

Research on Therapeutic Methods of Injured Lower Limbs of Students Majoring in Sports

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Abstract - Authors intend to do the research on therapeutic methods of injured lower limbs of students majoring in sports by issuing questionnaires, doing comparative experiments, interviewing experts and studying relevant statistics and then put forward corresponding practical suggestions to guide the injured students' rehabilitation training.

Index Terms - students majoring in sports, injury, lower limbs, methods

I. Introduction

Students majoring in sports differs from other people who are also fond of playing sports , for they are not only learners of sports skills but also potential initiators. So it is important for them to master necessary skills. However, due to limitations of physical qualities and sports skills and the intensive sports training, students are possibly in the danger of getting hurt. All the injuries might have negative effects on their training.

According to the severity of injuries, they are divided into three categories including mild impairment, moderate injury and severe damage. For those who major in sports, they might even be unconscious about slight damages which will potentially have negative effects on their lives and studies. Faced with slight damages, they usually tend to see a doctor, to turn to school physicians for help or adopt several simple methods of self -treatment. But they seldom adopt the method of massage which, in fact, has a well-targeted effect on slight damage caused by playing sports. Considering the situation we discussed above, I think it necessary to provide students with relevant courses which will benefits lots of students. Authors will do a research on the injured lower limbs of students majoring in sports in Jiu Jiang University and put forward a proper therapeutic method so as to inspire students to acquire more sports skills.

II. Research Object and Research Methods

A. Research Object

There are 120 injured students in the Department of Sports of Jiu Jiang University: including 20 freshmen(10 males and 10 females), 30 sophomores (15 females and 15 males) , 35 juniors and 35 seniors. This research lasted for half a year.(2011.9~2012.4)

B. Research Methods

1) *Issuing Questionnaires*: Before doing this research, We had designed a issuing questionnaires based on documents we once refers to. During the research, we in all handed

out 140 questionnaires and successfully recycled 120 of them . The valid returned rate is 85.71%.

- 2) *Interviewing experts*: We also interviewed several experts in this field. They were kind enough to answer several well-targeted questions raised by us.
- 3) *Doing Comparative Experiments*: We made careful comparisons between the methods and adopted by school clinics and their effects and those used by hospitals.
- 4) *Analysis of Statistics* : We also process all the data by using spss17.0 and then perform correlation analysis on them.

III. Results and Analyses

A. Statistics of Students' Injuries & Effects of Various Therapeutic Methods

1) Severity of Injuries & Various Therapeutic Methods

Table I

Index	Number of People	Percentage
Slight Injured	81	66.7
Moderate Injured	23	19.1
Severe Injured	16	13.3
Medical history &Chronic Injury	73	60.8
Receiving Treatment After Being Injured	87	72.5
Positive Effect of Treatment in Hospitals	59	49.1
Positive Effect of Treatment in School Clinics	78	65
Other Methods of Treatment	39	32.5

Judging from the information in the Table 1, we find that the number of students suffering from slight injured accounts for the largest proportion of the total number of the injured while only few of them are tortured by severe injuries.

Among them 73 students are suffering from chronic injuries. In addition, we also find that almost 72.5% of them tend to receive treatments after being injured. 59 students have faith in hospital, accounting for 49.1% of the total number and 78 of them trust school clinics, accounting for 65%. We sadly discover that most students have few knowledge of treatments and thus become indifferent to their injuries even they are badly hurt. 32.5% of all the students never adopt proper therapeutic methods

2) Joints that are easily to be hurt

Table II

Injured Joints	Number of People	Percentage	Rank
Knee Joints	92	76	1
Ankle Joint	79	65.8	2
Hip Joint	0	0	0
Tendon Calcaneus	4	3.3	4

Among all these students, 92 suffer from injuries of knee-joints, accounting for 76%; 72 are tortured by ankle joints, accounting for 65%; Few hurt their hip-joints and only 4 of them hurt tendon calcaneus

3) Different Treatments of Keen-Joints

Table III Effects of Treatments of Keen-Joints

Effects of Treatments	Receiving Treatments in School Clinic	%	Receiving Treatments in School Clinic	%
No Effects	11	44%	8	32%
Almost Recovering	12	48%	14	56%
Totally Recovering	2	8%	3	12%
P>0.05				

Most of them suffer from injuries of knee-joints, 12 of them almost recover from this illness in school clinics, accounting for 48%. And 56% recover in hospital, reaching 14.

44% think that the treatment provided by school clinics is not of much use, reaching 11. And 8 of them think that it is useless. Only 2 people think it is useful. And 3 students prefer to that provided by hospital. Judging from the statistics, we find that their effects are almost the same.

Table IV Effects of Treatments of Keen-Joints of Students Without Chronic Injury

Effects of Treatments of Keen-Joints	Receiving Treatments in School Clinic	%	Receiving Treatments in School Clinic	%
No Effects	0	0%	0	0
Almost Recovering	6	41.67%	5	30%
Totally Recovering	14	70%	15	75%
P>0.05				

Among these students, 40 of them choose to receive treatments in school clinics. 6 students almost recover from illness, accounting for 41.67%. 5 students choose to see a doctor, accounting for 30%. 14 students favor the treatments provided by school clinics while 15 of them prefer the treatment provided by hospitals. Judging from the statistics, we find that their effects are almost the same.

B. The differences of various types of treatment in the school health center and the hospital rehabilitation department

1) Students with Slight Injuries Receiving Physical Treatments in Hospitals and School Clinics

Table V 52 Students Receiving Treatments in Hospitals and School Clinics

Effects of Treatments	Receiving Treatments in School Clinic	%	Receiving Treatments in School Clinic	%
No Effects	2	7.69%	1	3.85%
Almost Recovering	15	57.69%	13	50%
Totally Recovering	9	34.61%	11	42.31%
P>0.05				

Physical Treatments consists of cold compress, hot compress, infrared therapy and so on. Among all these treatments, hot compress and electric heater are favored by school clinics while infrared therapy, acupuncture and Chinese medicinal herb are popular among hospitals. 14

2 students think it useless to receive physical treatments in school clinics and 1 holds the same view on hospitals. They account for 7.69% and 3.85% respectively. There are also 15 in clinics and 13 students in hospitals almost recover from such illness, accounting for 57.69% and 34.61% respectively. Apart from these students, there are also 9 and 11 totally recover from the illness, accounting for 34.61% and 42.3%. Judging from the statistics, we find that their effects are almost the same. Both of them are well targeted.

2) Effects of Medical Massage

Medical massage plays an important role in treating physical injuries and has a positive effect on such illness with no side effects if properly used.

Table VI 60 Students Receiving Physical Massage

Effects of Treatments of Keen-Joint	Receiving Treatments in School Clinic	%	Receiving Treatments in School Clinic	%
No Effects	4	6.67%	0	0
Almost Recovering	38	63.33%	0	0
Totally Recovering	18	30%	0	0
P<0.05				

38 students who receive physical massage almost recover from their injuries, accounting for 63.3%. 18 students favored this method, accounting for 30%. Because hospitals do not adopt such method, we cannot attain relevant information from hospital.

3) Expense of The Injured in Hospitals and School Clinics

Table VII The expense of patients

Index	Treatments in clinics	%	Treatments in clinics	%
Lower expense and less time	0	0	12	24%
Higher expense and more time	0	0	38	76%
P<0.05				

From the data in table 7, we found that there does exist a big difference between school clinics and hospitals. Only 24% of them think that they receive treatments of high quality but lower expense in hospitals while 76% of them consider it a little bit expense. For students, they have access to receive treatments in school clinics free of charge. We also discover that some students have a strong desire to learn some basic medical treatments by themselves, hoping that school clinics can carry out relevant activities.

IV. Conclusion and Suggestions

A. Conclusion

- 1) Many students who major in sports have suffered from slight injuries but acquire little correct knowledge of proper treatments. Some of them even always ignore their injuries, which will have a negative effect on their lives and studies.
- 2) Among all kinds of injuries, injuries of knee and ankle joints are the most common ones. Long-term and heavy training always lead to chronical injuries which are hard to be cured.

- 3) Hospitals usually treat the injured by acupuncture, Chinese medical herb or infrared therapy. There is no difference between physical treatment both in clinics and hospitals.
- 4) Those who suffer from chronical injuries recover more slowly than those who has no such injuries.
- 5) Medical massage is well-targeted for injuries of keen-joints. However, it has been adopted by hospitals.
- 6) Most students think it expensive and so time-consuming to be treated in hospitals

B. Suggestions

- 1) Encourage students to learn more about treatments of such injuries and not to take part in fierce exercises after being hurt.
- 2) Encourage students to receive massage in school clinics.
- 3) Leading figures should fund the clinics in schools and be alert to potential danger around students, enabling more students to receive better treatment
- 4) Students should also attach importance to their own conditions.

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