Effects of sports injuries on performance of sports persons of indoor game

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Abstract
A great number of injuries occur in the context of recreational physical activities and competitive athletics. Adherence to sport injury rehabilitation means an injured athlete's compliance (or not) to a sports medicine/injury personnel's instructions of participating in a rehabilitation programme in a clinic, and/or doing rehabilitation exercises at home. The purpose of the study is to analyze the effect of sports injuries on performance of sports persons of indoor game. 150 sports persons (men) were selected for this study through the quota sampling method. The subjects were divided in five games players (N=30 from each game) of 18 to 25 year age. The objective of this study is to find out those sports persons who have suffered from joint injuries and after the joint injuries the condition/status of their body joint. Those sports persons have been selected for data collection that have represented at university level in selected five games (Badminton, Boxing, Judo, Table Tennis and Wrestler). For the data collection the standardized questionnaire was used on five game players. After the use of suitable statistical process, it may be concluded that the 84.1% sports persons were suffered from joint injuries during sports. It can be concluded that the game performance of players is low when players participated in competition after injures.

Keywords: Joint injuries, sports performance

Introduction
Sports participation always carries the risk of injury. Sports injuries are more likely when people do not warm up properly (exercising muscles at a relaxed pace before an intense workout).
Muscles and ligaments are injured when subjected to forces greater than their inherent strength. For example, they may be injured if they are too weak or tight for the exercise being attempted. Joints are more prone to injury when the muscles and ligaments that support them are weak, as they are after a sprain. (Booth, G 1988) [5], the human body joints are classified in following types;

- Immovable joints: Fibrous joint & Cartilaginous joint
- Movable joint: Synovial joint, Ball and socket joint, Hinge joint, Gliding joint, Pivot joint, Compound joint.

Injury
Athletes can be stricken with any number of physical ailments. So we need a classification system to communicate effectively about sports injury. And this classification system is essential for prevention, identification, and treatment of each particular problem.
Two Principal causes of Injuries
1) Extrinsic as the result of an outside force.
2) Intrinsic when tissues break down as a result of repeated stress or overuse
   - Poor Technique
   - Unsuitable equipment
   - Inappropriate turning
   - Overtraining (Allen, R 1988)
1.2 Symptoms
Injury always causes pain, which can range from mild to severe. Injured tissue may have any combination of the following characteristics:
- Swelling
- Warmth
- Tenderness to touch
- Bruising (K. Chandra Shekar 2003)

1.3 Causes of sports injury
- Impact
- Overuse
- Muscle Imbalance
- Inflexibility
- Dynamic Overload
- Structural Weakness (Melinda J. Flegel 1992)

1.4 Common Types of Injuries
- muscle sprains and strains
- tears of the ligaments that hold joints together
- tears of the tendons that support joints and allow them to move
- dislocated joints
- Fractured bones, including vertebrae. (R. Jain 2005)

Methodology
The survey type study is designed to find out those sports persons who have suffered from joint injuries. For this study the 150 sports persons (Badminton, Boxing, Judo, Table Tennis and Wrestling) of different states were selected from quota sampling method (Non probability sampling), who represented at university level in selected five games. The age group of sports persons was divided in following two groups. 150 sports persons of 18-25 year. The data was collected from sports persons through the self-developed questionnaire of joint injuries. After the data collection suitable statistical process was used for finding

Statistical Analysis

Table 1: Showing the percentage of Sports Injuries and Sports Performance of University Players in Indoor Game

<table>
<thead>
<tr>
<th>S/N</th>
<th>Game</th>
<th>Injured Persons</th>
<th>Number of injuries</th>
<th>Pervious Performance of Players</th>
<th>After injuries, Performance of Players</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>North Zone Inter University</td>
<td>All India Inter University</td>
</tr>
<tr>
<td>1</td>
<td>Badminton</td>
<td>23 (76.6%)</td>
<td>30</td>
<td>30 (100%)</td>
<td>30 (100%)</td>
</tr>
<tr>
<td>2</td>
<td>Boxing</td>
<td>24 (80%)</td>
<td>36</td>
<td>30 (100%)</td>
<td>30 (100%)</td>
</tr>
<tr>
<td>3</td>
<td>Judo</td>
<td>22 (73.3%)</td>
<td>35</td>
<td>30 (100%)</td>
<td>30 (100%)</td>
</tr>
<tr>
<td>4</td>
<td>Table Tennis</td>
<td>15 (50%)</td>
<td>18</td>
<td>30 (100%)</td>
<td>30 (100%)</td>
</tr>
<tr>
<td>5</td>
<td>Wrestling</td>
<td>28 (93.3%)</td>
<td>40</td>
<td>30 (100%)</td>
<td>30 (100%)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>112 (84.1%)</td>
<td>159</td>
<td>150 (100%)</td>
<td>150 (100%)</td>
</tr>
</tbody>
</table>

According to above table, 76.6% badminton players were suffered from different sports injuries. 80% boxing players, 73.3% jodo players, 50% table tennis players and 93.3% wrestling players were found with sports injuries. The all players were participated in university games before their injuries.

After injuries their performance is as follow
In badminton, 73.3% players were participated at all India inter university games. In boxing, 53.3% players were participated at all India inter university games. In jodo, 70% players were participated at all India inter university games. In table tennis, 80% players were participated at all India inter university games. In wrestling, 66.6% players were participated at all India inter university games. 84.1% players of indoor games were found with sports injuries. After injuries 68.6% players were participated in all India inter university games.

It can be concluded that the game performance of players is low when players participated in competition after injuries.

Conclusion
On the basis of analysis of data, conclusion is as fallow:
It is concluded that the players of indoor game (especially combative sports) have been more suffered from sports injuries during sports. It is concluded that the player’s performance is down after they have suffered from injuries.

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