Summary
Research aim was to establish peculiarities of well-being, activity, mood and optimism of adolescents engaged in sport. Research hypothesis was that sports activities would be beneficial to adolescents’ well-being and optimistic way of thinking. We investigated adolescent athletes of two age groups: 12.81±0.38 and 16±0.49 years of age, 90 athletes in each group. The survey included two measures: one for well being, activity and mood, the other – for the establishment of the optimistic way of thinking. Student’s t test was used to verify the hypotheses of mathematical statistics. The data in the research article show statistically significant differences (p<0.05) between adolescents engaged in sport and not engaged in sport in all investigated parameters. It was established that indices of well-being, activity, mood and optimistic way of thinking for athlete adolescents were higher compared to those of adolescents who had just started regular training sessions.

Introduction
In this research we define well-being as the feeling of an inner state which is determined by physiological and mental factors. It is their evaluation of their inner state. Mood is perceived as a background for positive or negative emotional activity, which sort of “colours” mental processes. Activity is seen as a personal trait which is characterized by the pursuit of planning and implementing solutions, managing and regulating their actions. Optimistic way of thinking could be defined as thinking, which gives people confidence, strength, leads to a positive attitude towards the environment, challenges and the future [1]. Sports activities have a positive effect on mental health. The findings of long-term studies show that adolescents regularly engaged in sport demonstrate more optimism and satisfaction with their performance [2]. Regular physical load reduces stress. In good physical shape and well-being, stressful situations are adequately addressed; people are able to face common problems more calmly [2]. Sports and physical activity in adolescence can be a good temporary measure to alienate from stress; it brightens well-being, improves planning activities, and prevents the spread of fear and depression. Due to physical activity and sports attention is taken away from everyday problems, which helps to cope with stress [3].

The findings of studies confirm [4] that sports activities positively affect emotions. Even a ten-minute walk has a positive effect on optimism, happiness, personal approach to problems, and physical well-being [5].

M. Kavussanu and E. McAuley [6] conducted a study to determine whether the difference in physical activity level (low, moderate or high) was associated with optimism. The results showed that the subjects exposed to high physical activity were much more optimistic and less pessimistic than sedentary or slightly physically active subjects. Optimism gives people confidence, strength, leads to a positive attitude towards the environment, its challenges and the future. Optimists can better control the situation, they are healthier (Scheier, Carver, 1992) and in a better mood, their immune system is stronger [4]. Optimists achieve better results in a variety of activities (work, academic field, sport), they are more popular, often enjoying good relations with other people [7].

Hypothesis: sports activities may be beneficial for adolescents’ well-being and optimistic way of thinking.

Research aim was to establish peculiarities of well-being, activity, mood and optimism of adolescents engaged in sport.

Respondents and research methods
Research included adolescents attending basketball
schools. The subjects were involved into two groups: A – attending training sessions for the first year; and B – attending training sessions for four years. All in all the study included 180 adolescents, 90 adolescents in each group. The age of subjects in Group A was 2.81 ± 0.38 years and 16 ± 0.49 years in Group B.

The study employed the following methods: SAN - test for emotional state [8]. SAN test name derives from the first letters of the words: S – well-being, A - activity, N – mood (in the Lithuanian language). The test is composed in a form of a table. It contains 30 pairs of words with opposite meanings referring to different characteristics of well-being, activity and mood. Each category is characterized by 10 pairs of words: 10 – for well-being, 10 – for activity, 10 – for mood. SAN test results were assessed on a nine point scale as follows: 1-3 - low level, 4-6 – moderate level and 7-9 - high-level [8].

Questionnaire validity was verified using Cronbach’s alpha test (α = 0.81).

The optimistic way of thinking was established by means of optimism survey questionnaire [9]. The questionnaire was composed of 56 statements: 18 statements measuring the optimistic way of thinking (for example: “when I take up something new, I usually think I will succeed”); 18 statements measuring non-optimistic (pessimistic) way of thinking (e.g., “I often do not expect that something good happens to me”), and 20 statements controlling respondents (questionnaire filter). Respondents were asked to specify how much they agreed with each item on a 4-point Likert scale (e.g., strongly agree - 4 points, while completely disagree - 1 point). Minimum evaluation of the scale was 18 points, maximum - 72 points. Questionnaire validity was verified using Cronbach’s alpha test (α = 0.77).

During the survey all information was collected directly from the research participants on their voluntary participation in the study. Adolescents were investigated in between the competition period, so that the results were not influenced by the pre-competition or post-competition emotional state.

Student’s $t$ test was used to verify the hypotheses of mathematical statistics, the level of statistical significance was set at ($p<0.05$). The survey data were processed by a computer program SPSS 13.0 for Windows.

### Research results and their analysis

Statistical indicators of well-being, activity and mood for adolescent athletes are presented in Table 1.

It was established that adolescents in Group A demonstrated statistically significantly ($p<0.05$) higher levels of well-being, mood and activity compared to subjects in Group B.

### Table 1. Statistical indicators of well-being, activity and mood for adolescent athletes

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Group A</th>
<th>Group B</th>
<th>$t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well-being</td>
<td>6.55±1.17</td>
<td>6.89±1.14</td>
<td>-1.97*</td>
</tr>
<tr>
<td>Activity</td>
<td>6.03±1.34</td>
<td>6.42±1.27</td>
<td>-2.00*</td>
</tr>
<tr>
<td>Mood</td>
<td>4.63±1.07</td>
<td>4.96±1.15</td>
<td>-1.99*</td>
</tr>
</tbody>
</table>

*Note. Group A - adolescents attending sports training sessions for one year; Group B – adolescents attending sports training sessions for four years; *$p<0.05$. 

Research data obtained by means of optimism survey questionnaire are reported in Table 2.

### Table 2. Indices of optimistic/pessimistic way of thinking for adolescent athletes

<table>
<thead>
<tr>
<th>Way of thinking</th>
<th>Group A n = 90</th>
<th>Group B n = 90</th>
<th>$t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimistic</td>
<td>40.69±5.02</td>
<td>50.24±5.16</td>
<td>-2.04*</td>
</tr>
<tr>
<td>Pessimistic</td>
<td>43.79±5.64</td>
<td>42.16±5.33</td>
<td>1.99*</td>
</tr>
</tbody>
</table>

* $p<0.05$.

Adolescents attending sports training sessions for more years demonstrated statistically significantly ($p<0.05$) higher levels of optimistic way of thinking. Pessimistic way of thinking statistically significantly ($p<0.05$) was more characteristic of adolescents who had been training only for one year compared to their counterparts training for four years. Therefore, it can be assumed that sporting activities favorably affect the optimistic way of thinking.

Our study results are consistent with other authors’ findings, where a positive relationship between physical activity and optimism has been established [5, 6, 10]. The fact that with the increasing scope of physical activity, schoolchildren’s way of thinking became more optimistic was most relevant to the findings in the studies of M. Kavusssanu and E. McAuley [6]. The data of the survey in this population, which lasted for ten years, showed that physical activity level was positively associated with overall personal well-being, positive thoughts, a better mood, lower anxiety and depression symptoms.

Summarizing the results it can be stated that our hypothesis raised at the beginning of the research suggesting that sports activities would favorably affect adolescents’ well-being and optimistic way of thinking was confirmed. The findings of this study have expanded the knowledge.
revealed in other studies [11, 12, 13] about the supportive influence of physical activity (in our case - sports activities) on the psycho-emotional state of adolescents.

**Conclusions**

Adolescents regularly attending sports training sessions for four years assessed their well-being, activity and mood better than those who had only started regular training sessions.

It was revealed that optimistic way of thinking was more common among those adolescents who had been training regularly for four years compared to the beginners (p<0.05).

**References**


