

RECOMMENDATIONS FOR THE RECOVERY OF HIGHLY QUALIFIED FEMALE MARTIAL ARTISTS AFTER MANY YEARS OF TRAINING

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Annotation

It is presented to what extent the recommendations used in the rehabilitation of highly qualified female martial artists are used over many years of training.

Keywords: Highly qualified martial arts girls, preparation, training loads, recommendations, planning.

Introduction

Relevance of the topic: In our country, attention to physical education and sports at the level of state policy largely contributes to the development and popularization of sports. Honorary President Sh.M. Mirziyoyev No. PF-5281 dated November 5, 2021 "On the preparation of athletes of Uzbekistan for the XXXIII Summer Olympic and XVII Paralympic Games, which will be held in Paris (France) in 2024," and the tasks are also defined in government resolutions, relating to physical education and sports, the tasks of today have become one of the most pressing in all sports institutions. Women's boxing and kickboxing, like other sports, are developing and thriving. Women boxers and kickboxers of Uzbekistan also raise the flag of Uzbekistan to the top, winning Asian and world championships. But, as we see, the symptoms of fatigue are clearly visible in our female boxers and kickboxers at prestigious competitions, so we set ourselves the task of receiving questionnaires from female athletes in order to study the training process. Purpose of the study: to develop recommendations for the recovery of qualified female martial artists after training at the stage of many years of preparation. According to an analysis of the literature and the opinion of experts, improving the physical and functional condition of qualified female wrestlers is one of the problems of our time. Therefore, one of the most important tasks is to eliminate the symptoms of fatigue during training and increase the physical capabilities of qualified female wrestlers during competitions.

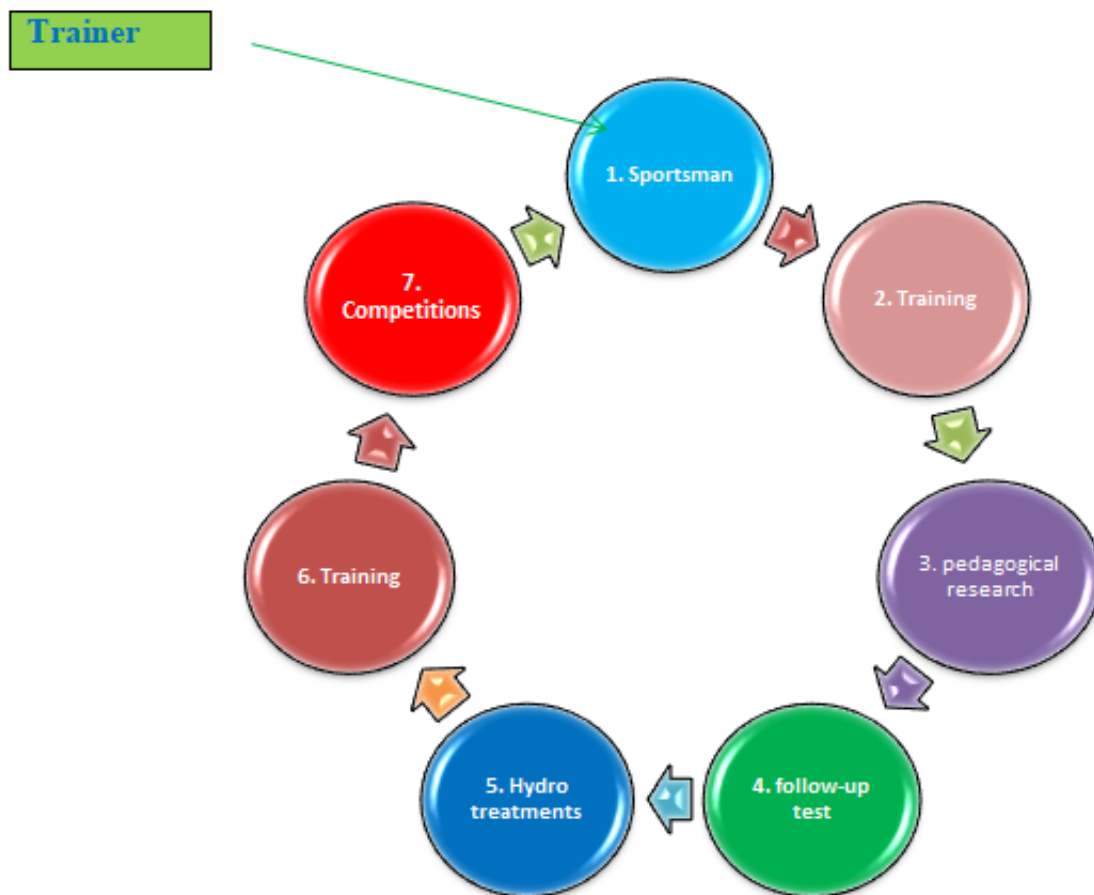
The development of a system for assessing the preparedness of qualified female wrestlers and the necessary methods for performing the above tasks will ensure a quantitative increase in the limits of the level of physical fitness of wrestlers, as well as improving the state of sports training and developing rapid recovery during competitions.

Research Objectives:

- Observation and analysis of the training of experienced girls involved in martial arts at the stage of many years of training.
- Selection of special tools and methods used by experienced martial arts girls for quick recovery after training.

Research methods: Literature analysis, pedagogical observation, mathematical and statistical analysis, pedagogical research. Organization of the study: The study will be conducted from March 14, 2023 to January 15, 2024 in the hall of secondary school No. 205, located in the Mirzo-Ulugbek district of Tashkent, as well as in the kickboxing hall of UzJTSU, Chirchik, st. Athletes, SU, SAN and I qualifications - the girls' team consisted of 10 boxers and 10 kickboxers with a category.

The development of recommendations used in the recovery after training of highly qualified female martial artists at the stage of many years of preparation, and their application to the athletes of the national team will ensure the active participation of athletes in competitions in the future. In addition, their functional state is normalized, which directly affects their physical fitness. Therefore, in our study, we selected girls involved in boxing and kickboxing after training and used them, and during the following training we monitored their physical activity.



"Picture 1".

Circular study observation scheme

At the beginning of the study, we decided to undergo testing on several devices to determine the state of physical and functional readiness of female wrestlers. Of course, we were selected the necessary measuring equipment and, first of all, the dynamics of the state of physical fitness were determined through a test.

Based on the results:

"Schedule 1" Dynamics of indicators of general physical fitness of female kickboxers

№	FULL NAME	Type of sport	Weight category	I write with folded hands		Pull-ups on the horizontal bar (once)	Bench press (times)		Pole vault (one time)
				in a fist	in the palm of your hand		5 section	Maxi	
	B-va F.	kickboxing	52	7	20	4	4	26	123
	Sh-va R.	kickboxing	52	11	28	7	5	30	151
	M-va M.	kickboxing	54	7	21	6	4	29	129
	A-va A.	kickboxing	54	10	22	6	5	27	147
	M-va A.	kickboxing	57	10	19	5	5	28	126
	Q-va M.	kickboxing	60	9	21	6	4	24	138
	A-va M.	kickboxing	60	9	18	4	4	29	154
	A-va M.	kickboxing	66	11	22	5	5	26	144
	Ж-va S.	kickboxing	71	8	25	5	4	22	132
	Q-va Z.	kickboxing	75	6	24	4	3	19	112
$\chi^{\pm 6}$	Average			X ± 8.8	X ± 22	X ± 5.2	X ± 4.3	X ± 26	X ± 135.6

To check the general physical fitness of kickboxers, we used the following tests. As you can see, the results were as follows. 10 athletes showed an average result of X±8.8 when writing with folded hands and X±22 when writing on the palms. In the barbell pull-up test, the athletes recorded an average result of X±5.2. When performing the next bench press exercise at a speed of 5 seconds, female kickboxers recorded the following results on average: X±4.3, and when performing the maximum exercise, the average result was X±26. In the arm jump test, the athletes showed an average result of X±135.6.

In the next study, we used the following exercises to test the general fitness of female boxers. The test was carried out in such exercises as writing with bent arms (in a fist, palm), pull-ups on a horizontal bar, performing a lying press exercise, pole jumping and the following results were shown. The results of the dynamics of general physical fitness indicators obtained from female boxers are as follows:

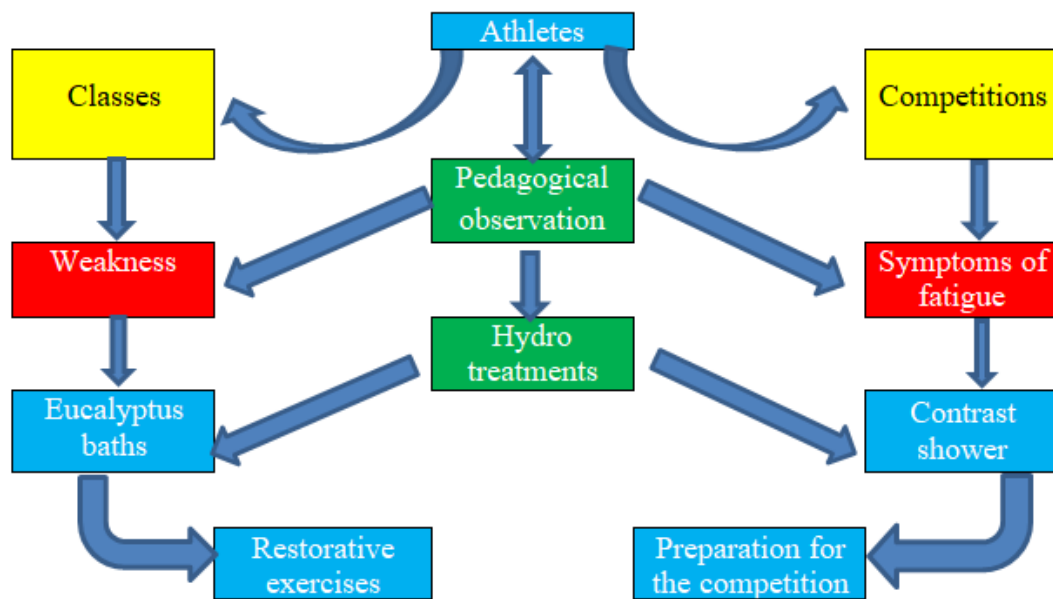
"Schedule 2" Dynamics of indicators of general physical fitness of female boxers

№	Full name	Type of sport	Weight category	I write with folded hands (once)		Pull-ups on the horizontal bar (once)	Bench press (times)		Pole vault (one time)
				in a fist	in the palm of your hand		5-section	maxi	
1.	M-va M.	Boks	51	8	22	6	6	28	145
2.	S-va M.	Boks	57	12	23	5	5	32	152
3.	X-va S.	Boks	57	8	22	4	6	34	158
4.	A-va T.	Boks	60	10	26	6	4	31	136
5.	D-va A.	Boks	60	12	24	5	6	24	139
6.	O'-va R.	Boks	60	11	23	5	5	29	172
7.	A-va M.	Boks	63.5	11	25	6	5	34	160
8.	Q-va Sh.	Boks	66	9	22	4	5	30	150
9.	A-va M.	Boks	66	10	25	4	6	33	148
10.	U-va Sh.	Boks	75	12	24	5	5	28	126
$\chi^{\pm 6}$	Average			X ± 10.3	X ± 23.6	X ± 5.0	X ± 5.3	X ± 30.3	X ± 148.6

check the general indicators of boxers' physical fitness, we used the following tests: we used exercises such as writing on bent arms, doing pull-ups on the horizontal bar, doing bench presses, and jumping rope. As you can see, the results were as follows. 10 athletes showed an average result of $X \pm 10.3$ when writing with folded hands and $X \pm 23.6$ when writing on the palms. In the barbell pull-up test, the athletes recorded an average result of $X \pm 5.0$. When performing the next bench press exercise at a speed of 5 seconds, female boxers recorded the following results on average: $X \pm 5.3$, and when performing the maximum exercise they showed an average result of $X \pm 30.3$. The athletes showed an average result of $X \pm 148.6$ in the hand jump test; as can be seen, at the beginning of the study, the dynamics of the general physical fitness of boxers was somewhat different from the dynamics of kickboxers.

When we monitored the physical and functional state of the wrestlers during competitions, we observed signs of fatigue between bouts, so we used hydrotherapy to improve the condition of the athletes.

Hydrotherapy is one of the most useful and convenient means of recovery. When preparing boxers or kickboxers for competitions, it is recommended to use a shower and a contrast shower.



"Picture 2". Scheme for the use of restorative hydrotherapy in athletes during training and competition.

For the purpose of recovery, they took warm (38-40 C) and hot (40-43 C) showers at a temperature of 33-37 C. After training, a warm tropical shower of medium strength for 10-15 minutes was recommended. A short hot and cold shower helped improve the tone of the nervous and muscular system. We recommended taking a contrast shower as follows: 1 minute of boiling water (40-42 C), then 5-10 seconds of a cold shower (12-15 C). The event lasted 6-10 minutes. In addition, we recommended that athletes take restorative mechanical, thermal and chemical baths; these indifferent baths are calculated at the rate of 50-60 grams of salt extract mixture per 150 ml of water (the size of a home bath), and the administration time is 10-15 minutes. Ecolipt baths are considered a good

relaxing and restorative remedy after speed training, so we considered it necessary to use this procedure in training processes.

Indifferent baths are used at warm temperatures. For every 150 liters of water add 50-100 ml of eucalyptus tincture. Alcohol preparation. We recommend using this bath as a sedative before bed during competitions. After the race, we recommend recovery swimming, which is considered an effective hydrotherapy for severe fatigue. We recommend using this procedure for 10-15 minutes in athletes. After restorative medications, we retested the athletes. The results of the study are presented in Table 3.

"Schedule 3" Dynamics of indicators of general physical fitness of female kickboxers

№	NAME	Sport type	Weight class	Fold hands to type (repeat)		Pull-ups on the turnstile (repeat)	Bench press (repeat)		Pole vault (repeat)
				in the fist	in the palm		5-sek	Max	
	B-va F.	kikboks	52	11	24	6	5	36	155
	Sh-va R.	kikboks	52	14	31	10	6	42	186
	M-va M.	kikboks	54	9	23	8	5	35	151
	A-va A.	kikboks	54	12	24	7	6	33	163
	M-va A.	kikboks	57	12	22	8	6	34	170
	Q-va M.	kikboks	60	11	23	7	5	37	156
	A-va M.	kikboks	60	11	21	7	5	40	168
	A-va M.	kikboks	66	13	23	7	5	38	159
	Ж-va S.	kikboks	71	10	28	6	5	34	172
	Q-va Z.	kikboks	75	8	26	5	4	31	146
X ± δ	Average indicator			X ± 11.1	X ± 24.5	X ± 7.1	X ± 5.2	X ± 36	X ± 162.6

When we looked at the overall fitness of the kickboxers after recovery at the end of the study, the results were as follows. 10 athletes showed an average result of X±11.1 when writing with folded hands and X±24.5 when writing on the palms. In the barbell pull-up test, the athletes recorded an average result of X±7.1. Then perform the bench press exercise for 5 seconds. female kickboxers recorded an average result of X±5.2 when performing at speed and showed an average result of X±36 when performing at the maximum level. In the Argymchak jump test, the athletes showed an average result of X±162.6. As you can see, changes in the general physical fitness of athletes at the end of the study after hydrotherapy are reflected in our Table 3.

"Schedule 4" Dynamics of indicators of general physical fitness of female boxers

№	FULL NAME	Type of sport	Weight category	I write with folded hands		Pull-ups on the horizontal bar (once)	Bench press (times)		Pole vault (one time)
				in a fist	in the palm of your hand		5 section	Maxi	
	M-va M	Boks	52	13	28	7	4	34	157
	S-va M.	Boks	57	14	30	8	5	36	167
	X-va S.	Boks	57	11	31	6	4	36	171
	A-va T.	Boks	60	13	32	7	5	38	155
	D-va A.	Boks	60	14	34	7	5	34	180
	O'-va R.	Boks	60	15	37	6	4	37	201
	A-va M.	Boks	63.5	14	29	7	4	41	189
	Q-va Sh.	Boks	66	12	33	7	5	38	178
	A-va M.	Boks	66	12	31	6	4	37	184
	U-va Sh.	Boks	75	12	34	7	3	34	177
X ± δ	Average			X ± 13	X ± 31.9	X ± 6.8	X ± 4.3	X ± 36.5	X ± 175.9

When checking the general indicators of boxers' physical fitness at the end of the study, the following results were achieved. When writing with folded hands, female boxers showed an average result of $X \pm 13$ when performing it in the fist position and recorded a result of $X \pm 31.9$ when performing it in the palm. In the barbell pull-up test, the athletes recorded an average result of $X \pm 6.8$. When performing the next bench press exercise at a speed of 5 seconds, female boxers recorded the following results on average: $X \pm 5.5$, and when performing the maximum exercise they showed an average result of $X \pm 36.5$. The athletes showed an average result of $X \pm 175.9$ in the hand jump test, as can be seen from Table 4, the dynamics of the indicators of the boxers' general physical fitness changed significantly at the end of the study.

CONCLUSION:

Based on the test results, the purpose of our research was to use recovery methods in the training sessions of our athletes, to find ways to quickly recover at the competitive stage and apply them in practice. The study was conducted from March 14, 2023 to January 15, 2024 in the hall of secondary school No. 205, located in the Mirzo-Ulugbek district of Tashkent, as well as in the kickboxing hall of UzJTSU in Chirchik by qualified SUs. , SAN and I. The girls' team included 10 boxers and 10 kickboxers. We checked the general physical fitness of 20 athletes during the preparation for the Uzbekistan Boxing Championship and the Uzbekistan Kickboxing Cup. Tests were carried out in the following exercises. We used exercises such as writing with folded hands, doing pull-ups, doing bench presses, and jumping rope.

At the first stage of preparation, at the training camp, at the beginning of the research, the tests taken from our athletes were as follows. 10 female kickboxers showed an average result of $X \pm 8.8$ when writing with folded hands and $X \pm 22$ when writing on the palm. In the barbell pull-up test, the athletes recorded an average result of $X \pm 5.2$. When performing the next bench press exercise at a speed of 5 seconds, female kickboxers recorded an average result of $X \pm 4.3$, and when performing the maximum exercise, an average result of $X \pm 26$. The athletes showed an average result of $X \pm 135.6$ in the jumping test on Argymchak, female boxers showed an average result of $X \pm 10.3$ when writing with crossed arms and $X \pm 23.6$ when writing on the palm. In the barbell pull-up test, the athletes recorded an average result of $X \pm 5.0$. When performing the next bench press exercise at a speed of 5 seconds, female boxers recorded the following results on average: $X \pm 5.3$, and when performing the maximum exercise they showed an average result of $X \pm 30.3$. In the Argumchak jumping test, the athletes showed an average result of $X \pm 148.6$. During the observation, there were signs of fatigue during training. When we checked the girls between rounds in the open ring, there was no quick recovery. Therefore, in the next study, we used quick-restoring hydroprocedures: warm rain showers, contrast showers during sparring and competitions, and considered it necessary to use eucalyptus baths and indifferent baths during training camps.

When conducting repeated tests of general physical fitness after the next training session, the results of our athletes were as follows. In kickboxers, 10 female athletes increased their average results by $X \pm 2.3$ when performing with fists and by $X \pm 2.5$ when performing with palms. The average result of horizontal pull-ups increased by $X \pm 1.9$. The next bench press increased by $X \pm 0.9$ when performing the 5-second speed exercise and by $X \pm 10$ when performing the maximum exercise. In the Argumchak jumping test, we see an average increase in athletes of $X \pm 27$. For our boxers, these indicators were as

follows: when bending the arms of female boxers, they increased on average by $X \pm 3.3$, when performing on the palm - by $X \pm 8.3$, when performing the pull-up test - by $X \pm 1.8$. When performing the following bench press exercise at a speed of 5 seconds, the result increased by $X \pm 0.2$, and at maximum performance the result increased by $X \pm 6.2$. In Argymchak we see an average increase in jumping of $X \pm 27.3$. As we can see, based on the results of the study, we see that the dynamics of indicators of the general physical fitness of athletes has changed significantly.

As for the results of the competition, 1 gold and 1 bronze medal were won at the Uzbekistan Women's Boxing Championship. At the Uzbekistan Cup among women in kickboxing, 1 gold medal was won. From this it can be seen that it is definitely advisable for trainers to use restorative hydrotherapy during training.

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