

Research on Sports Injury Prevention in Sports Training Based on Competitive Ability

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Abstract: Sports are becoming more and more important in modern life. However, in the process of sports training, athletes will encounter an unavoidable problem, that is, athletes' sports injury. Sports injury will bring serious negative impact on athletes, not only affect their physical health and learning status, but also athletes cannot continue to participate in sports training, seriously disrupting the athletes' life and learning rhythm. Therefore, based on the athletic ability, the author conducts research on sports injury prevention in sports training. Studies have shown that during sports training, sports injuries are very prone to occur, and the prevention of sports injuries should be strengthened to ensure the health of trainers.

1. Introduction

Sports injuries mainly refer to various injuries that occur during athletes' movement [1]. Under normal circumstances, if effective prevention during training, and timely treatment after injury, can avoid or reduce sports injuries [2]. In addition to learning, athletes can use extracurricular sports activities to get rid of the intense fatigue of learning, relax nervous nerves, enhance physical fitness, and enrich cultural life, but if the methods of engaging in sports activities are not appropriate, they often do more than half [3]. It may also cause unnecessary harm, which will adversely affect the athlete's physical health, study, life and psychology [4]. After years of practical teaching exploration, the author obtains personal opinions on sports training injuries and puts forward corresponding recovery methods, hoping to provide reference for sports injuries related research, reduce the occurrence of injuries and improve the training level [5]. As long as you take part in physical exercise, there may be sports injuries [6]. Generally speaking, if we can effectively prevent the occurrence of sports injury in training and timely treatment after injury, we can avoid or reduce sports injury. The main purpose of participating in sports training is to improve physical fitness and ensure physical and mental health. Therefore, athletes in the school sports training process, if there are sports losses, should be treated in time, take effective recovery methods to restore.

In the process of sports training, a large number of people have different kinds and degrees of sports injuries due to poor physical fitness or inappropriate sports methods [7]. Big athletes are in the stage of growth and development. Participating in physical exercise is especially important for big athletes studying in school. During the school study period, because of the quickening pace of modern life and the more intense learning, big athletes need strong physique to adapt to the needs of the future society [8]. And in the process of sports training, the injured parts are related to sports items and special technical characteristics. In the process of sports training, there is a widespread problem of muscle injury. The main reasons for this problem are lack of standardization of technical movements, inadequate preparatory activities, restriction of venues and equipment, heavy muscular burden, excessive range of movements, etc. [9]. How to improve the athlete's self-protection ability when causing injury, avoid damage or reduce the degree of damage is a subject we need to study. The main cause of sports injuries is due to insufficient training level of athletes, poor physical quality, incorrect movements, lack of self-protection ability, lack of preparatory activities before exercise, poor physical condition, lack of training to adapt to the environment, etc. [10]. The purpose of participating in physical training is to improve the physical fitness of the trainer and ensure physical and mental health. If you do not pay attention to the prevention of sports injuries in sports training, sports injuries may occur.

2. Causes of Sports Injury in Sports Training

The causes of sports injuries caused by athletes in sports training are multifaceted and affected by many factors. Training preparation is a prerequisite for safe and effective sports training activities. Training preparation activities refer to stimulating the central nervous system, making it excited, improving the system's activity, and allowing the athletes to slowly transition to a state of intense activity. If the participants in the training do not have the awareness to prevent sports injuries, they will not pay attention to the prevention of sports injuries, nor will they analyze and investigate after the injury, and summarize the lessons, which will lead to a steady increase in the incidence of injuries. Affected the effectiveness of the exercise and the positive interest in the exercise. For example, the athlete's age, weight, gender, physical characteristics, psychological characteristics, sports skills, training, etc. In the early stage of sports training, if the training preparation is insufficient, the central nervous system and other organs can not be coordinated. When tension exercises begin, the athletes' own muscle strength will be insufficient, their elasticity will be poor and their stretchability will be poor. As long as we take physical exercise seriously, actively strengthen the injury education of athletes, and take effective measures to prevent sports injury, then sports injury in physical exercise will be greatly reduced. Because the trainers do not do preparatory activities or inadequate preparatory activities, it will lead to the nervous system and internal organs are not better mobilized, resulting in a lack of stretching and adaptability of muscles, vulnerable to injury.

During amateur sports training, the most vulnerable parts are shoulder, elbow, wrist, waist, ankle and leg. The distribution of sports injuries in patients can be expressed in Table 1 below.

Table 1 Location Statistics of Sports Injury

Damage location	Number of track and field cases (%)	Number of gymnastics cases (%)	Number of ball cases (%)	Other cases (%)
Shoulder	3.69	4.61	4.33	3.14
Elbow	1.36	3.89	2.13	1.15
Wrist	5.49	1.23	6.58	2.67
Waist	2.65	5.68	4.36	1.29
Ankle	7.33	9.36	2.79	3.94
Leg	2.56	3.67	4.56	4.82

Subjective factors occupy a certain position in sports injury. Not enough attention is paid to the idea of sports injuries. The occurrence of sports injuries is often insufficient to understand the importance of preventing sports injuries with physical education teachers, coaches and physical exercisers. Paralysis of mind and failure to take effective preventive measures can easily lead to sports injury. Because athletes can not effectively integrate training preparation into the training content, in the specific stage of sports training, the function of high-load parts will not be significantly improved. If athletes do not prepare for sports training, the functional activities of the central nervous system and various organ systems of athletes will not be effectively mobilized. Once in the intense exercise, the athlete's muscles are less powerful, elastic and stretchable, and the body does not have good coordination. In the training process, eager to obtain training results, technical movements are not easy to cause sports injuries. During the training process, the trainers are always in motion, and the center of gravity is often deviated, resulting in inconsistent movement and movement requirements of the human body, resulting in a series of sports injuries. And athletes may cause muscle strain and joint sprains due to excessive force or excessive speed during preparation activities. If the shoulder muscle tendon and the surrounding tissue are squeezed and friction occurs, the local tissue is in a weak position, and the external force is very prone to sports injury.

3. Prevention measures for sports injury

The key to preventing sports injuries is the coach, who must improve the coach's awareness of sports injury prevention, health knowledge and protection. The personnel involved in sports training are promoted with knowledge related to sports injuries to ensure good exercise habits of the trainers. Reasonable application of cold therapy can effectively reduce the local tissue temperature of athletes, shrink blood vessels, reduce local congestion, inhibit nerve sensation, and timely stop bleeding, relieve pain, and reduce swelling of sports injuries. Properly bandage the injured area and lift the injured limb to avoid bleeding again. The purpose of the preparation activities is to achieve a level of exercise suitable for the nervous system and various organ systems, and to allow the muscles and ligaments to fully stretch and move, ready for intense exercise. Exercise injuries are mostly chronic injuries, which are serious and small in scale. The reason is that athletes can not rest and resume training after acute injuries, resulting in chronic injuries. Whether the training techniques taught by coaches conform to the norms or not is the key factor to prevent sports injury in the training process. Usually, it is reasonable to apply cold compress, ice bag detumescence and evaporative freezing. In the treatment practice, we should select the appropriate preparation according to the injury location and degree, and at the same time, we must carry out anti-inflammatory and analgesic treatment, so as to speed up the recovery of athletes and make them return to normal learning and life as soon as possible.

Before physical training, the trainers should make full preparations for the training items. The preparations should make the body fever and sweat slightly. However, the use of thermotherapy is often used in the middle and late stages of acute closed soft tissue injury and chronic injury. In the specific treatment process, it mainly includes two kinds of external prescriptions and built-in prescriptions, which are divided into plaster and external application, and built-in prescriptions include Dan medicine and pills. The content of preparatory activities depends on the content of teaching, training and competition. There are both general preparatory activities and specific preparatory activities. For areas that are more susceptible to injury during exercise, special attention should be paid to preparing activities and adding some strength and stretching exercises as appropriate. In order to avoid this, we must strengthen the safety education guidance of the trainers, such as posting some slogans of warm tips around the venue. Or group training to improve the trainer's awareness of sports injuries and avoid injury accidents. Therefore, the coach needs to conduct special research on the training materials related to the training project to understand the safety hazards of the sport during the training process, so as to guide these safety hazards. In the application of exercise therapy, it should also be noted that in the early stage of injury, if the amount of exercise is too large, the muscle recovery effect will be reduced. However, a large amount of training is required in the later stage of the injury to quickly restore the initial exercise capacity.

4. Conclusions

The main purpose of physical training is to improve the physical fitness of the trainers. The causes of sports injuries are mainly related to the lack of understanding of sports injuries by athletes, inadequate preparation activities, incorrect technical actions and site equipment. If an athlete cannot pay attention to the cause of sports injuries, sports injuries will occur, which will have serious negative effects on the athletes. Therefore, in the course of regular physical training, both physical education teachers and athletes should be vigilant and minimize the occurrence of such problems. Protection and self-protection are important means of preventing sports injuries. Appropriate protection and help in sports can enhance athletes' confidence and avoid accidents. In the specific training of trainers, we should improve the awareness of protection between trainers and coaches, standardize the training, prevent the occurrence of sports injuries and improve the physical quality of trainers. In the process of sports training, it is necessary for trainers to correctly understand the causes of sports injury and the amount of sports load. And understand how to prevent and treat sports injury, so as to effectively reduce the probability of sports injury and improve the physical

quality of trainers. At the same time, schools should vigorously publicize the importance of healthy, standardized and moderate training, let athletes start from themselves, pay attention to the details of training, so as to avoid injury and achieve happy learning and healthy growth.

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