Peculiarities of pre-competition emotional state of the Lithuanian national kayak and canoe rowing team members and junior kayakers and canoeists

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Abstract
The pre-competitive state of an athlete is dependent on an athlete's psychological preparation. Pre-competitive emotional state is a condition that occurs in athletes about two weeks prior to the competition and continues until it begins (Malinauskas, 2010). The pre-competitive state manifests itself for each athlete individually, and the manifestation of this state depends on the significance of the race, the competitor's capacity, the quality of organizing the match, the coach and other important human behavior patterns as well as the individual characteristics of an athlete.

In order to achieve the best sporting results, research must be carried out to find out if athletes are properly prepared for the intended race, what is their pre-competitive emotional state.

Research discussion and conclusions. The questionnaire survey and the result analysis of the SAN test revealed that the pre-competitive state of members of the Lithuanian national kayak and canoe rowing team did not differ statistically from the state of junior kayakers and canoeists (p > 0.05). However, a high level of pre-competitive emotional state (77%) dominated among members of the Lithuanian national kayak and canoe rowing team as compared to junior rowers when slightly more than half of the athletes had an average level of emotional state before the competition (54%). This means that the members of the Lithuanian kayak and canoe rowing team did not have a negative impact on their state during the competition and they felt better than junior kayakers and canoeists.

Differences in well-being and mood between the Lithuanian kayak and canoe rowing team members and young kayakers and canoeists were not statistically significant (p > 0.05), but the activity of both groups appeared to be statistically significant (p < 0.05). The activity of elite Lithuanian kayakers and canoeists was higher than that of young kayak and canoe rowers. The situational and personal anxiety of Lithuanian kayak and canoe rowing team members and junior kayakers and canoeists was not statistically significant (p > 0.05).

Keywords: kayak and canoe rowers, junior kayakers and canoeists, pre-competitive emotional state.

Introduction
Research problem. Psychological training of an athlete is a complex process without which very good results cannot be achieved. The decisive role in achieving a sporting victory in competitions is played by the athlete's psychological preparation, when the technical, tactical, physical, functional and other possibilities are balanced (Miškinis, 2006). The athlete's pre-competitive state is dependent on the athlete's psychological preparation. Pre-competitive emotional state is a condition that occurs toathletes up to about two weeks prior to the competition and continues until it begins (Malinauskas, 2010). The pre-competitive state manifests itself for each athlete individually, and the manifestation of this state depends on the significance of the race, the competitor's capacity, the quality of organizing the match, the coach and other important human behavior patterns as well as the individual characteristics of the athlete. Stress is one of the main components of the pre-competitive emotional state, accompanied by anxiety and apprehension (Arnold, 1967). The athlete's well-being, activity and mood also play an important role in the athlete's pre-competitive emotional state. According to K. Miškinis (2012), an athlete will not be able to achieve good sports results if he is controlled by negative emotions, low self-confidence, and these will overwhelm positive emotions. Some very important problems related to the mental state of athletes have been occurring recently (Meidus, 2004). Therefore, it becomes interesting to explore and carry out the deeper analysis of emotions, feelings and pre-competition state of the athletes.

In Lithuania, a number of studies have been carried out on the peculiarities of the pre-competitive emotional state of athletes in different...
sports: T. Skučas (2003) discussed pre-competitive emotions of high-performance table tennis players; K. Duobaitė (2008) analyzed pre-competitive and competitive emotional states of junior and juvenile swimmers; R. Indrulis (2011) was interested in the well-being, activity, mood and self-confidence of high-performance rowers. However, no research can be found in the pre-competitive emotional state of kayakers and canoeists, so it is significant to analyze and compare the pre-competitive emotional states of the Lithuanian kayak and canoe rowing team members and junior kayakers and canoeists.

**Research object** was the pre-competitive emotional states of Lithuanian kayak and canoe rowing teams and junior kayakers and canoeists.

**Research aim** was to identify and compare the pre-competitive emotional states of Lithuanian kayak and canoe rowing members and junior kayakers and canoeists.

Professional sport is commonly inseparable from the competition and competitiveness, which causes anxiety and excitement for many athletes (Jarvis, 2006). One of the main tasks of athletes, coaches and sports psychologists before the race is to ensure the athlete’s competitive status, which would allow revealing the athlete’s skills and preparation. Pre-competitive state – personality and future event, that is, competition, interaction, is determined by many internal and external factors. This may be the psychophysical attitude of the athlete's body to upcoming competitions and adaptation, manifested by mental changes (willingness to start, belief in the best result achievement), increased blood flow, increased respiration, changes in the metabolic system (Stonkus, 2002). The emotional states of athletes depend on the significance of the race, the competitor's capacity, the quality of organizing the match, the coach and other important human behavior patterns as well as the individual characteristics of the athlete (Malinauskas, 1998).

The goal of the coach is to turn negative emotions into positive ones and to properly set the athlete for future activities. In this way, the coach forms the athlete’s attitude. An attitude is a long-term, strong intellectual, emotional view that increases or inhibits power for activity (Stonkus, 2002). Attitude, the ability to turn negative actions into positive, helps to mobilize forces and achieve good sports results. Thus, it is the duty of each coach and sports psychologist to help the athlete to overcome or somewhat dampen the negative emotional states (excessive stress, anxiety, excitement) so that these negative emotions to not adversely affect the results. The decisive role in achieving a sporting victory in competitions is played by the athlete’s psychological preparation, when the technical, tactical, physical, functional and other possibilities are equal (Miškinis, 2006).

The athlete's success during the competition depends on their ability to combine physical, technical skills and psychology (Kasulis, Čižauskas, 1997). Frequently, athletes do not have psychological preparation (i.e., behave referring to their experience). Therefore, it happens that the athlete is only able to operate under simple conditions, but is unable to concentrate on the result in stressful situations. It can be claimed that without psychological preparation it is difficult to overcome competitors as well as yourself. Psychology in sport is a determining factor in high performance and can account for about 30 percent of all abilities of the athlete. A study conducted by R. Urmulevičiūtė (Žilinskienė) (2001) found that only 3 (10%) athletes from the Lithuanian Olympic team used the help of sports psychologists to prepare for the Sydney Olympic Games. However, the majority, even 22 (73%) athletes, missed the help of sports psychologists and believed that sports psychologists should work with athletes on a regular basis. All (except one) athletes replied that they were interested in psychology and thought it was an important aspect of sport.

The athletes’ mastery depends on the athlete's experience to control their emotional states. Successful athletes must be well psychologically prepared and possess personality traits that will withstand a high volume and intensity training as well as the spirit of a fighter and winner needed during the competition. The success of kayaking and canoeing sport and good competition results are determined not only by effective technique, tactical skills, strength, endurance, speed, but also by the “winner’s” psychology (Szanto, 2014).

**Methodology. Research organization.** The study was conducted during the kayaking and canoeing training camp one week before the competition (Nelo Winter Challenge 2018) in Portugal, February 2018. Questionnaires were distributed to the members of the Lithuanian national team: the SAN test and Spielberg-Chanin’s scale. The juniors completed the questionnaires later, electronically in April, one
week before the competition (Lithuanian Kayak and Canoe Rowing Marathon Championship). The questionnaire poll was conducted anonymously, following all principles of honesty, so each of the respondents agreed to participate in the study. Before submitting the questionnaires, the subjects were introduced to the purpose of the study and instructions for marking the answers.

Research sample. The survey was attended by members of the Lithuanian national kayak and canoe rowing team and junior kayakers and canoeists (under 18). A total of 26 rowers (13 elite (1 female, 12 males) and 13 junior (4 females, 9 males)) participated in the research. The average age of elite rowers was 25 (±6) years (the oldest 32, the youngest 20). The average age of junior rowers was 16 (±2) years (18 for the oldest, 14 for the youngest).

The average sporting experience of national team members was 13.3 (±6.5) years, and the juniors – 4.6 (±1.5) years.

Research instrument. The questionnaire consisted of two tests: the SAN test and Spielberg-Chanin’s scale. SAN – the acronym for the words: W – wellbeing, A – activity, M – mood. The SAN test can be used to evaluate a person’s emotional state by three parameters: wellbeing, activity and mood. The self-assessment test results are convenient for comparison with other data. Test data can be correlated with the results of other widely used psychophysiological tests (Malinauskas, 2003b). The test is based on the table principle. It contains 30 word pairs of opposite meanings that define different peculiarities of well-being, activity and mood. Assessment of well-being, activity and mood: 1–3 – low; 4–6 – average; 7–9 – high (Malinauskas, 2003b). S. Spilberg-J. Chanin’s scale is designed to assess the level of situational and personality anxiety. S. Spilberg-J. Chanin’s methodology consists of two scales of 20 questions, 40 questions in total.

Situational anxiety shows the state of the athlete at some point (for example, in the competition) (Malinauskas, 2003b). The scores obtained are summed up and the results of the athletes’ anxiety are evaluated as follows: 0–30 points – low anxiety; 31–45 points – average anxiety; 46 points and more – high anxiety. Personality anxiety is the tendency to react sensitively in every real or supposedly insurmountable situation (Malinauskas, 2003b). The personality anxiety results of kayakers and canoeists were evaluated as follows: 20–40 points – average anxiety level; 41–60 points – increased anxiety; 61–80 and more – high level of anxiety.

Statistical analysis of the survey data using SPSS 17.0 was performed to calculate the results of the study. The results of the questionnaires were given in points and percentages. The arithmetic mean (x), the standard deviation (S) and the arithmetic mean standard error (Sx) were used to calculate the results. The Student’s t test was used to determine the reliability of the results. Chi square (χ²) criterion was used to compare different groups. The difference was considered statistically significant when p < 0.05

Research results and discussion. The assessment of the well-being of the subjects (SAN test) revealed that during the pre-competitive period, the well-being of the Lithuanian kayak and canoe rowing team members was 6.63 (±.145) points and junior rowers – 6.08 (±2.25). Their average difference was 0.55 points. The difference between the team members and the juniors did not differ significantly (p > 0.05). Student t value was 0.12. Having analyzed the activity of the subjects by scores (SAN test), it was found that during the pre-competitive period the average level of activity of Lithuanian kayak and canoe rowing team members was 6.33 (±1.45), while that of junior kayakers and canoeists was 5.55 (±1.85). The average difference was 0.78 points. The results differ significantly (p < 0.05). The value Student t was 0.04. The percentage distribution of the pre-competitive mood of the members of the team coincided with the distribution of activity (77% – high mood, 23% – average mood), 62 percent of young kayakers and canoeists possessed the high-level pre-competitive mood, but 38 percent of them had the average level of mood. None of the subjects had low mood levels. According to the chi square criterion, there were no statistically significant differences between the Lithuanian kayak and canoe rowing team members and junior kayakers and canoeists in reference to pre-competitive situational anxiety (p > 0.05) (Spilberg-Chanin’s scale). The results in Table 1 showed that 10 team members were characterized by the low level situational anxiety during the pre-competitive period, 3 team members had the average level of anxiety, and none of the team members had the high level of anxiety. Among the young kayakers and canoeists, 8 athletes had a low level of pre-competitive anxiety, 4 – an
average state of anxiety, and one athlete had a high level of anxiety before the competition.

Table 1

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Assessment of situational anxiety level</th>
<th>χ²(2) value and significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low (≥30)</td>
<td>Average (31–45)</td>
</tr>
<tr>
<td>Kayak canoe rowing (KCR) team, n = 13</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>KCR juniors, n = 13</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

The results in Table 2 demonstrate that the average level of pre-competitive personal anxiety (apprehension) was experienced by 4 members of the team, and the increased personal anxiety – 8 members of the team, and one member of the team had high anxiety. Among the young kayakers and the canoeists, 5 athletes had an average personal anxiety before the race, 7 athletes – an increased level of anxiety, and one of the junior representatives was characterized by high anxiety level (Spielberg-Chanin's scale). Having applied the chi square criterion, it was found that there were no statistically reliable differences between the Lithuanian kayak and canoe rowing team members and the junior kayakers and canoeists in reference to the pre-competitive personal anxiety (p > 0.05).

Table 2

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Assessment of personality anxiety level</th>
<th>χ²(2) value and significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average (20–40)</td>
<td>Increased (41–60)</td>
</tr>
<tr>
<td>Kayak canoe rowing (KCR) team, n = 13</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>KCR juniors, n = 13</td>
<td>5</td>
<td>7</td>
</tr>
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</table>

The questionnaire survey and the analysis of the results of the SAN test revealed that the pre-competitive state of the members of the kayak and canoe rowing team of Lithuania did not differ statistically from that of junior kayakers and canoeists (p > 0.05). However, a high level of pre-competitive state (77%) prevails among the team members, with slightly more than half of junior athletes having an average level of state before the competition (54%). This means that the members of the Lithuanian national team did not experience a negative influence by their feelings, and their state is better than that of young kayakers and canoeists. Statistically reliable results (p < 0.05) were obtained by analyzing the activity of kayakers and canoeists during the pre-competitive period. Members of the Lithuanian national team (62%) had a high level of activity, while the majority of young kayakers and canoeists (62%) had an average activity level. The results of the SAN test mood assessment showed that both elite Lithuanian rowers and young kayakers and canoeists were in good mood before the race (had a high mood level), but the results did not differ significantly (p > 0.05). According to Lane (2001), mood is an inappropriate variable in determining an athlete’s performance. This depends more on the individual characteristics of the individual athlete. Berger and Molt (2000) found that athletes with high physical activity levels have better emotional states. They also found that satisfaction with performance is a very important criterion in terms of physical activity and emotional improvement. Moreover, their research found that emotional state is also important during physical activity. Thayer et al. (1994) found that physical activity has the greatest impact on all emotional states. The results of these studies coincide with the results of our study, because both groups of subjects are of high physical activity and have an average and high level of positive emotions, and none of the subjects had low (negative) state, activity and mood level.

Anxiety is the most difficult obstacle to athletes who want and try to improve their sporting performance. Pre-competitive anxiety is particularly common in individual sports. This is because the athlete starts race alone, one with their anxiety, fears and desire to be the best (Ortiz, La Grange, 2006). In our study, using Spielberg-Chanin’s anxiety scale, it turned out that the pre-competitive anxiety level of Lithuanian kayak and canoe rowing team members is low and only 23 percent of this group was characterized by an average level of pre-competitive anxiety. There was no elite rower with the high level of anxiety before the race. Young kayakers and canoeists also had a low level of pre-competitive situational anxiety (61%), and one young rower had a high pre-competitive situational level of anxiety. However, when comparing the groups of subjects, their results did not differ significantly.
(p > 0.05), so it may be claimed that Lithuanian elite rowers as well as junior rowers feel low level of pre-competition anxiety. Situational anxiety shows the state of the athlete at some point, the situational anxiety arises in extreme situations (competitions) (Malinauskas, 2003b). A study conducted by Mellalieu (2006) claimed that both elite and non-elite athletes are affected by personal traits. When comparing the pre-competitive personal anxiety (apprehension) of the Lithuanian national team members and of young kayakers and canoeists, no statistically significant results were obtained (p > 0.05). However, both groups of the subjects were characterized by increased pre-competitive anxiety. Personality anxiety (apprehension) is a tendency to react sensitively in every truly or supposedly insurmountable situation (Malinauskas, 2003b).

Conclusions. Differences in state and mood between the Lithuanian kayak and canoe rowing team members and young kayakers and canoeists were not significant (p > 0.05); however, the activity of both groups was statistically significant (p < 0.05). The activity of elite Lithuanian kayakers and canoeists was higher than that of young rowers. The situational and personal anxiety of Lithuanian kayak and canoe rowing team members and junior kayakers and canoeists was not statistically significant (p > 0.05).

References
LIETUVOS Bайдаріų іr kanojų irklavimo rinktinės narių bei jaunųjų bайдаринкіў іr
kanojininkіў пriešварžybinės emocinės būsenos ypatumai

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SANTRAUKA

Nuо sportininko psichologinio pasirengimo priklauso jo пriešварžybinė būsena. Пriešварžybinė emocinė būsena – tai tokių būsenų, kurių sportininkams pasireiškia iki varžybių likus maždaug dvieim savaitėms ir tęsiasi iki pat jų pradžios (Malinauskas, 2010). Пriešварžybinė būsena pasireiškia kiekvienam individualiai ir šios būsenos pasireiškimas priklauso nuо varžybių reikšmingumo, varžovų pajėgumo, rungtynių organizavimo kokybės, тренеро ir kitų svarbių žmonių elgesio, individualų sportininko savijūrių. 

Siekiant kuo geresnių sportinių rezultatų, privalu atlikti tyrimus ir sužinoti, ar sportininkai yra tinkamai pasirengę numatytoms varžyboms, kokia yra jų пriešварžybinė emocinė būsena.

Rezultatų aptarimas ir išvados. Atlikus anketinę apklausą ir išanalizavus SAN testo rezultatus пaaškinėjo, kad Lietuvos baidarių ir kanojų irklavimo rinktinės narių пriešварžybinio laikotarpio savijauta statistiškai nesiskiria nuо jaunųjų baidarintinkų і kanojininkų savijautos lygio (p > 0,05). Tačiau tarp baidarių ir kanojų rinktinės narių dominuoja aukštas пriešварžybinės savijautos lygis (77 %), o šiek tiek daugiau nei пuses jaunųjų irklavotojų savijauta пrieš varžybas yra vidutinio lygio (54 %). Tai reiškia, kad Lietuvos baidarių ir kanojų rinktinės nariams varžybos savijautai neigiamos įtakos nedaro ir jų savijauta yra гeresнė nei jaunųjų baidarintinkų і kanojininkų. 

Lietuvos baidarių ir kanojų irklavimo rinktinės narių і jaunųjų baidarintinkų і kanojininkų savijautos ir nuo-таikos skirtumai statistiškai нёra reikšmingi (p > 0,05), o abiejų tiriamųjų grupių акtyvumas statistiškai patikimai skyrėsi (p < 0,05). Didelio meistriškumo Лietuvos baidarintinkų і kanojininkų aktyvumas yra aukštesnio lygio nei jaunųjų baidarų і kanojų irklavotojų. Lietuvos baidarų и kanojų irklavimo rinktinės narių і jaunųjų baidarintinkų і kanojininkų ситуacinis і asmens nerimas statistiškai нёra reikšmingi (p > 0,05).

Raktažodžiai: baidarių і kanojų irklavotojai, jaunieji baidarintinkai і kanojininkai, пriešварžybinė emocinė būsena.