

across knowledge, skills, and attitudes. Campus football training enhances students' cultural literacy in soccer, while also fostering valuable academic achievements through the integrated application of disciplinary thinking methods and investigative skills.

The impact of campus football training on students' social engagement is significantly shaped by personalized learning support and timely academic guidance within educational environments focused on core competency development. In implementing football training programs, establishing student-centered learning environments that address individualized needs, accommodate diverse learning styles, and integrate modern sports equipment has become a crucial foundation for fostering students' core competencies. This approach represents a fundamental mission in contemporary campus football education.

The survey shows that students participating in campus football training show more positive tendencies in teamwork, communication and mutual evaluation, and demonstrate a series of excellent qualities such as tenacious struggle, positive progress, respect for opponents and compliance with rules in practice, reflecting the significant promoting effect of campus football training on students' social participation quality.

Campus football training can improve students' football cultural literacy and increase valuable academic achievements for students to comprehensively apply disciplinary ideas and methods and inquiry skills.

In coaching and training, coaches should maintain an innovative mindset by proactively exploring new methods to effectively address practical challenges. Both technical aspects and management practices present numerous opportunities for reflection and breakthroughs. Innovations across all fields can drive positive changes that genuinely enhance training effectiveness. Therefore, both coaches and athletes should continuously drive innovation to strengthen the practical outcomes of training programs.

Conclusion. Campus football training enhances students' soccer cultural literacy and contributes to valuable academic achievements through the integrated application of disciplinary thinking methods and inquiry skills. The experimental campus football program deepens students' understanding of health literacy, subtly cultivating healthy lifestyles and cognitive perspectives while fostering sports habits and core competencies. Modern campus football training encourages greater social engagement and fully meets students' personalized learning needs. As a curriculum that elevates core competencies, campus football requires active participation from both frontline teachers and students. Continuous teaching and evaluation of core competencies should create better practical platforms for individuals, ultimately achieving high-quality education.

1. A review of domestic and international literature on the development of youth campus football [Electronic resource]. – Mode of access: <https://m.book118.com/html/2025/0805/7015045161010142> – Date of access: 20.09.2025.

2. Theories and Practices of Artificial Intelligence in Enabling the Cultivation of Core Competencies in Physical Education [Electronic resource]. – Mode of access: <https://m.book118.com/html/2025/0723/8054070045007114.shtm> – Date of access: 20.09.2025.

3. A Comparative Study of the Development of School Football in China and Japan [Electronic resource]. – Mode of access: <https://m.renrendoc.com/paper/324444091.html> – Date of access: 20.09.2025.

EFFECTIVENESS OF SPORTS REHABILITATION TRAINING IN THE RECOVERY OF KNEE JOINT INJURIES IN SPRINTERS

Xu Yang Wei Yan,

*master's student Vitebsk State University named after P.M. Masherov, Vitebsk, Republic of Belarus
Academic Supervisor – Navitskaya A.I., senior Lecturer*

Keywords. Sports rehabilitation training, injuries, knee joint, athletes, recovery

Running is one of the most popular ways to improve and maintain physical fitness, and it is also one of the most common motor actions in training and competitive activities. However, despite its simplicity and good accessibility to people from an early age, it is among the injury-prone types of motor activity. This is confirmed by the widespread prevalence of running

injuries [1]. For sprinters, the results of scientific research show that due to the nature of their high-intensity cyclic work, the main load falls on the neuromuscular and cardiorespiratory apparatus of the lower extremities.

According to statistics from 2015, the most common injuries are to the knees, hips, and ankles. The most severe injury to the locomotor apparatus of athletes engaged in sprinting, which is a speed-strength sport, is the knee joint, the pathology of which accounts for 39.91% of all pathology [2].

The constant risk of injury in sprinters actualizes both scientific analysis of the causes of traumatism and the search for effective methods of their treatment and the study of experience in this area.

Research on rehabilitation after knee joint injuries is mainly focused on clinical and experimental interventions in the field of medicine and relatively few studies are in the area of sports rehabilitation after knee joint injury in elite athletes. The knee joint is of decisive importance for athletes, and pain in the knee can affect sports training and competitions and even the entire athletic career of an athlete. Clinical medical interventions can lead to the athlete needing to stop training and participating in competitions, which seriously affects the training cycle of elite athletes.

Therefore, there is a special scientific interest and practical significance in finding effective methods of physical rehabilitation (restoration of movement and pain relief) while continuing the training and competitive activities of athletes.

Hence, the goal of my scientific work was to develop a set of rehabilitation exercises for the recovery of knee joint injuries in highly qualified athletes without interrupting training and competitive activities.

Material and methods. In the rehabilitation process, which coincided with regular training and competitions, two elite sprint athletes with painful leg muscle injuries caused by prolonged running training participated. The tasks of the rehabilitation program with the athletes were not only to plan pain relief and maintain the functional state of the body, but also, as a result, to improve sports performance. Sports rehabilitation training was carried out 3 times a week for four weeks.

The following research methods were used: analysis of literary sources, testing, observation, method of comparative analysis, determination of the number of painful points, physical fitness, training effect and psychological state before and after the rehabilitation process.

Results and their discussion. Over the 4 weeks, the athletes fully restored the muscular function of the lower extremities and got rid of pain, and sports rehabilitation training was purposefully applied to the affected part of the muscular system and/or ligaments. Sprinters, as part of a complex with passive manual therapy, performed:

- a) training of the concentric strength of the quadriceps muscle;
- b) training of the eccentric strength of the hamstring;
- c) training of balancing stability;
- d) restoration of running performance.

In the first week, the training was based on passive manual therapy, since in the acute phase of lower extremity injuries, movements were accompanied by pain that intensified during active movements. Then, light jogging with a harness and low-intensity exercises for the whole body were added to the manual therapy.

In the second week, running and physical training were the main means of rehabilitation, and passive manual therapy was an auxiliary method.

In the third week, with the aim of a gradual transition from the state of rehabilitation to the state of special training, rehabilitation means and special physical training received practically equal attention.

In the fourth week, special restorative training and psychological rehabilitation measures took the main place in order to return the athletes to regular (active) training.

After four weeks of sports rehabilitation training, the dynamics of the injury were studied by palpation and testing of motor actions (compression bending of the knee in the supine or lying position, vertical jump and static half-squat). A recovery effect was observed.

As a result of the rehabilitation program, there was a significant increase in maximum strength (by 10%) and speed of movement (by 7.8%), a decrease in fatigue after training, an increase in activity and mood of athletes during the training process, and confidence in competitions.

Conclusion. Thus, the prevention of injuries and the restoration of athletes without interrupting the training process is a really urgent problem of sports. The use of sports rehabilitation training based on a complex application with passive manual therapy (training of the concentric strength of the quadriceps muscle, training of the eccentric strength of the hamstring, training of balancing stability, and restoration of running performance) for a month allows sprinters to quickly recover from injuries, maintain training continuity, and improve sports performance. At the same time, there is an improvement in physical qualities and a positive impact on the psychological state of athletes.

1. Zuoli, S. Sports Anatomy and Sports Medicine Dictionary / S. Zuoli, Y. Bao // People's Sports Publishing House. - Beijing, 2015. - P. 33-34.

2. Trauma in short-distance running. Chronic pathology of short-distance running [Electronic resource] - Retrieved from: <http://m.duijye.com/Medical/xitongjia/1046.html>. - Date of access: 20.10.2022.

COMPARATIVE ANALYSIS OF OFFENSIVE AND DEFENSIVE PERFORMANCES OF GOALKEEPERS IN HANDBALL (TAKING THE WOMEN'S HANDBALL FINAL OF THE 2024 CHINA STUDENT SPORTS GAMES AS AN EXAMPLE)

Yu Meihong,

*master's student Vitebsk State University named after P.M. Masherov, Vitebsk, Republic of Belarus
Scientific supervisor – Novitsky P.I., PhD in Pedagogy, Associate Professor*

Keywords. Handball goalkeeper; 2024 National Student Games; Final Four team; offensive and defensive effect.

Since the handball goalkeeper is the last player on the team's defense line, his personal defensive effect can directly affect the number of points the team loses, and he can also help the team by passing the ball in the offensive. The study of the offensive and defensive effects of the handball goalkeeper is of great practical significance. value.

Ah, the goalkeepers of the youth women's handball teams, and bring a certain amount of Currently, domestic special research on the goalkeepers of the women's youth handball team focuses on technical training alone, and there is no systematic comparative analysis of the attacking and defensive effects. Enrich the relevant theories on attacking and defensive effects with information from the theoretical research of youth handball coaches, athletes, and other practitioners [1].

The purpose of the study is to identify the strengths and weaknesses of the top four goalkeepers in order to establish selection standards at the grassroots level, find solutions for training young players, and strengthen the overall structure of the reserve forces.

The offensive and defensive actions of the goalkeepers from the four finalist teams in the women's handball event at the 2024 National Student Games are taken as the research object. Specifically, the goalkeepers selected for the study are from the teams of Jiangsu Suzhou, Anhui Chuzhou, Guangxi Nanning, and Guangxi Beihai [2].

Material and Methods. The following research methods were used: the literature method, the video analysis method, the mathematical statistics method, and the logical analysis method.

Results and discussion. Among the goalkeepers of the women's handball "final four" teams at the 2024 National Student Games, the overall defensive performance of the Jiangsu