

Sociological Characteristics of Basketball Players in 3 Competitive Levels

Key words: **sociological characteristics, basketball players**
Ključne reči: **Sociološke karakteristike, košarkaši**

Abstract

Based on up to now researches on sociological characteristics of basketball players, as well as the sportsmen generally, this research had an aim to establish and analyze the differences between basketball players of three competitive levels in their sociological characteristics. Participants sample (n=113) was formed of 38 players from Premier league of Bosnia and Herzegovina (M=26 yrs, SD=4.1 yrs), 37 players from the First league of entity Republic of Srpska (M=22.5 yrs, SD=2.5 yrs) and 38 players from the Second league of entity Republic of Srpska (M=18.5 yrs, SD=1.7 yrs). Modified survey SSMAXIP (Hošek, 2004) was used as an instrument of this research. There were found significant differences between groups (ANOVA) in the majority of measured variables. The most significant difference was found in criterion of socially-economical factor, then the family factor, while the least significant difference found amongst groups was in criterion of educational factor. Results suggest that the influence of sociological factor on basketball players' success is evident.

Sažetak

Sociološke karakteristike košarkaša 3 takmičarska nivoa

Ovo istraživanje imalo je za cilj da se utvrde razlike između košarkaša 3 takmičarska nivoa u njihovim sociološkim karakteristikama, te na osnovu toga, izvuku određeni zaključci. Uzorak ispitanika (n=113) činilo je 38 igrača iz Premijer lige Bosne i Hercegovine (M=26 god., SD=4.1 god), 37 igrača iz 1. lige Republike Srpske (M=22.5 god., SD=2.5 god.) i 38 igrača iz 2. lige Republike Srpske (M=18.5 godina, SD=1.7 god.). Kao instrument istraživanja korišćena je anketa. Pronadene su značajne razlike između grupa (ANOVA) u većini merenih varijabli. Najveća razlika evidentirana je po obeležjima društveno-ekonomskog faktora, zatim porodičnog faktora, dok su obeležja obrazovnog faktora najmanje doprinela razlici između grupa.

Introduction

Sport sociology, in its most extensive terms, as theoretical and empiric science, researches sociological characteristics of sportsmen, social phenomenons related to sport and its sociological function, and it researches influence of society on sport, as well the influence of sport on society. It represents the answer on realistic needs of sport movement, indicates close dependence among sport development and development of certain domains of social life, certain phenomenons of culture and civilizations (Koković, 2000a). Sport sociology treats mutual relation of players, relation between older and younger players, relation with coach, audience, referees, management. Relations of players with family, local environment, school, and their behaviour in everyday life are also significant (Koković, 2000b).

Aim of many researches was to establish certain differences between basketball players of different competitive level. Examined differences mostly related on morphological, motorical and functional dimensions of basketball players (Dopsaj, & Matavulj, 1993; Ostojić et al., 2006). Sociological characteristics, as a segment of basketball equation of specification, are quite neglected. However, significant researchers (Petrović, & Hošek, 1986; Koković, 2000; Karalejić, & Jakovljević, 2001; Wootten, 2003; Hošek, 2004) are saying that the influence of sociological factor in sport is very great.

Rowe et al. (1995) have researched a sample of 107 Belgian basketball players of different competitive level. With large number of tests they have evaluated sociological, anthropometrical, motorical and psychological characteristics of basketball players. Basketball players who play at different positions (centres, guards and forwards) have mutually differed the most in anthropological characteristics (body height, height of reach), then in speci-

fic motorics and psychological variables. The least differences recorded are in criterion of sociological characteristics (material situation of a family from which he comes from, education of basketball players, number of family members).

Researching nutritious problematics at Spanish first league basketball players, Schreder et al. (2004) come to conclusion that poor nutritious conscience at a certain number of players is not connected with their current material situation, since the mentioned players are very satisfied with their salaries they are making. Majority of yonder players has their highschool finished (79%), but 45% of players are going to faculties.

In the Hollebeak and Amorose study (2005) there were shown psycho-social relations between college sportsmen and sportswomen (n=280) and their coaches. Results of socio-demographic part of the survey show that participants are very satisfied with the support of family in greatest percent (60%). Coach's professional qualities are evaluated as very good (19%) and excellent (58%), and his pedagogical characteristics are slightly less appreciated (good 38%, very good 37%).

Martin (2005) has established differences in certain psycho-social attitudes between sportsmen who participate in sports with physical contact with the opponent and sportsmen who participate in sports without any contact with opponent. On sample of 362 highschool scholars and 431 students, socio-demographic items are indicating that majority of participants come from families of American middle class (82%), fathers are mostly middle (46%) and higher and highly educated (42%), and mothers are equally middle, higher and highly educated (≈39%). Great majority of participants (84%) describe their living conditions as very good.

From demographic survey researched by Heuz et al. (2006) with an aim to establish relations between team cohesion and success of French first leagued teams (n=154 players), it is shown

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that majority of participants practise only basketball (48%), 29% of them study besides basketball, 23% of them finished college. Majority comes from middle civil class.

Vučković (2006) researched differences between basketball players of better-placed and worse-placed teams of First League of Serbia and Montenegro in their opinions on coach's professional and pedagogical qualities. He states that very small number of players of both groups of teams has negative opinion on their coach's professional qualities. Players of worse-placed teams has more positive opinion concerning pedagogical qualities of their coaches.

Blancharda and co-authors (2007) have established motivation for playing in their team on the sample of 2 independent groups of college-basketball players. Through the analysis of demographic items it is seen that majority of basketball players is very satisfied with familiar and material circumstances in which they evolved as basketball players. Majority of them come from family with 2 or 3 children.

Psychologists intervention in elite Izraelian basketball teams was the subject of Lidera's et al. research (2007). Besides physical, technical and tactical programs, basketball players were exposed to psychological techniques as well. Interesting was authors' constatation that work with a) more educated players, b) foreigners and c) players of middle generation had most effect.

In her dissertation, Farneti (2008) researched the influence of team cohesion and leadership on team's success. From the analysis of socio-demographic items (n=9) it is seen that majority (75%) of total number of examined students (n=145) come from averagly situated families; 84% of students come from state Ohio, where is the University itself; great majority are not an only child (87%); the greatest pleasure in college they find in basketball.

Methods

Sample of the examined

By the end of league competition season 2005/2006, there were identified per 3 the best ranked teams of 3 competitive levels in Bosnia and Herzegovina. To be precise, participants sample was formed of 38 players from Premier league of Bosnia and Herzegovina (professionals, M=26 yrs, SD=4.1 yrs), 37 players from the first league of Republic of Srpska (semi-professionals, M=22.5 yrs, SD=2.5 yrs) and 38 players from the second league of Republic of Srpska (amateurs, M=18.5 yrs, SD=1.7 yrs). Therefore, that is 113 players altogether.

Sample of variables

Based on isolated latent dimensions from several up to now researches of human's sociological characteristics (Petrović, & Hošek, 1974; Hošek, 1988; Hošek, 1992; Hošek, & Korać, 1993), in this research were used independent variables which authors considered significant in development of basketball players. After modification of questionnaire SSMAXIP (Hošek, 2004), from *Family factor* domain, there were data extracted about 1) participant's place of growing-up, 2) material status of family in which he grew up, 3) participant's family's members number, 4) marital status of participant's parents, 5) relations in participant's family, 6) father's support to participant in terms of basketball career, 7) mother's support to participant in terms of basketball career. From *Socially-economical factor*, there were data extracted about 1) conditions under which participant developed as a basketball player (training objects quality), 2) conditions under which participant developed as a basketball player (coach's quality),

3) conditions under which participant developed as a basketball player (number of trainings in a week), 4) participant's evaluation of overall socially-political environment in which he developed as a basketball player. From *Educational factor*, there were data extracted about 1) participant's education, 2) participant's father's education, 3) participant's mother's education, 4) participant's momentary activities; 5) participant's present material situation. Construction of dependent variable was made based on the level of competition in which examined teams perform. The level of competition is the one which represents reliable indicator of quality of each team as a whole.

Data processing methods

Surveying was performed in the morning hours, before any kind of training activities. Author, along with his 2 assistants, and coaches of the teams examined, attended in the poll of players in a specially chosen room inside training gym.

Scaling of data with the Lancaster procedure in tables of contingency (Cheng et al., 2006) was made on nonparametrical sizes. On scaled data, differences were analyzed between 3 groups of teams with unvariant analysis of variance (ANOVA), and calculated the values of Pearson's coefficient of contingency (Cj), Correlation (R), Fisher's test (F), discrimination coefficient and Mahalanobis' distance. Critical value $p=.01$ was used for accepting hypothesis.

Results and Discussion

Significance of differences between groups of teams in examined sociological characteristics was illustrated with 3 tables. Players of Premier League of Bosnia and Herzegovina were named First Group, players of First League of Republic of Srpska were named Second Group, and players of Second League of Republic of Srpska were named Third Group.

Table 1.

Significance of difference among groups compared with specific criterion of family factor

	Cj	R	F	p
PLGR	.293	.286	4.863	.001
FAMS	.143	.137	1.042	.036
NOFM	.296	.282	4.702	.001
PD18	.139	.140	1.094	.034
ODUP	.219	.224	2.883	.006
FASU	.302	.260	3.959	.002
MOSU	.254	.247	3.531	.003

Analyzing p-values in table 1, it is noted that criterions: "place of growing up" (plgr), "number of family members" (nofm), "I had my father's support" (fasu), "I had my mother's support" (mosu), and "relations in the family" (refa) significantly contributed the discrimination between groups. Since the $p>.01$ for criterions "parents are divorced" (pd18) and "family's material situation" (fams), it is clear that there is no significant difference between groups.

Table 2.
Significance of difference among groups compared with specific criteria of socially-economical factor

	Cj	R	F	p
EOTG	.319	.287	4.999	.001
QUCO	.356	.381	9.416	.000
NTIW	.404	.440	13.347	.000
ENVI	.351	.320	6.323	.000

After analyzing p-values from table 2, it is noticeable that (all 4) criteria: "evaluation of training gyms" (eotg), "quality of up to now coaches" (quco), "number of trainings in a week" (ntiw), and "overall socially-political environment" (envi) have significantly contributed discrimination between groups.

Table 3.
Significance of difference among groups compared with specific criteria of educational factors

	Cj	R	F	p
PLED	.452	.417	11.341	.000
FAED	.218	.202	2.295	.011
MOED	.327	.344	7.256	.000
MLOW	.398	.368	8.452	.000
PPMS	.186	.185	1.906	.015

Analyzing p-values from table 3, it is noticeable that criteria "player's education" (pled), "player's mother's education" (moed) and "momentarily I am occupied with" (mlow) have significantly contributed discrimination between groups. Since $p > .01$ for criteria "player's father's education" (faed) and "player's present material situation" (ppms), it is evident that there is no significant difference between groups.

Concerning the family factor, and considering the differences among groups of participants, it can be said:

- 1) percentage of players on specific statuses of place of living depends on competitive level of a basketball player. It appears that place of growing up is very significant factor in creating of basketball career. The city offers more basketball courts than towns and smaller towns, greater competition, more played games in younger categories, and possibility of quality selection of young players. Rowe et al. (1995) and Farneti (2008) had similar results in their researches.
- 2) since there are no significant differences between groups in criterion "family's material situation", it can be said that this life's aspect does not make essential contribution for an average basketball player career in Bosnia and Herzegovina. Evidently, basketball is still available to younger population.
- 3) the greatest difference in criterion "number of family members" is noted in *only child* status. Amongst most quality players (First Group) there is only one player who is an only child, which is considerably less comparing the less quality players (in Second Group - 6 players that are an only child, in Third Group - 8 players that are an only child). Also, in First group there are 7.9% players who have more than 2 brothers or sisters, which is considerably more comparing the other 2 groups of teams. Hence, the

best players come from families with more family members. That phenomenon was explained long ago by sociologists: children from families with more family members are more persistent, conscientious, obedient, motivated, fond to team work, i. e. have those characteristics which supreme sport requires.

4) considering there are no significant differences between groups in criterion "parents are divorced", it can be inferred that marital status has no influence on difference in quality of examined players. However, it must be said that smaller percentage of parents of the most quality group (2.6%) divorced, than in players of Second (10.8%) and Third Group (10.5%). On the other hand, parents of basketball players who more fit in perennial standard of divorced marriages in Bosnia and Herzegovina, where every twelfth marriage did not work ($\approx 8\%$ of divorced; data of Republic Institute for Statistics of Republic of Srpska).

5) the data that players of all 3 groups of teams in great percentage (81.1%-89.5%) relations in their family evaluate as good is impressive. Smaller "deviation" both in positive and in negative sense are players of Third Group.

6) players of First Group of teams had more of father's support than players in other 2 groups. It is probable that noticed talent at players of First Group was more evident, and their fathers realized that they should give a support to a young player in development of a basketball career.

7) from adequate table there are noticed certain differences between groups in terms of having mother's support during up to now career. However, it can not be said that this support significantly discriminated good and bad players, because the results of First and Third Group are similar.

The greatest difference (the greatest coefficients of discrimination) in examined groups are in criterion "place of growing up" (.131), "number of family members" (.092) and "relations in family" (.050). It can be said that these 3 criteria of family factors, and in this direct order of importance, most significantly determined quality of a player. Accordingly to expectations, on established statuses, the most homogeneous group was the First Group, while the greatest difference is between (Mahalanobis) First and Third group of teams.

Concerning the socially-economical factor it can be said:

- 1) players of the First Group have the most positive opinion about gyms where they trained. A bit unexpected result was that Second Group of teams has the most negative opinion on this criterion. However, concerning that cities from which examined teams of Second and Third Group come from, are equal by size and economical power, this kind of relation becomes acceptable and reasonable.
 - 2) result on criterion "coach's quality" is unexpected, since the players of Second Group have the most negative opinion concerning their up to now coaches. It would be logical that players of the Third Group are the most dissatisfied with their up to now coaches.
 - 3) players of the First Group are significantly different then the players of Second Group, because they consider that the number of weekly trainings was sufficient for their basketball development in the greater percentage.
 - 4) players of the Second Group are significantly dissatisfied with entire socially-political environment in which they developed as basketball players, then players in the other 2 groups. It is interesting that players of Third Group are the most satisfied with the environment mentioned.
- Concerning that groups have the greatest difference (the greatest discrimination coefficient) in criterion "number of trainings in a week", it can be said that this criterion most significantly discriminated examined groups. Players of Second and Third Group as the most significant reason of their bad quality see in the number

of trainings they had during their career. First Group was the most homogeneous in established statuses, while the greatest distance (Mahalanobis) is among First and Second Group of teams. Apparent frustration of players of Second Group is explained with their unfulfilled ambition to become excellent basketball players, and they think that the reason of their unsuccess are the "outer" circumstances, and not themselves.

On the aspect of differences among groups of participants in criterions of educational factor, it can be said:

1) there are significant differences among groups in criterion "player's education", but we must be careful with discussion of extracted informations. If we look at the age structure of participants ($M=22.5$ yrs), it becomes clear it is about very young players. Great percentage of them is still in school. Players of the First Group are professional basketball players and we can see quite clearly concerning their education. If we consider that 26.3% of players still haven't finished their education, we come to conclusion that professional basketball players have proper education. Among players of Second Group there are many students and the impression is that this group has the most evident educational potential. The worst educational situation is in the players of Third Group.

Comparing educational status and potential of basketball players from Bosnia and Herzegovina with American basketball players (Farneti, 2008), it becomes evident that American basketball players are on the greater educational level. The reason is systematic. With series of facilities for sportsmen, American university system stimulates perspective sportsmen to finish college after high school.

2) considering there are no significant differences among groups, it can be said that education of player's father had not contributed differences in quality of examined basketball players.

3) the most evident differences in criterion "player's mother's education" are in favour of Second Group, because mothers of players of Second Group are the most educated. Therefore, player's quality is not proportional, nor dependent on mother's education.

Comparing this research with the research done by Martin (2005), it is seen that parents of young American sportsmen are slightly more educated than parents of basketball players in Bosnia and Herzegovina: fathers-Americans=42% higher and highly educated, Bosnia and Herzegovina-fathers=36% higher and highly educated; mothers-Americans=39% higher and highly educated, Bosnia and Herzegovina-mothers=31% higher and highly educated.

4) results of players of Third Group declaring on criterion on "momentarily I am occupied with" are surprising: may 65.8% of players declared they only want to practice basketball. This information is surprising concerning that these are players-amateurs.

5) even though significant differences among groups are not recorded statistically, it is noticeable certain connection of competition levels with material situation of basketball players. Players of First Group have the best material situation, and the players of Third Group the worst.

Examined groups have the greatest difference (the greatest discrimination coefficient) in criterions "player's education" (.288) and "momentarily I am occupied with" (.155). It can be said that these two criterions of educational factor have most significantly determined player's quality. The First Group was the most homogeneous in established statuses, while the greatest distance (Mahalanobis) is among Second and Third Group of teams.

Conclusion

Based on up to now researches on sociological characteristics of basketball players, as well as the sportsmen generally, this research had an aim to establish and analyze the differences between basketball players of three competitive levels in their sociological characteristics. Participants sample ($n=113$) was formed of 38 players from Premier league of Bosnia and Herzegovina, 37 players from the First league of entity RS and 38 players from the Second league of entity RS. Modified survey SS MAXIP (Hošek, 2004) was used as an instrument of this research. There were found significant differences between groups (ANOVA) in the majority of measured variables. The most significant difference was found in criterion of socially-economical factor, then the family factor, while the least significant difference found amongst groups was in criterion of educational factor. Results suggest that the influence of sociological factor on basketball players' success is evident. Concerning all of this, in conclusion authors suggest coaches to consider sociological factor in basketball success during selection of young players. Results extracted with this research can help the coach as a concept or an idea for his comprehension of sociological situation of his own team.

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