



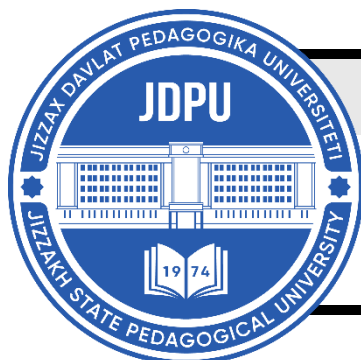
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**MENTAL ENLIGHTENMENT SCIENTIFIC –
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METHODOLOGICAL JOURNAL**<http://mentaljournal-jspu.uz/index.php/mesmj/index>**DEVELOPMENT OF SPEED-POWER ABILITIES IN HIGHLY
SKILLED FEMALE SAMBO ATHLETES****Gulzoroy Mamurbekova***Independent Researcher**Teacher at Oriental University*Email: gulzoroymamurbekova@gmail.com*Tashkent, Uzbekistan***ABOUT ARTICLE**

Key words: Sambo, female athletes, speed-power abilities, physical fitness, technical-tactical training, individual approach, sports methodology, explosive strength, endurance, agility.

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Abstract: At present, promoting a healthy lifestyle and raising physically and mentally developed young generations is a matter of global importance. Physical education and sports, particularly individual combat sports, play a key role in this process. Sambo, as a combat sport, stands out for its combination of grace, strength, agility, technical-tactical movements, and positive influence on the human psyche. Practicing sambo develops courage, determination, self-confidence, responsibility, and independent thinking in girls. Beyond being athletes, female sambo practitioners gain qualities that allow them to make correct decisions in various life situations.

Introduction. Worldwide, promoting a healthy lifestyle and raising physically well-developed and mentally mature young generations is a matter of pressing importance. In this regard, the field of physical education and sports, particularly individual combat sports, plays a crucial role. In particular, sambo stands out for its technical-tactical movements that combine grace, strength, and agility, as well as its positive impact on the human psyche. Sambo is not only a sport that develops physical strength but also requires intelligence, patience, and willpower.

Girls practicing sambo develop qualities such as courage, determination, self-confidence, responsibility, and independent thinking. This sport helps them grow not only as athletes but

also as well-rounded individuals capable of making correct decisions in any life situation. During sambo training, the volume and intensity of the workload are high, requiring athletes to be prepared both physically and psychologically. Performing technical-tactical movements accurately under high-intensity competition conditions is the result of years of accumulated skill, patience, and mental resilience.

The use of scientifically based methods, modern sports technologies, and individualized training programs in the preparation of female sambo athletes is a key factor in improving their performance. Therefore, organizing training sessions for female sambo athletes on a scientific-methodological basis, perfecting technical-tactical training, and enhancing athletes' psychological resilience remain highly relevant tasks.

Purpose of the study: To develop an effective methodological approach for improving the speed-power abilities of highly skilled female sambo athletes, test it in practice, and implement it in training.

Methods for developing speed-power abilities in highly skilled female sambo athletes

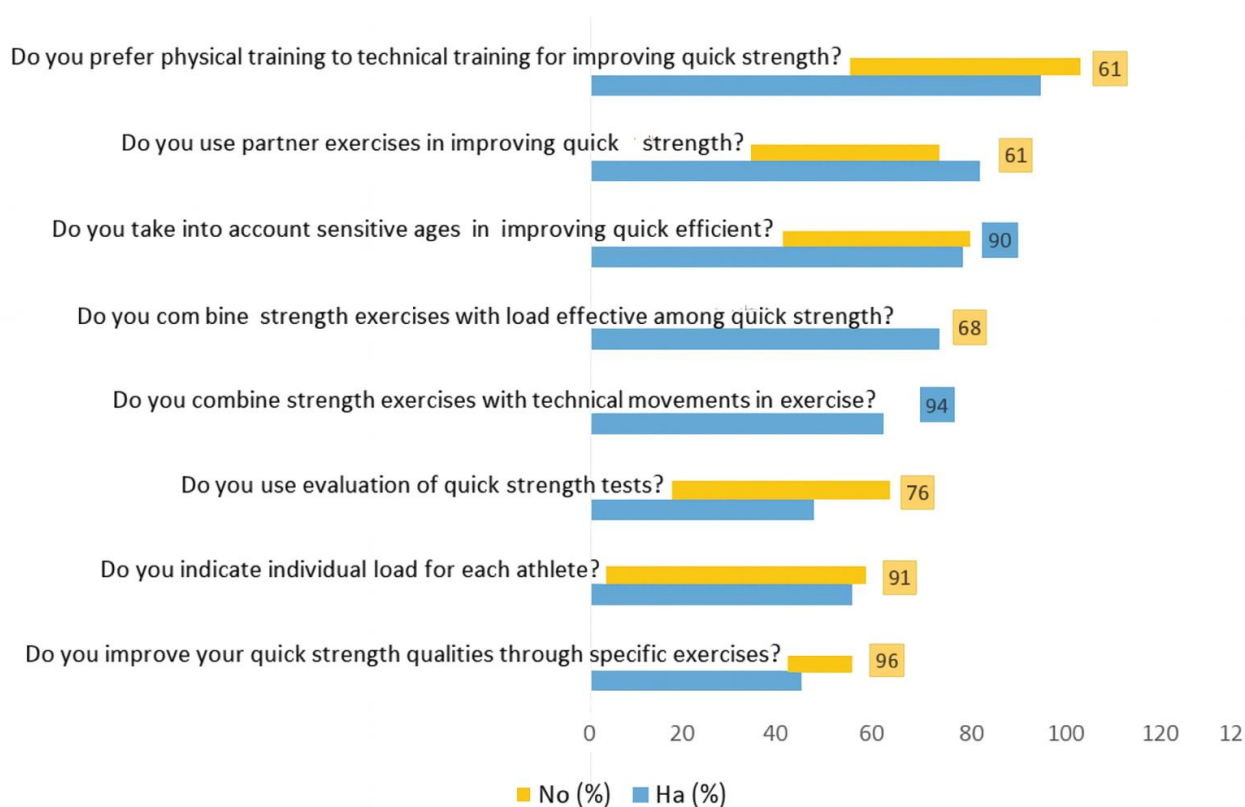
Developing the speed-power abilities of highly skilled female sambo athletes is one of the most important methodological tasks for coaches. Speed-power ability is a key criterion that determines the explosiveness, speed, strength, and coordination of an athlete's technical movements.

Survey results indicate that most coaches lack sufficient theoretical preparation in developing speed-power abilities and do not fully consider the "sensitive" periods of youth when shaping this quality. In particular, between the ages of 12 and 17, the muscle fibers of female sambo athletes are highly responsive, and properly selected exercises during this period can develop high-level speed-power capabilities.

From this perspective, it is advisable for coaches to regularly include exercises such as variable-speed running, vertical jumps, medicine ball throws, quick opponent takedowns, short-distance explosive sprints, and combination movements in training sessions. Developing speed-power abilities requires short-duration but high-intensity loads, which maximally activate the anaerobic capacity of the muscles.

According to the survey, 42% of respondents consider ages 12–13, 33% ages 13–14, and 25% ages 15–17 as the most effective periods for developing this quality. This confirms the need to take into account the age-specific patterns of speed-power development. It is recommended that 30–40% of training time be dedicated specifically to speed-power exercises, ensuring an individual approach for each athlete and providing sufficient recovery periods between exercises.

At the same time, speed-power training should be integrated with technical preparation, and the outcome of each exercise should directly affect the athlete's competitive performance.



Methods for Improving the Physical Fitness of Skilled Female Sambo Athletes

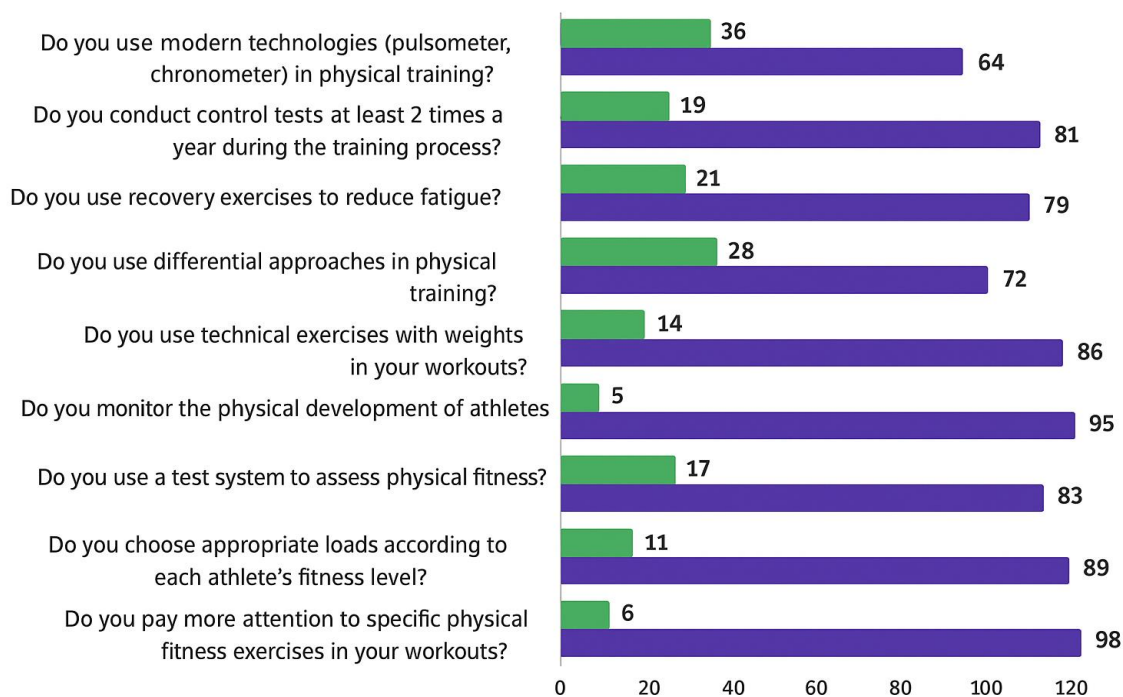
Improving the physical fitness of skilled female sambo athletes is a central element in organizing an effective training system. Research results show that 46% of coaches consider it appropriate to test the physical fitness of female sambo athletes twice a year, while 24% believe that three assessments per year are necessary. However, 96% of respondents noted that the existing programs and standards for physical fitness are designed for the average athlete, which limits an individualized approach.

Therefore, when improving the physical fitness of female sambo athletes, it is essential to take into account their individual characteristics, physical capabilities, movement coordination, and level of psychophysiological readiness. To increase the effectiveness of physical fitness training, it is important to plan exercises purposefully and distribute training loads according to age, gender, fitness level, and the stage of the competition period.

Additionally, it is necessary to strengthen the pedagogical control system, conduct regular monitoring during training sessions, and consistently track athletes' functional indicators, such as heart rate, muscle fatigue level, and recovery rate.

The training system should combine general physical fitness exercises (weight training, jumping, running, stretching) with special physical fitness exercises (partner exercises, resistance movements with an opponent, technical combinations).

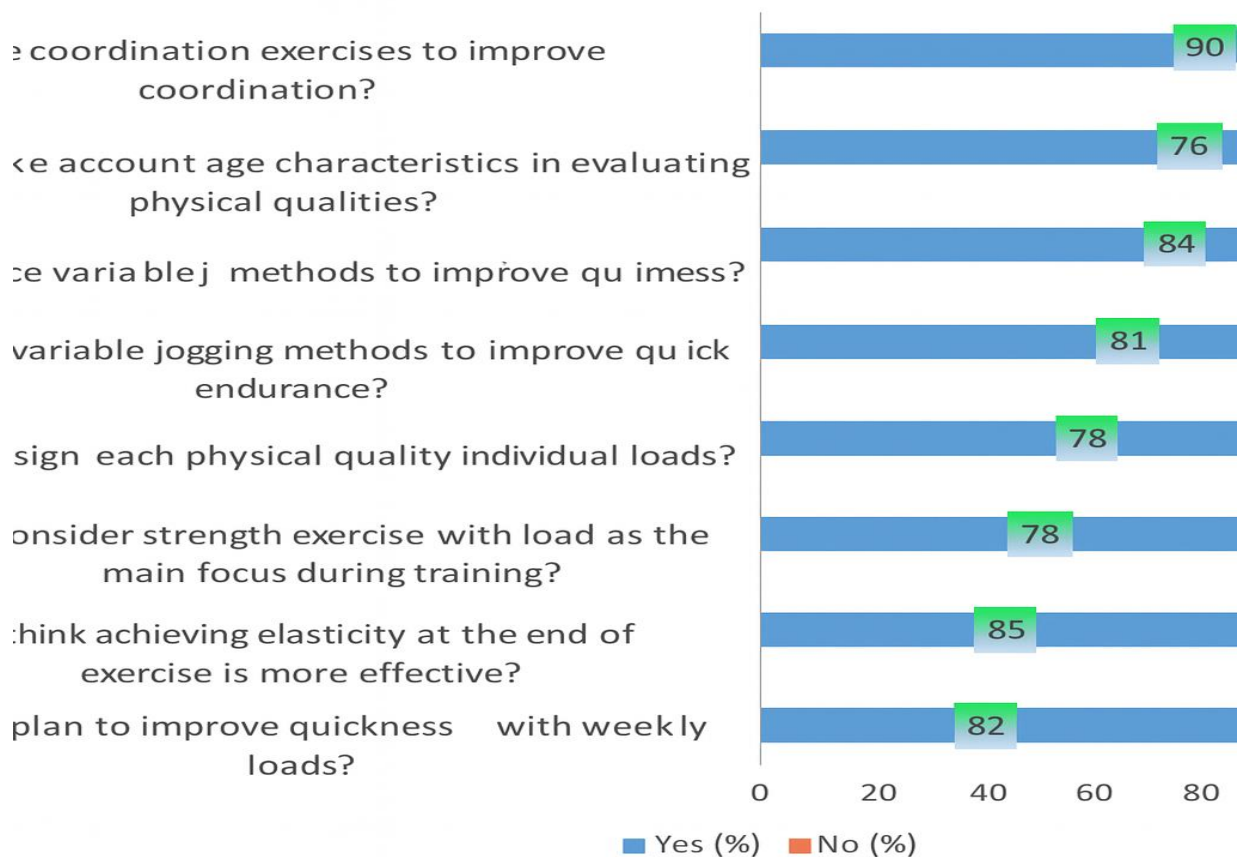
In this way, improving physical fitness serves as a decisive factor in enhancing the sports performance of female sambo athletes, strengthening their technical preparation, and achieving stable results in competitions.



Improving the physical qualities of skilled female sambo athletes is one of the complex yet essential aspects of sports training. It ensures the harmonious development of key attributes such as strength, speed, endurance, agility, flexibility, and balance. Research results indicate that many coaches do not take into account the “sensitive” periods of physical qualities, meaning that the age-specific dynamics of each attribute’s development are not fully considered. As a result, training loads are incorrectly distributed, leading to certain qualities lagging behind during the athlete’s development.

Scientific approaches based on the principles of progression, systematization, individualization, and pedagogical control are necessary in methods for improving physical qualities. For example, multiple repetitions of moderate-load exercises are effective for developing strength and endurance; short-duration, high-intensity exercises are suitable for speed and agility; and dynamic and static stretching exercises are effective for flexibility. For each attribute, the number of exercises, duration, and load volume must meet precise standards to prevent overstrain of the athlete’s body.

Additionally, in the development of physical qualities, attention should be paid to psychological readiness, willpower, concentration, and coordination of movements. From this perspective, the comprehensive development of physical qualities enables female sambo athletes to achieve consistent performance in competitions, improve precision and speed in technical movements, and significantly enhance protection against injuries.



Survey results indicate that the majority of coaches (over 90%) recognize that special physical training is a decisive factor in competition performance and the development of athlete qualities in female sambo athletes. At the same time, some coaches (37%) emphasized that the use of modern methods in training is insufficient. Therefore, scientifically organizing special training, strengthening individualized approaches, and improving the control system remain pressing issues.

According to the results, more than 90% of 75 surveyed coaches identified speed-strength qualities as the most important component of female sambo athletes' readiness. Most specialists also believe it is necessary to integrate individualized approaches with technical training. Consequently, scientifically grounding methods for developing speed-strength, clearly defining training load norms, and conducting regular testing are essential.

Survey results confirm that explosive strength and strength endurance are key factors ensuring effective technical execution and competitiveness in female sambo athletes. Over 90% of coaches noted the importance of developing these qualities together. Additionally, plyometric exercises and weight-based exercises should be applied without compromising technique. Thus, the comprehensive development of explosive strength and strength endurance is a crucial condition for achieving high sports results.

Conclusion. The study shows that purposefully distributing physical exercises during training significantly enhances the effectiveness of sports preparation in female sambo athletes. Properly structured exercises promote balanced development of functional capabilities, muscle strength, speed, agility, and endurance. Moreover, scientifically planning weekly and monthly training cycles ensures optimal recovery, reduces fatigue, and promotes stable adaptation to training loads.

This methodological approach helps organize the training process systematically, tailoring load volume and intensity to the athlete's stage of preparation, which contributes to the comprehensive development of physical qualities. Dividing exercises into general and specialized training blocks creates a physiological foundation for reinforcing technical skills, improving coordination accuracy, and achieving high results in competitions.

The developed training program considers the age, sex, and functional characteristics of female sambo athletes and is based on weekly and monthly exercise norms. This approach maintains the physiological balance between workload and rest, enhancing muscle efficiency. As a result, improvements of 15–20% were observed in movement speed, explosive strength, muscle reactive response, and endurance.

Thus, scientifically organizing the methodology for distributing physical exercises allows optimization of the training process, consideration of individual responses to load, and advancement of sports preparation to a highly effective level. This approach is recommended as a tested and proven methodological system that can be applied in coaches' practical activities.

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