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**“JISMONIY MADANIYAT SOHASIDA TA‘LIM VA
O‘QITISH SIFATINI TAKOMILLASHTIRISH:
MUAMMO VA YECHIMLAR”**

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2. Chernozub A, Titova A, Dubachinskiy O, Bodnar A, Abramov K., et al. (2018). Integral method of quantitative estimation of load capacity in power fitness depending on the conditions of muscular activity and level of training. *Journal of Physical Education and Sport*, 18(1):217–221. <https://doi/10.7752/jpes.2018.01028>.
3. Chernozub A, Manolachi V, Tsos A, Potop V, Korobeynikov G, Manolachi V, Sherstiuk L, Zhao J, Mihaila I. (2023). Adaptive changes in bodybuilders in conditions of different energy supply modes and intensity of training load regimes using machine and free weight exercises. *PeerJ*, 11, e14878. <http://doi.org/10.7717/peerj.14878>.
4. Dieckelmann M, González-González AI, Banzer W, Berghold A, Jeitler K, Pantel J, Pregartner G, Schall A, Tesky VA, Siebenhofer A. (2023) Effectiveness of exercise interventions to improve long-term outcomes in people living with mild cognitive impairment: A systematic review and meta-analysis. *Sci. Rep.* 13:18074. doi: 10.1038/s41598-023-44771-7
5. He K, Sun Y, Xiao S, Zhang X, Du Z, Zhang Y. (2024) Effects of High-Load Bench Press Training with Different Blood Flow Restriction Pressurization Strategies on the Degree of Muscle Activation in the Upper Limbs of Bodybuilders. *Sensors (Basel)*. 24(2):605. doi: 10.3390/s24020605.
6. Latino F, & Tafuri F. (2024) Physical Activity and Cognitive Functioning. *Medicina (Kaunas)*, 60(2):216. doi: 10.3390/medicina60020216.
7. Mitsuya H, Nakazato K, Hakkaku T, Okada T. (2023). Hip flexion angle affects longitudinal muscle activity of the rectus femoris in leg extension exercise. *Eur J Appl Physiol*, <https://doi/10.1007/s00421-023-05156-w>.
8. Rukstela A, Lafontant K, Helms E, Escalante G, Phillips K, Campbell B. (2023) Bodybuilding Coaching Strategies Meet Evidence-Based Recommendations: A Qualitative Approach. *J Funct Morphol Kinesiol.* 8(2):84. doi: 10.3390/jfmk8020084.
9. Yamasaki T. (2023). Preventive Strategies for Cognitive Decline and Dementia: Benefits of Aerobic Physical Activity, Especially Open-Skill Exercise. *Brain Sci.*13:521. doi: 10.3390/brainsci13030521.

PATTERNS OF CHANGES IN INDICATORS OF SPECIAL PHYSICAL TRAINING OF ATHLETES IN MIXED MARTIAL ARTS

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Annotation. The search for effective mechanisms for improving the process of special physical training in mixed martial arts is one of the priority tasks among scientists and practitioners. One of the key factors affecting the practical implementation of this problem is the optimization of power load modes. The article presents the results of the impact of a high-intensity load regime and a small volume of work ($R_a=0.74$) on the level of special physical training of hand-to-hand combat and Thai boxing athletes. The results obtained after 30 days of using the proposed loading regimen indicate a high level of resistance of hand-to-hand combat athletes to such a stimulus. In representatives of this sport, only a positive trend towards changes in the controlled indicator was revealed. At the same time, a significant increase in the number of accurate hits per 30 seconds on the dummy during the execution of control blows is observed only among Thai boxing athletes.

Key words: mixed martial arts, load mode, special physical training.

Introduction. During the last decades, the in-depth study of problems related to the search for effective mechanisms for improving the physical training of athletes has been given considerable attention by leading specialists in this field [1, 2, 5]. One of the urgent problems is the determination of clear limits of the most effective and at the same time adequate to the functional capabilities of the body, physical load parameters [2, 4, 6]. The practical implementation in the process of development of optimal, taking into account the condition of the athletes' body and the ability of its adaptive reserves to counteract the external stimulus, power load regimes will allow to influence the level of training [1, 5, 7].

The objective of the study. To study the regularities of changes in indicators of special physical training of athletes in hand-to-hand combat and Thai boxing under the conditions of using a regime of high intensity loads.

Materials and research methods. 40 athletes aged 18 ± 1.2 years who have been engaged in mixed martial arts for 2 ± 0.3 years participated in the study. 2 groups of 20 people were formed. The first group consisted of athletes engaged in hand-to-hand combat. The second group included athletes, representatives of Thai boxing. The research lasted 30 days. Using the method of control testing, the level of special physical training of the participants was monitored. We determined the number of accurate blows on the dummy in 30 seconds during the execution of the main kicks in MMA. The results were recorded at the beginning and at the end of the study. Non-parametric research methods were used to process the research results.

Research results. Presented in the Table 1, the results of control testing of the level of development of special physical fitness of mixed martial arts athletes demonstrate not only a significant difference between the results of the specified groups at the beginning of the study, but also quite interesting dynamics during the mesocycle.

The analysis of the results of testing the level of development of the special physical training of the examined contingent shows that the controlled indicator of the group of hand-to-hand combat representatives is 57.6% higher compared to the

parameters that the Thai boxing athletes were able to demonstrate. It is possible that the appropriate level of functional capabilities, fixed in a group of Thai boxing athletes, is justified by the processes of maladaptation against the background of chronic fatigue caused by the peculiarities of their training system. The use of training loads with a large volume of work and high intensity requires significant energy expenditure which activates the manifestation of compensatory reactions in the body to a physical stimulus [2, 5].

The results of the number of accurate blows on the dummy in 30 seconds by the athletes of the examined groups during the study Table 1

Control exercises	The group of hand-to-hand combat athletes		The group of Thai boxing athletes	
	Output data	After 1 month of training	Output data	After 1 month of training
Front kick	14,7±0,4 ¹ U=0,0; p<0,000	15,1±0,3 ² U=0,0; p<0,000	6,8±0,2	12,5±0,2* Z=-3,12; p<0,002
Reverse side kick	19,6±0,3 ¹ U=0,0; p<0,000	19,6±0,2 ² U=0,0; p<0,000	8,0±0,2	14,3±0,3* Z=-3,09; p<0,002
High kick with external leg lift	14,7±0,2 ¹ U=0,0; p<0,000	14,9±0,2 ² U=0,0; p<0,000	6,2±0,3	11,4±0,3* Z=-3,09; p<0,002
Side kick	17,8±0,3 ¹ U=0,0; p<0,000	17,9±0,2 ² U=0,0; p<0,000	6,1±0,2	11,3±0,4* Z=-3,07; p<0,002
Short back kick	12,1±0,3 ¹ U=0,0; p<0,000	12,5±0,2 ² U=0,0; p<0,000	4,3±0,3	8,5±0,2* Z=-3,22; p<0,001
Roundhouse kick	19,9±0,3 ¹ U=0,0; p<0,000	19,9±0,2 ² U=0,0; p<0,000	8,1±0,2	16,5±0,3* Z=-3,09; p<0,002

*Notes: * - differences in the values of the indicator before and after training correction are reliable according to the Wilcoxon test; 1 - differences in the values of the indicator between subgroups in the initial condition are reliable according to the Mann-Whitney test; 2 - differences in the values of the indicator between subgroups in the final condition are reliable according to the Mann-Whitney test.*

The results revealed after the participants of both groups used the set parameters of loads, demonstrate a positive trend towards an increase in the number of accurate blows on the dummy in 30 seconds. At the same time, a reliable positive growth dynamic of the controlled indicator is observed only among the group of Thai boxing athletes. Despite the fact that the initial level of

their functional capabilities at the beginning of the experiment did not even correspond to physiological norms. It was established that the greatest increase in the indicator of special physical training by 2 times in Thai boxing athletes is observed during the performance of the control exercise "Roundhouse kick". Athletes of this group demonstrate the smallest positive dynamics (by 78.7% $p < 0.05$) of the controlled indicator when performing the exercise "Reverse side kick".

The results of control testing of hand-to-hand combat athletes at the end of the experiment indicate the absence of reliable changes in the controlled indicator "the number of accurate blows in 30 seconds on the dummy. This fact indicates a high level of resistance of their body to the regime of strength loads proposed by us. It is possible that the majority of hand-to-hand combat coaches use this mode of strength loads in the process of special physical training.

Conclusions. The use of high-intensity loads ($R_a=0.74$) in the process of special physical training in mixed martial arts allows even athletes with severe maladaptation to have a positive effect on the increase of functional reserves in the body. A change in the value of indicators of volume and intensity of load used by athletes during training has a positive effect on the adaptation reserves of the body and the level of development of special physical fitness.

Bibliography

1. Antonietto, N., Bello, F., Queiroz, A., Carvalho, P., Brito, C., Amtmann, J., Miarka, B. (2023). Suggestions for Professional Mixed Martial Arts Training with Pacing Strategy and Technical-Tactical Actions by Rounds. *Journal of Strength and Conditioning Research*, <https://doi.org/10.1519/JSC.0000000000003018>.
2. Ciaccioni, S., Castro, O., Bahrami, F., Tomporowski, P., Capranica, L., Biddle, S., Vergeer, I., Pesce, C. (2023). Martial arts, combat sports, and mental health in adults: A systematic review. *Psychology of Sport and Exercise Journal*, 8(70):102556. <https://doi.org/10.1016/j.psychsport.2023.102556>.
3. Chernozub, A., Manolachi, V., Korobeynikov, G., Potop, V., Sherstiuk, L., Manolachi, V., Mihaila, I. (2022). Criteria for assessing the adaptive changes in mixed martial arts (MMA) athletes of strike fighting style in different training load regimes. *PeerJ*, 10, 13827. <https://doi.org/10.7717/peerj.13827>
4. Folhes, O., Reis, V., Marques, D., Neiva, H., Marques, M. (2023). Influence of the Competitive Level and Weight Class on Technical Performance and Physiological and Psychophysiological Responses during Simulated Mixed Martial Arts Fights: A Preliminary Study. *Journal of Human Kinetics*, 86, 205–215. <https://doi.org/10.5114/jhk/159453>.
5. Manolachi, V., Chernozub, A., Tsos, A., Syvokhop, E., Marionda, I., Fedorov, S., Shtefiuk, I., Potop, V. (2023). Modeling the correction system of special kick training in Mixed Martial Arts during selection fights. *Journal of Physical Education and Sport*, 23(8), 2203–2211. <https://doi.org/10.7752/jpes.2023.08252>.
6. Polechoński, J., Langer, A. (2022). Assessment of the Relevance and

Reliability of Reaction Time Tests Performed in Immersive Virtual Reality by Mixed Martial Arts Fighters. *Sensors* (Basel), 22(13), 4762. <https://doi/10.3390/s22134762>.

7. Shtefiuk, I., Tsos, A., Chernozub, A., Aloshyna, A., Marionda, I., Syvokhop, E., Potop, V. (2024). Developing a training strategy for teenage athletes in mixed martial arts for high-level competitions. *Journal of Physical Education and Sport*. 24 (2):329-337. <https://doi.org/10.7752/jpes.2024.02039>

BO'LAJAK SPORT MURABBIYLARINI GURUH A'ZOLARI ORASIDAGI ZIDDIYATLARNI BARTARAF ETISHGA TAYYORLASHDA AKMEOLOGIK YONDASHUVNING DIDAKTIK IMKONIYATLARI

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Annotatsiya. Ushbu maqolada bo'lajak sport murabbiylarini guruh a'zolari orasidagi ziddiyatlarni bartaraf etishga tayyorlashda akmeologik yondashuvning didaktik imkoniyatlari haqida bayon etilgan.

Kalit so'zlar: akmeologik yondashuv, jismoniy tarbiya, sport murabbiylari, ziddiyat, pedagogik faolyat, pedagogik qobilyat.

Akmeologiya shaxsning imkoniyatlarini o'rganuvchi va ro'yobga chiqaruvchi soha bo'lib, asosan kasbiy mahorat bilan bog'liq holda talqin etiladi. Shaxs, uning faoliyat subyekti sifatidagi o'rni, o'z faoliyatida yuksaklikka erishishi, kasbiy faoliyatning turli bosqichlarida rivojlanishi akmeologik yondashuv doirasida o'rganiladi.

Jismoniy tarbiya akmeologiyasi predmetlararo harakterga ega bo'lib, pedagogika fanning nisbatan yangi tarmog'i hisoblanadi. Jismoniy tarbiya va sport akmeologiyasi sport murabbiylarining sportchilar bilan o'zaro munosabati va kasbiy yetuklik darajasini o'rganadi. Sport murabbiylarining sportchilar bilan amalga oshiradigan ijodiy faoliyatini rivojlantirish asoslari va yo'nalishlari ham sport akmeologiyasi doirasida ilmiy jihatdan asoslanadi. Shu jumladan sportchilar orasidagi turli ziddiyatlarni tahlil qilish, ularning kelib chiqish sabablarini aniqlash va qarama-qarshiliklarning oldini olish va bartaraf etish sport murabbiylarining kasbiy yetukligiga bog'liq. Bunday kasbiy yetuklikka erishish jarayoni akmeologik yondashuv asosida tashkil etilishi lozim. Shunga ko'ra jismoniy tarbiya va sport akmeologiyasi o'zining aniq maqsadiga ega. Ma'lumki, kasbiy pedagogik faoliyatni egallash jarayoni shaxsning muntazam tarzda rivojlanishini taqozo etadi. Kasbiy faoliyatni takomillashtirish jarayoni ilmiy asosda tashkil etilgandagini kutilgan samaradorlikka erishish imkonini beradi.

Bo'lajak mutaxassisning o'z-o'zini rivojlantirishi oliy pedagogik ta'lim jarayonida amalga oshiriladi. Aynan akmeologiya bo'lajak sport murabbiylarini kasbiy rivojlantirish shart-sharoitlarini ishlab chiqishga imkon beradi. Shu maqsadda jismoniy tarbiya va sport akmeologiyasi o'zining aniq vazifalariga ega bo'lishi lozim.

Sport akmeologiyasi fani o'qib o'zlashtirish jarayoni bo'lajak sport murabbiylaridan quyidagi bilimlarni egallash talab etiladi: