INTERCONNECTION BETWEEN SOME PSYCHOLOGICAL CHARACTERISTICS OF ELITE WRESTLERS AND THEIR MAIN SCORING TECHNIQUES

Abstract
The overall competitive successfulness and the level of sports results of a wrestler depends mainly on his successfulness in performance of the main scoring technique, and every wrestler uses mostly one or two techniques to finish most of the fights. When this is taken into account, the importance of studying main scoring techniques, as well as the early choice and option of the wrestling technique which will suit best to this wrestler, becomes clear. There are different factors affecting the choice of the technique which is most often chosen and most successfully used. Apart from the influence of morphological and motoric characteristics, as well as the influence of the coach to the choice of preferable technique, there are certain psychological characteristics of a competitor which influence the choice of the technique. The aim of this research is to determine the interconnection between psychological characteristics of wrestlers and techniques they prefer in their fights. The research was conducted on the sample of 21 national team wrestler. Criterion variables are represented by the main scoring techniques of the wrestlers, while the predictor variables comprised their following psychological characteristics: general anxiety, aggressiveness, extraversion, sports self-continence and competitive anxiety. Since it was carried out on statistically small samples, for comparative analysis the non-parametric statistical methods, such as Kruskal – Wallis and Mediana test were used. The results of this research have demonstrated that the choice of the dominant scoring technique in wrestling is connected only to some psychological characteristics of wrestlers, mainly these which contain both personal and situational specific influences, such as sports competitive anxiety. It has been determined that the wrestlers characterized by higher level of sports competitive anxiety, i.e. those who are apt to perceive competitive situations as more threatening and menacing, and who react to them with high level of somatic and cognitive anxiety, will predominantly choose and use the scoring techniques with more risk, but which at the same time, lead to lower level of result uncertainty.

Key words: WRESTLING / GRECO – ROMAN STYLE / PREFERABLE TECHNIQUES / PSYCHOLOGICAL CHARACTERISTICS

INTRODUCTION

Monitoring and analyzing of the competitive activities in wrestling leads to noticing that the performance of scoring techniques is made difficult to the maximum. Since wrestlers, apart from wrestling garment and shoes, do not have other items of equipment, the realization of all scoring techniques is made much more difficult when compared with other martial arts. Every wrestling technique that is used by a wrestler to earn a point must be systematically practiced and perfected for a long time, in order to become applicable in conditions of competitive fight. The
overall competitive successfulness and the level of sport results depend on the successfulness of performance of the main scoring technique of a wrestler, and each wrestler uses mostly one or two techniques to finish most fights. When this is taken into account, the importance of studying main scoring techniques, as well as the early choice and option of the wrestling technique which will suit best to this wrestler, becomes clear.

The researches that have been done have shown that the choice of preferable technique of throwing is considerably connected with morphological characteristics of competitors (Kasum, 2005; Kasum, Radovic, 2007) and that is in a way conditioned by their motoric abilities (Kasum, 2005), but it depends on aptitude and affinity of the coach who trained him in the period of formation of his competitive identity (Kasum, 2005; Kasum, 2007). This research aims to determine whether the choice of techniques that are predominant in wrestlers’ competition is in connection with their psychological characteristics, and, if there is such a link, to try to explain the nature of that link and the way it functions. Since the available literature did not offer cases of researches who dealt with the possible interconnection between psychological characteristics of wrestlers and their choice among the main nine scoring techniques, we have used our experience in direct work with elite wrestlers as a principle for a hypothesis on such an interconnection has been our experience in the work with the highest level wrestlers.

The subjects of this research are the wrestling techniques that the best wrestlers prefer and use dominantly during their competition, depending on their psychological characteristics. We have chosen just these psychological characteristics for which we assume that considerably affect not only successful learning and applying wrestling technique and tactics, but also the competitive style of each wrestler that most directly shows itself through his dominant scoring technique. If there is such an interconnection, intention is to try to explain the nature and the way of its functioning.

The basic aim of this research is to determine the interconnection between psychological characteristics of wrestlers and their dominant techniques they prefer in conditions of competitive performance – in a fight.

The following tasks have been set in connection with this aim:

- To examine the characteristics of psychological structure of the best wrestles in Serbia (at that time, Serbia and Montenegro),
- To determine the main scoring techniques of our most quality wrestlers,
- To determine which of the observed psychological characteristics have an significant effect on the choice of the dominant wrestling techniques.

METHOD

The sample of subjects

The research was conducted on the sample of 21 wrestlers of Greco – Roman style, aged 19 to 30, that were in the national team of Serbia and Montenegro in 2004.

The sample of variables

Predictor variables

The basic information about a psychological status of the members of wrestling representation of Serbia and Montenegro were provided by measuring their general psychological characteristics, such as anxiety, aggressiveness and extraversion, as well as by measuring situationally dependable, i.e. sports-related characteristics, such as sports self-confidence and sports competitive anxiety.

1. General anxiety, ALFA – principally its general factor is neuroticism, expressed as a sensorial and emotional over sensitivity. The trait of anxiety predisposes a person to perceive as threatening and dangerous a great number of situations that objectively are neither physically nor psychologically dangerous. The high level of anxiety indicate the disorder of the system for...
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defense regulation and it is expressed through a number of symptoms of fear, disturbance, worry, over-sensitivity, easy to be hurt, insecurity, uncertainty, etc.

2. Aggression, SIGMA – is the consequence of derangement of regulators of attack reactions i.e. weak control of immediate impulses that can lead to more of less destructive reactions, i.e. to verbal or physical aggressiveness, hostility, unwise reactions of anger, hatred, violation of the rules, swearing and bullying the others. In sport, it is often referred to so-called »good« or positive aggression, as opposed to the hostile, reactive or »bad« aggression. It is better, though, instead of the expression »good« aggression, to use the expression aggressive behavior, because it comprises decisive, strong, confident approach, the need to dominate, to do everything within the acceptable rules in order to reach the desirable result.

3. Extroversion, EPSILON – it represents one of the basic factors of personality. It is demonstrated through emphasized congeniality and activity, readiness to act and change, talkativeness, the lack of inhibition, lower sensitivity, the acceptance of novelties, impulsivity, open-heartiness, liveliness, carefree behavior, etc. Extroversion depends partially on basic functional level of regulators of activity, and partially on inhibitory functions of cortical processors (Momirovic et al. 1992).

4. Sports self-confidence, TSC - represents the level of confidence of a person of his own sports abilities, of his belief that could be successful in sports, to be able to overcome certain obstacles, to be able to concentrate, apply necessary tactics, technique or a strategy, to regain confidence after a weak performance, etc. Although sports confidence is a specific sport-related characteristic, it is significantly connected to general self-respect, age, gender and the length of sports experience of a competitor (Bacanac, Lazarevic, 1997).

5. Sports competitive anxiety, SCAT – according to Martens (1977), it represents an expression that describes individual differences in capability to comprehend a competitive situation as threatening and to react to it by a state of anxiety of different intensity level. The level of competitive anxiety is determined by personal characteristics of an athlete (general inclination towards anxiety reactions, self-respect), but also by certain situational factors, such as importance of a competition and uncertainty of its outcome. Competitive anxiety is shown as cognitive anxiety (worry, negative thoughts, and the loss of self-confidence) as well as somatic anxiety (the symptoms of increased physiological activation of different body systems).

Criterion variables

These variables include the following main scoring techniques of wrestlers:

1. Čipe (CCP): Throwing with grasp around head, at which the opponent is lifted to his back and flanks and by simultaneous stretching of legs and bending forward is thrown over.

2. Šulter (SSLTR): Throwing with grasp of arm and forearm, at which the opponent is lifted to his back and flanks and by simultaneous stretching of legs and bending forward is thrown over.

3. Rebur (RBR): Throwing after lifting from the mat with a reverse grasp of a body (left hand over right hip, and right hand over left hip).

4. Below hand under beck (ISPDRKNLDJ): the opponent is approached from behind with penetration beneath his hand.

5. Suple-aufrajser (SPLFRJZR): Throwing after lifting from the mat with normal grasp of a body (left hand under left hip and right hand over right hip) or
rotation of the opponent from the same position.

6. **Above hand under beck (PRNLDJ):** The opponent is approached from behind with pulling his arm aside.

7. **Belt (PJS):** Throwing oneself with back twisting backwards with grasping the opponent around his arm and waist.

8. **Melnica (MLNC):** Throwing with grasping the arm and forearm, at which the opponent is lifted to upper part of back and shoulders, and by simultaneous stretching of legs and body moving backwards and aside is thrown over or aside.

9. **Šlajder (SSLJDR):** Throwing over of the opponent with back twisting backwards with grasping of the opponent around his arm.

The method of monitoring and questionnaire is used to obtain these variables. The professional staff of the national team, consisting of three coaches, estimated the dominant technique of each wrestler. At the same time, each wrestler filled in a questionnaire about his main scoring technique. The results obtained by these two methods were completely in compliance.

Later, in the data processing, for easier observation and more reliable analysis, these nine techniques were grouped in four more general categories pursuant to the criterion of their biodynamical similarity. Thus, the number of the compared sub-samples was reduced, and thus the value of the obtained parameters of comparative statistics was increased, as well as the possibility to generalize the deducted conclusions. The new four criterion variables, formed by grouping of primary dominant scoring techniques, pursuant to their biodynamical similarity are the following:

1. **Side techniques (BOTE):** čipe, šulter, melnica,
2. **Lifting from mat (LIFTINGS):** rebur, suple-aufrajser,
3. **Reaching from the back (DONAL):** below hand under beck, above hand under beck,
4. **Throwing over oneself (PRESE):** belt, šlajder.

The interconnection of the preferable techniques with certain psychological variables was observed individually and in groups of techniques.

**Instruments and procedures**

**Anxiety trait** was measured by ALFA test from the KON-6 battery (Momirovic et al. 1992). The questionnaire comprises 30 anxiety indicators of self estimation type. On the five-level scale of Likert type each subject estimates whether the cited type of behavior describes him totally right (5), mostly right (4), not sure (3), mostly wrong (2), or totally wrong (1). Theoretically, the total score in this questionnaire varies between the minimum of 30 to the maximum of 150 points. Higher result is an indicator of a higher tendency of an athlete to react in numerous situations with symptoms of cognitive and somatic anxiety.

**Aggressiveness trait** was measured by SIGMA test from the KON-6 battery and also comprises 30 items of self estimation type of different kinds of behavior that indicate the deranged regulators of attack reaction, i.e. to the presence of higher or lower tendency to verbal, or physical, hostile of instrumental aggressiveness. Each item is followed by five-level scale of Likert type, so the scores in this questionnaire can theoretically vary from the minimum of 30 to the maximum of 150 points. Higher score is the indicator of higher tendency towards aggressive behavior.

**Regulation of activity or extraversion** was measured by EPSILON questionnaire from the KON-6 battery. The questionnaire comprises 30 items of self estimation type, i.e. a subject estimates on a five-level scale of how well a cited way of extraverted behavior describes him correctly, from completely wrong (1), to completely right (5). Theoretically, the scores in this questionnaire can vary from the minimum of 30 to the maximum of 150 points. Higher score is the indicator of weaker activity of reticular formation and stronger reactive inhibition, i.e. stronger, more endurable and less sensitive nervous system, which, on the level of behavior shows itself as higher orientation to outer world, openness, communicability, initiative, impulsiveness, self confidence, readiness to act, care freeness, leadership, etc.
Interconnection between some psychological characteristics of elite wrestlers and their main scoring techniques

Trait Sport Confidence is measured by TSC (Trait Sport Confidence) questionnaire written/made by Vealy (1986), and which was translated and adapted to be applicable for our population by Bacanac and Lazarevic (1997). The questionnaire comprises 13 items that measure the level of athlete’s confidence in different aspects of his sports abilities (to perform a certain tactics or technique, to concentrate during a fight, to regain confidence after a bad performance, to be successful, to make right decisions, etc.). Each item is followed by a 9-level scale which numbers represent very low (1, 2, 3), medium (4, 5, 6), or higher and very high confidence (7, 8, 9). Theoretically, each wrestler’s score on this test can vary from the minimum of 13 to the maximum of 117 points. A higher result is an indicator of a higher confidence level in one’s sports abilities and vice versa.

Sport competitive anxiety trait is measured by an extended version of SCAT (Sport Competitive Anxiety Test) questionnaire (Martens, 1977), written/made by Bacanac, 1993. She added 20 items to the original 10 items written by Martens, and therefore covered all aspects of pre-initial competitive anxiety – from somatic, physiological indicators (tachycardia, sore throat, wet palms, nausea, nervousness) to indicators of cognitive anxiety and self confidence (concern about the result, fear from failure and mistakes, the loss of concentration, contemplation about how the performance will be estimated, fear from unfulfilled goals, the loss of self confidence). Theoretical athletes’ scores on SCAT vary from the minimum of 30 to the maximum of 90 points, and higher result shows a higher level of pre-initial competitive activation, anxiety and tension, in other words, a higher level of competitive stress which, if it overpasses the boundary zone of an athlete’s optimal function, can disturb his attention and concentration (it becomes narrow and focused on a wrong goal), it can expand muscle tension, weaken coordination and therefore considerably reduce the quality of his competitive performance.

Testing with cited battery tests was conducted in an adequate room, without obstructive factors, noise and movement. While doing tests there was a visual barrier between subjects. Time for filling the test forms was not limited, but it was insisted on the fact that answers should be given without much thinking, that is, on the basis on what an athlete really feels. Before each test athletes were given detailed instruction in which it was specially emphasized that there are no right or wrong answers and that every answer is a good one as long as it is sincere, i.e. if it really describes their real behavior and feelings.

Usual methods of descriptive statistics were used for collected data processing. Techniques of statistical research were chosen in such a way to allow methodologically correct conclusion in relation to metric characteristics of monitored variables and effectiveness of sub-samples of the research. A negative influence of objectively small effectiveness of the basic sample of research was minimized in such a way, and the results gain validity, because they represent a real state registered in the sample of elite competitors. Taking into account that sub-samples of the research allowed to be regarded as statistically small samples in their effectiveness, and while the distribution of variables showed a considerable variation from the normal distribution, techniques which belong to the unit of non parametric statistical techniques were used for the analysis. Kruskal – Wallis test and Mediana test were used for that purpose, while the differences were regarded to be important if there were statistically important differences in any of these two tests.

RESULTS AND DISCUSSION

By monitoring and interviewing it was concluded that wrestlers, members of the national team, who were subjects of this research, as their main scoring techniques, used nine different techniques (Table 1).

By observing Table 1 we can notice that wrestlers use the least: rebur, suple-aufrajser, melnica and šlajder techniques for scoring. As dominant scoring techniques they were each used only by one wrestler. However, it seems that for wrestlers, the most favourite technique for scoring, is belt since 6 interviewed wrestlers stated it as their dominant technique, i.e 28.6% of the tested wrestlers. In other words, the majority of our national team wrestlers chooses to score in the fight by grasping the opponent around his arm and
waist and throwing him over. Šulter and čipe are
the next preferred scoring techniques, whose
common feature is in lifting an opponent on his
back and sides with grasp of arm and forearm, or
around the head and throwing him over. Both
techniques are categorized, pursuant to
biodynamical similarity, into a group of side
scoring techniques.

However, when the techniques, for easier
observation and analysis, are grouped pursuant to the
criterion of biodynamic similarity, then the
frequency of their usage looks differently (Graph 1).

Table 1. Frequency of usage of individual wrestling techniques

<table>
<thead>
<tr>
<th>Technique</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Čipe</td>
<td>3</td>
<td>14.28</td>
</tr>
<tr>
<td>Šulter</td>
<td>4</td>
<td>19.05</td>
</tr>
<tr>
<td>Rebur</td>
<td>1</td>
<td>4.76</td>
</tr>
<tr>
<td>Below hand under beck</td>
<td>2</td>
<td>9.52</td>
</tr>
<tr>
<td>Suple-aufraiser</td>
<td>1</td>
<td>4.76</td>
</tr>
<tr>
<td>Above hand under beck</td>
<td>2</td>
<td>9.52</td>
</tr>
<tr>
<td>Belt</td>
<td>6</td>
<td>28.57</td>
</tr>
<tr>
<td>Melnica</td>
<td>1</td>
<td>4.76</td>
</tr>
<tr>
<td>Šlajder</td>
<td>1</td>
<td>4.76</td>
</tr>
</tbody>
</table>

Graph 1. Graphic display of frequency of usage of four groups of dominant techniques

Graph 1 displays that our wrestlers most
frequently (38.1%) earn points by techniques of
throwing over (PRESE), followed by side (BOTE)
techniques (33.3%). The lowest
percentage of wrestlers opts for techniques of
reaching from the back (19.1%) and lifting from
the mat (9.5%).

By testing psychological features of
wrestlers subjected to this research, and by
 grouping them according to the criterion of main
scoring techniques preferred by the wrestlers, the
mean values of the tested psychological
characteristics individually for each technique
were obtained (Table 2).
When the psychological characteristics of the wrestlers were classified pursuant to the criterion of their main scoring techniques grouped based on biodynamical similarity, the average values of the observed psychological characteristics for each group of techniques were obtained (Table 3).

### Table 2. Average values of psychological parameters of wrestlers grouped according to their dominant techniques

<table>
<thead>
<tr>
<th>TECHNIQUES</th>
<th>ALFA</th>
<th>SIGMA</th>
<th>EPSILON</th>
<th>TSC</th>
<th>SCAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ČIPE</td>
<td>90.00</td>
<td>102.67</td>
<td>115.67</td>
<td>75.67</td>
<td>58.67</td>
</tr>
<tr>
<td>ŠULTER</td>
<td>65.00</td>
<td>75.25</td>
<td>113.75</td>
<td>69.25</td>
<td>60.75</td>
</tr>
<tr>
<td>REBUR</td>
<td>63.00</td>
<td>80.00</td>
<td>116.00</td>
<td>88.00</td>
<td>49.00</td>
</tr>
<tr>
<td>BELOW HAND UNDER BECK</td>
<td>72.00</td>
<td>88.00</td>
<td>99.50</td>
<td>88.00</td>
<td>52.00</td>
</tr>
<tr>
<td>SUPLE</td>
<td>76.00</td>
<td>95.00</td>
<td>118.00</td>
<td>91.00</td>
<td>52.00</td>
</tr>
<tr>
<td>ABOVE HAND UNDER BECK</td>
<td>76.00</td>
<td>83.00</td>
<td>101.50</td>
<td>70.50</td>
<td>46.00</td>
</tr>
<tr>
<td>BELT</td>
<td>80.66</td>
<td>90.67</td>
<td>120.33</td>
<td>78.16</td>
<td>57.50</td>
</tr>
<tr>
<td>MELNICA</td>
<td>89.00</td>
<td>106.00</td>
<td>119.00</td>
<td>87.00</td>
<td>68.00</td>
</tr>
<tr>
<td>ŠLAJDER</td>
<td>72.00</td>
<td>128.00</td>
<td>131.00</td>
<td>91.00</td>
<td>57.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>76.71</td>
<td>90.67</td>
<td>114.76</td>
<td>78.43</td>
<td>56.48</td>
</tr>
</tbody>
</table>

### Table 3. Average values of psychological parameters of wrestlers grouped pursuant to the groups of dominant scoring techniques

<table>
<thead>
<tr>
<th>Grouped techniques</th>
<th>Anxiety</th>
<th>Aggressiveness</th>
<th>Extraversion.</th>
<th>Sp. self-conf.</th>
<th>Comp. anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ALFA</td>
<td>SIGMA</td>
<td>EPSILON</td>
<td>TSC</td>
<td>SCAT</td>
</tr>
<tr>
<td>BOTE</td>
<td>75.71</td>
<td>87.00</td>
<td>114.57</td>
<td>72.00</td>
<td>59.86</td>
</tr>
<tr>
<td>LIFTINGS</td>
<td>69.50</td>
<td>87.50</td>
<td>117.00</td>
<td>89.50</td>
<td>50.50</td>
</tr>
<tr>
<td>DONAL</td>
<td>74.25</td>
<td>85.50</td>
<td>100.50</td>
<td>79.25</td>
<td>49.00</td>
</tr>
<tr>
<td>PRESE</td>
<td>80.62</td>
<td>97.25</td>
<td>121.50</td>
<td>80.87</td>
<td>58.75</td>
</tr>
<tr>
<td>TOTAL</td>
<td>76.71</td>
<td>90.67</td>
<td>114.76</td>
<td>78.43</td>
<td>56.48</td>
</tr>
</tbody>
</table>

By observing and analyzing of the obtained results it is possible to make certain conclusions which, with some reservation due to a relatively small sample, can point out to some general laws. Objective reasons did not allow us to perform these analyses on a sample with greater effect, and forced increase of the sample, by including the subjects who do not represent elite wrestling competitors, would lead to a conclusion which in methodological sense meet all the recommendations, but for the population which cannot be treated as elite competitors population. Although the obtained results cannot be generalized without reserves, they clearly indicate the observed tendencies on stronger or weaker interconnection of the choice of preferred technique of elite wrestlers with certain features of their psychological profile.

Implementation of Kruskal – Walis test (ANOVA according to ranks) and Mediana test, have demonstrated that in psychological profile of wrestlers who, according to dominant scoring technique, are classified in nine groups, there are no statistically significant differences. Thus, at this
moment, we cannot conclude that psychological structure of a wrestler, significantly determine his choice of technique he most frequently employs for scoring. However, such a result is certainly also conditioned by a small number of wrestlers who use some of nine scoring techniques, so though there are some tendencies (for example the wrestlers who use melnica and šulter techniques are featured by higher levels of sports competitive anxiety and somehow lower level of sports self-confidence) indicating certain specificities, they cannot be considered reliable, certain and stable indicators of interconnection of psychological characteristics of wrestlers with their choice of main scoring techniques in fights.

Table 4. Results of mediana test (Dependent variable: 4 groups of techniques)

<table>
<thead>
<tr>
<th>Psychological variables</th>
<th>Hi -square</th>
<th>SS</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALFA – anxiety</td>
<td>.0954</td>
<td>3</td>
<td>.9924</td>
</tr>
<tr>
<td>SIGMA – aggressiveness</td>
<td>.0954</td>
<td>3</td>
<td>.9924</td>
</tr>
<tr>
<td>EPSILON – extraversion</td>
<td>4.302</td>
<td>3</td>
<td>.2307</td>
</tr>
<tr>
<td>TSC – sports self-confidence</td>
<td>3.245</td>
<td>3</td>
<td>.3553</td>
</tr>
<tr>
<td>SCAT - competitive anxiety</td>
<td>9.545</td>
<td>3</td>
<td>.0229</td>
</tr>
</tbody>
</table>

However, when we observe the results of mediana test, which assessed significance of differences in psychological features of wrestlers classified in 4 groups of related scoring techniques (Table 4), we notice that statistically significant differences in their psychological profile still occur. To tell the truth, they are registered only in the trait of sports competitive anxiety – SCAT (p<0.02), which is expressed most in wrestlers using side techniques (BOTE), and the least present scoring technique in wrestlers who use techniques of reaching form the back – DONAL (Table 3, graph 2).

Graph 2. Graphic view of the level of competitive anxiety of wrestlers who prefer different groups of techniques
However, even prior to grouping of techniques according to their biodynamical similarity, it was noticed, that competitors, featuring the highest level of competitive anxiety, prefer melnica and šulter, and those with lowest results in this variable, reaching from the back, rebur, suple and aufrajser. These results indicate that competitors who, prior to competition performance, experience high levels of stress, anxiety, fear from failure and unfulfilling of their competitive objectives i.e. who experience competitions as threatening and menacing, mostly prefer the techniques with greater risk. Greater risk implies, that, when these techniques are performed unsuccessfully, the opponent gains a real material advantage for further continuation of the fight, i.e. he stays on the backs of the competitor who has tried throwing. On the other hand, competitors featured by lower levels of competitive anxiety, and are more relaxed, certain, concentrated and optimally activated prior to competitions, prefer techniques whose performance does not require such a risk. Unsuccessful performance of these techniques does not give concrete advantage to his opponent, except in cases of extremely rough errors, but the fighting continues in the position in which it was prior to the unsuccessful attempt. Similar laws are noticed even in variable of general anxiety. The subjects with the best regulation of general anxiety preferred rebur, while the subjects with the worst regulation of anxiety preferred čipe and melnica.

The subjects with better level of activity i.e. with less expressed tendencies to extrovert behaviour (impulsivity, recklessness, irritation, instability) preferred less risky scoring techniques, such as reaching from the back while the wrestlers with the worst indexes of activity regulation (high extraversion) preferred šlajder and belt (Table 2).

The subjects with the worst regulation of aggressiveness (the highest values in SIGMA test) preferred šlajder, melnica and čipe, while the best results in this variable (average level of aggressiveness) were achieved by the subjects who preferred sulter, rebur and reaching from the back. The analysis of this variable also leads us to similar conclusions, as the previous two. The competitors with worse regulation of aggressiveness more frequently prefer techniques with greater risk, while those with better regulation of aggressiveness more often prefer “more secure” techniques. The exception to this rule is noticed for sulter technique, preferred by the competitors with good regulation of aggressiveness. However, even this technique enables the competitor who is employing it, to perform an attempt of throwing with pretty small risk with regard to other so called side throwing, so it can be concluded that not even this technique deviates from the described laws.

It was also noticed that the competitors with highest scores at the test of sports self-confidence prefer šlajder, reaching from the back, rebur, suple and aufrajser while the competitors with lowest scores in this variable preferred čipe and šulter and reaching over the arm to the back. Even these results demonstrate that competitors with greater sports self-confidence more frequently prefer grips which unsuccessful performance does not grant concrete advantage to his opponent. This is probably the consequence of the opinion that an opponent should not be given a chance to profit from the mistake and thus surprise him. On the other hand, competitors, with slightly lower scores at the trait of sports self-confidence, more often prefer techniques with which they try to surprise the opponent exposing themselves to greater risk though. The reason of these competitors is often reduced to the fact that an attempt must lead to an outcome. Such an outcome can be in his favor or in his opponent’s favor, and attempt of attack sometimes may represent the need to cut the uncertainty resulting from the balance of the outcome.

When the wrestlers were classified into four groups according to biodynamical similarity of their preferred scoring techniques, it was determined that their psychological profile was statistically significantly different in the level of expression of sports competitive anxiety (Table 4). Higher level of sports competitive anxiety was noticed in subjects who prefer side techniques and throwing around themselves, and lower in those who prefer reaching from the back, and lifting from the mat (graph 2) Even
from these results it can be clearly seen that competitors with more expressed competitive anxiety more frequently prefer techniques which engage greater risk when performed, such as side throwing and throwing over, when compared to the competitors with lower level of competitive anxiety who more often prefer techniques of slightly smaller risk, such as reaching from the back, and lifting from the mat. Similar results are noticed in variable general anxiety, but the differences between the groups which prefer different throwing techniques are not statistically significant. It is also noted that the competitors with the worst regulation of aggressiveness and activity prefer throwing over themselves, while the competitors with the best regulation of aggressiveness and activity prefer reaching from the back. The noticed laws are confirmed even in variable of sports self-confidence. Namely, the most confident in their sports abilities are the wrestlers who prefer lifting from the mat, while the lest sports self-confidence, lest confidentiality in their sports competitive qualities was manifested in the wrestlers who prefer side throwing techniques.

CONCLUSION

The research conducted on the sample of 21 top Greco-Roman style wrestling competitors aimed to determine whether there is and of what nature is the functional relation between the choice of preferable competitive wrestlers’ technique, and certain characteristics of their psychological profile.

The obtained data confirmed that certain psychological qualities of wrestlers influence more or less the choice and usage of predominant scoring technique in conditions of their competitive performance. Although a statistically significant connection between the psychological structure of wrestlers and the preference to any of nine predominant scoring techniques was not established, it is doubtlessly determined that when these techniques were grouped by biodynamic similarity in four more general categories. The wrestlers, placed into four categories according to biodynamic similarity of their dominantly scoring techniques, statistically considerably differ according to the level of competitive anxiety expressiveness, i.e. according to their aptitude to manifest higher or lower level of stress, worry, symptoms of cognitive and somatic anxiety before their competitive performance. Other indicators of psychological profile of wrestlers, such as overall anxiety, aggressiveness and extraversion, as well as the level of sports self confidence, did not show significant discriminative value, i.e. cannot be regarded as factors that influence considerably to the choice of predominant scoring technique.

The results of the research show the following conclusions:

- Wrestlers characterized by a higher level of competitive sports anxiety predominantly use throwing techniques that have higher risk during their realization, and these are throwing over oneself and side throwing.
- Wrestlers characterized by more optimal (lower) level of pre-start competitive anxiety predominantly use throwing techniques that have lower risk level during their realization, and these are lifting from the mat and reaching from the back.
- Overall anxiety, aggressiveness and activity (extraversion) traits, as well as sports self confidence traits, did not show considerable discriminative influence to the choice of preferable technique, but their values show the tendencies similar to these noted in situational specific sports competitive anxiety trait. Competitors with worse regulation of overall anxiety and aggressiveness, those with more expressive symptoms of extravert behavior, as well as those with lower level of confidence into their sports abilities more often prefer more risky techniques and vice versa. The wrestlers characterized by a better regulation of overall anxiety and aggressiveness, those who incline to more introvert forms of behavior and have more sports confidence, often pick techniques that carry more risk.
• Wrestlers who prefer more risky pointing techniques probably subconsciously try to avoid the end of the fight in which the result is uncertain, while competitors who prefer techniques with lower risk do not have a problem with uncertain ending of the match which they want to avoid regardless of the price. Those who are more confident in their sports potentials believe in their success, and they carry on to their goal without necessary risk and rush.

The obtained results cannot be generalized because of relatively small sample, but they certainly have their practical and theoretical value, because they offer concrete guidelines for work with wrestlers and offer ideas for training process improvement. With punctual and regular choice of preferable throwing techniques that are harmonized not only with morphological and motoric characteristic of wrestlers, but also with psychological ones, it is possible to make the training process more rational and efficient, and the way to top achievement shorter and more solid.

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