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ISSUES OF ATHLETES' RESILIENCE TO STRESS FACTORS

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ათლეტების გამძლეობაზე სტრესული ფაქტორების ზეგავლენის ზოგიერთი საკითხი

¹საქართველოს ფიზიკური აღზრდისა და სპორტის სახელმწიფო სასწავლო უნივერსიტეტი, საქართველო; ²ივანე ჯავახიშვილის სახელობის თბილისის სახელმწიფო უნივერსიტეტი, საქართველო. ³რაინი - გამოყენებითი მეცნიერებების ვაალის უნივერსიტეტი, გერმანია; ⁴შოთა მესხიას ზუგდიდის სახელმწიფო სასწავლო უნივერსიტეტი

რეზიუმე

სტუდენტებში, რომლებიც აქტიურად არიან სპორტში ჩართულები საგამოცდო სესიის დაწყებამდე და მის შემდეგ გამოვლენილი სტრესის დატვირთვის სუბიექტური შეფასება, მოლოდინისა და გაურკვევლობის პროცესების განსხვავებული მდგომარეობა, შეიძლება იყოს სუბიექტის პიროვნული თვისებები, მისი პირადი შფოთვის ხასიათი. სუბიექტებში, რომლებსაც აქვთ პირადი შფოთვის მაღალი დონე, სიტუაციური შფოთვა ჩვეულებრივ ვლინდება უფრო მაღალ დონეზე. სიტუაციური შფოთვა არ არის მხოლოდ უარყოფითი პასუხი სტრესულ მდგომარეობაზე. ხშირ შემთხვევაში, ეს ასტიმულირებს პიროვნული შესაძლებლობების უფრო ეფექტურ გამოვლინებას კონკრეტულ ექსტრემალურ სიტუაციაში და ხელს უწყობს დასახული მიზნების მიღწევას.

Introduction. The problem of studying situational anxiety among students of sports institutions has long attracted active attention. A variety of approaches was shown, determining the nature and level of anxiety states and their importance in the development of sports activity. High anxiety, complexity and variability of modern sports give rise to new questions of research and determination of the main directions of sports training of each student of higher sports institutions not only at the stages of sports specialization, but also at the stages of further improvement of mastering sports. There has become a real need to create special directions, in which the ways of multiphase adaptation of athletes to stress factors will be developed, the levels of which can significantly exceed the psychophysiological preparedness of an athlete. The study of an athlete's resistance to stress factors arising in multiphase in the process of sports activity allows students of higher sports institutions to master the way to overcome them and teach them the adaptation processes. It should be noted that in the case of low levels of motivation, anxiety increases activity and contributes to high results. While anxiety at high levels of motivation reduces agility and pursuit of high goals [1,4,5].

The relevance of a comprehensive study of these problems is also associated with the fact that any express situation necessarily affects an athlete of any professional qualification and leads to negative or positive results. The propensity of an athlete in influencing stress factors, the level of his situational anxiety in the process of emotional reactions to a stressful situation, are always individually different in intensity [2].

Objectives and goals. The goal is for students of the Georgian State Educational University of Physical Education and Sports to determine the level of situational anxiety (as a state) by the

method of informative self-assessment and to rank the data obtained according to sports disciplines. The pre and post examination periods of examination sessions were used as a stress factor. These periods do not exceed the student's psychophysiological readiness for stressful loads and can be considered the optimal stress value.

Materials and methods. Testing was carried out according to the "Scale for assessing the level of reactive and personal anxiety" (C. D. Spielberger, Y. L. Khanin) and the questionnaire "Self-assessment of mental state" (H. J. Eysenck). The subjects filled out the questionnaires two days before and two days after the examination session. The number of points by which the personal data were assessed was calculated. The tentative assessment points used were the following: low, moderate, high levels of anxiety. The state reflecting the emotional reaction of the athlete was assessed and the ranking was carried out according to sports disciplines, based on the analysis of the data obtained. Statistical processing was done using the IBM SPSS-22 software (option 12, Statistica). The significance of the differences was accepted at the 95% significance level ($P < 0.05$).

Discussion of results. The overall assessment of the survey, the students' real understanding of the significance of the research for increasing the level of sports specialization was high. The accuracy of filling in the personal data was 99.6%. Technical errors did not exceed 0.4% of the survey.

According to the data obtained, in the period of pre-examination stress, 72% of the subjects showed (according to the standard values) a moderate level of situational anxiety, and 28% of the subjects had a high level of situational anxiety. A low level of situational anxiety was not recorded in our studies. Gender analysis of subjects with a high level of situational anxiety revealed a significant ($P < 0.01$) quantitative difference between the male (38% of the subjects) and the female (62% of the subjects) subgroups. In the group of moderate level of situational anxiety, the female subgroup also prevailed (62%) over the male (38%).

The ranking of the data obtained according to disciplines revealed the following quantitative difference. The group with a high level of situational anxiety in quantitative terms consisted of 68% athletes in individual game disciplines and 32% of athletes in collective game disciplines. The sports infrastructure of a moderate level of situational anxiety differed significantly from the above data. It consisted of 51% of the athletes of the collective game disciplines and 49% of the athletes of the individual game disciplines.

According to the repeated questionnaire survey (two days after the end of the examination session), the number of subjects with a moderate level of situational anxiety increased to 86%, and that of a high level decreased to 14% of subjects. A low level of situational anxiety was also not recorded. Gender analysis revealed the following significant difference ($P < 0.001$) between the male and female subgroups. The number of subjects with a high level of situational anxiety in the male subgroup (72% of the subjects) significantly exceeded the female subgroup (28% of the subjects). Among the subjects with a moderate level of situational anxiety, the female subgroup exceeded the male (61% and 39%, respectively, $P < 0.01$). According to sports disciplines, the group with a high level of situational anxiety was 41% of sportsmen of individual-game disciplines and of 59% of sportsmen of collective-game disciplines. The group of moderate level of situational anxiety consisted of 7% of individual game athletes and 93% of collective game athletes.

Conclusions. Thus, the behavioral disposition of the subjects, predisposing to objective education and assessment of the stress factor at the moment of emotional stress among athletes of collective game and individual game sports disciplines was not the same. Despite the fact that the pre- and post-examination periods of the examination session for all subjects did not exceed

the optimal level of stress load, the athlete, according to the individual level of personal abilities, reacted to the stress load with different levels of situational anxiety. The behavior model [3], reflecting the level of self-esteem of each subject before and after the completed stress load, changed significantly. Self-control (as a reflection of the level of dominance over emotion) turned out to be gender-unequal in the perception of the stress factor: in the male subgroup, the ability to self-control significantly exceeded the capabilities of the female subgroup, in which the level of tension remained quite high throughout the examination session. Thus, athletes from various sports disciplines did not develop the same adaptation to the stress factor. Self-perception of the stress factor and the adaptation process, largely associated with an adequate self-analysis of one's own capabilities, turned out to be significantly higher among athletes of collective-game sports disciplines compared to representatives of individual-game sports disciplines. At the same time, a decreased or increased self-esteem of one's capabilities is not a persistent characteristic, it changes significantly in the learning process, but always acts in a complex way, "programs" the student's pre-start capabilities. Apparently, the optimal are the characteristics of calm emotional states with moderate self-esteem, which, once entrenched, become a stable psychological condition. On the one hand, those psychophysiological characteristics of each subject, which are innate and play a leading role in the subjective assessment of stress loads, are important, however, so-called "general" characteristics of mental capabilities, which in most cases have a decisive influence on the effectiveness of sports activity are not of less significance as well. Considering these processes when ranking psychophysiological indicators of situational anxiety for specific types of sports activity makes it possible, in the process of individual training, to introduce new ways of increasing sports achievements into the system of operational control.

Appendix 1. Pre-examination Stress Period

Figure 1. Situational Anxiety

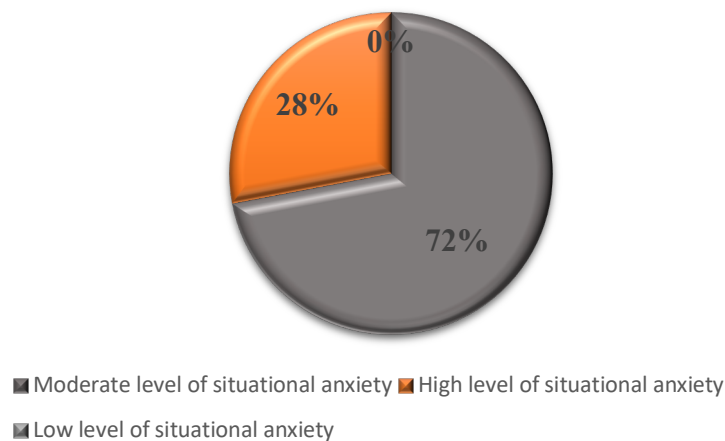


Figure 2. Gender Disparities in Situational Anxiety

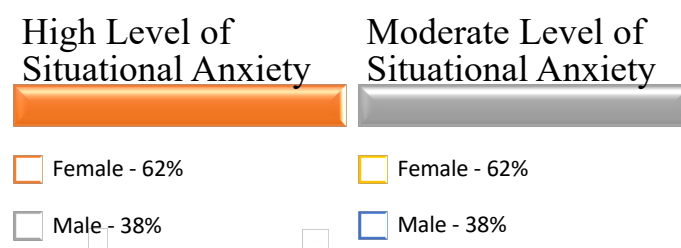
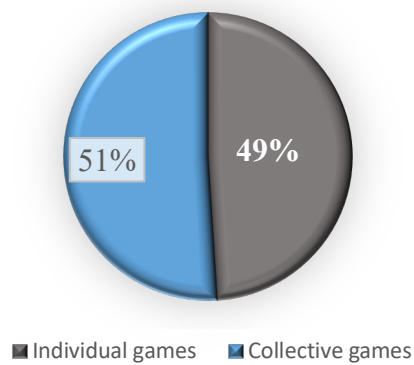


Figure 3. Differences in disciplines
High Level of Situational Anxiety



Moderate Level of Situational Anxiety



Appendix 2. Post-examination Period
Figure 4. Situational Anxiety

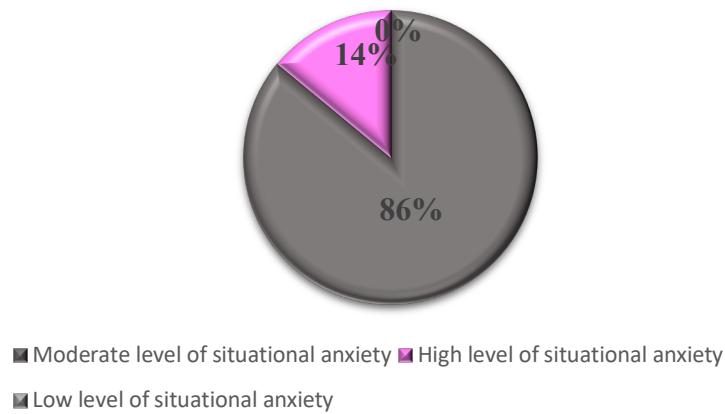


Figure 5. Gender Disparities in Situational Anxiety

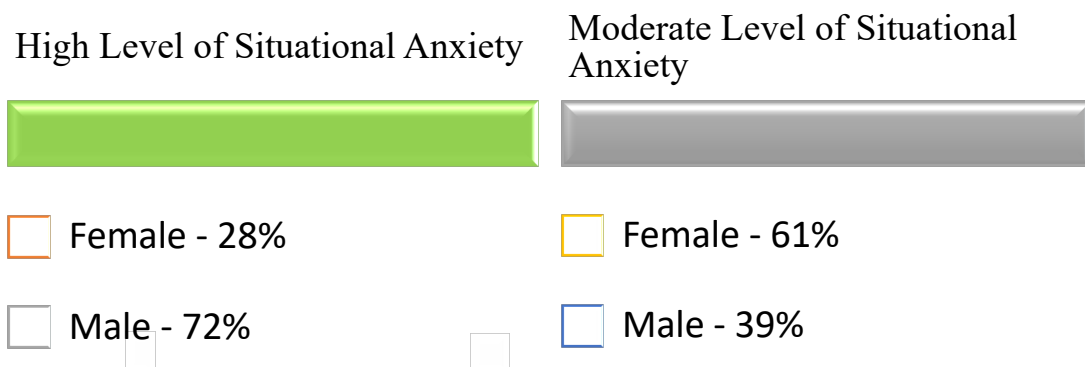
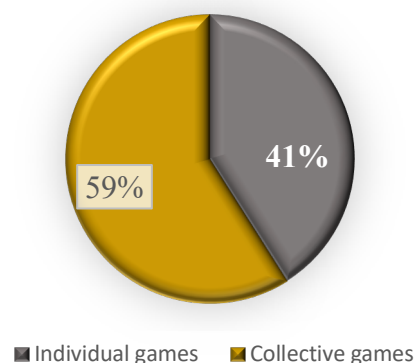
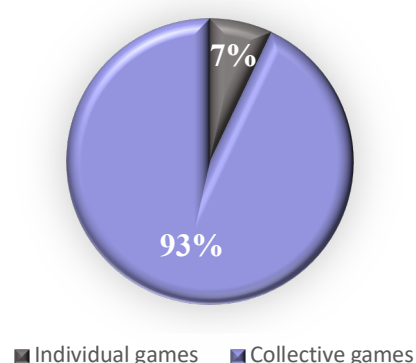


Figure 6. Differences in disciplines
High Level of Situational Anxiety



Moderate Level of Situational Anxiety



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ВОПРОСЫ УСТОЙЧИВОСТИ СПОРТСМЕНОВ К СТРЕСС-ФАКТОРАМ

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РЕЗЮМЕ

Студенты, активно занимающиеся спортом, субъективная оценка стрессовой нагрузки, выявленная у испытуемых до и после экзаменационной сессии, разная окраска

процессов ожидания и неуверенности, также могут быть свойствами личности испытуемого, характером его личное беспокойство. У субъектов с высоким уровнем личной тревожности ситуативная тревожность обычно проявляется на более высоком уровне. Ситуативная тревога — это не просто негативная реакция на стрессовое состояние. Во многих случаях он стимулирует более эффективное проявление личных возможностей в конкретной экстремальной ситуации и способствует достижению поставленной задачи.

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SUMMARY

Students who are actively involved in sports, the subjective assessment of the stress load revealed in the subjects before and after the examination session, the different colors of the processes of expectation and uncertainty, can also be the properties of the subject's personality, the character of his personal anxiety. In subjects with high levels of personal anxiety, situational anxiety usually manifests itself in higher levels. Situational anxiety is not just a negative response to a stressful condition. In many cases, it stimulates a more effective manifestation of personal capabilities in a specific extreme situation and contributes to the achievement of the set task.

Keywords: situational anxiety, stress-factor, stress fatigue, self-assessment, sports achievements.

