

**The Study Causes and Prevalence of Physical Injuries in Women Kabaddi Players**

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**Introduction**

Kabaddi is an attractive and most satisfying activity. Players irrespective at age and sex enjoys it. In a tropical country like India it is suitable in all seasons of the year.kabaddi has many advantages over other sports. Apart from improving fitness, as a recreational activity it is second to none. since mud surface does not allow any sudden harmful movements, the risk of injury is lower but still it can be life threatening if one is careless.This research aims to study causes and prevalence of physical injuries of women Kabaddi players participating at state level Kabaddi competitions.

**Significance of this study**

The significance of this study is twofold. On the one hand, it may be of help in preventing spread and intensification of sport injuries which can disable kabaddi players for life. On the other hand, presentation of rigorous, detailed statistics and data with regard to types of injuries in kabaddi women is likely to be of use for those involved in planning and management of this sport.

**Objective**

The study aims to explore the prevalence and causes of physical injuries in male adolescents participating in kabaddi in state competitions.

**Definition**

Injury was defined as “any mishap occurring during scheduled completions or practices that cause an athlete to miss subsequent competition or practice session” (Gioftsidous, et al 2004)

**Methodology**

Two hundred and forty women Kabaddi players (age range: 14-18 year) participated in state level Kabaddi state Championship in 2011 are studied. The competitions were held in kodoli.The main instrument of research was a questionnaire designed and used by Kazeme and Pieter (2004) in a study on sports injuries. This questionnaire included personal information, injury type, injury region, injury mechanisms, and other necessary data. The researcher gathered the data through this questionnaire. For the analysis of data descriptive statistics and Chi-square tests were used. The research was of the descriptive type. The level of significance for this research was  $p < 0.05$  and the software package SPSS 12 was used for statistical estimations.

**Finding**

**Table 1. The data related to sustained injuries in kabaddi Game**

<b>Participants in the match</b>	<b>20</b>
Number of sustained injuries	<b>139</b>
Number of kabaddi players exposed to injury	<b>494</b>
Proportion of injuries in each 100 kabaddi players	<b>56.04</b>
Proportion of exposure to injury in each 100 players	<b>28</b>
Proportion of injury in each 100 minutes	<b>8.2</b>

Table 1 shows the percentage of sustained injuries in terms of participants in the match, number of kabaddi players exposed to injury, and overall duration of matches in minutes.

The results showed that the proportion of injuries in each 100 Kabaddi players has been 56.04, in each 100 kabaddi players exposed to injury 28.1, and in each 100 minutes 8.2

**Table 2. Distribution of injuries per anatomic region**

Region	Percent (%)	Cases
Lower extremities	61.9	85
Upper extremities	24.5	35
Head and neck	6.5	9
Trunk	5	7
Internal organs	2.2	3
Total	100	139

Table 2 indicates that injuries in lower extremities, 61.9% (85 cases), is significantly more than injuries to other parts of the body ( $X^2=173.6$ ,  $P<0.05$ ).

**Table 3. Cases and percentage of sustained injuries in lower extremities.**

Region	Percent (%)	Cases
Back of the feet	34.4	31
Thigh	26.7	24
Shin	18.9	17
Knee	11.1	10
Ankle	4.4	4
Toes	4.4	4
Total	100	90

The table3 shows that in the lower extremities the back of the feet have suffered the highest percentage of injuries (34.4%). ( $X^2=40.5$ ,  $P<0.05$ ).

**Table 4. Cases and percent of sustained injuries in upper extremities**

Region	Percent (%)	Cases
Fingers	34.9	15
Palm	20.9	9
Wrist	14	6
Elbow	11.6	5
Forearm	11.6	5
Arm	7	3
Total	100	43

The table 4 shows that in the upper extremities, fingers have suffered the highest percentage of injuries (34.9%). ( $X^2=12.9$ ,  $P<0.05$ )

**Table 5. Distribution of tissue injuries.**

Tissue injuries	Percent (%)	Cases
Muscle tendon injuries	42.4	59
Articular injury	33.1	46
Injury of skin	15.8	22
Injury of bone	6.5	9
Internal injuries	2.2	3
Total	100	139

Table 5 indicates that muscle tendon injuries 42.4% (59 cases) were significantly more than other injures ( $X^2=82.9$ ,  $P<0.05$ ).

**Table 6. Type of injuries**

Type	Injuries (%)	Cases
Contusion	32.4	45
Sprain	30.9	43
Abrasion	8.6	12
Strain	7.2	10
Laceration	4.3	6
Fracture	4.3	6
Spasm	3.6	5
Bruise	3.6	5
Dislocation	2.2	3
Concussion	.7	1
Internal injuries	2.2	3
Total	100	139

Table 6. Shows that the main injuries were contusion 32.4% (45 cases), sprain 30.9% (43 cases) and bruise 8.6% (12 cases). (X<sup>2</sup>=198, P<0.05).

**Table 7. Causes of injuries**

Causes	Injuries (%)	Cases
Opponent's technical foul	17.5	78
Kabaddi players misapplication of technique	11.7	52
Previous injury	11	49
Less than enough warming	9.9	45
Temperature of the gym	8.8	39
Less than enough fitness	7	31
Weight loss problems	6.1	27
Acute fatigue	5.6	25
Unsuitable protective gear	4.9	23
Low morale	4.9	22
Bad nutrition	4.9	22
Timing of the events	3.1	14
Gym equipments	2.7	12
Kabaddi players age	1.3	6
Total	100	445

The table7 indicates that opponent's technical foul (17.5%), athletes' misapplication of technique (11.7) and previous injury (11%) have been the most significant causes of injuries.

**Table 8. Mechanisms of injury sustenance.**

Mechanism of injury sustenance	Injuries (%)	Cases
Dive/Dash	64	89
Kicking of the opponent	22.3	31
Hand touch of the opponent	4.3	6
Falling	3.6	5
Toe touch of the opponent	3.6	5
Back hold engagement	2.2	3
Total	100	139

The table 8 shows that the most significant mechanism of injury sustenance has been related to Dive/Dash (64%) and kicking of the opponent (22.3%).

### **Discussion on Findings**

In general, the results of the present study indicates that the prevalence of injuries in the women Kabaddi players has been very high and most of the injuries are in the lower extremities and are of contusion and sprain types. Further, the findings showed that the major cause of injury was the opponent's technical foul, and that the most prevalent mechanism of injury sustenance was Dive/Dash.

### **• References**

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