteria (4-6). Categories for elections were graded from the attracting to the rejection.

Nominations between the co-players referred to the following questions (with the categories of responses):

1. Specify those players that you would gladly share a room with her during the preparations (Likert-type scale: 5 = I would gladly share a room, 4 = sometimes I'd like to share a room, 3 = I do not care if I'd share a room with her, 2 = I'd share the room with her if I have to, 1 = I would never to her share a room with her),
2. Specify those players that you would confide to if you have intimate problems (Likert-type scale: 5 = I would always she confided, 4 = sometimes she'd confided, 3 = very rarely would it be trusted, 2 = not sure whether it would be ever confided to her, 1 = I would never her have confided),
3. Specify those players that you would like to hang out during your leisure (Likert-type scale: 3 = I always prefer to hang out with her, 2 = sometimes I would like to hang out with her, 1 = I would never like to hang out with her),
4. Specify those players that you would like to cooperate in the game (Likert-type scale: 3 = happily cooperate, 2 = cooperate, 1 = reluctant to cooperate),
5. Rate the players, according to the criteria of their so well knowledge about handball, so you can ask them at all times for expert advice (from 1 = the best knowledge about handball, onwards),
6. Specify those players that you you consider capable to be a captain (appoint).

Methods of data analysis

The frequency of responses have been calculated for all questions. The percentage for the representation of each alternative answers within each question have been calculated. Relations between social status of the players with their emotional and functional status within the team have been identified using the non-parametric Chi-Square test and coefficient of contingency (C) as an indicator of association between categories of responses. For the questions about the choice of captain, the Spearman rank correlation coefficient was calculated between the social status of the players who are electing and their social status in the election for the captain. Based on the answers to all six questions of the questionnaire, the numbers of choices (to be chosen) for each player, we have calculated by the sum of the nominations that each player got from her co-players (one nomination - one point). Then we determine the percentage of the number of points obtained by each participant, based on the total maximum possible score for each participant. Correlations between the results (sociometric status of players) to the functional and emotional criteria of selection are also calculated, using the Spearman rank correlation coefficient.

RESULTS AND DISCUSSION

Main findings gave a confirmation of the first hypothesis, that the players of the same socioeconomic status (income) have better mutual emotional acceptance. This may be the result of long duration and intensity of the friendship that is more pronounced within than between different social strata of players. This is probably conditioned by generational, organizational and functional reasons. We are partially accepting the second hypothesis of a better functional mutual acceptance of players of the same socioeconomic status (income) in terms of the tendency for greater cooperation in the game. However, in relation to the selection of players from the leader's authority or handball knowledge, correlation with micro-status was not statistically significant. The hypothesis of the hierarchical structure of a sport group can be fully accepted. In relation to their sociometric status, players are differentiated into four levels of hierarchy, while at the top of this hierarchy is the team captain. In order to establish the correlation between social status of the players and their microsocial position within the team, using the coefficient of contingency we have found links between the social status of the players who are electing and the socioeconomic status of the players that are elected (chosen) in relation to

emotional and functional criteria. Testing was conducted for all categories of responses together and separately for each category.

TABLE 1

Correlation between the categories of microsocial status (players that you would gladly share a room) in relation to categories of income (all categories combined)

Microsocial status	Income															Σ
	High					Middle					Low					
	RD	PO	SV	MO	NI	RD	PO	SV	MO	NI	RD	PO	SV	MO	NI	
High	37 (52%)	4 (44%)	2 (40%)	1 (25%)	1 (33%)	27 (64%)	4 (33%)	9 (75%)	2 (40%)	1 (33%)	7 (18%)	1 (20%)	2 (40%)	1 (33%)	1 (33%)	100
Middle	7 (24%)	4 (44%)	2 (40%)	1 (25%)	1 (33%)	9 (21%)	5 (42%)	1 (8%)	1 (20%)	1 (33%)	13 (33%)	3 (60%)	1 (20%)	1 (33%)	1 (33%)	51
Low	4 (14%)	1 (12%)	1 (20%)	2 (50%)	1 (33%)	6 (15%)	3 (25%)	2 (17%)	1 (20%)	1 (33%)	19 (49%)	1 (20%)	2 (40%)	1 (33%)	1 (33%)	46
ΣN	48	9	5	4	3	42	12	12	4	3	39	4	5	3	3	197
		χ^2			p			C			df					
		51.23			< .01			.45			28					

Legend: **RD** – Gladly; **PO** – Sometimes; **SV** – All the same; **MO** – If I have to; **NI** – Never;
N – number of subjects; **Σ** – Total; **χ^2** – The chi-square distribution; **p** – Probability;
C – Contingency coefficient; **df** – Degrees of freedom.

Correlation between social status of players and emotional acceptance criteria

Tables 1 and 2 show the analysis of responses to the question in the first criterion of emotional election (Specify those players that you would gladly share a room with her during the preparations). Based on the coefficients of contingency (Table 1), it is evident that there is a statistically significant association between socioeconomic status of the players and their emotional microsocial status, defined by the tendency to share rooms. The significance of this relationship is manifested only in the first category of choice (I would gladly share a room with), which reflects the tendency of the maximum positive selection (Table 2). Players with better socioeconomic status largely like to share a room with a player of equal status, while players who have medium and low income mainly want to share a room with players who have low incomes. These results were expected, because the players with a high income are mainly professional handball players that have known each other for a long time (in the current or previous teams that have played together, or in a national selection). In addition to the fact that those players are well-known, outside of trainings and games, it is assumed that this group of players has in common, especially profes-

sional interests. Players with medium and low income are into the category of young handball players from this team or the team from which they came at the beginning of the season, so it is understandable that they emphasized emotional cohesiveness. On the other hand, players with different social status are belonging to different generational age groups, which can also be a cause of emotional cohesiveness

Tables 3 and 4 provide analyses of responses to the question in the second criterion of emotional choice: Specify those players that you would confide to if you have intimate problems. There is a statistically significant association between socioeconomic status of the players and their emotional microsocial status, defined by the tendency to entrust (Table 3). In this case, a significant relationship is reflected only in the first category of choice (I would always she confided). Table 4 shows that the players with a better socioeconomic status, who have higher incomes, would to the fullest extent trust about their emotional and intimate problems to the players of the same socioeconomic status. Players with average incomes would also prefer confiding to the players of the same (middle socioeconomic status), while the players with low incomes also trust those with low incomes. Even in this case, players are emotionally homogenised by the same socioeconomic status

TABLE 2

Correlation between the income and categories of microsocial status defined with a wish to share a room (separately for the categories of answers)

Indicator	Category of answers (microsocial status)				
	RD	PO	SV	MO	NI
χ^2	35.50	1.34	3.96	.76	.00
p	< .01	> .20	> .20	> .20	> .20
C	.47	.22	.39	.25	.00

Legend: **RD** – Gladly; **PO** – Sometimes; **SV** – All the same; **MO** – If I have to; **NI** – Never;
 χ^2 – The chi-square distribution; p – Probability; C – Contingency coefficient.

TABLE 3

Correlation between the categories of microsocial status (which would be entrusted players) in relation to categories of income (all categories combined)

Microsocial status	Income															Σ
	High					Middle					Low					
	UV	PO	RI	NS	NI	UV	PO	RI	NS	NI	UV	PO	RI	NS	NI	
High	24 (83%)	5 (50%)	2 (50%)	1 (25%)	1 (17%)	13 (57%)	2 (29%)	1 (20%)	2 (33%)	2 (29%)	2 (15%)	1 (7%)	2 (33%)	0 (0%)	1 (11%)	59
Middle	2 (7%)	4 (40%)	1 (25%)	1 (25%)	3 (50%)	8 (35%)	4 (58%)	2 (40%)	3 (50%)	3 (43%)	1 (8%)	8 (57%)	2 (33%)	2 (67%)	1 (11%)	45
Low	3 (10%)	1 (10%)	1 (25%)	2 (50%)	2 (33%)	2 (8%)	1 (13%)	2 (40%)	1 (17%)	2 (29%)	10 (77%)	5 (36%)	2 (33%)	1 (33%)	78 (33%)	42
ΣN	29	10	4	4	6	23	7	5	6	7	13	14	6	3	9	146
	χ^2					p					C					df
	70.83					< .01					.57					28

Legend: **UV** – Always; **PO** – Sometimes; **RI** – Rarely; **NS** – I'm not sure; **NI** – Never;
 N – number of subjects; Σ – Total; χ^2 – The chi-square distribution; p – Probability;
 C – Contingency coefficient; df – Degrees of freedom.

Tables 5 and 6 show the analyses of responses to the question under the third criterion of emotional choice: Specify those players that you would like to hang out during your leisure. There is a statistically significant association between socioeconomic status and their emotional microsocial status, defined by the tendency of companionship in leisure time (Table 5). The significance of this relationship is reflected only in the first category of choice (I always like to hang out with her), i.e. the maximum of positive selection (Table 6). Players with high incomes are predominantly want to hang out with the players with same income, during their leisure time.

Summarizing the results in the previous three issues, related to the emotional microsocial status of the players within the team, we accept the first hypothesis (H1) that the players of the same socioeconomic status better accept each other emotionally.

Correlation between social status of players and functional acceptance criteria

Tables 7 and 8 show the analyses of responses to the first functional criterion: Specify those players that you would like to cooperate in the game. There is a statistically significant association between socioeconomic status of players and their functional microsocial status, defined by the trend of cooperation during the game. The significance of this relationship is reflected only in the first category of choice (we gladly cooperate). Players who have high incomes most like to cooperate with players of the same socioeconomic status, players with middle incomes prefer to work with players with middle incomes, while players with low incomes prefer to cooperate mutually. The tendency of cooperation in the game

is also homogenized within a particular socio-economic background of the players. Players with high incomes (i.e. quality or professional players) emphasize their cooperation in the game because they are mostly responsible for the game result, they spend most of their time in the game and they have the most mutual confidence. Previously shared experience of competition likely contribute to their greater cohesive-

ness on the functional plan. On the other hand, the players with the middle and lower financial benefits, trust in their mutual cooperation, primarily acquired during joining the trainings in their domicile team, or in other small team from which a group of young handball players came in the beginning of this season (Sinj).

TABLE 4

Correlation between the income and categories of microsocioal status defined with a question which would be entrusted players (separately for the categories of answers)

Indicator	Category of answers (microsocial status)				
	UV	PO	RI	NS	NI
χ^2	26.03	6.54	.90	2.53	5.14
p	< .01	> .20	> .20	> .20	> .20
C	.53	.42	.07	.40	.43

Legend: **UV** – Always; **PO** – Sometimes; **RI** – Rarely; **NS** – I'm not sure; **NI** – Never; χ^2 – The chi-square distribution; p – Probability; C – Contingency coefficient.

TABLE 5

Correlation between the categories of microsocioal status (wish to spend leisure time together with some player) in relation to categories of income (all categories combined)

Microsocial status	Income									Σ
	High			Middle			Low			
	UV	PO	NI	UV	PO	NI	UV	PO	NI	
High	39 (60%)	11 (73%)	2 (50%)	29 (53%)	9 (69%)	4 (67%)	4 (13%)	4 (25%)	1 (33%)	103
Middle	10 (20%)	3 (20%)	1 (25%)	20 (36%)	2 (15%)	1 (17%)	13 (41%)	7 (44%)	1 (33%)	58
Low	10 (20%)	1 (7%)	1 (25%)	6 (11%)	2 (15%)	1 (17%)	15 (46%)	31 (33%)	1 (33%)	42
ΣN	49	15	4	55	13	6	32	16	3	203
	χ^2			p			C			df
	41.68			< .01			.41			16

Legend: **UV** – Always; **PO** – Sometimes; **NI** – Never; N – number of subjects; Σ – Total; χ^2 – The chi-square distribution; p – Probability; C – Contingency coefficient; df – Degrees of freedom.

TABLE 6

Correlation between the income and categories of microsocial status defined with a wish to spend leisure time together with some player (separately for the categories of answers)

Indicator	Category of answers (microsocial status)		
	UV	PO	NI
χ^2	30.85	9.25	1.41
p	< .01	> .20	> .20
C	.43	.41	.31

Legend: **UV** – Always; **PO** – Sometimes; **NI** – Never; χ^2 – The chi-square distribution; p – Probability; C – Contingency coefficient.

TABLE 7

Correlation between the categories of microsocial status (with whom players you like to cooperate in a game) in relation to categories of income (all categories combined)

Microsocial status	Income									Σ
	High			Middle			Low			
	RA	SU	NE	RA	SU	NE	RA	SU	NE	
High	51 (65%)	4 (40%)	1 (20%)	44 (51%)	4 (44%)	1 (20%)	12 (23%)	2 (25%)	1 (33%)	130
Middle	16 (20%)	5 (50%)	3 (60%)	28 (33%)	2 (22%)	1 (20%)	14 (27%)	3 (38%)	1 (33%)	73
Low	12 (15%)	1 (10%)	1 (20%)	14 (16%)	3 (33%)	3 (60%)	26 (50%)	3 (38%)	1 (33%)	64
ΣN	79	10	5	86	9	5	52	8	3	267
	χ^2			p			C			df
	43.82			< .01			.38			16

Legend: **RA** – Gladly cooperate; **SU** – Cooperate; **NE** – Don't cooperate; N – number of subjects; Σ – Total; χ^2 – The chi-square distribution; p – Probability; C – Contingency coefficient; df - Degrees of freedom.

TABLE 8

Correlation between the income and categories of microsocial status defined with a wish to cooperate in the game with some player (separately for the categories of answers)

Indicator	Category of answers (microsocial status)		
	RA	SU	NE
χ^2	32.74	3.04	2.31
p	< .01	> .20	> .20
C	.36	.31	.38

Legend: **RA** – Gladly cooperate; **SU** – Cooperate; **NE** – Don't cooperate; χ^2 – The chi-square distribution; p – Probability; C – Contingency coefficient.

Two following types of analyses for the functional criteria were specific. We wondered to know the correlation between the microsocial status of the player and the player who is (according to her perception) handball expert and authority. In Table 9 are given the analysis of responses by second functional criterion: Rate the players, according to the criteria of their so well knowledge about handball, so you can ask them at all times for expert advice. The low coefficient of contingency indicates that there is no

statistically significant association between the microsocial status of players and their opinion about which of the players they could seek for expert advice from. Players of different socioeconomic status to a large extent agreed that authorities in handball knowledge should be sought primarily from the ranks of players of high social status, in other words experienced players. In fact, players with high incomes are the best players in the team, with the most handball knowledge, among which are several national team members.

TABLE 9

Correlation between the income categories and categories of microsocial status of those players that would be asked for advice (all categories combined)

Income	Microsocial status of the player that could be asked for a advice			Σ (100%)
	High	Middle	Low	
High	22 (78%)	3 (11%)	3 (11%)	28
Middle	11 (74%)	2 (13%)	2 (13%)	15
Low	7 (58%)	3 (25%)	2 (17%)	12
Σ	40	8	7	55
	χ^2	p	C	df
	1.91	> .20	.18	4

Legend: Σ – Total; χ^2 – The chi-square distribution; p – Probability; C – Contingency coefficient; df - Degrees of freedom.

In Table 10 are showed the analyses of responses to the third functional criterion: Specify those players that you consider capable to be a captain. The low coefficient of contingency indicates that there is no statistically significant association between socioeconomic status of the players that elect the captain and microsocial status of players selected for the captain. So, when they choose a leader in game and the largest gaming authority, players of all socioeconomic levels predominantly uniformly elected the captain among the players with high salaries. Regardless of the origin socioeconomic status, players largely recognized those with the greatest authority and leadership abilities, and such are often the players of high microsocial status (i.e. professional, the best players on the team). The lack of statistically significant association between microsocial status of players and choice of the captain confirms low and statistically insignificant Spearman's rank correlation coefficient.

Summarizing the results of research in relation to issues concerning the functional microsocial status of the players within the team, it is only partially pos-

sible to accept the second hypothesis (H2) that the players of the same socioeconomic status, better accept each other functionally. The hypothesis can be accepted only in relation to microsocial status defined by trend of cooperation in the game. A statistically significant correlation, however, has not been found in the relations between the socioeconomic status and the choice of captain and with the choice of players with the leader's authority or the best knowledge of handball. Team captains were chosen by the players regardless of their socioeconomic status. It is possible to assume that the trend of cooperation in the game, although it belongs to a functional criterion, probably partly have some characteristics of emotional criteria.

Determining the hierarchical structure of the group

Table 11 gives an overview of the number and percentage of nominations that some player obtained from the others, separately for emotional and functional eligibility criteria.

TABLE 10

Correlation between the categories of microsocioal status of the player and those players who would be elected to captain the team (all categories combined)

Income	Microsocial status of the player that could be chosen as a captain			Σ (100%)
	High	Middle	Low	
High	20 (74%)	3 (11%)	4 (15%)	27
Middle	11 (61%)	2 (11%)	5 (28%)	18
Low	6 (60%)	2 (20%)	2 (20%)	10
Σ	37	7	11	55
χ^2	p	C	r_s	$r_s(p)$
1.78	> .20	.17	.20	> .20

Legend: Σ – Total; χ^2 – The chi-square distribution; p – Probability; C – Contingency coefficient; r_s – Sperman rank order correlation; $r_s(p)$ – Probability of Sperman rank order correlation.

TABLE 11

Number of nominations for each player in all six questions of sociometric questionnaire and the percentage of nominations obtained in the ratio with the maximum possible number of nominations (separate for the functional for the emotional criteria)

Rank	Player	Emotional criterion		Functional criterion	
		Points	%	Points	%
1.	A1	32	50.2	23	42.5
2.	A2	21	38.8	22	40.7
3.	A3	16	29.6	20	37.0
4.	A4	15	27.7	10	18.5
5.	A5	11	20.3	12	22.2
6.	A6	10	18.5	21	38.8
7.	A7	15	27.7	4	7.4
8.	A8	9	16.6	5	9.2
9.	A9	2	3.7	2	3.7
10.	A10	2	3.7	1	1.8
11.	A11	3	5.5	0	0.0
12.	A12	1	1.8	1	1.8
13.	A13	1	1.8	0	0.0
14.	A14	0	0.0	1	1.8
15.	A15	0	0.0	1	1.8
16.	A16	0	0.0	0	0.0
17.	A17	0	0.0	0	0.0
18.	A18	0	0.0	0	0.0

Legend: **A1-A18** – Players; Maximal number of nominations – emotional criterion (54), functional criterion (54).

Based on data from sociometric questionnaire, based on mutual nominating among the players, it is possible to interpret the interpersonal relationships of attractions in this selected group. Players in the team can be classified on the basis of their mutual nominations, according to both criteria, in the hierarchical structure. In relation to sociometric status, players can be classified into four groups. It is interesting that in the first group, only one player who »bounce« from the others: A1 (55 points, 50%). In the second group, there are two players and they are: A2 (43 points, 39.8%), A3 (36 points, 33.3%). In the third group, there are 5 players: A4 (25 points, 23.1%), A5 (22 points, 23.1%), A6 (21 points 19.4%), A7 (19 points, 17.5%) , A8 (16 points, 14.8%). In the fourth group are: A9 (4 points,%), A10 (3 points,%), A11 (3 points,%), A12 (2 points,%), A13 (1 point,%), A14 (1 point, 0) A15 (1 point), A16 (0 points) A17 (on points), A 18 (0 points). The first player (A1) is significantly separated from the others and has a high sociometric status, in emotional and functional terms. In the second group, there are players who play together for a long time. These are high quality and experienced players in the team, who play in the first (starting) team. In the third group are novice players, mostly young but promising players who are brought from neighboring teams as a reinforcement (play in the starting first team or enter in play as a substitute during the game). In the final group of 10 players, many of them are coming from the junior team. The correlation between sociometric status of the players, chosen by their functional and emotional criterion is very high ($r = 82, p < .01$), which is consistent with our expectations that female team will focus simultaneously on good emotional and social relationships, as well as on the successful execution of the task. The results are very similar to the results of the most referenced in the literature (Marelić et al., 2001; Marelić, Đurković, & Rešetar, 2007; Šimenc & Šnajder, 1984), which clearly distinguishes a hierarchy with the captain on top of that is allocated by both criteria, emotional and functional. Results are different from the results of Petrović and Pavlović (1969), where players are grouped primarily by functional criteria.

Based on these results, it can be inferred about the structure and hierarchy of relations in this team. Player with the highest score (A1) is the best player, which also coincides with the trainer's choice for captain. Player A1, who achieved largest number of points by emotional criteria, simultaneously was chosen a »leader« by functional criteria. The best choice for deputy captain would be the players A2 and A3, which are actually older and more experienced players,

who gained their popularity by a somewhat higher functional criteria. This fact tells about their experience and confidence that they are gained by other players. Players from the third and fourth levels of the hierarchy haven't a greater role in the team, emotionally or functionally.

The main advantage of the research is a detailed insight into sociometric and demographic structure of the players a top women's handball team. The research results are potentially applicable and useful, especially for a coach of the handball team, as they provide sufficient information about microsocial structure and relationship functioning in the team, as well as about emotional ties between the players. It can be a good starting point for programming and implementation of psychosocial preparation.

The main shortcoming of this research is a relatively simple principle of data analyses, and relatively simple instruments: a large number of (complex) questions, and a number of indices that can be drawn from the results of sociometric procedures, could provide more detailed results. On the other hand, it is possible for the players that they gave to some extent socially desirable answers, according to their own (and trainer) expectations. Finally, an indicator of high income does not necessarily mean the real socio-economic status of the players. Some players have other sources of income, some have more or less family material resources, some have additional expenses, etc. From the shortcomings arise the directions for future research: application more complex sociometric and demographic indicators, the control of desirability of responses (maybe use one or more of psychological control scales).

CONCLUSION

Research results suggest the adoption of the first hypothesis that the players of the same socioeconomic status, have better mutual emotional acceptance. The second hypothesis, the better functional mutual acceptance of players of the same socioeconomic status, can be only partially accepted, in the domain of the tendency of cooperation in the game, but not in relation to the selection of players from the leader's authority or knowledge of handball. The third hypothesis, the hierarchical structure of groups can be fully accepted. In relation to the sociometric status, players are differentiated into four levels of hierarchy, while at the top of this hierarchy is the team captain.

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