Professional activities of a coach of martial arts and combat sports

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Key words: combat sports, martial arts, professional activities of a coach

Summary

Introduction. Currently the majority of martial arts treat sports competition as a form of controlling the skill level in a hand-to-hand combat (limited by rules and regulations), as a specific method of training and as a way of meeting expectations of young athletes. They exist along with typical combat sports (Brazilian jiu-jitsu, kick-boxing, mixed martial arts) and Olympic combat sports (boxing, judo, taekwondo, fencing, wrestling). Although they are included in the same group because of a direct type of a fight, they differ in fighting methods, rules as well as the structure of a training process. The aim of the study was to get to know the opinions regarding the significance of basic professional activities of a coach.

Material and methods. The opinions of 300 coaches and competitors of martial arts and combat sports were gathered using Tumanian’s questionnaire modified by Sterkowicz. On a scale from 1 to 4 the subjects marked twenty professional activities of a coach. The activities were ordered according to an itemised rating scale. The concurrence of opinions was examined using Spearman’s rank correlation coefficient.

Results. Out of nine types of a hand-to-hand combat under investigation, the coaches of six types chose managing technical preparation as the most important (rank 1) activity. Conducting research for scientific and methodological papers, keeping record and reporting as well as organising and refereeing competitions were marked by the subjects as less important or not important in the training process. The greatest similarities in the opinions regarding the importance of basic professional activities were noted in coaches of mixed martial arts and Brazilian jiu-jitsu (rsp=0.95, p<0.001) as well as in coaches of Olympic taekwondo and wrestling (rsp=0.92, p<0.001).

Conclusions. The opinions of coaches and competitors of martial arts and combat sports turned out to be diverse yet it was not possible to distinguish clearly between martial arts and combat sports. The significance of professional activities ought to be taken into consideration when educating coaches of different types of a hand-to-hand combat.

Introduction

Combat sports are classified in one category of sports characterised by a direct fight involving physical contact with an opponent. They form a wide range of sports that differ in fighting methods, tactics as well as rules and regulations. Therefore, they require a different approach to a training process and a different intensity of basic professional activities of a coach. Consequently, participants of instructor or coach courses ought to undergo diverse training depending on the type of a sport. Olympic combat sports are obviously more attractive to scientists and researchers in terms of different aspects of preparation and competition. The other ones, particularly those which are not severed from their historical roots but do not focus on training oriented at sports competition, are in a more difficult situation. Modern training and optimal preparation of future coaches require combining knowledge that comes from practical experience and scientific achievements.
The subjects demonstrated long training experience (between 3 and 17 years) and their coaching experience was very diverse (from half a year to 10 years).

A diagnostic poll method was employed in the study. Tumanian's questionnaire modified by Sterkowicz et al. was used [7, 9]. The questionnaire contained a list of 20 basic professional activities of a coach. They were marked by the respondents as follows: 1 – very important, 2 – important, 3 – less important, 4 – not important.

Selected types of statistics were used in the analyses (mean values, standard deviation and weighted means were calculated for each activity and then marked on an itemised rating scale). The concurrence of opinions was examined using Spearman’s rank correlation coefficient.

A list of 20 basic professional activities of a coach includes:

1. Managing physical preparation
2. Managing tactical preparation
3. Managing technical preparation
4. Managing volitional preparation of competitors
5. Managing theoretical preparation of competitors
6. Managing athletes during competitions
7. Controlling a training process and the state of the athlete's body

Table 1. Characteristics of the subjects (n=300)

<table>
<thead>
<tr>
<th>Variables</th>
<th>BJJ (n=34)</th>
<th>Boxing (n=11)</th>
<th>Capoeira (n=16)</th>
<th>MNA (n=34)</th>
<th>Karate (n=31)</th>
<th>TKDO (n=13)</th>
<th>ITF (n=95)</th>
<th>Wrestling (n=48)</th>
<th>Self-defence (n=18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>26.3±7.1</td>
<td>35.9±11.5</td>
<td>18.1±3.6</td>
<td>25.5±6.9</td>
<td>29.9±7.9</td>
<td>30.3±7.1</td>
<td>27.1±7.1</td>
<td>35.5±10.2</td>
<td>23.1±1.1</td>
</tr>
<tr>
<td>Training experience (years)</td>
<td>7.0±6.9</td>
<td>9.8±5.4</td>
<td>3.4±2.2</td>
<td>7±7.7</td>
<td>12.7±4.9</td>
<td>15.8±7.6</td>
<td>12.2±5.4</td>
<td>11.4±5.0</td>
<td>3.5±3.6</td>
</tr>
<tr>
<td>Coaching experience (years)</td>
<td>3.1±3.9</td>
<td>9.5±6.9</td>
<td>0.6±1.4</td>
<td>2±4.1</td>
<td>2.8±2.5</td>
<td>6.8±5.2</td>
<td>5.1±6.2</td>
<td>8.3±9.5</td>
<td>0.6±0.4</td>
</tr>
</tbody>
</table>

(n=11). The subjects demonstrated long training experience (between 3 and 17 years) and their coaching experience was very diverse (from half a year to 10 years).

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Table 2. The rank of professional activities according to coaches of martial arts and combat sports

<table>
<thead>
<tr>
<th>No.</th>
<th>Basic professional activities of a coach</th>
<th>BJJ</th>
<th>Boxing</th>
<th>Capoeira</th>
<th>MMA</th>
<th>Karate</th>
<th>TKDO</th>
<th>ITF</th>
<th>Wrestling</th>
<th>Self-defence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Managing physical preparation</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Managing tactical preparation</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Managing technical preparation</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<td>4</td>
<td>Managing volitional preparation</td>
<td>7</td>
<td>11</td>
<td>10</td>
<td>7</td>
<td>14</td>
<td>5</td>
<td>10</td>
<td>8</td>
<td>4</td>
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<tr>
<td>5</td>
<td>Managing theoretical preparation</td>
<td>13</td>
<td>12</td>
<td>7</td>
<td>12</td>
<td>15</td>
<td>11</td>
<td>16</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>Managing athletes during competitions</td>
<td>4</td>
<td>14</td>
<td>17</td>
<td>13</td>
<td>10</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td>Controlling a training process and an athlete</td>
<td>9</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>6</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>8</td>
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<td>8</td>
<td>Supervising school education</td>
<td>19</td>
<td>17</td>
<td>11</td>
<td>17</td>
<td>19</td>
<td>18</td>
<td>19</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>9</td>
<td>Organising and refereeing competitions</td>
<td>17</td>
<td>19</td>
<td>20</td>
<td>18</td>
<td>18</td>
<td>20</td>
<td>9</td>
<td>18</td>
<td>19</td>
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<td>10</td>
<td>Organising sports camps</td>
<td>11</td>
<td>8</td>
<td>14</td>
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<td>2</td>
<td>9</td>
<td>18</td>
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<td>11</td>
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<td>12</td>
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<td>10</td>
<td>5</td>
<td>15</td>
<td>10</td>
<td>16</td>
<td>8</td>
<td>15</td>
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<td>12</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>7</td>
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<tr>
<td>14</td>
<td>Improving the manners of competitors</td>
<td>12</td>
<td>15</td>
<td>13</td>
<td>15</td>
<td>11</td>
<td>16</td>
<td>13</td>
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<td>9</td>
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<tr>
<td>15</td>
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<td>20</td>
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<tr>
<td>16</td>
<td>Keeping record and reporting</td>
<td>18</td>
<td>18</td>
<td>16</td>
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<td>17</td>
<td>17</td>
<td>20</td>
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<tr>
<td>17</td>
<td>Conducting recruitment and selection</td>
<td>15</td>
<td>10</td>
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</tr>
<tr>
<td>18</td>
<td>Preparing instructors and referees</td>
<td>16</td>
<td>20</td>
<td>19</td>
<td>16</td>
<td>13</td>
<td>12</td>
<td>11</td>
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<td>Solving organisational problems</td>
<td>8</td>
<td>13</td>
<td>6</td>
<td>9</td>
<td>9</td>
<td>15</td>
<td>5</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>20</td>
<td>Providing first aid</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>14</td>
<td>12</td>
<td>11</td>
<td>5</td>
</tr>
</tbody>
</table>
8. Supervising the progress of athletes at school
9. Organising and refereeing competitions
10. Organising sports camps
11. Organising educational work in a group
12. Organising the process of recovery and relaxation
13. Planning the process of preparing competitors
14. Improving the manners of competitors
15. Conducting research for scientific and methodological papers
16. Keeping record and reporting
17. Recruiting and selecting candidates to training groups
18. Preparing instructors and referees
19. Solving organisational problems related to training
20. Providing first aid

Results

Out of nine types of a hand-to-hand combat under investigation, the coaches of six types chose managing technical preparation as the most important (rank 1) activity (table 2). In most cases, managing physical and tactical preparation, providing first aid and planning the process of preparing competitors were also selected as crucial in their professional work.

Conducting research for scientific and methodological papers, keeping record and reporting as well as organising and refereeing competitions were marked by the subjects as less important or not important in the training process.

The studied types of a hand-to-hand combat can be divided into those which meet the criteria of combat sports or martial arts [10]. The biggest differences in the opinions of representatives of five combat sports (including two Olympic ones) concerned providing first aid, recruiting and selecting candidates to training groups as well as managing athletes during competitions (Figure 1).

In martial arts the largest differences of opinions were observed in the case of managing volitional preparation of competitors, organising sports camps and planning the process of preparing competitors (Figure 2).

The greatest similarities in the opinions regarding the importance of basic professional activities were noted in coaches of mixed martial arts and Brazilian jiu-jitsu (rsp=0.95, p<0.001) as well as in coaches of Olympic taekwondo and wrestling (rsp=0.92, p<0.001) – Table 2.

The greatest differences in the opinions of coaches of combat sports and martial arts were observed between representatives of boxing and ITF taekwon-do (rsp=0.46, p<0.05)

Figure 1. Comparison of the ranks of basic professional activities of a coach in five combat sports

Figure 2. Comparison of the ranks of basic professional activities of a coach in four martial arts
– figure 3. In as many as six professional activities the differences turned out to be bigger than seven ranks (insignificant at the level of $p<0.05$).

**Discussion**

The dominance of activities connected with managing technical, physical and tactical preparation of a competitor should not come as a surprise taking into account the specificity of martial arts and combat sports. Similar results were obtained by Sterkowicz, who examined coaches of ju-jitsu and karate Kyokushin [5]. Coaches of judo, wrestling and hapkido also expressed similar opinions. It might be surprising that volitional preparation of a competitor ranked low (coaches of karate – rank 14, boxing – rank 11, taekwon-do ITF and Capoeira – rank 10) [6-8]. It may stem from the lack of proper education, i.e. not understanding the term ‘volitional preparation’ correctly. Another reason might be the fact that the methods of strengthening competitors’ character applied in sports do not prove correct in martial arts and combat sports, as participating in training sessions and competitions itself is an excellent way of improving mental strength.

The opinions regarding providing first aid differed considerably as well. It ranked the highest among Capoeira coaches (rank 3) as well as coaches of boxing and karate (rank 4). Such opinions are influenced by a high risk of picking up an injury during training sessions (complex coordination movements in Capoeira, fights with limitations or fights without reducing the strength of strikes in boxing and karate) and sports competitions [11-13]. Managing athletes during competitions (activities before, during and after a fight) ranked high among MMA and BJJ coaches (rank 4) as well as coaches of ITF taekwon-do, i.e. among the representatives of sports with different rules and regulations. A good preparation of a competitor also involves being able to listen to a coach and following the plan of a fight or its proper modifications depending on a given situation [14]. None of the twenty basic professional activities ranked low among the coaches of Olympic taekwondo (n=13). The findings do not show clearly that it is possible to distinguish between martial arts and combat sports on the basis of ranking professional activities of a coach. In educating professional coaches it is also necessary to take into consideration various aspects connected with training, educating, shaping as well as with competences.
Conclusions

1. Technical preparation and motor preparation of competitors are dominant in martial arts and combat sports training.
2. Scientific research, keeping record by a coach and organising sports competitions are not important in the training of good athletes in combat sports.
3. It is not possible to distinguish clearly between martial arts and combat sports on the basis of ranking professional activities of a coach.
4. Research results point to the most essential elements that ought to be included in educational curricula aimed at candidates for instructors and coaches of martial arts and combat sports.

References


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