Original

Comparative Study on Site Sports Injuries among Players of Different Age and Gender in Different Games

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Abstract:
The word sport has its own set of experiences, language, culture and customs. Likewise medication has its own set of experiences, language, customs, culture and technique. Any way when the set of words 'Sports and' Medication' sit together another idea, another part of science is immerged i.e the concept of sports medicine. For the treatment of injuries of players, today sports medicine plays a crucial role. On basis of gender knowing the incidence of morbidity condition and identifying its epidemiologically related factors are crucial for designing prevention programs and health systems. In this survey study investigator finds out the nature of the sports injuries at various age groups among different genders of football, volleyball and basketball players. A total of 300 (N=300) sportspersons including males and females were surveyed for collection of data of injuries. As the result it was observed that different games have different types of site injuries. Moreover it was observed that in all the here games i.e. football, basketball and volleyball; male players sustain more injuries than female players. Also, it was found that football was determined to be the top injury-causing games (86%) followed by basketball (80%) and volleyball (77%).
Keywords: Sports medicine, injuries, football, basketball, volleyball.

I. Introduction

Sport injury is a morbidity condition any athlete is inevitably going to face during his/her sport career [1-3]. Moreover, sport injury nowadays appears not only in professional and semi-professional sport but also in amateur, leisure and even in introduction to sport [4]. This is probably due to the generalization of the practice of physical activity, the extension of professionalization and the increase in competitiveness [5]. Sport injuries may not only have an important effect on sport career (e.g. sport activity dropout) but also on health (e.g., chronic pain, disability), labor and/or education facets (e.g. occupational or educational absenteeism), social environment (e.g., becoming a familial burden, reducing one's social network, and on financial terms (e.g., consumption of health services) [6-11]. Games which are played for long times like Football, Volleyball and basketball require efficient skill as well as speed, strength, endurance and stamina till end of the game. It is often seen that lack of these capacities in player's result in losing the game. Except these capacities players have to possess efficient techniques and tactics [12]. Physical fitness is must for good performance in games and sports. Different sports require different types of fitness emplacing on a particular fitness factor. In Football, volleyball and basketball players sprint, jump, and pivot in both forward and backward directions, changing the running course several times as the game progresses. For the nature of competition, unnatural body movements, lack of knowledge about fitness and foul play injuries occur at different levels in different age and gender groups of players. However, general level of physical fitness is necessary for every sportsman [13].

For the treatment of these injuries, today sports medicine plays a crucial role of super-specialty combining multi-disciplinary subjects which includes physical education and body fitness involving promotion of positive health,

preventive medication and lastly appropriate medicine and rehabilitation following injuries during games [14]. Williams and Sperryn (1976) had given a classical concept of sports medicine. They divided the area of sports medicine as: a) Man as a sportsman b) Sportsman and his environment c) Sportsman as a patient d) Sports as a therapy [15].

Various authors listed several schemes for classification sports injuries. One such system includes, the type of tissue involved, such as- soft tissue and hard Tissue [16].

Another classification of sports injury is as-Acute Traumatic Injury and Overuse or Chronic Injury:

a] Acute Traumatic Injury further divided into-i) Strain ii) Sprain iii) Bruise or contusions iv) Fractures v) Dislocations vi) Laceration vii) Achilles tendon

b] Overuse or Chronic Injury may also be divided into-i) Shin Splints ii) Tennis Elbow iii) Stress Fracture iv) Tendonitis v) Bursitis

Therefore, on basis of gender knowing the incidence of morbidity condition and identifying its epidemiologically related factors are crucial for designing prevention programs and health systems. Thus, in the preset work the researchers want to highlight the various types of injuries that occurred during sports training and competitions among players of different gender and age group players of football, volleyball and basketball.

II. Purpose of study:

The purpose of the study was as follows: -

1. To compare various types of injuries among football, volleyball and basketball players
2. To perceive gender wise classification of injuries.
3. To compare sites of injuries that occurs among different age groups

III. Methodology and Materials

This was a survey type of study in which the investigator was trying to find out the nature of the sports injuries at various age groups among different genders of football, volleyball and basketball players.

a) **Selection of the Samples:**

A total of 300 (N=300) sportspersons were surveyed for collection of data of injuries. In case of football (100 males), volleyball (60males/40females) and basketball (65males/35females) respectively were selected for data collection. The age group lies under 19 and seniors up to 30 were considered. The injury data were collected from different training schools, sports academy and District Level Championships during matches or rehearsals.

b) Data Collection:

Data were collected from different training schools, sports academy and District Level Championships, Punjab. during matches or rehearsals. For accuracy of the data each injury incidence was recorded after the evaluation of a physiotherapist present at time of competition. Each injury reportform was filled by the researcher after consulting with the present physiotherapist.

c) **Formula for Analyzing Data:** Descriptive method and Percentile Score were used to explore the various parameters of data. Also Graph and tables were used to illustrate the data characteristics.

III. RESULTS

Among the total players of 3 different games the distribution of injuries according to age and gender was as follows in Table 1 and 2 along with graphical representation as Fig.1

Table no.1. Represents different sites of injuries among players of different games .

Sr.no.	Site of injury	Football		Basketball		Volleyball	
		No. of injuries	% of injuries	No. of injuries (M/F)	% of injuries (M/F)	No. of injuries (M/F)	% of injuries (M/F)
1.	Head	02	2.32	04/02	3.0/1.5	06/04	4.5/3.1
2.	Face	03	3.48	03/02	2.7/1.5	04/03	3.1/2.3
3.	Shoulder	05	5.81	08/05	6.1/3.7	11/09	8.3/6.8

4.	Chest	01	1.16	03/01	2.3/0.7	05/03	3.8/2.3
5.	Wrist	01	1.16	05/03	3.7/2.7	19/14	14.5/10.6
6.	Finger/ hand	02	2.32	08/05	6.1/3.	09/05	8.3/3.8
7.	Hip joint	05	5.81	04/03	3.0/2.7	04/03	3.1/2.3
8.	Thighs	06	6.97	03/02	2.7/1.5	02/01	1.5/0.7
9.	Knee	34	39.5	14/10	10.6/7.5	07/05	5.3/3.8
10.	Lower limb	07	8.13	08/05	6.1/3.7	02/01	1.5/0.7
11.	Ankle	15	17.40	16/12	12.1/9.1	06/05	4.5/3.8
12.	Foot/toe	05	5.81	04/02	3.0/1.5	02/01	1.5/0.7
	Total no. of injuries	**86**	**100**	**80/52**	**100**	**77/54**	**100**

Table no. 2: Represents different nature of injuries among players of different games .

S. no	Nature of injury	Football		Basketball		Volleyball	
		No. of injuries (M)	% of injuries (M)	No. of injuries (M/F)	% of injuries (M/F)	No. of injuries (M/F)	% of injuries (M/F)
1.	Abrasion	06	6.97	07 /04	5.3/3.1	06/04	4.5/3.1
2.	Blisters	05	5.81	06/04	4.5/3.0	05/03	3.8/2.3
3.	Abdominal Incision	02	2.32	03/00	2.3/0	01/01	0.8/0.7
4.	Laceration	04	4.65	02/01	1.5/0.7	05/03	3.8/2.3
5.	knee ligament tear	28	32.55	13/09	9.8/6.8	06/04	4.5/3.1
6.	Ankle ligament tear	14	16.27	16/12	12.1/9.1	08/06	6.1/4.5
7.	Closed fracture	05	5.81	05/03	3.7/2.3	09/06	6.8/4.5
8.	Rotator cuff	06	6.97	07/05	5.3/3.7	17/15	12.9/11.4
9.	Muscle Pull	05	5.81	05/03	3.7/2.3	05/03	3.8/2.3
10.	Knee cartilage tear	02	2.32	02/01	1.5/0.7	01/00	0.8/0
11.	Calf muscle strain	02	2.32	08/06	6.1/4.5	06/04	6.8/3.1
12.	Bad bruise	03	3.48	02/01	1.5/0.7	03/02	3.8/1.5
13.	Lumbago/Back pain	04	4.65	05/03	3.7/2.3	05/03	3.8/2.2
	Total injuries	**86**	**100**	**80/52**	**100**	**77/54**	**100**

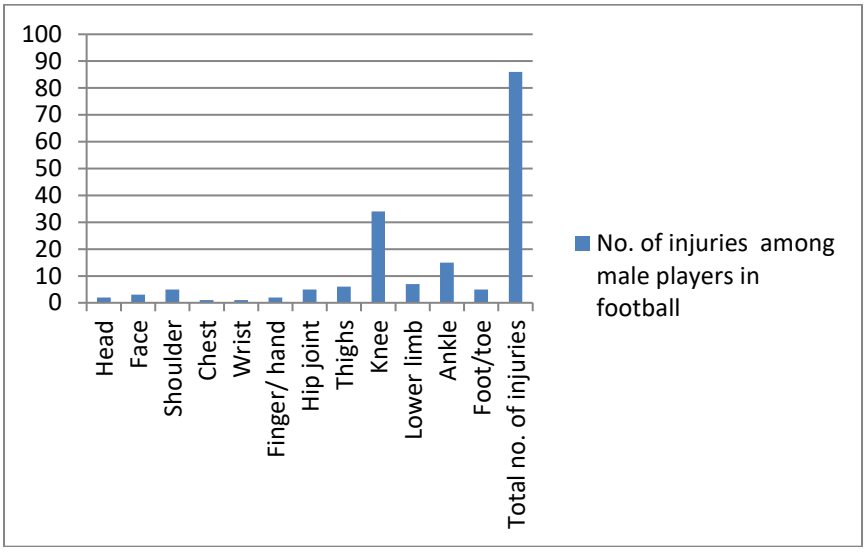

Figure1. Graphical representation of sites of injuries among players of football game.

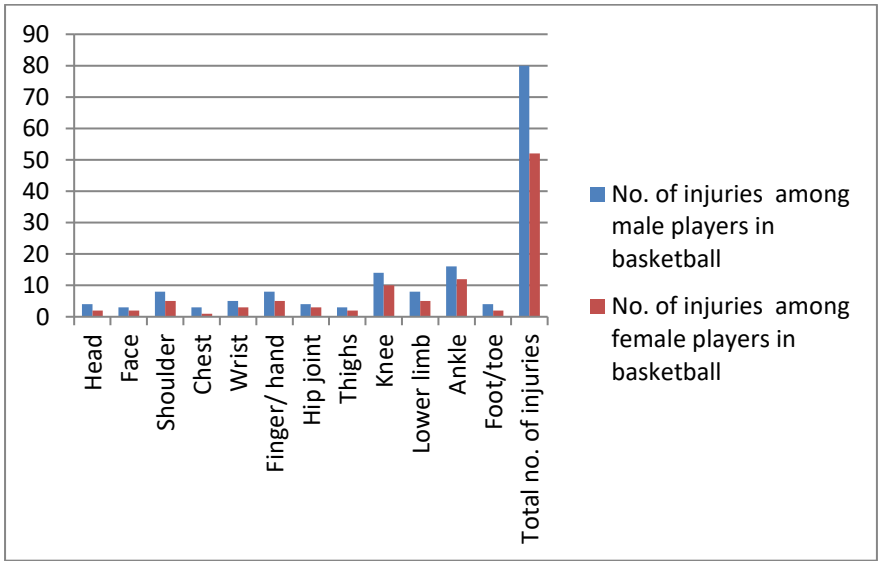

Figure2 . Graphical representation of sites of injuries among players of basketball game.

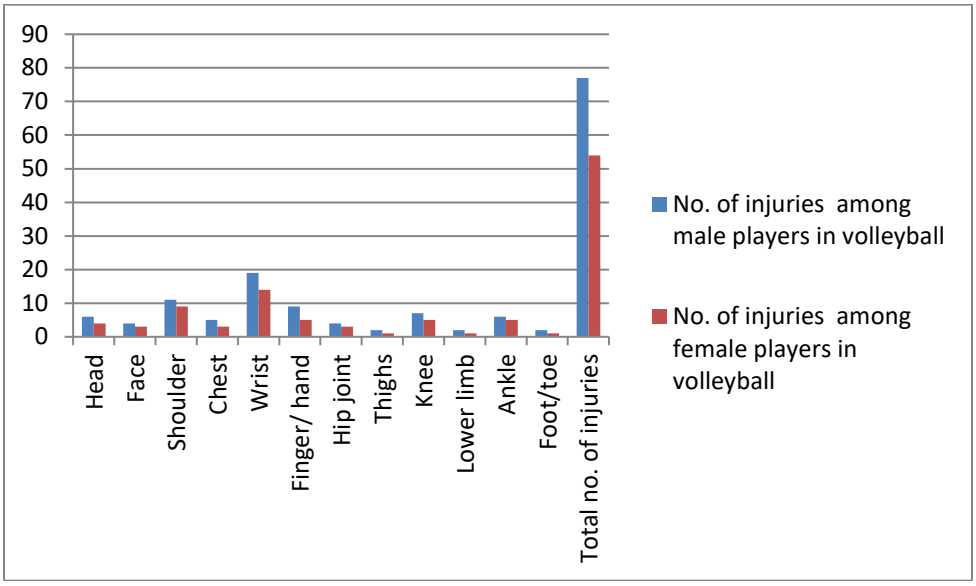

Figure 3. Graphical representation of sites of injuries among players of volleyball game.

IV. DISCUSSION

After analysis, it was observed that football players were found higher knee injury (39.5%) as compared to basketball (17.50%) and volleyball (9.09%). Similarly, it was found that basketball players had 21.2% ankle injury which was higher as compared to football (17.40%) players followed by volleyball (14.00%) players. Furthermore, it was found that wrist injuries among volleyball players (25.1%) were more prominent than football (5.81%) and basketball (6.4%) players. Thus, it was concluded that, in case of football and basketball lower extremities, particularly knee and ankle were accounted as protruding injuries whereas in case of volleyball wrist was accounted as extreme injury.

Moreover, in all three games i.e. football, basketball and volleyball it was observed that male players sustain more injuries than female players. Also, it was found that football was determined to be the top injury-causing games (86%) followed by basketball (80%) and volleyball (77%).

V. Conflict of Interest: Nil

VI. References

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