

## Comparison between the Trends of Sports Injuries of Male and Female

<sup>a</sup>Rekha Sharma, <sup>b</sup>Meera Sood,

<sup>a</sup>Assistant Professor, Vivekananda College, University of Delhi, Vivek Vihar, New Delhi, India

<sup>b</sup>Associate Professor, Vivekananda College, University of Delhi, Vivek Vihar, New Delhi, India

<sup>b</sup>Former Secretary & Associate Professor, Delhi University, Sports Council, University of Delhi, India

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### Abstract

The purpose of the study was to compare the trends of sports injuries between male and female. Microsoft Excel (version -7) data base was generated from the clinical records of national level institute of physical education and sports sciences with the column headings viz. date of occurrence of injury, name of patient, and type of injury for the years from 1995 to 2007. Thereafter, the excel data base was subjected to computation of frequencies of each delimited sports injury. The tabulated frequencies has been presented in tables which gives a detailed map in regard to year wise frequency distribution of injuries contrasting to types of injuries for understanding and interpretation of the trends. Chi square was computed to compare among the delimited years in respect to each delimited specific injury between male and female, further to compare among the injuries in each delimited specific year. To compare between the sex (male and female) for each year and specific injury, chi square for equal occurrence or hypotheses testing was computed and inferred at 0.05 level of significance. The study was delimited to samples age ranging from 17 to 25 years and those who have reported in the emergency room / medical centre. Findings of the study documents that the majority of the selected injuries namely Arthritis, Bursitis, Bruising, Chronic Syndrome, Contusion, Compression Syndrome, Compartment Syndrome, Cut Injury, Calcaneum Spur, Disc Prolapsed, Dislocation, Dorsal Ganglion, Enteropathy, Epicondilitis, Frictional Injury, Haematoma, Insidious Onset, Ligament Laxity, Lumbago, Metatarsalgia, Osteoarthritis, Perioarthritis, Planter Fascitis, Road Traffic Accidents, Sciatica, Shin Pain Syndrome, Spondilitis, Spasm, Sprain, Strain, Stress, Subluxation, Tenderness, Tendinitis, Tenosynovitis, Weak Muscle, Wound were found to be significantly different in majority of the delimited years. It further reveals significant differences among the injuries in regard to year wise comparison between male and female sportsperson by enlarge. Hence, it is to be concluded that the trends of sports injuries of male and female are different.

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### Introduction

The effect of sex on ankle specific injuries and lower extremity injuries as a group is less clear than the relation between sex and knee ligament injuries. Zelisko *et al*(10) found that female professional basketball athletes suffered 60% more injuries than men, with knee and thigh injuries being most common in the former. An injury was defined as an

incident that was reported to and evaluated by an athletic trainer. The most common anatomical site injured among male and female athletes combined was the ankle. Likewise, Backous *et al* (1) performed a prospective study of youth soccer injuries and found a greater overall injury incidence for girls (10.6 injuries/1000 hours of exposure) than boys (7.3 injuries/1000 hours). Also, Knapik *et al*(7) found the incidence of all injuries for women to be twofold greater (IR = 1.16/100 person days of exposure) than for men (IR=0.56/100 person days) in a study of military recruits during basic combat training. Similarly, Bell *et al*(4) investigated the effect of sex on injury rates among 861 military recruits during basic combat training. Women experienced twice as many injuries as men (relative risk (RR) =2.1, 95% CI = 1.78 to 2.5). Any injury that resulted in a visit to and evaluation by a medical provider was included. Hosea *et al*(6) investigated the incidence of ankle injury among high school and collegiate basketball athletes. Girls were at greater risk of sustaining minor grade I ankle sprains (RR = 1.26:1); however, no difference was found between boys and girls for the more severe grade II and III ankle sprains.

In contrast, several studies have found no significant differences in injury rates between male and female athletes. In a prospective study of ankle sprain incidence in 145 collegiate field hockey, soccer, and lacrosse athletes, Baumhauer *et al*(2) found no difference in the incidence of ankle sprains between men and women. In a similar study, Beynnon *et al*(5) found that the relative risk of ankle sprain among 118 collegiate field hockey, soccer, and lacrosse athletes was the same for men and women; however, the risk factors were different for the two sexes. In men, an increased talar tilt was a risk factor for ankle injury, whereas increased tibial varum and increased calcaneal eversion were risk factors for women. Likewise, in a prospective study of risk factors for stress fractures among male and female track athletes, Slauterbeck *et al*(8) found no difference in injury rates between the two, but the risk factors differed. No predictors were found in men, and in women risk factors were age of menarche, bone mineral content, and calf girth. Wiesler *et al*(9) investigated the relation between ankle range of motion (ROM) and injury among dancers and found no difference in injury incidence between the sexes. Beachy *et al*(3) performed a prospective study of 14 318 high school athletes over an eight year period. Without considering football and wrestling, there were no differences in injury incidence between boys and girls.

## Methodology

Microsoft Excel (version -7) data base was generated from the clinical records of national level institute of physical education and sports sciences with the column headings viz. date of occurrence of injury, name of patient, and type of injury for the years from 1995 to 2007. Thereafter, the excel data base was subjected to computation of frequencies of each delimited sports injury. The tabulated frequencies has been presented in tables which gives a detailed map in regard to year wise frequency distribution of injuries contrasting to types of injuries for understanding and interpretation of the trends. Chi square was computed to compare among the delimited years in respect to each delimited specific injury between male and female, further to compare among the injuries in each delimited specific year. To compare between the sex (male and female) for each

year and specific injury, chi square for equal occurrence or hypotheses testing was computed and inferred at 0.05 level of significance.

## Findings

**Table -1**

s.no.	Variables (Injuries)		Years													ΣF (Column)	X <sup>2</sup>
			1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1	Arthritis	F			1		1					1				3	10.01 (N.S.)
2	Bursitis	F	10	4	10	18	18				3		1	1		65	102.03 *
3	Bruising	F			1											1	2.07 (N.S.)
4	Contusion	F	28	67	60	32	16	17	24	14	17	19	32	15	19	360	126.51*
5	Compression Syndrome	F								10	1					11	109.12*
6	Compartment Syndrome	F		1												1	2.07 (N.S.)
7	Cut injury	F													1	1	2.07 (N.S.)
8	Calcaneum Spur	F												4		4	49.23*
9	Disc Prolapsed	F							6		2		1			9	50.37*
10	Dislocation	F					1		1				1			3	10.01(N.S.)
11	Enteropathy	F		1			2		6							9	44.2*
12	Epicondilitis	F	8	2	4			6	1	1	1	2	2			27	281.49 *
13	Frictional Injury	F		1												1	2.07 (N.S.)
14	Haematoma	F			1											1	2.07 (N.S.)
15	Insidious Onset	F		2												2	24.61 *
16	Ligament Laxity	F			2			2			2					6	20.05 *
17	Lumbago	F		1	1	2					1	4				9	24.26 *
18	Metatarsalgia	F	1		2											3	24.69 *
19	Osteoarthritis	F		1	1	1	8		1							12	61.86 *

20	Planter Fasciis	F	6		11	1									18	96.42 *	
21	Road Traffic Accidents	F		7	1										8	73.88*	
22	Sprain	F	58	211	170	126	67	73	103	234	45	93	95	199	31	1505	422.52*
23	Strain	F	31	80	41	31	23	30	22	12	14	11	20	26	13	354	146.12*
24	Spasm	F	19	34	30	17	10	9	21	31	41	23	27	17	9	288	54.9*
25	Stress	F	4	11	16	17	5	4	7	1	2	2	2		1	72	72.42*
26	Shin Pain Syndrome	F	6	12	1	16	1			1			1			38	124.62*
27	Sciatica	F	8	4	24	3	2	1	4	3	1	1				51	126.72*
28	Spondilitis	F		3		2						3				8	32.49*
29	Tendinitis	F	12	34	12	13	3		4		1					79	58.85*
30	Tenosynovitis	F	1	1	1					1						4	9.22 (N.S.)
31	Weak Muscle	F			1											1	2.07 (N.S.)
32	Wound	F	1			1										2	11.27 (N.S.)
$\sum F$ (row)		F	193	477	391	280	156	135	207	308	128	157	186	264	74	2956	
%			6.52909	16.13667	13.22733	9.47226	5.277402	4.566982	7.0027064	10.41949	4.330176	5.311231	6.292287	8.930988	2.503383		
$X^2$			788.7*	3405.89*	2678.64*	1895.2*	1048.93*	1436.41*	1629.61*	5374.45*	926.75*	1818.46*	1483.15*	4682.88*	5126.2*		

**Table -2**

s.no.	Variables (Injuries)		Years												ΣF C <sub>lm</sub>	X <sup>2</sup>	
			1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006			2007
1	Bursitis	F		1						1					2	11.27 (N.S.)	
2	Contusion	F	15	15	11	8	7	9	9	5	3		2	4	2	90	51.03*
3	Compression Syndrome	F						7								7	85.34*
4	Chronic Syndrome	F	1													1	0.91 (N.S.)
5	CompartmentSyndrome	F										1				1	0.91 (N.S.)
6	Disc Prolapsed	F						2			1	2				5	18.61*
7	Dorsal Ganglion	F		1												1	0.91 (N.S.)
8	Epicondilitis	F						1					2			3	18.42 (N.S.)
9	Lumbago	F	1							1		1				3	10.01 (N.S.)
10	Metatatsalgia	F		1		1										2	85.74*
11	Osteoarthritis	F		8		19				1						28	271.02 *
12	Planter Fascitis	F			5											5	60.72*
13	Perioarthritis	F			1											1	0.91 (N.S.)
14	Sprain	F	14	30	40	36	44	36	86	149	86	40	54	58	13	686	306.8*
15	Strain	F	14	34	16	24	1	5	10	5	10	4	6	3		132	113.71*
16	Spasm	F	6	14	8	6		2	22	8	19	10	9	16		120	43.72*
17	Stress	F	2	2	15	3	4	1	3	1			2	1		34	69.37*
18	Shin Pain Syndrome	F		3	1	4		5	13	3	3		2	4		38	50.27*
19	Sciatica	F		3	1	1				3			2	1		11	18.67*

20	Subluxation	F		1											1	0.91(N.S.)
21	Tendinitis	F	1	26	2	3		1		1					34	231.01*
22	Tenderness	F						1							1	0.91 (N.S.)
23	Weak Muscles	F								1		4			5	39.67*
	$\Sigma F(\text{row})$	F	54	139	100	105	56	63	150	177	123	59	81	89	15	1211
	%	F	4.46281	11.405	8.264463	8.67769	4.6281	5.2066	12.39669	14.6281	10.16529	4.876033	6.69421	7.355372	1.23967	
	$X^2$	F	232.41*	397.48*	434.87*	405.53*	762.85*	463.84*	1121.14*	2763.58*	1294.65*	613.36*	747.08*	871.56*	212.26*	

**Table -3**

S.no.	Variables (Injuries)	X <sup>2</sup>													Σ X <sup>2</sup>
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
1	Arthritis		5.44*	0.02	16.20*	9.00*	1.00			1.00	1.00				33.66*
2	Bursitis	10.0*	1.80*	10.00*	18.00*	18.00*				1.00		1.00	1.00		60.80*
3	Bruising			1.00											1.00
4	Compartment Syndrome		0.50*										0.50		1.00
5	Compression Syndrome							3.50*	5.00*						8.50*
6	Contusion	3.92*	32.96*	33.80*	14.40*	3.52*	2.46	27.16*	4.26*	9.80*	19.00*	26.46*	6.36*	13.76*	137.86*
7	Cut Injury													0.50	0.50
8	Chronic Syndrome	3.56*	6.24*		7.2*	1.00	5.00*	13.00*	3.26*	1.00		1.00	4.00*		45.26*
9	Calcaneum Spur												4.00*		4.00
10	Disc Prolapsed								6.00*		1.00	0.02			7.02*
11	Dislocation		1.00				1.00	1.00				1.00			4.00*
12	Dorsal Ganglion		1.00												1.00
13	Epicondilitis	8.00*		4.00*			1.00	6.00*	1.00	1.00	1.00				22.00*
14	Enteropathy		1.00				6.00*								7.00*
15	Frictional Injury		1.00												1.00
16	Haematoma			1.00											1.00
17	Insidious Onset														0.00
18	Ligament Laxity														0.00
19	Lumbago	7.00*	1.00	1.00											9.00*
20	Metatarsalgia	1.00	0.02		1.00										2.02*
21	Osteoarthritis		2.72	0.50	8.10*	4.00*		0.50	0.50						16.23*
22	Perioarthritis			0.50											0.50
23	Planter Fascitis	6.00*		2.25	1.00										9.25*
24	Road Traffic Accident		7.5*	1.00											8.50*
25	Shin Pain Syndrome	3.00*	2.70*		3.60*	0.50	2.50	6.5*	0.50	1.50				2.00	20.80*
26	Sprain	26.88*	135.92*	80.46*	50.0*	4.76*	12.54*	1.52	18.86*	12.82*	21.12*	11.28*	78.76*	8.38*	463.30*
27	Strain	6.42*	18.56*	10.96*	0.88	20.16*	17.84*	4.50*	24.50*	0.66	3.26*	7.53*	18.24*	13.00*	146.51*
28	Spasm	7.60*	8.32*	12.73*	0.02	5.00*	1.92	0.02	13.56*	8.06*	29.12*	9.00*	0.02	9.00*	104.37*
29	Stress			15.00*	3.00*	4.00*	1.00	3.00*	1.00			0.00		1.00	28.00*
30	Sciatica	8.00*	4.00*	24.00*	3.00*		1.00	4.00*	3.00*	1.00	1.00				49.00*
31	Spondilitis		3.00*								3.00*				6.00*
32	Subluxation		0.50												0.50
33	Tenderness						0.50								0.50
34	Tendinitis	10.28*	1.32	8.06*	3.00*		4.00*	1.00							27.66*
35	Tenosynovitis	0.50	0.50	0.50				0.50							2.00
36	Weak Muscle			1.00						1.00		4.00*			6.00*
37	Wound	1.00		1.00								1.00			3.00*
	Σ X <sup>2</sup>	103.16*	237*	208.78*	129.4*	69.94*	57.76*	72.2*	81.44*	38.84*	79.5*	62.29*	12.88*	47.64*	



## Discussion

The analysis of data in table-1 advocates the significant differences between the male and female in regard to Arthritis in the year 1996 ( $X^2= 5.44$ ), 1998 ( $X^2=16.2$ ) and 1999 ( $X^2=9.0$ ).

Further, it advocates the significant differences between the male and female in regard to Bursitis in the year 1997 ( $X^2= 10.0$ ), 1998 ( $X^2=18.02$ ) and 1999 ( $X^2=18.0$ ).

Further, it advocates the significant differences between the male and female in regard to Contusion in the year 1995 ( $X^2= 3.92$ ), 1996 ( $X^2=332.96$ ), 1997 ( $X^2=33.8$ ), 1998 ( $X^2=14.4$ ), 1999( $X^2=3.52$ ), 2000 ( $X^2=2.46$ ), 2001 ( $X^2=27.16$ ), 2002 ( $X^2=4.26$ ), 2003 ( $X^2=9.8$ ), 2004 ( $X^2=19.0$ ), 2005 ( $X^2=26.46$ ), 2006 ( $X^2=6.36$ ) and 2007( $X^2=13.76$ ).

Further, it advocates the significant differences between the male and female in regard to Chronic Syndrome in the year 1995 ( $X^2= 3.56$ ), 1996 ( $X^2=6.24$ ), 1998 ( $X^2= 7.2$ ), 2000 ( $X^2=5.0$ ), 2001 ( $X^2=13.0$ ), 2002 ( $X^2=3.26$ ), and 2006 ( $X^2=4.0$ ).

Further, it advocates the significant differences between the male and female in regard to Calcaneum Spur in the year 2006 ( $X^2= 4.00$ ).

Further, it advocates the significant differences between the male and female in regard to Compression syndrome in the year 2001 ( $X^2= 3.5$ ) and 2002 ( $X^2= 5.0$ )

Further, it advocates the significant differences between the male and female in regard to Disc Prolapsed in the year 2002 ( $X^2= 6.0$ ).

Further, it advocates the significant differences between the male and female in regard to Epicondilitis in the year 1995 ( $X^2= 8.0$ ), 1997 ( $X^2=4.0$ ) and 2001 ( $X^2=13.0$ ).

Further, it advocates the significant differences between the male and female in regard to Enteropathy in the year 2000 ( $X^2=6.0$ ).

Further, it advocates the significant differences between the male and female in regard to Lumbago in the year 1995 ( $X^2=7.0$ ).

Further, it advocates the significant differences between the male and female in regard to Osteoarthritis in the year 1996 ( $X^2= 2.71$ ), 1998 ( $X^2=8.1$ ) and 1994 ( $X^2=4.0$ ).

Further, it advocates the significant differences between the male and female in regard to Planter Fascitis in the year 1995 ( $X^2= 6.0$ ) and 1997 ( $X^2=2.25$ ).

Further, it advocates the significant differences between the male and female in regard to Road Traffic Accident in the year 1996 ( $X^2=7.5$ ).

Further, it advocates the significant differences between the male and female in regard to Shin Pain Syndrome in the year 1995 ( $X^2= 3.0$ ), 1996 ( $X^2=2.7$ ), 1998 ( $X^2=3.6$ ), 2000 ( $X^2=2.5$ ), and ( $X^2=6.5$ ).

Further, it advocates the significant differences between the male and female in regard to Sprain in the year 1995 ( $X^2= 26.88$ ), 1996 ( $X^2=135.92$ ), 1997 ( $X^2=80.46$ ), 1998 ( $X^2=50.0$ ), 1999

( $X^2=4.76$ ), 2000 ( $X^2=12.54$ ), 2002 ( $X^2=18.86$ ), 2003 ( $X^2=12.82$ ), 2004 ( $X^2=21.12$ ), 2005 ( $X^2=11.28$ ), 2006 ( $X^2=78.76$ ) and 2007 ( $X^2=8.38$ ).

Further, it advocates the significant differences between the male and female in regard to Strain in the year 1995 ( $X^2= 6.42$ ), 1996 ( $X^2=18.56$ ), 1997 ( $X^2=10.96$ ), 1999 ( $X^2=20.16$ ), 2000 ( $X^2=17.84$ ), 2001 ( $X^2=4.5$ ), 2002 ( $X^2=24.5$ ), 2004 ( $X^2=3.26$ ), 2005 ( $X^2=7.53$ ), 2006 ( $X^2=18.24$ ) and 2007 ( $X^2=13.0$ ).

Further, it advocates the significant differences between the male and female in regard to Spasm in the year 1995 ( $X^2= 7.6$ ), 1996 ( $X^2=8.32$ ), 1997 ( $X^2=12.73$ ), 1999 ( $X^2=5.0$ ), 2002 ( $X^2=13.56$ ), 2003 ( $X^2=8.06$ ), 2004 ( $X^2=29.12$ ), 2005 ( $X^2=9.0$ ) and 2007( $X^2=9.0$ ).

Further, it advocates the significant differences between the male and female in regard to Stress in the year 1997 ( $X^2=15.0$ ), 1998 ( $X^2=3.0$ ), 1999 ( $X^2=4.0$ ) and 2001 ( $X^2=3.0$ ).

Further, it advocates the significant differences between the male and female in regard to Spasm in the year 1995 ( $X^2= 8.0$ ), 1996 ( $X^2=4.0$ ), 1997 ( $X^2=24.0$ ), 1998 ( $X^2=3.0$ ), 2001 ( $X^2=4.0$ ) and 2002 ( $X^2=3.0$ ).

Further, it advocates the significant differences between the male and female in regard to Spondilitis in the year 1996 ( $X^2=3.0$ ).

Further, it advocates the significant differences between the male and female in regard to Tendinitis in the year 1995 ( $X^2= 10.28$ ), 1997 ( $X^2=8.06$ ) 1998 ( $X^2=3.0$ ), 2000 ( $X^2=4.0$ ) and 2004 ( $X^2=3.0$ ).

Further, it advocates the significant differences between the male and female in regard to Weak Muscle in the year 2005 ( $X^2=4.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Arthritis in the year 1997 ( $X^2= 0.02$ ), 2000 ( $X^2=1.0$ ), 2003 ( $X^2=1.0$ ) and 2004 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Bursitis in the year 1996 ( $X^2= 1.8$ ), 2003 ( $X^2=1.0$ ), 2005 ( $X^2=1.0$ ) and 2006 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Bruising in the year 1997 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Chronic Syndrome in the year 1999 ( $X^2= 1.0$ ), 2003 ( $X^2=1.0$ ) and 2005 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Compartment Syndrome in the year 1996 ( $X^2= 0.5$ ) and 2005 ( $X^2=0.5$ ).

Further, it advocates the insignificant differences between the male and female in regard to Cut Injury in the year 2007 ( $X^2=0.5$ ).

Further, it advocates the insignificant differences between the male and female in regard to Disc Prolapsed in the year 2004 ( $X^2=1.0$ ) and 2005 ( $X^2=0.02$ ).

Further, it advocates the insignificant differences between the male and female in regard to Dislocation in the year 1996 ( $X^2=1.0$ ), 2000 ( $X^2=1.0$ ), 2001 ( $X^2=1.0$ ) and 2005 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Dorsal Ganglion in the year 1996 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Epicondylitis in the year 2000 ( $X^2=1.0$ ), 2002 ( $X^2=1.0$ ), 2003 ( $X^2=1.0$ ) and 2004 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Enteropathy in the year 1996 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Frictional Injury in the year 1996 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Hametoma in the year 1997 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Lumbago in the year 1996 ( $X^2=1.0$ ) and 1997 ( $X^2=0.02$ ).

Further, it advocates the insignificant differences between the male and female in regard to Metatarsalgia in the year 1995 ( $X^2=1.0$ ), 1996 ( $X^2=0.02$ ) and 1998 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Osteoarthritis in the year 1997 ( $X^2=0.5$ ), 2001 ( $X^2=0.5$ ) and 2002 ( $X^2=0.5$ ).

Further, it advocates the insignificant differences between the male and female in regard to Perioarthritis in the year 1997 ( $X^2=0.5$ ).

Further, it advocates the insignificant differences between the male and female in regard to Planter Fasciitis in the year 1998 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Road Traffic Accidents in the year 1997 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Shin pain Syndrome in the year 1999 ( $X^2=0.5$ ), 2002 ( $X^2=0.5$ ), 2003 ( $X^2=1.5$ ) and 2007 ( $X^2=2.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Sprain in the year 2001 ( $X^2=1.52$ ).

Further, it advocates the insignificant differences between the male and female in regard to Strain in the year 1998 ( $X^2=0.88$ ) and 2003 ( $X^2=0.66$ ).

Further, it advocates the insignificant differences between the male and female in regard to Spasm in the year 1998 ( $X^2=0.02$ ), 2000 ( $X^2=1.92$ ), 2001 ( $X^2=0.02$ ) and 2006 ( $X^2=0.02$ ).

Further, it advocates the insignificant differences between the male and female in regard to Stress in the year 2000 ( $X^2=1.0$ ) and 2002 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Sciatica in the year 2000 ( $X^2=1.0$ ), 2003 ( $X^2=1.0$ ) and 2004 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Subluxation in the year 1996 ( $X^2=0.5$ ).

Further, it advocates the insignificant differences between the male and female in regard to Tendinitis in the year 1996 ( $X^2=1.32$ ) and 2001 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Tenosynovitis in the year 1995 ( $X^2=0.5$ ), 1996 ( $X^2=0.5$ ), 1997 ( $X^2=1.5$ ), 2000 ( $X^2=1.5$ ) and 2007 ( $X^2=2.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Tenderness in the year 1996 ( $X^2=0.5$ ).

Further, it advocates the insignificant differences between the male and female in regard to Weak Muscle in the year 1997 ( $X^2=1.0$ ) and 2003 ( $X^2=1.0$ ).

Further, it advocates the insignificant differences between the male and female in regard to Wound in the year 1995 ( $X^2=1.0$ ), 1997 ( $X^2=1.0$ ) and 2005 ( $X^2=1.0$ ).

While compared the injuries as a whole between male and female found to be significantly different in the year 1995( $X^2=103.16$ ),1996( $X^2=237$ ),1997( $X^2=208.78$ ),1998( $X^2=129.40$ ),1999( $X^2=69.94$ ),2000( $X^2=57.76$ ), 2001( $X^2=72.20$ ), 2002( $X^2=81.44$ ), 2003( $X^2=38.84$ ), 2004( $X^2=79.50$ ), 2005( $X^2=62.29$ ), 2006( $X^2=12.88$ ), and 2007( $X^2=47.64$ ).

While compared the years as a whole between male and female found to be significantly different in the injuries namely Arthritis, ( $X^2=33.66$ ) Bursitis( $X^2=60.8$ ), Compression Syndrome( $X^2=8.5$ ), Contusion( $X^2=137.86$ ), Chronic Syndrome( $X^2=45.26$ ), Disc Prolapsed ( $X^2=7.02$ ), Dislocation( $X^2=4.00$ ), Epicondilitis( $X^2=22.00$ ), Enteropathy( $X^2=7.00$ ), Lumbago( $X^2=9.00$ ), Metatarsalgia( $X^2=2.02$ ), Osteoarthritis( $X^2=16.23$ ), Planter Fasciitis( $X^2=9.25$ ), Road Traffic Accident( $X^2=8.50$ ), Shin Pain Syndrome( $X^2=20.80$ ), Sprain( $X^2=463.30$ ), Strain( $X^2=146.51$ ), Spasm( $X^2=104.37$ ), Stress( $X^2=28.0$ ), Sciatica( $X^2=49.00$ ), Spondilitis( $X^2=6.00$ ), Tendinitis( $X^2=27.66$ ), Weak Muscle( $X^2=6.00$ ), and Wound( $X^2=3.00$ ).

## Conclusion

The majority of the selected injuries namely Arthritis, Bursitis, Bruising, Chronic Syndrome, Contusion, Compression Syndrome, Compartment Syndrome, Cut Injury, Calcaneum Spur, Disc Prolapsed, Dislocation, Dorsal Ganglion, Enteropathy, Epicondilitis, Frictional Injury, Haematoma, Insidious Onset, Ligament Laxity, Lumbago, Metatarsalgia, Osteoarthritis, Perioarthritis, Planter Fasciitis, Road Traffic Accidents, Sciatica, Shin Pain Syndrome, Spondilitis, Spasm, Sprain, Strain, Stress, Subluxation, Tenderness, Tendinitis, Tenosynovitis, Weak Muscle, Wound were found to be significantly different in majority of the delimited years. It further reveals significant differences among the injuries in regard to year wise comparison between male and female sportsperson by enlarge. Hence, it is to be concluded that the trends of sports injuries of male and female are different.

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