Group cohesion is studied in many activities and fields of human agencies. In everyday discussion, we use the following synonyms for cohesion: team work, closeness, unity, „chemistry“. It can be said that sports activity is one of the fields where cohesion was studied most (Carron et al, 2007). Namely, the game rules in team sports focus on common, coordinated activity of team members the so called „team game“. One of the ways to study group functioning is by studying cohesion. Multiple significance of studying of sports team cohesion reflects both on the level of the team as
a whole, and on the individual level – level of group members (Cox, 1998). When observed on the team level, cohesion transforms an unorganized group of individuals into a team. From the very beginning of team formation, its members are interdependent, resulting thus in a whole which is qualitatively different from the sum of its parts. Interactions of team members with outer environment, also, become qualitatively different, from possible interactions of a series of individuals. When observed on individual level cohesion is a very important factor for successful sports performance, but also for feeling of satisfaction of team members. By staying and membership in a sports team, each member develops and maintains perceptions related to the entire team regarding possibilities of the members to satisfy their needs and to realize sports aims (Cox, 1998).

Significant contribution to studying of cohesion of sports groups was given by (Carron at al, 2002). They created multidimensional conceptual model, operationalized by a questionnaire (Group Environment Questionnaire GEQ), enabling thus a systematic research in sport (Chang, 2006). The proposed model is a linear one, based on three main types of components through which it is possible to study sports teams as groups: the first one consists of functioning antecedents: personal features of athletes and environment characteristics (for example competition lever); the second one encompasses functioning consequences: outcomes on individual and group levels; and the third one is correlation between antecedents and consequents: group structure, group cohesion and group processes.

It can be considered that cohesion is essential feature of group dynamics that besides group structure and group processes, links antecedents and consequents of functioning of a sports team.

In the field of sports psychology, a generally accepted definition of cohesion is „a dynamic process which reflects to the tendency of group members to be together and to be together and united in performing of instrumental tasks and satisfying of emotional needs (Carron, 1982, p.124). The authors claim that the definition stresses a few aspects useful for understanding of the proposed model. Cohesion is (Carron et al, 2007):

(a) multidimensional – numerous factors can influence cohesion;
(b) dynamic – it can change in time. The factors related to cohesion at one moment, do not have to be interrelated also in another moment;
(c) instrumental – all groups are formed in order to achieve certain aim;
(d) affective or social component is usually developed through social interaction of group members.

In this model, we assume that athletes, as members of sports teams, develop two types of social cognitions: the first one is related to the level of team integration, which understands perception of the level of connection, closeness between the members of the group as a whole; the second one refers to the level of individual attraction to the group of an athlete, and encompasses personal motivation of team members to approach to the team and to remain in it. The members of a sports team develop two basic orientations in perceiving of a sports group: task and social orientation. Therefore, cohesion is manifested through four dimensions obtained by crossing of two types of social cognitions and two focuses of perception (Carron et al, 2002):

• Group Integration – Task (GI-T),
• Group Integration – Social (GI-S),
• Attraction to the Group – Task (ATG-T) and
• Attraction to the Group – Social (ATG-S).

Cohesion development goes through four phases (Tuckeman 1965, according to Cox, 1998): (a) forming (b) storming (c) norming and (d) performing. Social dimension and dimension in task execution can be differentiated only in the last phase – in the phase of performing. If the members of a sports team do not spend enough time together, it is less probable that the outcome of cohesion will manifest. During the phase of forming and storming, team members are getting to know each other. During the phases of norming and performing, team members establish mutual relations, get to know each other’s powers and weaknesses, which are indispensable for development of perception of sports team cohesion.

The main factors of cohesion development encompass differences sources of influence from the most general ones and less important ones, which indirectly influence development of cohesion, up to specific ones, direct and very important factors. (Carron, 1982). The authors have systematized them into four main categories: personality factors, team-related factors, leadership and environment factors. Environment, personality and coach’s leadership factors, affect indirectly through team factors, which are more specific and immediately related to cohesion level (Carron, 1982). Further consideration, in compliance with the object of this paper, shall be lim-
relationships between cohesion of competitive levels and efficacy and performance in handball teams

Relationships Between Cohesion of Competitive Levels and Efficacy and Performance in Handball Teams

was previously stated, encompass different situational aspects: way in which the athletes are connected with a team, basic orientation and organization of a sports club (recreational or competition), size of a sports team, competition level, etc. The researches of foreign authors so far (Widmeyer, 2002) demonstrated that task cohesion increases with competition level, and that social cohesion is higher at lower competition levels. The results of researches (Mohamed & Saeid, 2008), showed that cohesion level is statistically significantly higher in football teams of top competition levels. In the same research, it was shown that successfulness of sports performance of school teams, observed through percentages of victories and defeats, significantly affects cohesion level.

Environment factors (Widmeyer, 2002), as it was previously stated, encompass different situational aspects: way in which the athletes are connected with a team, basic orientation and organization of a sports club (recreational or competition), size of a sports team, competition level, etc. The researches of foreign authors so far (Widmeyer, 2002) demonstrated that task cohesion increases with competition level, and that social cohesion is higher at lower competition levels. The results of researches (Mohamed & Saeid, 2008), showed that cohesion level is statistically significantly higher in football teams of top competition levels. In the same research, it was shown that successfulness of sports performance of school teams, observed through percentages of victories and defeats, significantly affects cohesion level.

Personality factors include individual orientation - cognitions and motives. It is considered that the connection of cognitions and motives with cohesion is most probably two-way: similarity of cognitions and motives of the group contributes to cohesion, and vice versa, cohesion contributes to similarity of cognitions and motives (Carron, et al, 2007). One of the cognitive personality factors linked cohesion are efficacy beliefs.

Construct of efficacy is a key point in (Bandura, 1997) Social Cognitive Theory. According to Social Cognitive theory, the focus of studying lies on possibilities of development of those abilities of the person, which enable him/her to take active role in personal development, adaptation and reproduction. For that purpose, a person plans activities, sets goals, expressing thus resources for creativity and generativity. Monitoring of progress, therefore efficacy assessment is the key point for confirmation or for revising of efficacy belief. It is considered that perception of efficacy, fundamentally controls behaviour. It is based on development of expectations on the results of activities in achievement of goals pursuant personal rules and standards of behaviour (Bandura, 1989, 2001).

Real efficacy includes: abilities, knowledge, abilities, qualifications and is essential for adaptation. Although it is unavoidable, it is not sufficient for a person to successfully perform an activity. Subjective experience of efficacy is often even more important. So, to enable a person to function successfully, certain abilities are necessary, as well as beliefs that he can use it efficiently (Bandura, 1997).

Specificity of efficacy in sports activity, beside the level of mastery of sports abilities, means that athletes must learn how to manage activities during competitions, to adapt competitive tactics to activities of the opponent team, to focus their attention to a task in situations when playing under pressure and when facing numerous stressors and various sources of disturbance, for example, banning from the game or loosing of the points, physical pain (Ayiku, 2005). The higher the efficacy level in competitions, the higher achievements and lower level of emotional awareness (Bandura 1998, according to Cox, 1998).

Literature treating efficacy beliefs in sports context is directed to various levels and types of efficacy beliefs (Beauchamp, 2007).

Self efficacy beliefs are defined as „self assessment of personal abilities by which one can organize and direct activities necessary for realization of certain aims (Bandura 1997, p. 286). Self efficacy beliefs function as vital determinants of human motivation, feelings and behaviour. They affect activities through affective, motivational and cognitive processes that intersect.

Collective efficacy beliefs are defined as „shared (common) belief of the group members in their mutual capacities to organize and carry out a series of determined activities necessary to realize certain level of achievements „ (Bandura, 2004, p.286). According to definition, collective efficacy beliefs mean: shared, common perception of group members and certain degree of consensus; they refer to associated capacities of the team as a whole; at the same time they are related to organization and performance of activities; finally, beliefs are specific – associated to certain tasks.

The principal feature of social cognitive theory is in recognition of numerous sources and factors of efficacy beliefs development. The relations with close persons are one of the significant sources. The basic stimulus for their studying resulted from (Lent & Lopez, 2002) tripartite model of relation efficacy belief. According to that model, self efficacy belief, partner efficacy beliefs and relation inferred efficacy represent relation types of cognitions that are interrelated. Beliefs on relation inferred efficacy are created in interaction with close persons. They are defined as „presumptions of a person on how his/her abilities are seen by their partners (Lent & Lopez 2002,
Thus, relation inferred efficacy is developed in each close relationship and represents reflection of the way a person thinks his/her partner sees her/him. Relation inferred collective efficacy represents different, but connected perspectives of relational cognitions. The author think that relation inferred efficacy, apart from an individual level, can include beliefs which a partner has on collective, joint capacities of a team as a whole. The basic difference is in the unit of observation – whether it is directed at individual or team resources.

The researches on connection of efficacy beliefs and cohesion mostly encompass collective efficacy beliefs. Understanding of their relationship, has significant implications for sports teams, especially when they set high aims of achievements (Heuzé, et al, 2007).

Studying of their connection can conditionally be divided into two phases:

(a) in former researches, cohesion was mostly observed as one of the sources on efficacy belief: for example the research of (Kozub et al, 2000) demonstrated that both dimensions of task cohesion (integration level and attraction level) are predictors of collective efficacy beliefs. On the other hand, it was shown that although there is positive connection between social dimensions of cohesion and collective efficacy, it is not predicative.

(b) more recent views on the relationship of cohesion and efficacy beliefs open a new perspective of studying, according to which it is presumed that their relationship is two-way conditioned (Paskevich 1999, according to Beauchamp, 2007; Zaccaro et al., 1995, according to Heuzé, et al, 2007). That means that greater cohesion leads to greater degree of collective efficacy, but even to greater cohesion of sports teams because they are in greater level of efficiency. Numerous studies (Kozub & McDonnell, 2000, Heuzé, et al, 2006, Paskevich et al., 1999, according to Heuzé, et al, 2007) confirmed that collective efficacy beliefs are predictors of cohesion. However, the stated studies did not offer insight into a possible causal connection.

In one more recent research (Heuzé, et al, 2007), in order to determine causal connection between collective efficacy beliefs and cohesion dimensions, a longitudinal sketch of research was set. The results have shown that collective efficacy causes change only in one cohesion dimension – attraction to the group – task.

The starting theoretical framework of this paper is based on: multidimensional model of sports team cohesion created by Carron et al. (Carron, 1982), theory of self efficacy that originates from the broader framework of Social Cognitive Theory (Bandura, 1997), and on a tripartite model of relation inferred efficacy of (Lent & Lopez, 2002).

Numerous factors affect cohesion, its significance in sports teams is multiple. It is reflected on the level of the team as a whole, but also on the level of individual team members. The subject of this research is studying of connection of cohesion with different competition levels, as well as with beliefs of self, collective and relation inferred efficacy (individual and collective level) in our environment.

Cohesion is expressed through the following dimensions: group integration – task, group integration – social, attraction to the group – task and attraction to the group – social. The research is of explorative – descriptive type. The aims of the research are: (a) to describe cohesion dimensions of the teams at different competition levels and to determine whether the cohesion dimensions vary in degree in teams training handball at different competition levels; (b) to determine whether there is a link between cohesion dimensions and efficacy beliefs on a sample as a whole, and if there is, to describe their structure and nature of the connection. The aims are operationalized through the following research questions:

• What is the degree of cohesion of the teams of three different competition levels (super, first and second competition league)?

• Whether there are manifestations of statistically significant differences on cohesion dimensions (group integration - task, group integration – social, attraction to the group – task and attraction to the group – social) of the teams of different competition level? In compliance with the research results, studying connection of sports teams’ cohesion and competition levels (Widmeyer, 2002, Mohamed & Saeid, 2008), it is expected that task cohesion increases with competition level, and that social cohesion is higher at lower competition levels.

• Whether and in how many statistically significant ways can cohesion dimensions and different forms and types of efficacy beliefs can be connected (self, collective, presumptions of
what is the nature of connection and the intensity of connections between the two sets of variables – cohesion dimension on one side and efficacy beliefs on the other side?

In the recent researches of connection of cohesion and efficacy beliefs, the interests of researchers have mostly been directed at studying of connection of cohesion with collective efficacy beliefs (Kozub et al, 2000, Heuzé, et al, 2006, Paskevich et al., 1999, according to Heuzé, et al, 2007, Heuzé, et al, 2007). In line with theoretic assumptions and results of previous researches, it can be expected that there is a positive correlation between cohesion dimensions and various forms and types of efficacy beliefs.

**METHOD**

**Sample of subjects**

The research was conducted in nine male handball clubs (three of each competition level). The overall sample comprised 151 athlete: number of subjects within competition levels is unified: super league N =53, first league N =51, second league N =47, of the examined athletes. The average age of subjects in super league was 21,96 years, in the first league 22,65, and in the second 18,97 years of age. The average length of sports experience in super league was 21,96 years, in the first league 22,65, and in the second 18,97 years of age. The athletes who have trained in the same team since the beginning of competition season have been kept in the sample. At the moment of testing it was at least six months.

**Sample of variables and way of their measuring**

The variables of this research were:

- cohesion dimensions (group integration - task; group integration - social; attraction to the group – task; attraction to the group - social),
- efficacy beliefs (self, collective, presumptions of athletes on confidence of the coach in their personal and team efficacy),
- level of competition performance (super, first and second competition league).

For cohesion assessment we applied a questionnaire for assessment of cohesion (Group Environment Questionnaire GEQ) constructed by Carron et al. (Carron, 1982). It consists of four sub-scales: two of them are intended for assessment of athletes about the level of team integration (task and social related), and two are for assessment of the attraction to the group (task and social related). The questionnaire includes 18 items. For example, the item „Our team is unique in its’ wish to achieve the result” is intended to assess group integrity – task, and the item „Members of our team like to spend time together out of playing season“ assesses attraction to the group - social.

The scales for assessment of efficacy beliefs in sports field, are mostly constructed for needs of certain researches (Feltz & Lirgg, 1998). Vealey instrument (TSCI – Trait Sport Confidence Inventory) was created within Vealey model of sports self-confidence which represents specific modification of Bandura’s theory of efficacy appropriate to the context of sports activity (Stegelin, 2003). It was chosen for this research because it examines specific confidence in self efficacy of an athlete during competitions. The questionnaire contains 13 items.

For the purposes of this research, the items of original instrument are adapted in another three forms (three scales) of analogous issues, and are intended to: evaluate collective efficacy, assessment of athletes on presumed confidence of the coach in their self efficacy and in efficacy of the team on the whole. For example, „How much are you convinced in your own ability to play under pressure?” is indicative for assessment of self efficacy beliefs while the form „How much do you believe in the ability of the whole team to play under pressure?” is intended to assess collective efficacy. The form „How much is the coach convinced in your ability to play under pressure?” is intended to assess presumed confidence of a coach in player’s self efficacy and the item “How much is the coach convinced in the ability of the whole team to play under pressure?” is intended to assess presumed confidence of a coach in whole team efficacy.

Both original instruments contain nine-degree scales of Likert type. Maurer and Pierce, 1998, according to Myers & Feltz, 2007 think that five-degree Likert scale shows similar metric characteristics,
that it offers equivalent levels of prediction, that it is more practical and represents better the structure of subjects’ replays. In conformity with the recommendations of Maurer and Pierce, the scales of all the applied instruments are compressed to five-degree ones: from 1 (in very low degree) up to 5 (in very high level).

The reliability of the applied instruments is verified by Cronbach alfa coefficient. The coefficients of the questionnaire for examination of sports team cohesion (GEQ) range in the interval from 0.49 to 0.74: for subscale of social attraction ($\alpha=0.55$), for subscale of task attraction ($\alpha=0.49$), for subscale integration – task ($\alpha=0.69$) and for subscale of social integration ($\alpha=0.74$). Their amount is in compliance with the values obtained by other authors (Heuze et al, 2006; Prapavessis and Carron, 1979; Van Raalte et al, 2007). Cronbach alfa coefficients of scales for examination of efficacy beliefs are satisfactorily high. They range from 0.85 to 0.95: for assessment of self efficacy ($\alpha=0.85$), for assessment of collective efficacy ($\alpha=0.93$), for assessment of presumed confidence of a coach in athlete’s self efficacy ($\alpha=0.96$), for assessment of presumed confidence of a coach in whole team efficacy ($\alpha=0.95$). The obtained coefficients are in compliance with the coefficients obtained in previous researches (Stegelin, 2003; Hawes, 2005; Koehn, 2007).

**Statistic data elaboration**

Data elaboration was carried out in program package evaluation SPSS 11.0. For description and data analysis we used the following statistic procedures: measures of central tendency, analysis of variance, later Chef’s test, canonical correlational analysis.

**RESULTS AND DISCUSSION**

**Relationship of cohesion and competition level**

The average values, standard deviation and the results of analysis of variance ($F$, $p$) cohesion dimension are displayed in Table 1. The average values of cohesion dimensions on the level of sub-sample (super, first and second league), are grouped on upper parts of scales – above theoretical average values. They range in the interval of 3.32 – 4.17 (in a possible span of values from 1-5). The results indicate a tendency that athletes of all three competition levels assess cohesion dimensions in the interval of average to high manifestation. The inspection of the table, the following regularity can be noticed: that average values of all cohesion dimensions, in athletes who train in teams on superior competition levels are higher, than of the athletes on lower competition levels.

**Table 1.** Arithmetic means, standard deviation, results of variance analysis ($F$, $p$), cohesion dimension

<table>
<thead>
<tr>
<th>Cohesion dimensions</th>
<th>Competition level</th>
<th>AS</th>
<th>SD</th>
<th>df1</th>
<th>df2</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attraction to the Group – Social</td>
<td>super league</td>
<td>4.13</td>
<td>.71</td>
<td>2</td>
<td>144</td>
<td>1.065</td>
<td>.348</td>
</tr>
<tr>
<td></td>
<td>first league</td>
<td>3.97</td>
<td>.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>second league</td>
<td>3.95</td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attraction to the Group – Task</td>
<td>super league</td>
<td>3.69</td>
<td>.93</td>
<td>2</td>
<td>144</td>
<td>1.206</td>
<td>.302</td>
</tr>
<tr>
<td></td>
<td>first league</td>
<td>3.75</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>second league</td>
<td>3.48</td>
<td>.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social group integration</td>
<td>super league</td>
<td>3.67</td>
<td>.94</td>
<td>2</td>
<td>144</td>
<td>.581</td>
<td>.561</td>
</tr>
<tr>
<td></td>
<td>first league</td>
<td>3.58</td>
<td>1.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>second league</td>
<td>3.47</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Integration – Task</td>
<td>super league</td>
<td>3.78</td>
<td>.93</td>
<td>2</td>
<td>144</td>
<td>3.529</td>
<td>.032*</td>
</tr>
<tr>
<td></td>
<td>first league</td>
<td>3.59</td>
<td>.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>second league</td>
<td>3.32</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*difference significant on level of 0.05
The results of variance analysis show statistically significant differences between the teams of different competition level in group integration – task. The later Chef test shows only one statistically significant difference – between super and second competition league (p < 0.01). In assessment of other cohesion dimensions no statistically significant difference was displayed between different competition levels. Therefore, the obtained results partially confirm the expected differences in cohesion dimensions of the teams of different competition levels. According to cohesion model, the basic factors of cohesion development encompass various sources which act in complex interconnection (Carron, 1982). In compliance with the model, we think that different factors affect the obtained differences. One of the most significant factors of the team is experience of the previous success. Namely, the criteria of qualification in sport are determined based on the achieved results. They get more demanding with higher competition level. Most probably the difference in experience between super and second league is expressed in the level that reflects to significant difference on the dimension of integration – task between these two competition leagues. The next factor which is in foundation of the obtained differences are athletes’ personal features – similarity of personal attributes. Namely, taking into consideration processes of sports selection, which is more and more expressed with increase of competition level, it is presumed that athletes on higher competition levels are highly selected, i.e. significantly more similar between themselves than athletes on lower competition levels. The obtained results is in compliance with the research of (Widmeyer, 2002), in which it was shown that task cohesion increases with competition level.

### Relationship of cohesion dimensions and efficacy beliefs

The values of arithmetic means, standard deviations, results of the analysis of variance (F, p), efficacy beliefs are displayed in Table 2. All obtained average values of efficacy beliefs when observed on the level of subsample (super, first and second league) are grouped on upper parts of the scales – above the theoretical average values. By the inspection of the table the following regularity can be noticed: the appraised values of the examined levels and types of efficacy beliefs are the highest in teams competing in super league, followed by the appraised values of the first league teams, and then by the values of subsample of the second league.

<table>
<thead>
<tr>
<th>Assessment of efficacy</th>
<th>Competition level</th>
<th>AS</th>
<th>SD</th>
<th>df1</th>
<th>df2</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment of self efficacy</td>
<td>super league</td>
<td>4,47</td>
<td>.37</td>
<td>2</td>
<td>147</td>
<td>23,87</td>
<td>.00*</td>
</tr>
<tr>
<td></td>
<td>first league</td>
<td>4,08</td>
<td>.37</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>second league</td>
<td>3,96</td>
<td>.45</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment of collective efficacy</td>
<td>super league</td>
<td>4,15</td>
<td>.67</td>
<td>2</td>
<td>147</td>
<td>15,397</td>
<td>.00*</td>
</tr>
<tr>
<td></td>
<td>first league</td>
<td>3,74</td>
<td>.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>second league</td>
<td>3,40</td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Athletes’ assessment of coach’s confidence in efficacy of athletes</td>
<td>super league</td>
<td>3,95</td>
<td>.86</td>
<td>2</td>
<td>147</td>
<td>5,229</td>
<td>.06</td>
</tr>
<tr>
<td></td>
<td>first league</td>
<td>3,54</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>second league</td>
<td>3,51</td>
<td>.64</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Athletes’ assessment of coach’s confidence in collective efficacy</td>
<td>super league</td>
<td>4,36</td>
<td>.64</td>
<td>2</td>
<td>147</td>
<td>24,301</td>
<td>.00*</td>
</tr>
<tr>
<td></td>
<td>first league</td>
<td>3,91</td>
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</tr>
<tr>
<td></td>
<td>second league</td>
<td>3,52</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* difference significant on level of 0.05
The analysis of variance displays statistically significant differences in all variables of efficacy between the competition levels (Table 2).

The researches that dealt with studying of connection between competition performance and efficacy beliefs (Feltz & Lirag, 1998; Lowther & Lane, 2002; Myers et al, 2004; Tasa & Taggar 2007; Watson, et al, 2001) agree that previous experience of success is significant factor of development of self and collective efficacy beliefs. At this moment, there are still no researches which considered connection between competition performance and relation inferred efficacy.

The results obtained in this research, in line with the theoretical presumptions and results of previous researches, can be substantiated by variously demanding criteria of qualification between the leagues. Namely, the criteria of qualification in handball and sport in general, are defined through the achieved sports results. More expressed differences objectively are the differences in achievement between super and first league, than between the first and the second competition league.

The results of canonical correlation analysis between two sets of variables – cohesion dimension and efficacy beliefs showed the following: these two sets of variables are linked through two statistically significant pairs i.e. can be linked in two statistically significant ways (Table 3).

In the first way of linking, linear correlation, at the same time the highest possible, is high $Rho= .676$ (Table 3). Significant components of these two sets of variables share around 46% of variance. Based on the analysis of overlapping, it is seen that variables of efficacy beliefs explain around 19.4% of variance cohesion dimensions. On the other hand, cohesion variables explain around 20% of variance of set of variables on efficacy beliefs.

In the other way of connection, correlation between these two sets of variables is low $Rho= .34$ (Table 3). Significant components from these two sets share around 11% of variance. The proportion of the explained variance in space of opposite sets is low: variables of efficacy beliefs explain around 1.8% of variance of right sets variables (cohesion dimensions), variables of the right set 1.7% of variance of cohesion dimensions.

From the stated results it can be concluded that: practical significance of the second way of their connection is low. The first way of connection describes better and explains their connection, so further display and discussion will be limited to first way of connection.

Table 3. Coefficients of canonical correlations between efficacy beliefs and dimensions and their significance

<table>
<thead>
<tr>
<th></th>
<th>Rho</th>
<th>rho2</th>
<th>lambda</th>
<th>hi2</th>
<th>df</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.676</td>
<td>.456</td>
<td>.457</td>
<td>110.047</td>
<td>16</td>
<td>.00*</td>
</tr>
<tr>
<td>2</td>
<td>.336</td>
<td>.113</td>
<td>.841</td>
<td>24.391</td>
<td>9</td>
<td>.04*</td>
</tr>
<tr>
<td>3</td>
<td>.207</td>
<td>.043</td>
<td>948</td>
<td>7.545</td>
<td>4</td>
<td>.111</td>
</tr>
<tr>
<td>4</td>
<td>.099</td>
<td>.010</td>
<td>.990</td>
<td>1.390</td>
<td>1</td>
<td>.238</td>
</tr>
</tbody>
</table>

*correlation significant on level of 0.05

Collective efficacy beliefs, presumptions of athletes on coach’s confidence in the self and team efficacy, therefore, apart self efficacy beliefs (Table 4 and Table 5), are significantly and positively connected to their cohesion dimensions. High correlation with variables of efficacy show both task dimensions, and average both social dimensions. The highest correlation in the set of variables of efficacy beliefs with cohesion dimensions is shown by estimation of collective efficacy. It is followed by presumptions of athletes on confidence of coaches in athletes’ self efficacy and team efficacy. In the set of cohesion dimensions, is very highly correlated with variables of efficacy in both task dimensions (integration and attraction), and average in both social dimensions. The obtained results are in compliance with the expectations on connection between cohesion dimensions and collective i.e. relation inferred self and
collective efficacy beliefs. Thus, athletes who highly appraise collective efficacy also evaluate task cohesion as high. The results are in compliance with the results of previous researches (Kozub & Mc Donnell, 2000; Heuzé, et al, 2007, according to Heuzé, et al, 2007; Heuzé, et al, 2007). We think that understanding of high connection between collective efficacy and task cohesion can be substantiated by the rules of the game in team sports. Namely, the rules determine certain number of players, decide various roles of players in different positions, stimulate interaction and adaptation. Surely, in handball, to reach the aims, a high level of collaboration is needed, i.e. Group integration – task. Group integration – task can promote performing possibilities of the team. Information on progress in performing success, result in a feedback in the form of more positive assessment of members on common team capacities of the team i.e. collective efficacy. On the other hand, more positive assessment of collective efficacy can intensify attraction to the group – task. For average high connection between cohesion tasks and relation inferred self and social efficacy beliefs, it can be assumed that similar factors contribute to their development. Behaviour and style of training management, interaction of coaches and players is a direct source of cohesion. At the same the interaction is basic source of development of athletes’ presumptions about how their coach sees them personally and how he sees the team as a whole, meaning development of relation inferred efficacy.

Table 4. Canonical factors of the left set of variables

<table>
<thead>
<tr>
<th></th>
<th>KF₁</th>
<th>KF₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self efficacy beliefs</td>
<td>-.165</td>
<td>.170</td>
</tr>
<tr>
<td>Collective efficacy beliefs</td>
<td>-.857</td>
<td>.322</td>
</tr>
<tr>
<td>Presumptions of athletes on coach’s confidence in efficacy of athletes</td>
<td>-.494</td>
<td>-.661</td>
</tr>
<tr>
<td>Presumptions of athletes on coach’s confidence in collective efficacy</td>
<td>-.494</td>
<td>.275</td>
</tr>
</tbody>
</table>

Table 5. Canonical factors of the right set of variables

<table>
<thead>
<tr>
<th></th>
<th>KF₁</th>
<th>KF₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social attraction</td>
<td>-.457</td>
<td>.125</td>
</tr>
<tr>
<td>Task attraction</td>
<td>-.751</td>
<td>-.543</td>
</tr>
<tr>
<td>Social integration</td>
<td>-.411</td>
<td>.387</td>
</tr>
<tr>
<td>Task integration</td>
<td>-.928</td>
<td>.356</td>
</tr>
</tbody>
</table>

Besides the interesting information offered by the results, it is necessary to state some limitations of the research:

- The original form of the applied instruments is a nine-degree Likert scale. In this research, pursuant to authors recommendations (Maurer & Pierce, 1998, according to Tanenbaum & Hutchinson, 2007) it was adapted into a five-level one. The further researches it is desirable to establish empirically which is the best span of the scale i.e. administer IRT analysis of the items.

- The sample of subjects was not selected by the method of random choice, but it can be considered relatively representative, with regard to the choice of teams. It would be desirable that the number of subjects be greater, offering thus the possibility of including both gender athletes, training different collective sports. Thus, the conclusions of the research could be generalized on a broader domain of team sports, instead of limiting to handball population of Serbia who train in super, first and second handball players.
CONCLUSIONS

By examination of cohesion level in teams of different competition level, as well as its relations with efficacy beliefs, on sample of athletes (N=151) who train handball in super, first and second competition league, a tow set of results were obtained.

The first set of results, obtained in this research refers to cohesion of teams of different competition level. It was shown that athletes of all three competition levels, assess, all cohesion dimensions, assess as above average to highly expressed. Average values of all cohesion dimensions, apart form dimension of task attraction of super and first league, teams on higher competition levels, are higher than average values of low competition levels cohesion. However, the only statistically significant difference in cohesion between teams of different competition levels was obtained on the dimension group integration – task between super and second competition league. Having in mind, that numerous factors in complex inter dependence affect cohesion, we supposed that basic factor of the obtained difference is expressed difference in experience of success of teams of different competition levels.

The second set of results describes nature – structure and intensity of connection between cohesion dimensions and efficacy beliefs. The results showed that two sets of variables can be connected in two statistically significant ways. However, only the first way of connection has practical significance. All cohesion dimensions are positively connected with efficacy beliefs: task dimensions show very high and social dimensions connection of average intensity. The set of variables of efficacy beliefs, variable of collective efficacy shows high connection with the set of variables of cohesion, and presumptions of athletes on confidence of a coach in athletes’ self and team efficacy shows an average connection to cohesion dimensions. We think that game rules of team sports is the principal intervening variable that leads to high, positive connection. Group integration – task can promote performance abilities of a team. Information on better performance abilities, feedback can lead to greater group integration - task.

Theoretical significance of the obtained results, can reflect in confirmation of new perspective of observation (Paskevich, 1999 according to Beauchamp, 2007), according to which the relation of cohesion and efficacy beliefs is conditioned in two ways. That practically mean that efficacy beliefs represent significant factors of sports team cohesion. Although one should bear in mind that efficacy beliefs are not the only development factors of sports team cohesion (Carron, et al, 2005), the results can have practical significance. Having in mind that sports team cohesion is the quality that transforms a non-organized set of individuals into a team, by creation of various intervention programs directed at development of efficacy beliefs – firstly collective ones – indirectly sports team cohesion can be developed.

Observed from meta position, the research on the whole, empirically documents connection between different levels of functioning: personal, relational and team. In that sense, its significance can reflect in stimulation of further researches of connection of various levels of functioning in sport in our environment.

REFERENCES


