

SELECTED PSYCHOLOGICAL FEATURES IN THE GROUP OF WOMEN VOLLEYBALL PLAYERS - FINALISTS OF THE POLISH JUNIOR CHAMPIONSHIPS¹

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Abstract. The aim of the research presented in this work was to analyze the sense of control in specific sports activities and the level of emotional intelligence among the group of the best volleyball players in their age category in Poland. The authors present the results of research conducted during the final tournament of the Polish Junior Championships (Cadets) in volleyball. During the study, three research tools were used: a questionnaire (own study), a questionnaire to diagnose a sense of control in sports applications - PKSPwS, Emotional Intelligence Questionnaire - INTE. In addition, it is stated that the team's sports result achieved during the tournament is associated with a certain level of sense of control of the players (referring to the training situation). Players from the winning teams have more internalized LOC. The research results can be used to develop guidelines useful in the process of planning psychoeducational and psychocorrective actions dedicated to sport adepts. The authors argue that it is reasonable to shape and strengthen emotional intelligence, as well as a sense of internal control of young people practicing sports.

Keywords: sport psychology; sense of control; emotional intelligence

Introduction

Building and running youth sports teams is a big challenge for trainers. They should understand the natural developmental changes - especially psychological - of the adepts and react appropriately to them during the training. It is important in this process to understand the key relationships for young people and effective cooperation with the environment in which young people function - a family home, a peer group and a school. Only this will ensure optimal use of the educational potential of sport and allow for intellectual, emotional, psychological and physical

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development. It is invaluable to properly support the development of young players - including enhancing traits / attitudes that will be useful at a later stage of a sporting career (both team and individual), involvement in sports, but also in personal life (Cotterill 2006, Ullrich-French, Smith 2009, Gran 2016).

Recognizing the essence of the team and building a team, and at the same time enhancing the individuality of individual players is a complicated process. Wide knowledge and psychological skills are needed for his understanding. It is therefore worth learning about psychological variables that are important for optimal adaptation of an individual and are conducive to the successful implementation of its goals. Among such dimensions is a sense of control and emotional intelligence.

The sense of control (LOC - locus of control) is treated as a personality dimension and / or a cognitive mechanism. It is placed on a continuum from internal to external. Internal locus of control is associated with a sense of personal influence on the course of events. On the other hand, external locus of control means assigning other, external and independent forces to influence different situations.

The sense of control develops on the basis of various experiences, from which these are beliefs about functioning in specific circumstances - such as work and sport. With time, they are generalized. A sense of control is a variable that corresponds with health as well as a sense of happiness (Rotter 1966, Chung et al. 2002, Cebi 2007, Rutkowska 2011).

Emotional intelligence is a series of abilities that allow you to effectively manage yourself and your relationships with others, especially in challenge situations. It is an important element of social competence that decides about proper adaptation. It is defined as an instrumental-motivational ability that guarantees the flexible use of emotions and emotional knowledge in action and thinking. It is considered a decisive factor in the matter of success in personal and professional life and for satisfaction with these achievements. It also co-determines good health (Salovey, Mayer 1990, Goleman 1995, 1998, Jaworowska et al. 2001, Meyer, Fletcher 2007).

The aim of this study is to diagnose the level of control in selected sports situations and to diagnose the level of emotional intelligence as well as the relationships between them. The authors also compare the level of these variables with players from teams presenting a different level of sport.

Methods and results

The research was carried out in May 2012 during the final tournament of the Polish Referee Championships (Cadets) in volleyball. The tournament was attended by eight Polish best teams finishing the season.

Female athletes were aged 14-17 ($M = 16.19 \pm 0.82$). They practiced sport for not less than 2 years and not longer than 8 years ($M = 5.43 \pm 1.36$), in the dimension not less than 4 hours and not more than 20 hours a week ($M = 9.24 \pm 3.38$). Most of the respondents (75%) declared that in the future they would like to take up professional / professional sport. Every fifth player ($N = 19$) decided that she would prefer training at the recreational / amateur level. Two respondents would not like to continue their sporting career in the future.

Three research tools were used during the research.

1. The questionnaire (own method) allowed to gather information on the age of the respondents, the length of the internship and the hourly training for the week and the competition plans. The questionnaire also included questions about the satisfaction of practicing volleyball and the self-assessment of volleyball skills. The respondents answered the questions using a 10-point scale. Each of the tested volleyball players also indicated which club represented during the competition. This allowed, after the end of the tournament, to verify which place the test team took. It allowed to create two comparative groups of volleyball players: 1 / from teams, which in the final classification took places I-III (group called "podium"), 2 / from teams occupying the last places in the tournament table (V-VIII - "off the podium").

2. Questionnaire to diagnose the sense of control in sporting situations PKSPwS allowed to verify the level of LOC in specific sports situations: success (Suk scale), failures (Por) and start / competition (S), training (T) and interpersonal (R) relationships with other people involved in sports activities. The tool also made it possible to measure the generalized sense of control of the player in the area of sport (the Og scale). According to the design assumptions of the tool, the result obtained within a given scale indicates the degree of sense of internal control - the higher the score, the more internal LOC. Raw data (RD) were referred to temporary standards developed for a group of women [Rutkowska 2011].

3. Emotional Intelligence Questionnaire - INTE, which made it possible to determine the level of emotional intelligence defined by the categories of the ability to identify emotions and to use knowledge about these emotions in action and thinking. Raw data (RD) were referred to the standards developed for high school students aged 15-19 (Jaworowska et al. 2001).

Results

The researched athletes assessed the satisfaction of practicing sport on a 10-point scale ($M = 8.88 \pm 1.23$). Nearly 85% of respondents indicated results in the range of 8-10 points (corresponding to high results on the sten scale). Volleyball players in the same way also made self-evaluation of their sports skills ($M = 7.05 \pm 1.22$). Almost 1/3 of the respondents rated their skills as high, the others - average. None of the respondents assessing satisfaction and skills indicated the value from the range of low scores (1-3).

Table 1 presents two stages of analysis of the results of questionnaire surveys - PKSPwS and INTE. On the left there are raw (RD) and recalculated data (CR) (referred to standards) of the entire sample. The recalculated results allow to state that all volatiles measured in volleyball players are on an average level. Additional analyzes performed using the t test for dependent samples confirmed the existence of certain differences. The level of emotional intelligence is lower than the level of control in sports situations ($t = -3.12^{**}$)². The level of sense of control in situations of success and failure is at a similar average level; when comparing the results

² Explanations ** $p \leq 0,01$, * $p \leq 0,05$

recalculated (CR), no statistically significant differences were noted. The tested volleyball players have the lowest level of sense of control in starting situations. It is lower than in training situations ($t = -6.09^{**}$) and than LOC in relations with others ($t = -4.08^{**}$). The level of control in the training situation is higher than in the relationship with others ($t = 2.33^*$).

Table 1. Results of questionnaire tests of the tested sample

Tool Scale		Result N=84		
		RD	RD M ± SE	CR M ± SE
PKSPwS	Suk	23-47	38,99±4,08	5,92±2,05
	Por	27-47	37,53±3,60	5,88±2,16
	S	17-36	28,62±3,18	5,26±1,96
	T	17-31	25,86±2,66	6,78±2,26
	R	12-27	22,05±2,88	6,23±2,21
	Og	50-91	76,52±7,11	5,75±2,14
INTE	IE	82-149	123,70±12,60	4,94±1,89

Explanations:

- PKSPwS - questionnaire for testing the sense of control in sport,
- Suk - LOC level in a situation of success,
- Por - LOC level in a situation of success,
- Z - LOC level in interpersonal relations with other players / trainer,
- S - LOC level in the situation of starts / competitions;
- T - LOC level in the training situation,
- Og - level of generalized LOC in sport,
- INTE - questionnaire for studying emotional intelligence,
- IE - the level of emotional intelligence.

Figure 1. presents the distributions of the categories of recalculated results. It was assumed that the range of sten scores at level 1-3 is low, 4-7 - average, 8-10 - high. The results broaden the interpretation of the data presented above. Over 90% of respondents have low or average levels of emotional intelligence. A larger share of high scores is in the result sets relating to the measurement of the sense of control. Over 1/5 of respondents have high LOCs in a successful situation. The comparable group also has high LOCs in a failure situation; on this scale two times more people obtained low results (18%). Over 30% of players have obtained results showing a high level of LOC in the training situation. These results were reported by every tenth of the tested volleyball players regarding the competition situation. Nearly 35% of girls participating in research have high scores showing internalized LOC in situations of relationships with other people - with other players, a trainer.

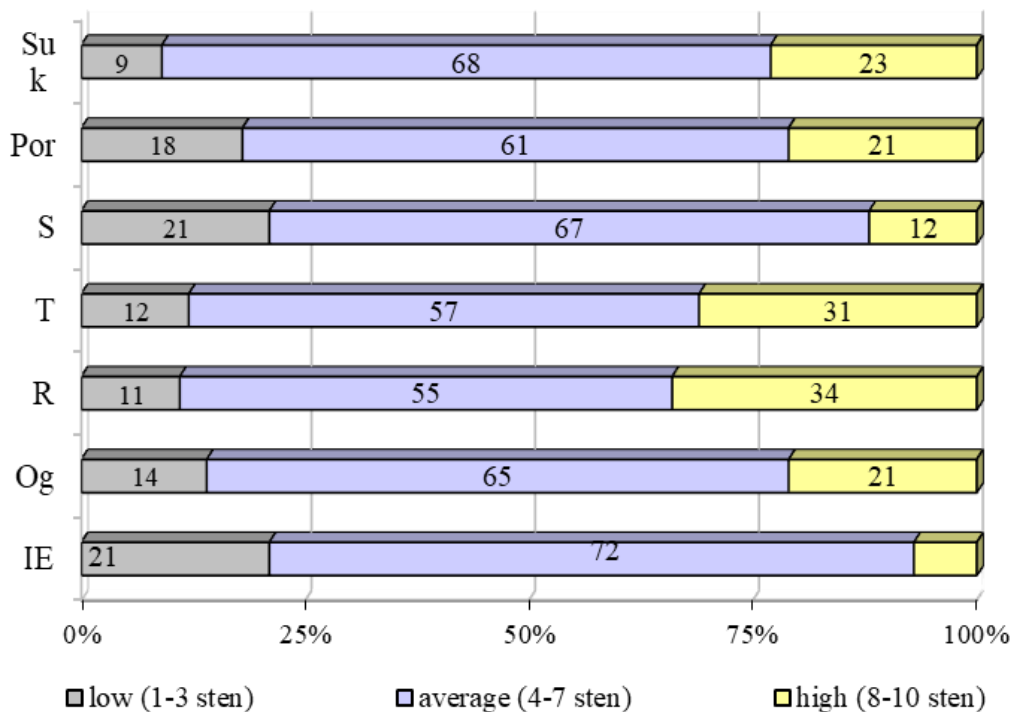


Figure 1. List of categories of results calculated for the entire sample

Table 1. Results of questionnaire surveys and comparisons between groups

Tool Scale		Comparisons between groups N=62		
		RD-podium N=32 M ± SE	RD – out of podium N=30 M ± SE	U Manna-Whitneya
PKSPwS	Suk	38,97±4,62	38,67±2,89	393,50
	Por	37,72±3,73	37,20±3,36	400,00
	S	28,31±3,49	28,80±2,55	448,50
	T	26,19±2,66	25,20±2,07	332,00*
	R	22,19±3,19	21,87±2,97	448,00
	Og	76,69±7,69	75,97±5,77	379,00
INTE	IE	125,69±12,01	123,67±12,48	440,50

* p≤0,05

The results of the second stage of analyzes are presented in Table 2. The column "comparisons between groups" summarized the raw data (RD) of two groups: (1) 32 players from the best teams of the tournament, and at the same time the best teams in Poland, (2) 30 volleyball players from the relatively weakest teams - those who

took the last three places in the tournament. Comparisons were made, the results of which showed that the players from the teams who stood on the podium have a significantly higher level of control in the situation of training.

The verification of the value and significance of correlation indices was also analyzed. The results are presented in the table No. 3.

Table 3. Comparison of correlation indices between the results of individual PKSPwS and INTE subscales

r	Tool								
	Scale		PKSPwS					INTE	
			Suk	Por	S	T	R	Og	IE
Tool	PKSPwS	Suk	X	,67**	,74**	,74**	,73**	,92**	,26*
		Por		X	,70**	,70**	,72**	,89**	,31**
		S			X	,46**	,48**	,80**	,19
		T				X	,48**	,79**	,27*
		R					X	,79**	,26*
		Og						X	,31**
	INTE	IE							X

* $p \leq 0,05$, ** $p \leq 0,01$

There were numerous intercorrelations of results obtained within individual scales of the PKSPwS Questionnaire. On the basis of the indicators presented in the table, it can also be stated that the level of emotional intelligence is related to the level of the sense of control - in the majority of analyzed dimensions (excluding LOC in the situation of competition). Additional analyzes of the correlation of the results of questionnaire studies with the level of satisfaction with sports and self-evaluation of sports skills were performed. The level of sport satisfaction is positively correlated with the level of emotional intelligence ($r = 0.22$ *), LOC in success ($r = 0.25$ *), failure ($r = 0.23$ *), training ($r = 0.27$ **) and generalized LOC ($r = 0.25$ *). The level of self-esteem of sports skills has a negative relationship only with LOC in the event of failure ($r = -0.27$ *).

Discussion

The PKPS questionnaire was created in response to the need to study variables in the context of specific social situations that take place in the field of sport (Rutkowska 2011). The INTE questionnaire examines the generalized level of emotional intelligence. So far, no Polish research method has been developed to analyze such aspect / dimension of emotional intelligence. This is a kind of limitation of the concept presented, and at the same time shows the development perspective for the continuation of such research. An interesting direction of subsequent works would therefore be to modify existing tools or create a new tool. Tools enabling diagnosis of the dimension of emotional intelligence with reference to the specific

circumstances of the players' functioning and emotions that accompany them in sports activities. In the literature on the subject there are interesting reports regarding the measurement of emotion / emotional intelligence, its relationship to sport success and the need to continue research on it (Botterill, Brown 2002, Jones et al. 2005, Mayer, Fletcher 2007, Lane et al. 2009, Laborde et al. 2016).

A young man undertaking sports activity is subjected to intense social training. It seems, therefore, that certain psychosocial characteristics may develop more intensively. In line with the idea of the generalization process that has been proven in the case of LOC formation - the development of LOC in sporting situations over time may enhance the generalized level of this variable. The authors of this work assume that the development of emotional intelligence that constitutes an element of social competence can also take place in the same way. Such a hypothesis would require in-depth research and the creation of these research tools.

Another observation appears. Earlier research conducted on a similar group of volleyball players made it possible to assess that the players from the teams ranked higher in the final tournament of the Polish Championships had a higher level of social competence (Rutkowska 2007). However, the analysis presented in this work shows that the sports score does not differentiate the level of the tested in this dimension of emotional intelligence of volleyball players (which is a component of social competence). The relations between emotional intelligence and success described in the introduction of the work were not confirmed in the results of their own research. The authors assume that this may be related to the diagnostic dilemmas mentioned and / or the fact that the team's success does not always correlate with the characteristics / skills of individual players. Accurate diagnosis of psychosocial competences improved on the grounds of sport, their development, and the awareness of their possession may affect a more effective and more satisfying functioning of youth in sport. As in the case of awareness of physical skills (Skarpa, Nart 2012). However, own research did not confirm such dependence - the self-esteem of skills possessed by volleyball players does not correspond to the level of their satisfaction with practicing sports.

The results of other studies show that among teenage girls it is the motivational aspect of physical fitness, the involvement in the performance of motor tasks is most strongly correlated with various personality traits (Guszkowska, Rychta 2007). Own research confirms this to some extent. The sense of sport satisfaction correlates with emotional intelligence and some dimensions of the sense of control.

Players completing the questionnaire answered questions directly about each of them. On the basis of these results, the average results for individual teams were calculated, and these in turn were compared with the team's score. An interesting modification of the research would be to extend the questionnaire with questions about the perception of the team's characteristics, its climate, cohesion. It has been proved that in the case of team games the specificity of the group process is related to the achievements of individual players (Chow et al. 2007). In this context, the analysis of the individual sense of control becomes particularly important.

Therefore, it is worth continuing research on the LOC of the players - especially in specific sports situations in which they perform teamwork vs individual tasks. Indeed, the highest scores in the volleyball team were noted in the sense of control related to training. What's more, only this result differentiates players from teams presenting a different level of sports. Players of winning teams have a more internalized conviction about the feeling of personal influence on what happens during training. A similar pattern was noted in the results of research conducted among individual sports players (Rutkowska, Gierczuk 2014). This confirms one of the key thesis of sports psychology, that sport orientation on the task (and not the result) corresponds with the masterful atmosphere. Interestingly, it is the task-oriented functioning in sport that is related to commitment, satisfaction with participation in sport and the ability to use support (Duda, Hall, 2001, Magayar, Feltz 2003). These are elements whose importance at the level of youth sport is invaluable and which are worth bearing in mind - also in the context of the sporting future of volleyball players. Female athletes from the best teams in Poland in a given age category participated in the own research. Almost every fourth person does not want to continue in the future of competitive sports. It seems to be surprising. The results of our own research are the basis for the conclusion that the sense of control is related to emotional intelligence. Both variables are at average level in the studied female volunteers. It seems that in the context of the challenges of contemporary sport and other development tasks facing the subjects in the near future, it is worth implementing a directional work on the development of these variables. Equipping trainers, parents, teachers and the students themselves with psychological knowledge can prove to be an important step in psychoeducation. Cooperation with a sports psychologist who, in response to training needs, will implement specialist mental training dedicated to sports adepts may also be invaluable. The result will be not only more efficient functioning in different social situations (including sports), but also better health. Emotional intelligence and sense of control are included in the group of moderators of good health (Marshall 1991, Johnson et al. 2009). The thesis about the beneficial influence of internal LOC is supported by the fact that it correlates with styles of coping with stress, which ensure effective functioning and healthy ways of responding in difficult situations (Hahn 2000, Rutkowska et al. 2014, Kazemi et al. 2015). In addition, as in the context of the health aspect of the players' functioning is an important issue, research shows that players with a sense of internal control are less vulnerable to injuries (Ortín Montero et al. 2008).

In summary, health understood holistically, successes (including sports ones) and a sense of satisfaction are the benefits of developing internal LOC and emotional intelligence.

Conclusions

The sense of control in sports situations and emotional intelligence of the tested volleyball players are on an average level. There was a significant correlation between these variables. The sports success of the subjects differentiates their level of control in the training situation. Competitors from winning teams have more

internalized LOC. The research results can be used to develop guidelines useful in the planning process of psycho-educational and psycho-corrective interventions dedicated to sports adepts.

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