

METHODS OF IMPROVING STRENGTH INDICATORS DURING PRE-COMPETITION TRAINING AMONG ARM-WRESTLING STUDENTS

Karimov Fakhridin Khurramovich

Tashkent State University of Economics

Professor, Department of Physical Culture and Sports Activities

Annotatsiya: Ushbu maqolada armrestling bilan shug'ullanuvchi talabalarning musobaqa oldi tayyorgarlik davrida kuch ko'rsatkichlarini oshirish usullari tahlil qilingan. Musobaqa oldi davr uchun optimal trening rejimlarini tanlash masalalari ko'rib chiqilgan va talabalar uchun samarali metodlar tavsiya etilgan.

Kalit so'zlar: armrestling, kuch tayyorgarligi, musobaqa oldi davr, talabalar, maxsus kuch mashqlari, izometrik mashqlar, dinamik kuch.

Аннотация: В статье анализируются методы повышения силовых показателей студентов, занимающихся армрестлингом, в период предсоревновательной подготовки. Рассмотрены вопросы выбора оптимальных тренировочных режимов в предсоревновательный период и рекомендованы эффективные методы для студентов.

Ключевые слова: армрестлинг, силовая подготовка, предсоревновательный период, студенты, специальные силовые упражнения, изометрические упражнения, динамическая сила.

Abstract: This article analyzes the methods of increasing strength indicators of armwrestling students during the pre-competition preparation period. The issues of choosing optimal training regimens for the pre-competition period are considered and effective methods for students are recommended.

Keywords: armwrestling, strength training, pre-competition period, students, special strength exercises, isometric exercises, dynamic strength.

Introduction

Arm wrestling is one of the modern sports that requires a high level of strength qualities and places significant emphasis on technical proficiency. The increasing popularity of arm wrestling among students necessitates the development of scientific and methodological approaches within sports pedagogy. The pre-competition preparation period is considered the most important stage for optimizing the functional condition of athletes and preparing them to achieve high results in competitions [1]. Success in arm wrestling largely depends on the specific strength indicators of the hand, forearm, and shoulder girdle muscles, where explosive strength, static strength, and strength endurance are combined [2]. The physiological characteristics of student-aged athletes, alongside the need to balance academic workload and training schedule, require a specific methodological approach during the pre-competition period.

Methodology and Literature Review

This research was conducted using theoretical-analytical methods, including the study, comparison, and generalization of scientific-methodological literature. Issues of sports training in arm wrestling are widely presented in the works of V.I. Tukhvatullin and A.A. Podlivaev, who emphasize the specificity of special strength preparation in arm wrestling [3]. The pre-competition stage typically lasts from three to six weeks, during which maximal strength indicators and technical readiness must reach optimal levels [4]. The theoretical foundations of strength training were fundamentally developed in the classical works of L.P. Matveyev and Yu.V. Verkhoshansky, who identify three main directions of strength development: maximal strength, explosive strength, and strength endurance [5]. The use of isometric exercises in arm wrestling is especially important, as athletes are often required to exert maximal force in a static position during competition [6].

Dynamic strength exercises, in turn, enhance rapid muscular contraction capabilities and play a key role in implementing offensive techniques. Uzbek authors M.R. Fayziev and B.T. Ergashev emphasize the importance of considering age-specific characteristics in organizing strength training among students [7]. Issues of training load management during the pre-competition period are thoroughly covered in the works of N.G. Ozolin and V.N. Platonov, who justify the principle of decreasing training volume while increasing intensity [8]. Foreign research demonstrates the effectiveness of dynamometry and electromyography for objectively assessing strength parameters in arm wrestling [9]. In addition, optimizing nutritional regimens and utilizing appropriate recovery measures during the pre-competition stage are of significant importance [10].

Results and Discussion

The literature analysis indicates that improving strength indicators among student arm wrestlers during the pre-competition period requires a complex approach integrating special strength exercises, technical preparation, and functional condition regulation. The primary objectives of this period include maintaining maximal strength capacity and improving explosive strength and rate of force development. The recommended exercise system should be structured across the following directions.

First, a complex of special isometric exercises should include static contractions performed under various joint-angle positions characteristic of arm wrestling. These exercises typically last from five to fifteen seconds and must be performed with maximal intensity. Second, dynamic exercises aimed at developing explosive strength should include rapid pulls on specialized equipment, explosive movements using elastic expanders, and plyometric elements.

Third, integrating technical preparation with strength training helps develop the ability to apply force effectively under competition-specific conditions. The structure of training loads in the pre-competition stage requires special attention: although total training volume should be reduced by approximately 20–30%, intensity must be maintained at maximal or near-maximal levels. Training frequency of four to five sessions per week is optimal, with two to three sessions focused on special strength preparation, while the remaining sessions target technical-tactical training and recovery measures.

For students, it is particularly important to consider academic workload when planning training regimes and to ensure sufficient psychological preparation. During the final week of preparation, the tapering principle must be applied; this involves a gradual reduction in training volume, facilitating the elimination of accumulated fatigue and achieving the supercompensation effect. Literature analysis indicates that successful pre-competition preparation optimizes not only physical but also physiological and psychological readiness. The most effective strategies

for enhancing strength indicators include combining isometric and eccentric exercises, performing high-intensity interval-based training, and employing arm wrestling-specific strength techniques. An individualized approach is essential; training must be tailored to minimize athletes' weak attributes and further develop their stronger qualities during the pre-competition period.

Conclusion

Improving strength indicators among student arm wrestlers during the pre-competition period requires a specialized methodology based on a balanced combination of isometric and dynamic exercises, optimal distribution of training loads, and consideration of age-related characteristics. Literature analysis shows that there are sufficiently substantiated recommendations regarding the duration, structure, and intensity of training sessions during the pre-competition phase. The following conclusions are relevant for practical application: the pre-competition period should last four to six weeks; training frequency should be four to five targeted sessions per week; training programs should include isometric, dynamic, and technical components; total training volume should be reduced while maintaining maximal intensity; and tapering should be applied seven to ten days before competition. For students, coordination of academic workload with training schedules, provision of adequate recovery time, and optimization of nutritional regimens are crucial. Future research should focus on monitoring the pre-competition preparation process in student-arm wrestlers and comparing the effectiveness of different methodological approaches.

List f References

1. Матвеев Л.П. Общая теория спорта и ее прикладные аспекты. Москва: Советский спорт, 2010. 340 с.
2. Тухватуллин В.И., Подливаев А.А. Армспорт: теория и методика. Москва: Физическая культура, 2015. 256 с.
3. Подливаев Б.А., Коновалов И.Е. Специальная силовая подготовка в армрестлинге. Теория и практика физической культуры. 2018. № 6. С. 45-47.
4. Верхошанский Ю.В. Основы специальной силовой подготовки в спорте. Москва: Советский спорт, 2013. 216 с.
5. Платонов В.Н. Система подготовки спортсменов в олимпийском спорте. Киев: Олимпийская литература, 2015. 808 с.
6. Усанов Е.И., Чугина Л.В. Изометрические упражнения в армрестлинге. Ученые записки университета им. П.Ф. Лесгафта. 2019. № 3. С. 312-315.
7. Файзиев М.Р., Эргашев Б.Т. Ёшларда жисмоний тайёргарликни ташкил этишнинг педагогик асослари. Тошкент: Фан, 2017. 168 б.
8. Озолин Н.Г. Настольная книга тренера: наука побеждать. Москва: Астрель, 2012. 863 с.
9. Gołaś A., Maszczyk A. Neuromuscular control and strength in arm wrestling. Journal of Human Kinetics. 2017. Vol. 60. P. 123-132.
10. Bezodis N., Salo A. Understanding the effect of touchdown distance on sprint acceleration performance. Sports Biomechanics. 2018. Vol. 17(4). P. 480-492.