

RELATIONS OF SPORT MOTIVATION ORIENTATION AND COHESION IN YOUNG MALE AND FEMALE VOLLEYBALL PLAYERS

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(Original scientific paper)

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Abstract:

One hundred and eighteen young volleyball players from Bosnia and Herzegovina filled out the group cohesion questionnaire – GEQ (Carron, Widmeyer and Brawley, 1985) and motivational orientation questionnaire – TEOSQ (Chi and Duda, 1995), with the aim of determining the relation of motivational orientation and group cohesion. The average age of female volleyball players was $16,22 \pm 1,73$ years, and in male volleyball players $17,09 \pm 1,42$ years. The analysis of descriptive indicators of the variables showed that young male and female volleyball players were dominantly task oriented, and that their ego orientation was much less pronounced. The inspection of the individual components of fellowship showed higher values of variables estimating individual tendency of an individual to group activities, in relation to the variables estimating the integrity of a group as a whole. T-test did not show any significant differences between genders in any of the analyzed components of motivational orientation and fellowship. The correlation analysis showed low positive relations of task orientation and the 4 fellowship components, as well as low negative relations of ego orientation and fellowship.

Key words: GEQ, TEOSQ, t-test, volleyball, youth

INTRODUCTION

Weinberg (2009) emphasizes that sport motivation can be simply defined as the direction and intensity of individual effort in sport. Motivation is often emphasized as the key element of sport success (Gould, Dieffenbach and Moffett, 2002) and a key element of an exerciser's persistence within the area of exercise (Willson and Rodgers, 2008). Cervello, Escarti and Guzman (2007) emphasize that every athlete wants to demonstrate his/her abilities and to be successful. However, all athletes do not define ability and success the same way. According to the social-cognitive approach to the achievement motivation, there are two types of modeling in sports: *task orientation* and *result and outcome orientation* (*ego orientation*), which are orthogonal in relation to each other (Barić and Horga, 2006). The intrinsic (internal, *task*) motivation can be defined as the internal reason of participating in some activity, because of the enjoyment achieved by the activity, while the extrinsic (external, *ego*) motivation is stimulated or "controlled" by some external reason, such as praise, awards, trophies, fame, money... Gano-Overway, Guivernau, Magyar, Waldron and Ewing (2005), using a sample of 202 female volleyball players

aged 12-18 years, have determined significantly higher average values of intrinsic motivation orientation in relation to their extrinsic motivation.

Carron and Dennis (1998) define cohesion as the dynamic process manifested in the team efforts to stay together, with the aim of reaching the goals set and/or fulfilling the emotional needs of its members. This definition highlights 4 cohesion components: multidimensionality (different factors contribute the fellowship of a team); dynamism (the degree of fellowship changes with time); instrumentality (teams stay together in order to achieve their members' goals); affectiveness (team members stay together because of the mutual friendship and socialization). Paskevich, Estabrooks, Brawley and Carron (2001) emphasize that cohesion has been researched from different aspects. When regarding the external factors, fellowship was analyzed in relation to the level of team's competition and the number of team members. Personal factors, such as e.g. effort differences of certain athletes while being in a group and while being alone, dedication to the team aims, as well as the coach's behavior and decision making, were also an object of researchers' interest. The evaluation of fellowship was most often conducted

using the group cohesion questionnaire, *Group environment questionnaire - GEQ* (Carron, Widmeyer & Brawley, 1985), which measured the four cohesion components, based on two dimensions: *group orientation* (task and social orientation) and *athlete's group perception* (individual group tendency and group orientation). Spink (1990) used the sample of elite volleyball players of high and low collective effectiveness teams and proved that individual tendency towards performance of team tasks and social group integration between the two teams significantly differed. Teams with a high degree of group efficiency ranked cohesion significantly higher.

The aim of this paper was to determine the relations of internal and external sport motivation orientation to the measures of cohesion in young male and female volleyball players.

SUBJECTS AND METHODS

The subject sample included 118 youth and junior volleyball players of ten volleyball clubs from Bosnia and Herzegovina, consisting of 83 female and 35 male volleyball players. The average age of female volleyball players was 16.22 ± 1.73 years, and male volleyball players 17.09 ± 1.42 years. Psychological characteristics of the female examinees (sport motivation and cohesion) were measured by applying two questionnaires: Task and Ego Orientation for Sport Questionnaire (TEOSQ), by Chi and Duda (1995), consisting of 13 Likert-type items: internal, intrinsic (TASK orientation) and external, extrinsic (EGO orientation) sport motivation orientation; and Group Environment Questionnaire (GEQ), by Carron et al. (1985), consisting of 18 Likert-type items, used to measure four measures of sport team cohesion: individual tendency to group task performance (ITG-TAS); individual tendency to group social activities (ITG-SOC); group task integration (GI-TAS); social group integration (GI-SOC). This research used previously translated questionnaires, used in Croatian language (Grgantov, Gabrić and Miletić, 2008), and later on adapted to Bosnian language. The measurement was conducted during the volleyball competition season. In order to compare the results obtained on the scales with different number of items, the data was first counted for each scale, and the results then divided with the number of items of the scale. Descriptive indicators of each variable were calculated while analyzing

the collected data (mean and standard deviation, and Kolmogorov-Smirnov test of distribution normality). Correlation analysis determined the levels of relation between certain sport motivation orientation measures and group cohesion. Analysis of differences (t-test for independent samples) determined the significance of differences in the observed variables, for male and female volleyball players.

RESULTS AND DISCUSSION

Table 2 shows the results of sensitivity analysis (distribution normality), as well as the basic descriptive indicators of variables. Although the values of Kolmogorov-Smirnov test indicate that the distribution of three measures of group cohesion was not normal, it was decided, due to a relatively great number of examinees, the measures of distribution skewness and kurtosis (which do not greatly deviate from the normal distribution), that the parametric methods of data analysis would be applied. However, due to the previously stated, the obtained results, especially in the *individual tendency towards group social activities* variable, should be considered with caution.

The analysis of the descriptive indicators of variables showed that the young male and female volleyball players were dominantly task oriented (learning and sport perfection), while the external orientation (awards and competition) was much less pronounced. This can be considered a positive fact, because it is very important that athletes, especially young ones, enjoy doing sports and that they are concentrated on learning, i.e., perfecting volleyball knowledge and skills. Inspection of the fellowship components showed higher values of the variables estimating *individual tendency towards group activities* (especially social activities), in relation to the variables estimating *group integrity* as a whole. This was expected, since the subjects of the research were young male and female volleyball players, and the teams that have not played together for a long period of time. This is the reason why *individual tendency towards group activities* is still more expressed in relation to the real *team integrity*.

Table 2 shows the t-test analysis of differences between male and female volleyball players in the measured variables. None of the measured motivation and cohesion variables determined any statistically significant gender differences, indicating

Table 1 Descriptive characteristics of the TEOSQ and the GEQ scales

VARIABLE	M	SD	D (K-S test)	MIN	MAX	SKEW	KURT
TEOSQ_EGO	2.92	1.00	0.09	1.00	5.00	0.01	-0.95
TEOSQ_TASK	4.35	0.53	0.12	2.86	5.00	-0.62	-0.30
GEQ_ISG-SOC	4.47	0.64	0.23*	2.00	5.00	-1.55	2.18
GEQ_ISG-TASK	4.01	0.85	0.15*	1.00	5.00	-0.82	0.27
GEQ_INT-SOC	3.76	0.92	0.13*	1.25	5.00	-0.51	-0.32
GEQ_INT-TASK	3.74	0.77	0.10	1.00	5.00	-0.73	0.83

M – mean; SD – standard deviation; D (K-S test) – coefficient of the Kolmogorov-Smirnov test; * - statistically significant coefficient of the Kolmogorov-Smirnov test; MIN – minimum result; MAX – maximum result; SKEW – measure of distribution asymmetry; KURT – measure of distribution shape

Table 2 Gender differences of the TEOSQ and the GEQ scales

VARIABLE	GENDER	M	SD	T-TEST	p
TEOSQ_EGO	FEMALE	2.92	1.07	0.04	0.97
	MALE	2.91	0.82		
TEOSQ_TASK	FEMALE	4.30	0.53	-1.70	0.09
	MALE	4.48	0.52		
GEQ_ISG-SOC	FEMALE	4.49	0.64	0.59	0.55
	MALE	4.41	0.63		
GEQ_ISG-TASK	FEMALE	3.96	0.94	-0.97	0.33
	MALE	4.13	0.59		
GEQ_INTG-SOC	FEMALE	3.80	0.95	0.59	0.56
	MALE	3.69	0.85		
GEQ_INTG-TASK	FEMALE	3.66	0.79	-1.63	0.11
	MALE	3.91	0.69		

M – mean; SD – standard deviation; T-TEST – t-test coefficient; p – level of statistical significance of the t-test coefficient

Table 3 Correlations of the TEOSQ And The GEQ Scales

VARIABLE	TEOSQ_ EGO	TEOSQ_ TASK	GEQ_ ISG-SOC	GEQ_ ISG-TASK	GEQ_ INTG-SOC	GEQ_ INTG-TASK
TEOSQ_EGO	1.00	0.09	-0.23*	-0.07	-0.13	-0.08
TEOSQ_TASK	0.09	1.00	0.17	0.21*	0.17	0.30*
GEQ_ISG-SOC	-0.23*	0.17	1.00	0.43*	0.43*	0.28*
GEQ_ISG-TASK	-0.07	0.21*	0.43*	1.00	0.52*	0.55*
GEQ_INTG-SOC	-0.13	0.17	0.43*	0.52*	1.00	0.57*
GEQ_INTG-TASK	-0.08	0.30*	0.28*	0.55*	0.57*	1.00

* - statistically significant coefficient of correlation

that playing volleyball develops sport motivation orientation and group cohesion independently of the gender.

However, it is noticeable that the difference coefficients of the two measures regarding the player's orientation and team integration towards improvement and learning, were close to the criterion determining the statistical significance of differences ($p=0.09$ and $p=0.11$). Therefore, it is recommended to repeat the research, while increasing the number of male examinees, to determine more precisely the possible differences of these measures between the young volleyball players of both genders.

Considering that none of the measured variables showed significant differences between the genders, correlation analysis between the variables will be conducted using the total sample, instead of the male and female examinees separately.

Correlation analysis between the variables shows moderate positive correlation between certain fellowship components. Regarding this, a question emerges whether the existence of four separate cohesion components in the GEQ questionnaire was justified? On the other side, a very low correlation between the external and internal orientation was determined, indicating the mutual independence of the motivational constructs.

This research was oriented towards the relation of motivational orientation and fellowship in young male and female volleyball players. Low positive relations between the task orientation measures and fellowship measures have been obtained, as well as the low negative relations between ego orientation and fellowship. Although some of those relations were statistically significant, they explain only a small percentage of the mutual variance of the variables. Although a higher level of interdependence cannot be indicated, it is possible to assume that in the future male and female volleyball players prone to ego orientation could have a negative influence on the fellowship of their team, as well as its success at a competition. On the other side, dominantly task oriented volleyball players could positively influence the fellowship of their team.

CONCLUSIONS

The conclusion of this research, aimed at determining the relation of motivational orientation and group cohesion, was that the obtained positive

relations between task orientation and fellowship components were low, as well as the negative relations between ego orientation and fellowship. Although some of the relations were statistically important, their squaring results in a very low percentage of the explained mutual variance of the variables. Therefore, any significantly higher percentage of the explained variance cannot be indicated, but it can be assumed that in the future male and female volleyball players prone to ego orientation could have a negative influence on the fellowship of a team, as well as its success at a competition. On the other hand, dominantly task oriented volleyball players could in the future have a positive influence on the fellowship of their team. Since no conclusions regarding the causal relations between the variables can be drawn, based on the correlation coefficient values, it can be expected that the direction could be opposite, that is, the increase of team fellowship can have a positive influence on task orientation, and negative on ego orientation.

The following procedures, aimed at the additional improvement of the team fellowship and task orientation, can be suggested to volleyball coaches: each player should learn about his/her role in all the game phases, and realize its importance for the team, since the awareness of the importance of one's own role gives a player a feeling of representing a part of the team and encourages cohesion within the team; every player should be introduced to the tasks of the co-players, every player must be aware of the importance of his/her role in the play of other players, what is achieved by placing players at different positions in all the game phases; setting demanding, but achievable goals, and encouraging the feeling of pride and belonging to the team after well performed tasks in a team concept of the game, successful collective opponent rally, and success of a team as a whole; encouraging players' cooperation quality in the situational exercises demanding mutual help in defense and attack; emphasizing and citing successfully performed tasks, even in case of defeat, because positive messages always create a feeling of satisfaction and encourage group cohesion; it is also desirable to create a motivational climate, aimed at learning and team members cooperation, which prevails if the coach emphasizes the importance of learning and players' improvement more than the match and competition results.

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ПОВРЗАНОСТА НА МОТИВАЦИСКАТА ОРИЕНТАЦИЈА И ГРУПНАТА КОХЕЗИЈА КАЈ МАЛДИТЕ ОДБОЈКАРИ И ОДБОЈКАРКИ

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(Оригинален научен труд)

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Апстракт

Со цел да се утврди поврзаноста на мотивациската ориентација и групната кохезија, реализирано е истражувањето на примерок од 118 млади одбојкари и одбојкарки од Босна и Херцеговина. Просечната возраст на одбојкарките изнесуваше $16,22 \pm 1,73$, а на одбојкарите $17,09 \pm 1,42$ години. За реализирање на целиите на истражувањето испитаниците пополнија анкетен прашалник за проценување на групната кохезија - GEQ (Carron, Widmeyer i Brawley, 1985) и мотивациската ориентација - TEOSQ (Chi i Duda, 1995). Анализирајќи ги дескриптивните показатели на варијабилите може да се забележи дека кај младите одбојкарки и одбојкари доминира task oriented (ориентираноста кон задачите), ето ориентацијата е многу помалку изразена. Со увид во поединечните компоненти може да се согледа дека повисоки вредности имаат варијабилите со кој се проценува индивидуалната наклонетост на поединецот кон активност во групата во однос на варијабилите со кој се проценува интеракцијата на групата во целина. Резултатите од Т-тестот не покажаа разлики меѓу половите во ниту една од анализираниите компоненти на мотивациската ориентација и заедничкото. Резултатите од корелационата анализа покажаа мала позитивна поврзаност меѓу ориентацијата на задачи и 4 компоненти на заедничкото, како и мала негативна поврзаност на ето ориентацијата и заедничкото.

Клучни зборови: GEQ, одбојка, малди, TEOSQ, т-тест