

Research Paper—Physical Education



Feb, 2010

Injury Occurrence to Elite Level Women Volleyball Players



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A B S T R A C T

The purpose of the present study was to sketch out the injury prevalence among university level female volleyball players. Their age ranged from 17 to 24 years. Mean, Standard Deviation and Percentages were utilized to identify the location, nature, injury sustained season, causes of injuries, etc to female players. A Questionnaires prepared by Cromwell, F.J.walsh Gromely (2000) for Elite Gaelic Football Players was utilized after the modification required for the nature of the study, total no of population was 100 in which 40 (n=40) volley ball women players participating varsity tournament were included in the study. Concluded the most of the injuries sustained to upper limb (75%); the most commonly anatomical site was Shoulder (32.5%) and Back (20%). Lower limb injury (25%) Ankle injuries (15%) Regarding the nature of injury tendon injuries were common. Maximum injuries occurred during winter season and Competition period. The professional support in the terms of injury management from physiotherapist was examined to assess the study.

Key words: survey, injury, volley ball, upper extremities, lower extremities.

INTRODUCTION

Volleyball is an Olympic sports event played by two teams on a playing court divided by net. Volleyball is an exciting and worldwide popular game. Volleyball, originally as an alternative sport to basketball, is a very popular and divers sport. There is a great fun and excitement in Volleyball and is enough to last a lifetime. Whatever the season may be, it is enjoyed all over the world. In tournament there is typically more than one

game a day (session) often, which can result in many hours of volleyball concentrated on only in a few days. A player may participate in competition continuously and face hectic schedule and hard work resulted maximum chance of injury. Sports injuries are injuries that occur to athletes participating in sporting events. Injury occurs in sports as it does in day to day life. Extended play sometimes results in overuse injuries which are relatively common in volleyball. Volleyball is a

sport that makes heavy demands on the players. The physical work is intermittent involving high intensity activity interspersed with short pauses. The game involves jumping movements and foot work. In the light of epidemiological studies, indicate that maximum injury occur during training or competition interrupted or hampered play or required special treatment in order to continue play or if the injuries made play impossible. These injuries may occur in volleyball for a variety of reasons including improper training, lack of appropriate footwear or safety equipment. The finding of study will help to highlight the occurrence of injuries in volleyball game. The present study was delimited to only female participating in Inter university volleyball tournament.

Objective of the study * To calculate the Mean Scores, and interpreted the Percentage of injuries to women volley ball players. * To sketch out the injury to women volleyball players.

ANALYSIS OF DATA AND RESULT OF THE STUDY

Table- 1

Sr. no	Variable	Mean	S.D
1.	Age	20.27	5.04
2.	Weight	51.36	6.69
3.	Height	157.9	4.04

Table- 2

Location Of Injury	Percentage
Shoulder	32.5
Ankle	15
Knee	10
Finger	12.5
Back	20
Wrist	10

Table-2, showing the percentage of location of injury, most predominant occurrence of injury reported to Shoulder was 32.5%, followed by Back 20%, Ankle 15%, Finger 12.5%, Knee & Wrist reported 10% each. ($n=40$)

METHODOLOGY

Selection of subjects-40 female Inter-University level volleyball players were randomly selected as subject for the study. Their age ranged from 17 to 24 years. Players participating in University level tournament which held at North Maharashtra University, Jalgaon were considered for collection of data. Mean, Standard deviation and Percentage were utilized to analyze the data and for its presentation.

Tools of the Study Questionnaires originally developed by Cromwell, F.J.walsh Gromely (2000) for Elite Gaelic Football Players was utilized after the modification required for the nature of the study, the data was collected individually through the questionnaire from female volleyball players at the tournament venue. Table no. 1. Showing the Mean and (S.D) of Age, Weight, Height of female players in which the Mean (S.D) of Age was $20.27 \pm (5.04)$ years, Weight $51.36 \pm (6.69)$ Kg, and Height $157.9 \pm (4.04)$ cm.

Table- 3

Injury Sustained Season	Percentage
Summer	37.5
Winter	62.5
Rainy	0

Table- 4

Injury Sustained Session	Percentage
Training	47.5
Game	52.5

Table -5

Nature Of Injury	Percentage
Tendon injury	47.5
Ligament injury	22.5
Back pain	20
Knee pain	10

Table 6

Causes Of Injury	Percentage
Blocking	35
Jumping	22.5
Smashing	42.5

Table 7

Management Of Injury	Percentage
Physiotherapist	40
Sports massager	30
Doctor	30

Graph - 1

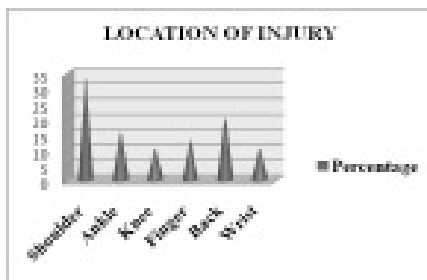


Figure 1 illustrate the percentage of location of injuries to female players (n=40)

Graph- 2

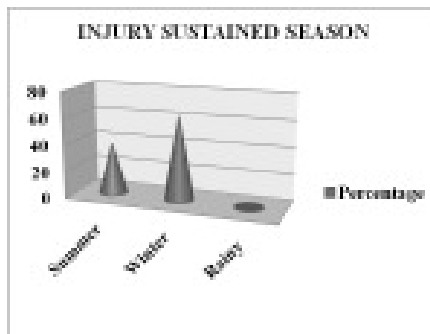


Figure 2 illustrate the percentage of injury occurrence season to female players. (n=40)

Graph- 3



Figure 3 illustrate the percentage of injury

Table no. 3 showing the most injury occurred during winter 62.5%, followed by summer season 37.5%, and no injury reported during rainy season (0.00%).

Table- 4 showing Percentage of injuries sustained session. Surprisingly game session was recorded high rate of injury occurrence was 52.5% and only 47.5% injury occurred during training session.

Table-5, showing nature of injury, the most predominant injury was Tendon reported 47.5%, followed by Ligament injury occurred 22.5%, Back pain reported 20%, Knee pain 10%

Table-6, showing causes of injury, the most predominant cause of injury was smashing reported 42.5%, followed by blocking 35%, jumping 22.5%.

sustained session (n=40)

Graph - 4

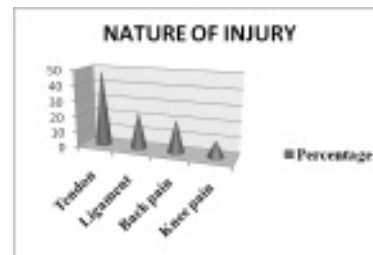


Figure 4 illustrate the Nature of injuries sustained to female players. (n=40)

Graph- 5

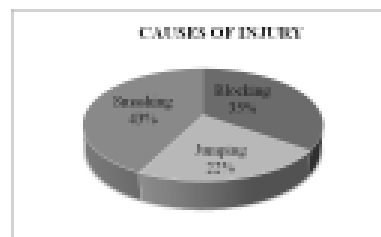


Figure 5 illustrate the causes of injuries of female players. (n=40)

Graph - 6

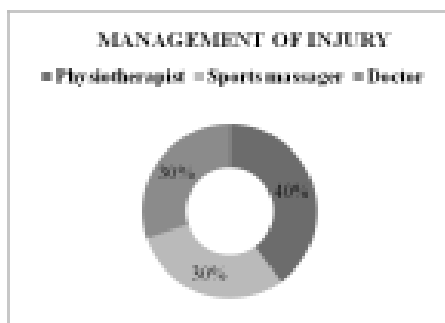


Figure 6 illustrate the choice of Management of injury to players (n=40)

Table-7, showing the Percentage of services taken by female players in which physiotherapist recorded highest 40%, followed by doctor and sport massager reported 30% each.

CONCLUSION

Most of the injuries to women volleyball players were sustained in upper limb; Shoulder and Back injuries were the most occurring injuries among volleyball players.

* Lower limb injuries were occurred to the Ankle and Knee. * Regarding the nature of injuries Back pain and Ligament injuries are most common in volleyball players. * Maximum injuries occurred during winter season & competition period. * Regarding the causes of injuries Smashing and blocking injuries are most common in volleyball players. * Regarding treatment of injuries, Physiotherapist is the most common attention provider of female volleyball players.

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