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Survey and analysis about sports injuries of college weightlifting athletes

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ABSTRACT

After surveying the sports injury and its causes even the injured parts of college weightlifting athletes in ordinary training, in this paper the author makes a statistical data and analyzes the results to realize the concrete condition about the injuries of weightlifting athletes and provide a theoretical basis for lessening the sports injuries and promoting the weightlifting performance. According to the randomized controlled principle, from all cities and regions of Shandong province, the author randomly selects 60 college weightlifting athletes who are surveyed by issuing questionnaires, and after analyzing the survey data reaches some conclusions from the result. In the ordinary training the incidence rate of sports injuries is 76.76%. The injuries results from the athlete's physical condition or the external training environment, mostly occurred on the parts of wrist, shoulder, elbow, waist, hip and knee. The college weightlifting athletes are injured frequently and the weightlifting performance will be influenced based on different degree of injuries. Therefore, all colleges and universities should take effective precautions to solve the problem above.

KEYWORDS

College student; Weightlifting athlete; Sports injury; Effective precautions.



INTRODUCTION

Chinese weightlifting team, paid attention by many people in the sports field, has been a leading team around the world. Furthermore, the sports people are paying more attention on the college weightlifter. During the process of weightlifting, athletes will consume lots of energy and relatively occur some sudden stress reactions from the respiratory system to the muscle system, which will lead to the sport injuries. In the survey it will investigate the basic injury conditions of 60 college students in daily training and find the reason of injury in order to provide effective measures to lower the injury rate, move athletes up and promote the weightlifting performance^[1].

OBJECT AND PLAN

Randomly selecting 60 weightlifting athletes from the colleges in Shandong, of which there are 38 male athletes and 22 female athletes, the range of age is from 17 to 24 years old. This survey, called the survey about the sport injuries of college weightlifting athletes, will issue 60 questionnaires. The weightlifters will fill in by themselves, mainly including the basic information, the basic training and the injured parts. And finally 60 valid questionnaires are returned and the valid returned rate is 100%. Then according to the survey result, analyzing their injured parts and finding the reason to make a conclusion respectively^[2].

RESULTS AND ANALYSIS

The incidence rate of sports injuries

In this survey we investigate 60 athletes in total, of which there are 38 males and 22 females. The injured incidence rate= $\frac{\text{The injured athlete}}{\text{the surveyed athlete}} \times 100\%$. During this survey, there are 46 injured athletes, 29 male athletes and 17 female athletes, and the incidence rate is 76.67%, described in the following TABLE 1.

TABLE 1 : Different gender's incidence rate of sports injury in daily training

Gender	Surveyed Athletes	Injured Athletes	Injured Percentage
Male	38	29	76.32%
Female	22	17	77.27%
Total	60	46	76.67%

Reasons of sports injuries

Weightlifting needs to consume lots of energy and is a strenuous sport. Therefore, in the process of doing this sport, even the slight physical or external change will make athletes injured. For example, athletes are easy to be interrupted by previous injuries or the terrible psychology and at the same time they can be affected by the frequent and nervous training and limited by the training site. In this survey the injured athletes, results from various reasons, reach 46. The specific injured reason and the number of injured athletes can be seen in the following TABLE 2.

TABLE 2 : The injured reasons and percentage of college weightlifter

Injured Reasons	Injured Athletes (46 in Total)	Percentage
Previous Injury	24	52.17%
Terrible Psychology	17	36.96%
Tired	15	32.61%
Over-training	11	23.91%
Insufficient Preparation	10	21.74%
Insufficient Relaxation	7	15.22%
Terrible Hardware	4	8.70%

The injured parts of body

Weightlifting is performed and completed by coordinating different systems with different parts of body. So once injured in daily training, the relative parts even lots of parts will be injured and also the different parts and the injured degree will devote to different influence on the training effect and the performance. Furthermore, the weightlifter's injuries are mainly focused on the wrist and the shoulder. Among the 46 injured weightlifters, 21 athletes injure their wrists, occupied 46.65% of the total injured people, and 11 injure the shoulder with 23.91%. What's more, the elbow, waist, hip and knee are also the common injured parts as described in the following TABLE 3.

TABLE 3 : The injured parts and percentage of college weightlifter

Common Injured Parts	Injured Athletes (46 in Total)	Percentage
Wrist	21	45.65%
Shoulder	11	23.91%
Elbow	8	17.39
Waist	9	19.57%
Hip	7	15.22%
Knee	6	13.04%
Others	3	6.53%

The detailed reasons of sports injuries

Athlete's terrible psychological state and insufficient safety awareness in training

Terrible psychology will result in a bias response in behavior, which will directly bring the sports injury. Owing to some psychological change, athletes can not concentrate on their training but are easy to be injured. And in the training if coaches and athletes lack safety awareness, they will be unable to judge the injuries or know the safety of the hardware. All of these described above will increase the risk of sports injury^[3].

Unreasonable arrangement of training intensity and insufficient preparation before training

Long-time or high-intensity training will make athletes tired, overworked even injured out of the burden. People's body is operated by coordinating nervous system with motor system and other systems. Before the training, if people can not warm up and prepare sufficiently, they will not suit for the sudden intensity to operate coordinately and finally it will bring the sports injuries^[4].

Terrible physical condition

Under the terrible condition or the condition that unsuitable for the concentrated training, once forcing themselves to do weightlifting, they will be injured. The movement is based on the substance while the athletes is based on the their health. Therefore, unhealthy states will result in the sport injuries.

Poor training hardware and environment

When athletes are healthy both in physical and psychological, the reason why they suffer sports injuries is mainly from surroundings, such as, uneven floor, facility's failure and higher or lower temperature and humidity, all of which will bring negative consequence. Furthermore, not wearing the necessary protectors or wearing unsuitably can also increase the risk of sports injuries^[5].

PRECAUTIONS AND ADVICE

The sports injury may occur in any sports, including the weightlifting. It can not only bring negative consequence for athlete's physical state, but also affect their positive passion. So it is necessary to take effective measures to lessen the sports injury.

To train appropriately and to improve the physical quality of weightlifter

The qualified physical fitness is helpful for weightlifting. Inappropriate training will be harmful for the physical quality, increase the risk of sport injury and decrease athlete's confidence and enthusiasm, which instructs us to train suitably.

Through the coordination of skeleton, joint and muscle, people can motion. Under the good physical quality, weightlifters perform well by means of stable muscular strength and state. To perform well, athletes should put emphasis on the training of their muscle strength and stability and train suitably. Athletes should be arranged to attend the specific training according to their different conditions. Besides the muscle strength training, the sense of balance and coordination should be trained to lower the injury risk^[6].

Appropriate training intensity and time will be benefit for athlete's comprehensive quality, for the lower intensity will not satisfy the training demand and the higher intensity will bring injuries even incurable injuries. Therefore, we should arrange a specific, suitable and different intensity training based on the different qualities of athletes as an effective method of improving the abilities and lowering the injury of athletes.

To ensure the athletes making physical and psychological preparations before the training

Athletes should be required to make enough preparations before daily training, including physically and psychologically. In physical aspects, not only athletes themselves but also coaches should carefully check their physical state before training to reconfirm that the state of athlete satisfies the demand of this training. Meanwhile, athletes and coaches

should recognize and know the professional information of weightlifting, the basic moving structure and mechanism of human body and learn some knowledge about medicare and health care as well to make them learn to judge whether the athlete's state can bear the training burden^[7].

On the other side, athletes should know how to adjust their attitude and psychology by themselves, for good psychological state is a necessary premier for weightlifting and will directly influence the training effect. Performing well in psychology will fast concentrate yourself on the training and reach a satisfied result naturally. Even if we don't get our wished object, we can relieve ourselves in a correct way and quickly go into the following training. In daily training the sports injury is unavoidable and if it has happened, what the athlete can do is to face it positively, also benefiting for the cure of injury.

The coach should arrange the training and the intensity in accordance with athlete's physical and psychological state and know how to concretely treat special conditions.

To strengthen the medical supervision of daily training and the preparation management of training site

Both coaches and athletes should learn and know the basic medical knowledge and correctly use it for dealing with the injury to avoid the second injury once the injury happens and there is no professional aid on the site^[8].

At the same time, to make sure the athletes can get professional aids once they injure themselves, every site should be equipped with the medical aid organization with necessary medical apparatus and professional staffs on duty.

Athletes should wear the professional sports clothing and protectors before training. And the management staffs and coaches should reconfirm that the site and the facilities are safe and conform to the standards^[9].

Athletes and coaches should coordinate with each other to lessen and avoid the happening of sports injury of weightlifter. Before training, to ensure the training quality coaches and athletes should communicate with each other that coaches can establish training methods in accordance with every athlete's concrete condition and athletes can know the training style and make psychological preparations in advance. For example, when in terrible condition athletes should report to their coach, who should lower their training intensity even lessen the training once received the provided report of their physical fitness. On the contrary, coaches can increase the intensity in an accepted range if athletes feel well. By arranging these specific training, it can obviously promote athlete's comprehensive quality. It is crucial and practical for increasing athlete's average performance to take measures to lower and avoid the injury^[10].

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