Bullet Shooting Training as a Means of Formation of University Students Situational Stress Stability

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Abstract: The process of formation of students’ situational stress stability by means of bullet shooting training is being analyzed. The problem of formation of university students’ professional competences in the process of bullet shooting training is being examined in the article. The results obtained enables to speak about pedagogical technology, effectively influencing the situational stress stability of 19-20 year students during the process of education and improving the skills of bullet shooting. Adaptive abilities of shot sportsmen to the stress factor have been investigated in this work. The connection of mental health, sport success and ability to self regulation of stress stability has been proved experimentally.

Key words: Shot sportsmen • Neuropsychic health • Poor adaptation • Individual • Self regulation • Situational stress stability • Students • Bullet shooting training

INTRODUCTION

Raised standards to psychological stability, integrated in all kinds of motional activity and appeared only in the connection with other physical and mental qualities, are made in different situation in sport, everyday life and industry [1]. It is necessary to mention that in the modern theory of physical training the method of physical and psychological stability development has been the less worked out. However, we may speak about positive transfer of individual motion activity qualitative side with maximum probability [2]. Human factor is the most difficult criteria in developing professional competences of the modern bachelor, master and specialist at university. And one of the most effective means of training of the future professionally educated university’s graduator is the formation of the situational stress stability [3].

Methodology: The aim of our work was to create simple and effective method of formation of situational stress stability at accurate rifle shot. To reach this aim the means of special physical training of shot sportsmen have been used. It is well known, that sportsmen, obtaining self training at shooting, cope with complex sport techniques in short time and show good sporting results. Figure skating, acrobatics, artistic gymnastics, synchronized swimming and shooting received world recognition both at the account of sportsmanship and due to the control of the most complex psychological processes during the contests [4]. To estimate the level of psychological preparation of the 19-20 year students, training bullet shooting, it was needed to realize theoretically and give proof of the researched program. This program includes four components. The first is physical. It characterizes the development of the main physical qualities essential for shooting. The second component is functional and it defines the development of neuromuscular system at motional activity. The third component is psychological [5]. It characterizes the state and level of mental functions’ formation at developing motional skills. And the last component, namely technical, defines the current level of special motional skills and the efficiency of shooting preparation in different conditions (training, contest). However, in the program of physical training so different, emotionally rich and obviously effective means have been unclaimed so far. The base of experimental complex composed special exercises aimed at physical and emotional stability control, fundamental for shooting art. These exercises include the following ones: relax exercises, exercises for motion reflexes, for coordination of different parts of the body motion, exercises aimed at accuracy of the motion reproduction according to the...
Experimental Part: Analyzing the literature on bullet shooting [8] we found inaccurate treatise of education methods and technique of ideal shot at the stress factors effect. We have corrected the technique of sear working at complex coordinated control of gun resistance at shooting in the state of psychological stress with the help of bullet shooting training [9]. According to this ideal shot technique correction there is no loss of equilibrium, extra energy consumption and unreasonable durable process of training and selection of students for the groups of sport improvement [10]. In the existed methods of making ideal shot the technique of physical and psychological stability control has been corrected inefficiently. So, with the help of SKATT, electronic complex shooting gym apparatus the efficient technique of making accurate shot has been developed. At such coordination of musculoskeletal system shooting is made under control regime with the feedback through SKATT and it has the most effective result at stress. At the stage of testing experiment the analysis of the middle indices, characterizing the motional preparation of the controlled (CG) and experimental (EG) groups of 19-20 year students shows the absence of essential differences. The existed little difference we explain by the individual peculiarities of students and the conditions of control testing. The results of correlation analysis of the 19-20 year students’ motional preparation permit to determine the most and the least informative features of the bullet shooting according to the number of reliable links. These data were used as pedagogical estimation of mastered motional skills and as the aspect of control and direction of training studies.

The most informative indices characterizing motional preparation of the students are as follows: hand strength, static tolerance, accuracy of the space movement parameters, static tremorrmetry, attention switching, rhythm coefficient, stability coefficient [11]. According to the results of our studies the least informative indices of shot students’ motional sphere are the following ones: joint movement, vestibular resistance, accuracy of muscle force and sensing of time, attention span, optimality coefficient and reliability coefficient. Sport differs from the other kinds of human activity due to the fact, that there is a strong stress factor in its base, namely, competition. Thanks to its changeability and unpredictability it is practically impossible to adapt completely to this stressor. Thus sport success is inevitably connected with the level of neuropsychic health [12]. Liberation from stress is connected with adaptive possibilities of individual, development of his antistress mechanisms, his possibility to adapt in critical situations. Psycho physiologic adaptation of the individual to the extreme stress conditions is followed by the change of psychological reactions on the norms’ boundary. Human organism has to sacrifice one or several functions to maintain more life important ones, without which it is impossible to exist in the stress conditions. Comparing the data obtained by the research with the developed standards we may conclude that shot sportsmen having high ability level for self regulation are, as a rule, sanguine persons, while shot sportsmen with low level of self regulation are melancholic ones. In addition we have analyzed obtained data from the point of the bullet shooting training model. The psychological type of successful high class sportsman consists of the above average vitality and below the average stress [13]. To form stress stability in training bullet shooting all negative characteristics are necessary to let below the average and on positive one is necessary to be above the average. The psychological type of less successful sportsman is usually flat. Considering neuropsychic health characteristics and sigma deviation rule the following results were achieved. During shooting trainings successful shooters have their mental activity and motivation at the highest point and below the average stress. To form stress stability in training bullet shooting all negative characteristics are necessary to let below the average and on positive one is necessary to be above the average. Moreover successful sportsmen showed better rates of emotional stability, self-regulation and were more resistant to outer factors in comparison with less successful ones during the competitions. They also had better competition reliability: 0,998 to 0,996 respectively. Worth to be mentioned, that successful sportsmen were defined in each qualification separately. One more thing was noticed: even neuropsychic health type with high ability of self regulation is affected by shooting training model [14].
**Results and Analysis:** One hundred 19-20 year sportsmen took part in a 6-month-long research. Experimental (EG) and control (CG) group had 50 persons each. Holding time was normal. EG had a specially developed program while CG had a standard one. Statistic analysis which was held for 3 months showed that space orientation (SO), perfect shot performance that reflects the level of sensory systems cooperation and coordination in EG became significantly better. Overall improvement was about 3%. In CG the same characteristics were up only by 0.3%. SO with open eyes in EG was 5% and in CG 4%. So with closed eyes was 3% for EG and 0.5% for CG. SO after the standard workload (20 squats in 30 seconds) became better by 7% in EG and only by 0.2% in CG. 6% and 2% with closed eyes respectively. In EG steadiness rose by 6%, vestibular analyzer sensitivity by 7% and reflexometry by 5%. The same characteristics in CG haven’t changed significantly. Analyzing shooting training development dynamics for increasing situational stress resistance the following summary can be made: innovative training technologies have increased priority; it is a good idea to monitor the requests and needs of students beforehand for advance development of anti-stress abilities; anti-stress activities for students with limited capabilities in an open field for researches.

**CONCLUSION**

The main feature of the conducted pedagogical experiment is its scientific novelty that can be seen in the following positions: New system of special exercises for situational stress resistance was created with a help of special shooting training. Physical endurance during the shooting period is determined as a complex system that consists of two components (precise body control and regulation of senses with the help of scientifically developed training method and individual competition experience). Implementation of additional devices in the training process provides significantly better results. That was proved via making a perfect shot with the help of SKATT. Shooting training model structure for increasing the level of physical and mental stability simultaneously teaching to control the movements while pulling the trigger was developed. That allows making the pedagogical process more effective. All the things listed above can serve as a modern methodology innovative basis that will help us to develop professional competence of future bachelors, masters and specialists. Increasing physical and mental stability of students in situational stress cases we underbuild an innovative basis for their professional competence.

**REFERENCES**

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