Features of planning training loads for skilled female weightlifters

https://doi.org/10.65149/eajss.2025.v5i12.a008

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Abstract

This article highlights the scientific and methodological aspects of planning and managing training loads for female weightlifters. The study analyzes the optimal distribution of training loads, taking into account the morphofunctional, hormonal, and psychophysiological characteristics of the female body, based on scientific research conducted by leading experts and scientists, as well as modern pedagogical and physiological approaches. It also examines the specific features of planning load volume and intensity according to athletes' skill levels, preparation stages, and pre-competition and competition periods. The article provides scientific and practical recommendations aimed at individualizing loads, reducing injury risk, and ensuring steady improvement in sports performance. The analytical data presented is of practical significance for coaches, sports specialists, and researchers.

Keywords: female weightlifters, women's sports, training loads, load planning, preparation stages, load volume and intensity, individualization, highly skilled athletes.

Introduction

Today, the interest of qualified female weightlifters in weightlifting is steadily growing, which can be exemplified by the wide range of opportunities for this sport worldwide. At the international level, the role of our women in this sport is gradually increasing, which, in turn, demonstrates that female athletes have higher self-confidence and are less susceptible to difficulties during the stages of morphological and physiological changes (periods) compared to ordinary people. This dissertation research, to a certain extent, serves to fulfill the tasks stipulated in the Resolution of the President of the Republic of Uzbekistan No. PP-3031 dated June 3, 2017 "On Measures for the Further Development of Physical Culture and Mass Sports," No. PP-414 dated November 3, 2022 "On Measures for Further Improvement of the System of Personnel Training and Scientific Research in the Field of Physical Culture and Sports," as well as in other regulatory legal documents related to this field. The peculiarities of planning training loads for qualified female weightlifters are considered one of the urgent issues. Despite numerous scientific works having been studied so far, research is still ongoing. Planning training loads for qualified female weightlifters is considered one of the pressing issues. Despite numerous scientific works having been studied so far, research is still ongoing.

Objective of the study: to develop proposals and recommendations on the features of planning training loads for qualified female weightlifters.

Research objectives:

-To study and provide scientific and practical recommendations regarding the specifics of planning training loads for qualified female weightlifters;

- To determine the physiological aspects of female weightlifters during the training period, subsequent recovery periods, and most importantly, during the competition process;

Research results and discussion. During the research period in 2025, we familiarized ourselves with the one-year work plan of our qualified female weightlifters and analyzed the training sessions together with the coach, where we can observe the results of the national team members in the city of Chirchik. We became convinced of the need for a special approach in managing the workload during the pre-menstrual cycle and menstruation of our female athletes, as observed during their pre-training warm-up and post-training stretching exercises, which revealed their unique physiological processes and individual morphofunctional characteristics. Taking into account the physiological features of the national team girls, emphasis was placed on the distribution of loads for shoulder, arm, back, and leg muscles during training sessions, considering which body parts receive the load.

Results and discussion

The research results indicate that women's anatomical features differ from men's in terms of bone structure. Specifically, women have lower bone density, thinner bones, and

relatively different pelvic shape and size. The pelvic bones are wider and more rounded to facilitate childbirth. Such gender differences in women become particularly noticeable after puberty. Upon closer examination, scientists have also noted that girls' hip bones are relatively shorter and wider, as well as thinner and flatter compared to men's.

Another distinguishing feature is that the angle formed under the junction of the pubic bones is wider in women and narrower in men. The bladder, located in the small pelvic cavity, differs radically in topography between males and females. In women, the uterus and vagina are situated between the bladder, while in men, Consequently, the male bladder is positioned higher than the female bladder. During training, it is necessary to approach exercises involving lifting weights from the pelvic area very carefully, gradually increasing the load. It should be noted that during menstruation, it is advisable for women to focus on exercises that develop shoulder and arm muscles. In women, the base of the bladder is covered with its own special ligaments, which serve as a protective mechanism when lifting a barbell from the platform and bringing it to the pelvis (during the pull phase).

Regarding the genital muscles in females, they are less developed compared to males,

Table 1. Distribution of workloads and classification of auxiliary exercises for qualified female weightlifters during menstruation

	GENERAL DEVELOPMENTAL EXERCISES	WORKLOAD DISTRIBUTION	PERCENTAGE
1	Exercises without equipment		
	Stretching exercises; Cardio exercises; Abdominal exercises; Standing long jump; Standing high jump;	Low:work performed until actual fatigue begins	10-15%
2	Exercises with equipment		
	Forward bend with a barbell; Squats with a barbell; Walking with a barbell;	Moderate:work performed until actual fatigue begins	40-50%
3	Exercises with machines		
	Incline; Pull-up bar; Parallel bars;	Significant:work performed until actual fatigue begins	50-70%
	SPECIAL PHYSICAL EXERCISES		
	Back squats; Front squats; Power clean Clean and jerk; Behind-the-neck press; Push press;	High:onset of actual fatigue.	70-90%

Note 1: Sample from the research work of R.M. Matkarimov.

the seminal vesicles and vas deferens are located in this area.

In women, due to the uterus leaning over the bladder, the apex of the bladder is underdeveloped and flat. In the anterior part of the bladder, between the bladder and the pubic bones, there is a space that separates them. Therefore, the pubic area can move freely. When the bladder is filled with urine, it rises from the pelvic cavity and extends upwards from the pubic symphysis, even up to the navel. The base of the bladder in women is secured by special ligaments, while in men, in addition to ligaments, it is connected to the prostate gland. while the opposite is true for fat distribution. The bulbospongiosus muscle is located on the surface of the urogenital diaphragm. In women, this muscle surrounds the vaginal opening and compresses it when contracted. In men, it aids in the expulsion of urine and seminal fluid. The ischiocavernosus muscle surrounds the clitoris in women. When this muscle contracts, it impedes venous blood flow, thereby stimulating the penis in men and the clitoris in women. The coccygeus muscle originates from the branches of the pubic and ischial bones and fills the posterior part of the pelvic diaphragm. The membranous part of the urethra passes through

this muscle. In women, both the urethra and vagina pass through this area.

Additionally, the training load and intensity depend on women's anatomical and physiological characteristics. It is incorrect to expect women to achieve success without providing optimal training that allows them to show high results during the training process while safeguarding their health. Failing to do so can be dangerous for their health and may even result in lifelong disability or confinement to bed. Therefore, it is necessary to conduct training sessions based on a planned approach, taking into account the individual anatomy of our female athletes.

Conclusion

As can be seen from the table, the description and adherence to workloads during women's menstrual cycle is a highly relevant process. It is necessary for each member of the national team to analyze training not only from a physical but also from a physiological perspective, and to apply and implement in practice how female athletes from other foreign national teams handle workloads and what research is being conducted on female athletes.

Taking into account the physiological characteristics of qualified female weightlifters, it is necessary to ensure that the menstrual cycle is not difficult, with the coach and athlete agreeing on the loads and intensity of training, and during this period, providing more auxiliary exercises.

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