



Practical State of the Problem of Training Physical Culture and Sports Specialists in Ukraine

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ABSTRACT: The modern development of physical culture and sports in Ukraine requires highly qualified specialists who combine theoretical knowledge with practical skills, innovative thinking, and the ability to adapt to modern challenges. However, the system of training such specialists today faces several serious problems. Among them are outdated curricula, insufficient practical training, and a gap between the labor market requirements and graduates' actual competencies. Training specialists in this field is a complex multifaceted process that requires a comprehensive analysis. It is essential to consider both the theoretical foundations of professional training and the practical application of knowledge and the integration of modern technologies into the educational process. Particular attention should be paid to the compliance of training programs with international standards, the availability of high-quality sports infrastructure, and innovative training methods. The analysis of modern research has shown that the problems of training specialists are considered in several key areas: the formation of comprehensive readiness of athletes, including psychological, physical, and technical training; modern methods of the training process, such as individualization of loads and biomechanical analysis of movements; technical support – introduction of interactive simulators and systems for monitoring the condition of athletes; the use of digital technologies in modern training of specialists. Based on the analysis, several priority areas for the development of the system of training specialists have been identified: modernization of the educational and material base, including the renovation of sports halls and the purchase of modern equipment, the improvement of coaching education through the introduction of interdisciplinary programs and the organization of internships abroad, the participation of students in sports competitions, the development of cooperation with professional federations and support youth sports initiatives, attention to the development of sports sciences in the field of physiology, biomechanics and sports medicine.

KEYWORDS: specialists training, physical culture and sports, Ukraine, problems of sports training, education.

PROBLEM STATEMENT

Training physical culture and sports specialists in Ukraine provides a comprehensive system that includes various training methods, pedagogical approaches, and principles to foster comprehensive training of athletes. This system is influenced by the theoretical aspects of training at the university, practical imitation of principles, and innovative teaching technologies (Atamanyuk et al., 2021c), adapting to global strategies for training athletes. A key aspect involves understanding how to effectively shape an athlete's readiness through well-defined principles and approaches to training.

ANALYSIS OF CURRENT RESEARCH

The theoretical foundations of physical culture and sports training are rooted in pedagogical, psychological, and physiological principles (Karatnyk, 2023; Pityn, 2014; Shiyan & Papusha, 2000). These principles guide the development of training programs and techniques aimed at improving athletic performance, promoting physical health, and promoting a holistic approach to personal growth. The pedagogical principles emphasize the importance of individualized learning, progressive overloads, and the development of motor skills. Effective training programs are designed to meet each athlete's specific needs and abilities, ensuring that they progress at a challenging and steady pace. The principles of didactics, such as systematicity, consistency, and accessibility, are essential in the development and implementation of curricula (Dubovyk, 2018).

Psychological principles focus on the mental aspects of athletic performance, including motivation, concentration, and stress management. Athletes must develop psychological resilience to overcome difficulties, maintain concentration under pressure, and perform at their best in competitive situations. Psychological training techniques such as visualization, goal setting, and positive self-hypnosis are integral to a comprehensive training program.

Physiological principles refer to the biological adaptations that occur in response to physical training. These adaptations include improvements in cardiovascular function, muscle strength and endurance, and metabolic efficiency. Training programs should be designed to optimize these adaptations while minimizing the risk of injury and overtraining. Understanding biomechanics, exercise physiology, and sports nutrition is essential for developing effective training strategies.

Therefore, a significant variety of approaches to the education and training of specialists requires a deep analysis. Thus, **the article aims** to analyze strategies for solving the problem of training specialists in physical culture and sports in Ukraine and highlight relevant areas.

RESULTS

Generalizing the results of the analysis of current publications showed a vast and colorful landscape of research (Atamanyuk & Semenikhina, 2021; Lazorenko & Semenikhina, 2020). However, the largest group comprises works dedicated to forming athlete readiness, which involves a holistic approach that considers the physical, mental, and technical aspects of training. This requires a comprehensive understanding of the athlete's current condition, goals, and sports requirements. Physical fitness encompasses an athlete's physical condition, including strength, speed, endurance, flexibility, and power. Training programs are designed to develop these physical qualities to meet the specific demands of the athlete's sport. Regular physical performance monitoring is essential to track progress and adjust the training program as needed. Psychological readiness is the psychological state of an athlete, including confidence, motivation, concentration, and resilience (Dmitrieva, 2020). Mental training techniques enhance these psychological qualities and prepare athletes for the cognitive challenges of competition. Athletes must be able to manage stress, maintain concentration under pressure, and believe in their ability to succeed (Griban et al., 2020).

Technical readiness presupposes the level of skill and mastery of an athlete in his sport (Kuznetsova, 2020). Training programs focus on developing and improving technical skills, ensuring athletes can perform the necessary movements efficiently and effectively. Video analysis and biomechanical feedback are used to identify areas for improvement and optimization of technique.

Innovative technologies are transforming the field of athletes' training, opening up new opportunities to improve performance, prevent injuries, and increase the overall readiness of athletes. Such technologies include virtual reality, augmented reality, and artificial intelligence. At the same time, we highlight the practical application of methodological approaches in physical culture and sports training, which involves the implementation of various conditions and training methods (Rybalko et al., 2021), the use of specialized equipment, and the integration of technologies for control and performance improvement.

Various training methods are used to develop certain physical qualities, such as strength, speed, endurance, and flexibility (Tropin, 2016). These methods include resistance, plyometrics, interval, and stretching exercises. The selection of appropriate training methods depends on the specific goals of the training program and the individual characteristics of the athlete.

Specialized equipment plays the most important role in modern sports training (Khatsayuk et al., 2020). This equipment includes weightlifting machines, cardiovascular training devices, and biomechanical analysis tools. The use of specialized equipment allows athletes to train more efficiently and effectively and monitor their progress with greater accuracy.

Technology integration into athletic training has revolutionized how athletes prepare for competition. Wearable sensors, video analysis systems, and computer simulations provide valuable data on athletes' performance, allowing coaches to make informed decisions about training strategies. Technology also facilitates remote training and monitoring, allowing athletes to receive personalized guidance from anywhere in the world (Semenikhina et al., 2022).

Innovative technologies are transforming physical culture and sports, opening up new opportunities for strengthening training (Atamanyuk et al., 2021a), improving performance, injury prevention and IT involvement (Atamanyuk et al., 2021b; Petrenko et al., 2024). Such technologies include virtual reality, augmented reality, and artificial intelligence. Virtual reality (VR) provides athletes an immersive training environment that simulates real-world competition scenarios. VR can improve decision-making skills, increase reaction times, and reduce anxiety in high-pressure situations. Athletes can practice their skills in a safe and controlled environment without physical injury. Augmented reality (AR) overlays digital information in the real world, providing athletes with real-time performance feedback. AR can be used to improve techniques, monitor biomechanics, and provide personalized coaching recommendations. Athletes can use AR to visualize their movements and make adjustments to optimize their performance.

Artificial intelligence analyzes large data sets on athletes' performance, identifying patterns and trends that can shape training strategies (Carrio, 2021). Artificial intelligence can also be used to develop personalized training programs tailored to each athlete's specific needs and abilities. AI-powered systems can track athletes' health and well-being, detecting early signs of fatigue or overtraining.

A separate group should highlight the emphasis on teaching biomechanics of movements, exercise physiology, and sports nutrition (Krasilov, 2022). Biomechanics is the science of human movement and the forces that act on the body. Understanding

biomechanics is essential for optimizing athletic performance and reducing the risk of injury. By analyzing movement patterns and identifying biomechanical inefficiencies, coaches can help athletes improve their technique and reduce stress on joints and muscles. Exercise physiology is the science of how the body responds to physical activity. Understanding exercise physiology is essential for developing effective training programs for specific physiological adaptations. By tracking physiological responses to training, coaches can ensure that athletes progress appropriately and are not at risk of overtraining. Sports nutrition is the science of how nutrition affects athletic performance. Understanding sports nutrition is essential for optimizing energy levels, promoting recovery, and maintaining overall health. Athletes should consume a balanced diet that provides adequate amounts of carbohydrates, proteins, fats, vitamins, and minerals.

We note the impact of global events on physical culture and sports training. Global events such as the COVID-19 pandemic have significantly impacted physical education and athletic fitness. The pandemic disrupted training schedules, limited access to facilities, and forced athletes to adapt to new training methods. During the COVID-19 pandemic, athletes and coaches have had to look for creative ways to keep training dynamic while adhering to public health recommendations. This involved home training programs, virtual coaching sessions, and outdoor training activities. The pandemic has also highlighted the importance of mental health and well-being, as athletes have had to deal with the stress and uncertainty of the situation.

Online training programs are becoming increasingly popular during the pandemic, providing athletes with access to personalized training and training resources from the comfort of their homes (Yefremenko et al., 2024). These apps often include video lessons, interactive exercises, and virtual support groups. Online workout programs can be a valuable tool for staying fit and improving skills during social distancing and quarantine periods.

Generalization of the identified trends allows us to highlight directions for the future. The future of physical education and athletic training is likely to involve a greater emphasis on technology, personalized training, and holistic wellness. Athletes can access increasingly sophisticated tools and resources to optimize their performances and prevent injury. Ukraine faces specific challenges and opportunities in training specialists in physical culture and sports. Among them is the need to modernize the training base, improve the quality of coaching education, and promote greater participation in sports at all levels. Many educational institutions in Ukraine are outdated and lack the resources to support modern teaching methods. Investments in new equipment, technology, and infrastructure are essential to ensure that Ukrainian athletes have access to the best possible training environment. The quality of coaching education in Ukraine needs to be improved to equip coaches with the latest knowledge and skills. This includes providing trainers access to professional development programs, opportunities, and international internships. Encouraging greater participation in sports at all levels is critical to developing a strong foundation for elite athletic performance. This involves increasing access to sports programs in schools, communities, and recreational facilities. It also requires removing barriers to participation, such as cost, transportation, and lack of awareness.

CONCLUSIONS

Analyzing methodological approaches to training physical culture and sports specialists in Ukraine reveals a complex and evolving landscape. Training athletes in Ukraine involves imitating an integrated approach that combines theoretical foundations, practical application, and innovative sports technologies. The integration of theoretical principles, practical applications, and innovative technologies is essential for the development of effective training programs and the improvement of athletic performance. The role of digital technologies in modern training is also worth noting. Today, using big data to analyze training effectiveness, develop specialized mobile applications, and use virtual reality in the educational process are increasingly important. Equally important is the study of the impact of global events on the development of physical culture, including adaptation to pandemic and martial law conditions, which requires the development of alternative learning formats such as distance learning and online courses. Addressing the challenges and opportunities facing the field of sports education will require a concerted effort by educators, coaches, athletes, and policymakers. Constant adaptation to global events and the introduction of new technologies will determine the future of training physical culture and sports specialists in Ukraine.

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