

Research Progress on the Treatment and Care of Common Sports Injuries in College Students

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Abstract: Physical fitness is one of the comprehensive qualities of college students, and a strong body is fundamental for college students to study, live, and work. At present, many college students like to play sports during school, but they are affected by many factors during sports and the emergence of sports injuries is inevitable. In order to accelerate the speed of recovery from injuries, college students need to master a certain amount of knowledge on sports injury treatment and care. This paper analyses the causes of common sports injuries among college students and discusses the treatment and nursing methods of sports injuries, in order to provide references for relevant personnel.

Keywords: College students; Common sports injuries; Injury treatment and care; Research progress

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1. Introduction

Sports injuries are common among college students, and scientific treatment and good nursing care can accelerate the recovery of injuries and prevent long-term complications. Whether in sports classes or extracurricular activities, sports injuries occur from time to time, and if they are not treated in time, they will not only affect college students' sports activities but also affect their studies and physical and mental health. For this reason, college education needs to pay attention to the knowledge of injury training, improve the self-protection awareness of college students, and correctly guide college students to the first aid treatment of sports injuries; to prevent injuries from worsening, it is also necessary to remind college students to pay attention to post-injury care to ensure a quick recovery.

2. Analysis of the causes of common sports injuries among college students

The causes of common sports injuries among college students are as follows. Firstly, there is a lack of general knowledge of sports among college students. There are many sports with each having different characteristics, so the lack of sports knowledge is the main cause of sports injuries among college students. In daily life, the choice of sports for college students is mostly based on interest, so most college students are not sports

professionals and are prone to injury without basic sports knowledge and self-protection awareness ^[1]. Secondly, the preparation work before exercise is insufficient. Some college students neglect the preparation work before exercise, such as the replacement of sports shoes and sportswear, warming up, and so on. In terms of sportswear, loose, casual clothing should be worn during exercise, such as sports trousers, sports shoes, and so on, in order to prevent injuries during exercise. Some college students may wear clothing unsuitable for sports because of insufficient preparation ^[2]. Thirdly, excessive exercise easily causes sports injury. Appropriate exercise can strengthen the body and prolong life, but excessive exercise may lead to a decline in college students' muscle energy, reaction time, immune function, and body balance as well as joint ligament fatigue, which easily results in sports strain or sprain.

3. Research on the treatment of common sports injuries among college students

3.1. Fractures

A fracture is a more serious injury in sports, and its clinical symptoms are mainly swelling and pain in the injured part, the pain of the injured limb is aggravated during the activity, and part of the fracture may cause deformity or loss of function of the injured limb, and the fractured part may cause friction sound when moving. When college students experience fracture symptoms, timely and scientific first aid on the spot is critical; inappropriate or untimely treatment will cause secondary injuries, which may lead to poor recovery of limb function or limb deformation, etc. ^[3]. Timely fixation is vital for a fracture, first aiders need to give priority to checking the condition of the fracture, and priority should be given to treating shock in patients showing shock symptoms, before dealing with the fracture. Medical attention should be sought promptly. Based on the examination results, manual fracture reduction or cast fixation should be performed, and X-rays should be rechecked to confirm the effectiveness of the reduction. If the fracture is severe, surgical reduction may be required. After surgery, the patient needs to be kept in the hospital for observation, and the tightness of the splint should be adjusted in real-time according to the patient's recovery. Four weeks later, functional exercises for the injured limb should be started.

3.2. Joint dislocations

Joint dislocation primarily occurs when the joint surfaces of bones lose their normal alignment, and it is often accompanied by ligament injuries; common joint dislocations among college students include shoulder and elbow dislocations, etc. Clinical symptoms include gradual aggravation of pain at the position of dislocation, swelling, deformity, or loss of function of the joints, etc. After the joint dislocation, the patient should avoid unnecessary movement. It is important to attempt joint reduction as soon as possible to prevent difficulties in realignment and potential complications from prolonged dislocation, such as residual damage or permanent joint dislocation ^[4]. The shorter the joint reduction time, the better the recovery effect. Generally, after the joint is reset, passive movement can be performed. Once it is confirmed that the joint is properly reset, rescuers need to use splints, casts, or elastic bandages for immobilization and then promptly send the patient to the hospital for treatment.

3.3. Abrasions and lacerations

Abrasion generally refers to the skin surface damage caused by friction or extrusion of the skin and objects, and the main symptoms are swelling and pain of the skin tissue, bleeding, or tissue fluid exudation. If the area of the abrasion is small and the wound is shallow, the wound can be cleaned with sterilized saline first, followed by disinfection using disinfectants such as iodophor, hydrogen peroxide, or 75% alcohol, and lastly, the wound

is covered with sterile gauze; if the area of the abrasion is large, and the wound is deeper with blood oozing, after cleaning and disinfecting the wound, it is necessary to bandage the wound with Vaseline gauze in order to prevent wound infection and tetanus antitoxin may be required afterward ^[5]. Lacerations are tears in the skin and subcutaneous tissues due to violence or sharp pulling or twisting and commonly occur in the skin of the head, face, and limbs. If the laceration wound is small, it can be covered with sterile gauze after cleaning and disinfection; if the laceration wound is large, the bleeding should be stopped first, followed by cleaning and disinfection as well as suturing the wound and intramuscular tetanus antitoxin injection. The treatment effect of abrasions and lacerations directly affects the healing of wounds, and the rescuers should adhere to the principle of asepsis in the treatment process, and instruct the patient to have regular follow-ups to change the medication, have light diets, and try to keep the wounds as dry as possible until they are completely healed.

3.4. Contusions, strains, and sprains

Contusion mainly refers to soft tissue contusion, strain mainly refers to muscle-tendon strain, and sprain mainly refers to joint ligament sprain, all three belong to the common sports injuries of college students. For mild cases, college students may experience slight pain and an inability to immediately move the injured area. In severe cases, there may be ruptures of joints, ligaments, blood vessels, or tendons, with intense pain and an inability to move the injured area independently ^[6]. A few hours after the injury, the injured area will gradually swell, the skin will gradually turn blue and purple, and the pain will gradually increase. Once such an injury occurs, rescuers need to stop the bleeding within 24 hours and use a cold compress to relieve pain. Then, they should elevate the injured limb to 15–20° above the heart and apply a bandage. The bandage should not be too tight to avoid restricting blood flow, which could lead to insufficient blood supply and affect the student's health.

4. Discussion on the nursing methods of common sports injuries among college students and their psychological counseling strategies

Among college students, sports injuries are a problem that cannot be ignored. As adults, when college students face sports injuries, they not only need to have professional self-care ability but also need to learn effective psychological counseling strategies to ensure the full recovery of physical and mental health.

4.1. Professional self-care methods for common sports injuries among college students

4.1.1. Hot and cold compresses

For soft tissue injuries such as sprains or strains, hot and cold compresses should be reasonably selected according to the time after the injury. In the early stage of injury (within 48 hours), a cold compress is the first choice, which can effectively relieve pain, reduce swelling, and decrease inflammation. Ice packs or ice cubes wrapped in a towel are used to avoid direct contact with the skin. Each ice application lasts for 15–20 minutes and is repeated every few hours. After 48 hours, when the swelling and pain have subsided, opt for hot compresses to promote blood circulation and dissipate bruising. A hot water bag or hot towel can be used to apply hot compresses, each lasting 15–20 minutes, two to three times a day.

4.1.2. Appropriate massage

After the pain is reduced and swelling subsides, appropriate massage helps to promote blood circulation and relieve muscle tension. The injured area is gently massaged with moderate strength using fingertips or palms, from light to heavy, to avoid excessive force leading to further injury. Each massage lasts for 10–15 minutes,

two to three times a day.

4.1.3. Diet and nutrition adjustment

Appropriate diet and nutritional intake are essential for tissue repair and cell regeneration during sports injury. It is recommended to increase the intake of proteins, vitamins, and minerals, such as lean meat, fish, beans, fresh vegetables, and fruits. Meanwhile, adequate water intake will help maintain metabolic balance and waste elimination in the body.

4.2. Professional psychological counseling strategies for college students after sports injury

4.2.1. Self-emotional regulation

College students should learn self-emotional regulation techniques, such as deep breathing and meditation, to relieve negative emotions such as anxiety and depression. They need to maintain a positive and optimistic mindset, believe in the body's ability to recover, and avoid excessive worry and self-blame.

4.2.2. Reasonable arrangement of rest and activities

College students should reasonably arrange rest and activity time according to medical advice to avoid excessive rest leading to muscle atrophy and joint stiffness. After resting for a period of time, appropriate light activities, such as walking and yoga, can be carried out to promote blood circulation and muscle recovery. At the same time, strenuous exercise and repetition of injured movements should be avoided ^[7].

4.2.3. Professional psychological support

When self-emotional regulation is ineffective, college students can seek the help of professional psychological counselors or tutors. They can provide personalized psychological guidance and support to help college students correctly understand sports injuries, alleviate negative emotions, and enhance mental toughness. Where necessary, professional psychotherapy or medication can be administered.

4.2.4. Positive effects of psychological care intervention

In the process of dealing with trauma patients, psychology can not only reduce patients' physical pain, but also have a positive impact on improving patients' negative emotions, and their overall comfort and nursing satisfaction are significantly improved. After suffering from trauma, debridement and analgesia become necessary treatment measures for the patients, but the impact of pain and negative emotional problems on patients in the rehabilitation phase cannot be ignored. Long-term pain not only affects the quality of life of patients, but also adversely affects their psychological health. At the same time, persistent pain reduces the quality of sleep, which is essential for the recovery of human systems, and pain can lead to insomnia, nightmares, anxiety, and other symptoms, making it difficult for patients to enter deep sleep, which is inconducive to the recovery of their physical and mental health ^[8]. Over the years, routine nursing care for trauma patients has usually been limited to cleaning and dressing the wound, as well as giving the necessary medication, but less attention has been paid to pain and negative emotional problems. However, with the paradigm shift in medicine, there is an increasing awareness of the impact of psychological and social factors on health. Therefore, for trauma patients, in addition to physiological treatments such as debridement and analgesia, attention needs to be paid to the psychological and social dimensions of their needs. Using psychological care to intervene during the treatment of trauma patients can effectively help them relieve pain as well as the tension and anxiety caused by trauma ^[9]. There are more studies related to the single application

of early psychological intervention and humanistic care in sports trauma care, but it is difficult to completely alleviate the negative emotions of patients due to individual differences and other reasons. If the two are used together, humanistic care makes patients feel respected and understood, and the stage-based early psychological intervention can continue to improve the psychological state of patients, so that they can maintain a good physical and mental state during the entire treatment process, thus improving their compliance^[10].

5. Conclusion

College students engage in a wide variety of sports and have rich daily physical activities. However, if students are inadequately prepared or do not warm up properly before exercising, or if they overexert themselves, they may experience sports injuries, which can affect their physical and mental health. Currently, common sports injuries among college students mainly include fractures, joint dislocations, abrasions and lacerations as well as contusions, strains, and sprains, etc., and the treatment and care methods are different, so college students need to master the basic treatment and care and understand the key points of self-care; and college teachers need to emphasize psychological counseling, pay attention to college students' post-injury psychological changes, and prevent them from experiencing psychological disorders.

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