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DEVELOPMENT OF SPECIFIC PHYSICAL QUALITIES IN SKILLED VOLLEYBALL PLAYERS

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ABOUT ARTICLE

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Abstract: Nowadays, many researchers focus solely on analyzing the execution and improvement of passing techniques in volleyball. However, it is emphasized that there is no effective and transparent system for selecting (recruiting) talented young athletes in volleyball. This lack of a structured selection process prevents the formation of a strong sports reserve and the preparation of high-level athletes for national teams. Identifying the key physical qualities of volleyball players and studying their development during their athletic progression is of scientific interest.

This article explores the development of specific physical qualities in skilled volleyball players across different playing positions. It also highlights innovative approaches to training that integrate physical culture, physical education, health improvement, physical development, and the promotion of a healthy lifestyle to foster well-rounded, physically and morally developed individuals.

INTRODUCTION

Volleyball is a sport with a rich history and widespread popularity in modern times. A key characteristic of contemporary volleyball is the increasing level of competition among teams of various skill levels. As a team sport, volleyball includes players in different positions, each capable of performing unexpected actions in complex game situations, not only by attackers but also by defenders.

For an extended period, research has been conducted on enhancing the effectiveness of technical preparation in volleyball at the highest levels of athletic mastery. However, studies have revealed a lack of adequate methods for **assessing the quality of technical skills execution and evaluating the effectiveness of technical exercises** during the improvement phase of sports performance. In countries with advanced volleyball programs, scientific research focuses on **differentiating training tools, managing functional reserves, developing recovery technologies, and enhancing technical and tactical capabilities** during competitions and training sessions.

Leading scholars emphasize that a **differentiated approach to teaching volleyball** is essential for developing pedagogical skills and personal attributes, yet its potential remains insufficiently explored. A review of scientific and methodological literature highlights the need to develop **effective methodologies** that equip future **physical education specialists** with the necessary **professional knowledge, skills, and competencies** to successfully perform their duties.

The **President of Uzbekistan** has identified the **enhancement of highly qualified specialists in the national education system** as a strategic priority. This includes **improving key professional activities, integrating scientific achievements into practice, and creating effective mechanisms** for their implementation.

LITERATURE REVIEW

Volleyball is an effective and multifaceted means of **physical education and personal development**. Engaging in volleyball positively influences various essential bodily systems, enhancing their functionality to a high degree. For this reason, volleyball holds a significant place in many countries' **physical education systems**. It is incorporated into the curricula of **Children's and Youth Sports Schools (BO'SMs), general education schools, and higher educational institutions** as part of their **physical culture programs**. Additionally, volleyball is widely practiced in **sports clubs, military units, parks, beaches, resorts, and mass sports events**, serving as an active leisure and recreational activity, particularly beneficial for individuals with sedentary lifestyles [1; 12-18-b., 2; 4-7-b.].

Impact of Volleyball on Physical and Mental Development

Engaging in volleyball contributes significantly to various physiological functions and personal attributes of players, including:

- **Fundamental physical exercises** such as jumping, striking, accelerating, abrupt stopping, falling, and tumbling are refined.

- **Key physical qualities** like **jumping ability, strength, speed, agility, and endurance** are enhanced.

- **Intellectual and sensory development** is stimulated, improving cognitive abilities, sensory perception, and various psychological states. Positive traits such as **diligence, goal orientation, determination, confidence in victory, and a sense of teamwork** are cultivated through volleyball training.

Like any sport, the **full benefits of volleyball** should be carefully evaluated. The **balance and moderation of training intensity** must be considered, as excessive physical exertion can have negative effects. Ancient physicians noted that **any substance (or exercise in this case) can be either medicine or poison, depending on the dose**. In volleyball, **overtraining rarely leads to improved health**; rather, excessive stress, frequent injuries, and mental strain can negatively impact the long-term **well-being of professional athletes**.

On the other hand, if too much time is allocated to sports training (with exercises, training camps, and tournaments taking place two to three times a day almost every day), certain aspects of improving other functions embedded in the genetic program of the professional athlete's body, as well as other essential areas of human activity, are neglected. This, in turn, leads to limiting an individual within a certain boundary. For those who choose sports as a profession, this is an inevitable additional outcome, as all professions exert a certain influence on an individual's personality.

Moreover, other organs of the body experience strain and fatigue. Constant psychological stress is also dangerous—it can lead athletes (especially coaches) to early emotional exhaustion, depression, and other health issues.

In the system of physical culture, the organization of training in this fascinating sport—volleyball—should be structured in such a way that it does not hinder but rather supports education, career development, maintaining health, effective work performance, and sincerely addressing family issues. Only then can engagement in volleyball bring joy to life. This exciting and beneficial game evokes strong emotional experiences. Additionally, as a result of training, one can feel the improvement of the body's functional systems, and many positive qualities of the volleyball player's personality are developed [1; pp. 12-18, 3; p. 31, 4; pp. 42-45].

An analysis of the above literature shows that improving the quality of training for future physical education specialists through the means of sports specialization remains one of the underexplored issues. The formation of priority skills and competencies that determine the effectiveness of their educational activities, the development of personal qualities, and the improvement of movement and technical preparation levels have not been sufficiently covered.

RESEARCH METHODOLOGY

In our study, we utilized various research methods, including literature analysis, pedagogical observation, pedagogical testing of physical fitness, pedagogical experiment, psychophysiological methods, document analysis, interviews and surveys, and mathematical statistical methods.

The reliability of the research findings is ensured by the practical and scientific validity of the study's objectives and tasks, the logical consistency of the author's initial methodological positions, the comparative analysis of data obtained through different pedagogical research methods, the targeted analysis of real practical activities, and the confirmation of the hypothesis with concrete theoretical and practical results. Additionally, the reliability of the results is supported by the use of scientifically recognized methods for obtaining empirical data, widely accepted statistical techniques for data processing, and the broad scope of the sample.

ANALYSIS AND RESULTS

The study presents findings on students' interest in and values related to sports in higher education institutions of pedagogy, along with the nature of their changes. It provides a detailed description of the essential qualities that comprehensively reflect the professional activities of specialists with higher education in physical education. Additionally, the study determines the impact of sports specialization on the formation of professional skills in physical education teachers and identifies the personal qualities and abilities that can be effectively developed through volleyball training. Moreover, a system of tools and organizational-methodological approaches for teaching the subject "Improving Sports Mastery" to students of the Faculty of Physical Culture in pedagogical higher education institutions has been developed and presented.

The mechanism for improving students' physical qualities through volleyball training is structured as a five-block variational system. Each block elaborates on the exercises aimed at developing students' physical qualities, their methodological application, objectives, areas of influence, and forms of manifestation.

A professional activity model for specialists with higher education in physical education has been developed, incorporating three sub-models:

1. **Specialist Training Model** – based on feedback from fourth-year students undergoing pedagogical practice.
2. **Existing Model** – derived from the opinions of professional development faculty trainees with at least five years of practical experience.

3. **Ideal Model** – shaped by the perspectives of faculty members from the physical education departments of pedagogical higher education institutions.

Each of these models is complex and represents an interconnected system of knowledge related to the professional activities of specialists in physical education and sports. The presence of negative correlation coefficients indicates that different types of professional activities require distinct, often mutually exclusive, skills and competencies. By comparing students' feedback with the ideal model, it is possible to identify gaps in the educational processes of physical culture faculties in pedagogical universities.

The analysis of feedback provided by physical education teachers allows for the identification of methods to address existing shortcomings. A study of expert opinions in the field of physical education and sports reveals the impact of sports specialization on the development of professional skills among physical education teachers. The findings indicate that certain competencies and abilities are predominantly shaped through participation in sports games.

Among the key skills developed in sports games, the following were highlighted:

- **Will to win** – 2.81 points
- **Determination** – 2.76 points
- **Self-control** – 2.73 points
- **Activity, stress resistance, endurance, courage, diligence, and quick reaction time**

In gymnastics, **100% of respondents** ranked a **creative approach to work** (3.00 points) as the most important quality, followed by **responsibility** (2.93 points) and **diligence** (2.83 points).

Respondents specializing in combat sports emphasized:

- **Will to win** – 2.81 points
- **Sense of duty, communication skills, and activity**

For those specializing in speed-strength sports, the most critical qualities identified were:

- **Diligence** – 3.00 points
- **Will to win** – 2.82 points
- **Endurance** – 2.78 points

The results also indicate that, compared to other sports disciplines (see Table 1), engagement in sports games leads to the more pronounced development of:

- **Pedagogical skills** – 2.65 points
- **Volitional skills** – 2.81 points
- **Intellectual abilities** – 2.55 points

- **Psychophysiological competencies** – 2.83 points

These insights provide a foundation for refining training programs for physical education teachers by integrating sports activities that specifically enhance pedagogical, cognitive, and psychological attributes necessary for professional success.

1-table

The impact level of sports specialization on the formation of professional skills and abilities (points)

№	Professional skills and abilities	Sport games		Martial arts		Speed-strength sports		Gymnastics	
		\bar{X}	place	\bar{X}	place	\bar{X}	place	\bar{X}	place
1.	Willpower	2,81	2	2,84	1	2,66	3	2,32	4
2.	Psychophysiological	2,83	1	2,40	2	2,11	4	2,38	3
3.	Work Attitude	2,68	2	2,55	3	2,31	4	3,00	1
4.	Pedagogical	2,65	1	2,14	3	2,13	4	2,51	2
5.	Intellectual	2,55	1	2,35	2	2,25	4	2,30	3
6.	Ethical/Moral	2,48	2	2,79	1	2,39	4	2,44	3
7.	Team Behavior	2,42	1	2,32	3	2,24	4	2,36	2
8.	Personal	2,22	4	2,32	3	2,42	2	2,65	1

Based on the obtained results, we selected the following aspects for studying the formation and development of professional skills and abilities through volleyball:

- **Pedagogical skills**, which are essential for teaching volleyball and contribute to an athlete's success in this sport.

- **Intellectual qualities**, with a focus on foresight and prediction, closely linked to intuition and imagination.

- **Volitional qualities**, including willpower, perseverance, and self-control, which received the highest scores.

2-table

The impact of sports specialization on the formation of pedagogical skills (points)

№	Professional skills and abilities	Sport games		Martial arts		Speed-strength sports		Gymnastics	
		\bar{X}	place	\bar{X}	place	\bar{X}	place	\bar{X}	place
1.	Communicative	2,70	1	2,44	3	2,45	2	2,41	4
2.	Gnostic	2,58	1	2,17	4	2,30	3	2,31	2
3.	Motor	2,82	1	2,55	2	2,25	4	2,35	3
4.	Constructive	2,71	1	2,40	3	2,35	4	2,41	2
5.	Organizational	2,61	1	2,37	2-3	2,14	4	2,37	2-3

The assessment of the impact of various sports on the formation of pedagogical skills is presented in Table 2. The evaluation of the impact of sports games training on the development

of pedagogical skills indicates that the following aspects appear promising for further research: managing athletes' physical workloads, developing independent work skills in athletes, critically analyzing personal opinions, and correctly demonstrating exercises.

Thus, it is worth noting that the issue of differences in the impact of various sports on the development of necessary professional skills raises doubts among many specialists.

Examining the specific opportunities for forming professional skills through volleyball training highlights the need for new approaches in teaching volleyball. The conditions for teaching are determined, first, by the characteristics of student sports in general, and second, by the specific features of the future profession of pedagogy.

The curriculum designed to introduce students to volleyball was practically implemented. The curricula of the control and experimental groups differed according to the objectives of the pedagogical experiment. The curriculum designed for the experimental group took into account the requirements outlined in the state education standards for training physical education teachers in higher professional education.

CONCLUSION

The survey conducted among leading teachers of physical education departments in pedagogical higher education institutions made it possible to identify the most important skills that comprehensively reflect the professional activities of specialists with higher physical education qualifications. Additionally, it helped determine the degree of influence of sports specialization on the formation of key skills in physical education teachers.

Among the professional skills and abilities that are most developed in sports games, the following were highlighted: willpower to win (2.81 points), determination (2.76 points), self-control (2.73 points), stress resistance, endurance, courage, diligence, and quick reaction.

In gymnastics, 100% of respondents ranked a creative approach to work as the top priority (3.00 points), followed by responsibility (2.93 points) and diligence (2.83 points).

Respondents specializing in martial arts emphasized willpower to win (2.81 points), a sense of duty, communicative skills, and activity. Representatives of speed-strength sports highlighted diligence (3.00 points), confidence in victory (2.82 points), and endurance (2.78 points) as key attributes.

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