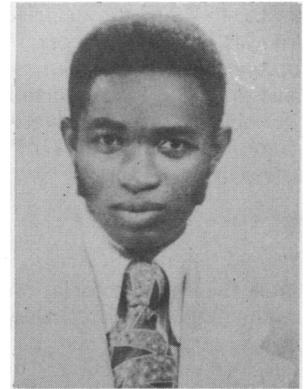




D. N. Mathur



S. O. Salokun

### COMMON INJURIES AMONG NIGERIAN GAMES PLAYERS

D. N. MATHUR, MD, S. O. SALOKUN, BSc and D. P. UYANGA, BSc

*Institute of Physical Education, University of Ife, Nigeria*

#### ABSTRACT

The study investigated the common types and sites of injuries which were sustained by male soccer, basketball and field hockey players during a period of 8 weeks of intensive training and competition. In all, 170 soccer players, 127 basketball players and 212 hockey players drawn from various clubs in Nigeria formed the subjects of the study, a total of 509 patients.

Questionnaires on the prospective injury experience were handed over to the club members. A total of 630, 308 and 641 injuries were recorded in soccer, basketball and hockey respectively. In soccer the common injuries were sprains and strains (45.6%), bruises and cuts (27.0%) and concussion (15.2%). The lower limb had the highest number of injuries (49.1%).

In basketball common injuries were sprains and strains (41.5%), bruises and cuts (26.7%) and swelling and blisters (22.1%). The most common site of injury was the upper limb which sustained 45.8% of the injuries.

The common injuries in hockey were bruises and cuts (50.8%), swelling and blisters (21.5%) and sprains and strains (20.2%). The lower limb sustained the highest number of injuries (57.5%).

#### INTRODUCTION

Knowledge of accidents in soccer, basketball and field hockey may be useful to the coaches and players to predict the possibility and frequency of their occurrence. Although in some countries investigations have been carried out to study the common sites and types of injuries in popular games and sports, no such study has yet been carried out in Nigeria. Therefore, the purpose of this investigation was to determine the sites and types of common injuries associated with the competitive sports popular in Nigeria.

Groh (1972) reported that in West Germany sports accidents accounted for 10% of all hospitalised accident

cases and football had highest accidents in all types of sports. Williams (1975) stated that approximately 5% of all cases seen in accident departments of British hospitals were due to sporting injuries. From a study of sports injuries between 1951 and 1968 at the University of Toronto, MacIntosh et al (1972) noticed Canadian football, wrestling and soccer as relatively accident prone. Earlier, Skrien (1970) had noted that in a total of 1068 basketball injuries, those to the ankle alone accounted for 31.6% of injuries. In another survey of 1511 injuries, Gray (1974) reported an incidence of 138 injuries due to hockey and 157 injuries due to basketball. Weightman and Browne (1974) noted that 65% of all football injuries were located in the lower

limbs. In 1975 they carried out a detailed survey of the injuries in various sports for a period of 8 months and observed only 59 injuries in field hockey. Roaas and Nilsson (1979) reported 3616 major injuries in Norwegian football players during the period 1970-1974. They noted that 52% of injuries were located in the lower limb.

## METHODS

The possibility of a retrospective study was ruled out since the clubs, associations and states did not maintain regular injury records. Questionnaires on the prospective injury experience were handed over to the players. The questionnaires sought the following information:—

- (i) Site and type of injury sustained during the peak training and competitive season of 8 weeks;
- (ii) Report of medical examination carried out by physicians before the start of the competitive season.

The players were requested to fill up the questionnaires. The authors explained to the players and their coaches the nature and importance of the study. Injuries sustained by players before the commencement of the present survey were not recorded. The questionnaires were collected after 8 weeks, the data tabulated and analysed.

## OBSERVATIONS AND DISCUSSION

Summaries of the common types and sites of injuries in soccer, basketball and hockey players are given in Tables I to VI.

TABLE I

Common types and sites of injuries in head, face, neck, trunk and groin regions.

(Number of Injuries)

Type of Injury	Head, Face, Neck			Trunk and Groin		
	Soccer	Basket-ball	Hockey	Soccer	Basket-ball	Hockey
Bruises and Cuts	6	18	10	73	6	16
Fractures and Dislocations	2	—	—	2	6	7
Sprains and Strains	14	—	5	53	6	64
Concussion	96	6	8	—	—	—
Broken Teeth	8	6	2	—	—	—
Swelling and Blistering	—	4	8	11	12	—

TABLE II

Common types and sites of injuries in the limbs.

Type of Injury	Upper limb			Lower limb		
	Soccer	Basket-ball	Hockey	Soccer	Basket-ball	Hockey
Bruises and Cuts	14	42	50	77	16	250
Fractures and Dislocations	8	9	13	14	3	18
Sprains and Strains	34	68	34	186	54	26
Swelling and Blistering	—	22	55	32	30	75

### Soccer

From the data published by Weightman and Browne (1974) and from our own study we noted that the most common site of injury in soccer players was the lower limb. Weightman and Browne (1974) reported an incidence of 65.3% of injury among British soccer players in the calf, shin, knee, ankle and foot. However, in our study we noticed a slightly lower incidence (49.1%) as indicated in Table IV. On the other hand, the players had a higher incidence of injury (Table IV) to the trunk and groin (22.1%) and head, face and neck (20%). The incidence of concussion alone was 15.2% among Nigerian Soccer players (Table III), far greater than the 1.8% in British soccer players (Weightman and Browne, 1974). Injuries to the trunk and concussion were mainly due to forceful sudden body contact among the players. This was not surprising since Nigerian soccer players are known to play a fast moving game through a system of short passes. Under these circumstances the incidence of body contact between the players is more frequent and forceful, leading to injuries in trunk and head, neck and face.

TABLE III

Summary of types of injuries

Type of Injury	Total No. of Injuries		
	Soccer	Basketball	Hockey
Bruises and Cuts	170	82	326
Fractures and Dislocations	26	18	38
Sprains and Strains	287	128	129
Swelling and Blistering	43	68	138
Concussion	96	6	8
Broken Teeth	8	6	2
Total	630	308	641

When considering the type of injury (Table III) sprains and strains constituted the highest incidence (45.6%) followed by bruises and cuts (27.0%).

#### *Basketball*

In basketball, sprains and strains constituted the maximum number of injuries (41.5%) followed by bruises and cuts (26.7%) then swelling and blistering (21.1%) (Table III). 45.8% of injuries (Table IV) were noted in the upper limb, injuries to the fingers and hand alone accounting for 41.2% of injuries (Table V). The lower limb sustained 33.4% of injuries and among them the ankle region had the highest number of injuries (36.9%) (Table VI). Ankle injuries in basketball players could be attributed to quick turns, frequent jumping and imbalance during landing. Only 6 (4.6%) sprains and strains were noted in the trunk and groin (Table I).

**TABLE IV**

**Summary of common sites of injuries**

Site of Injury	Total No. of Injuries		
	Soccer	Basketball	Hockey
Head, Face, Neck	126	34	33
Upper limb	56	141	152
Trunk and Groin	139	30	87
Lower limb	309	103	369
Total	630	308	641

#### *Hockey*

In the absence of proper preventive measures against injuries in hockey, it was not surprising to note a higher incidence of injuries in this game.

The lower limb (Table IV) accounted for the highest number of injuries (57.5%) among which the lower leg

**TABLE V**

**Localisation of injuries in the upper limb.**

Site of Injury	Total No. of Injuries		
	Soccer	Basketball	Hockey
Fingers and Hands	10	58	85
Wrist	10	32	27
Arm	6	27	23
Elbow	14	14	13
Shoulder	16	10	4
Total	56	141	152

(Table VI) sustained the maximum number (46.1%). Bruises and cuts (Table III) were most common (50.8%). In a total of 129 sprains and strains (Table III) the trunk and groin (Table I) sustained the highest number of injuries (49.6%), which could be related to the continuous trunk flexion necessary in hockey. As in basketball, we noted a low incidence of concussion (1.3%) (Table III).

**TABLE VI**

**Localisation of injuries in the lower limb.**

Site of Injury	Total No. of Injuries		
	Soccer	Basketball	Hockey
Thigh	22	13	13
Knee	51	22	37
Calf and Shin	60	16	170
Ankle	134	38	78
Foot	42	14	71
Total	309	103	369

## REFERENCES

- Gray, S. D., 1974 "Predisposing factors in thigh muscle strain in sport". Congress Proceedings – XXth World Congress in Sports Medicine, Melbourne. Congress Secretariat, Carlton, Australia, 325-332.
- Groh, H., 1972 "Sport injuries and damages to locomotor system". The scientific view of sports. Eds. O. Grupe, D. Kerz and J. M. Teipel, Springer Verlag, Berlin, 272.
- MacIntosh, D. D., Skrien, T. and Shephard, R. J., 1972 "Physical activity and injury". J.Sports Med.& Phys.Fit. 12: 224-237.
- Roaas, A. and Nilsson, S., 1979 "Major injuries in Norwegian football". Brit.J.Sports Med. 13: 3-5.
- Skrien, T., 1970 "Physical activity and injury. Sport injuries at the University of Toronto, 1951-1968". MSc Thesis, University of Toronto.

Weightman, D. and Browne, R. C., 1974 "Injuries in Association and Rugby football". *Brit.J.Sports Med.* 8: 183-187.

Weightman, D. and Browne, R. C., 1975 "Injuries in eleven selected sports". *Brit.J.Sports Med.* 9: 136-141.

Williams, J. G. P., 1975 "Sports injuries – the case for specialised clinics in the United Kingdom". *Brit.J.Sports Med.* 9: 22-24.

### OBITUARY

#### Dr. John Francis Varley

Recently we have been informed of the death of Dr. John Varley, who was living in retirement in Shoreham By Sea, Sussex.

He obtained a BA Cambridge in 1925, and qualified MRCS, LRCP in 1928 at St. Bartholomew's Hospital. Subsequently, he obtained MB, BCh at London University in 1932, and MRCP in 1933. He was Consultant Physician to the Southlands Hospital, Shoreham, until his retirement in 1974.

He joined the British Association of Sport and Medicine in 1954, the year after its establishment, and remained a member until his death earlier this year.

H. E. Robson

### OBITUARY

#### Dr. H. A. J. Thomas

##### Dr. F. T. Horan writes

"Alun Thomas died in his sleep on January 16th, 1981. He was associated with W. E. Tucker for twelve years at the Clinic in Park Street, London and took over on Bill's retirement. A Barts man, his early interest and training lay in orthopaedics and he had a wide background of experience in the disorders of the musculo-skeletal system. He gave generously of his time and expertise to all connected with sport and was a familiar figure at major events, particularly at Lord's.

He was especially concerned with the equestrian world and many of the leading show jumpers, event riders and jockeys were looked after by Alun. He was a steward of the British Boxing Board of Control and surgeon to the Injured Jockeys Compensation Fund, Wimbledon F.C., Middlesex County Cricket Club and Lord's Cricket Ground.

Alun was a warm hearted man, a splendid companion and an excellent doctor. His unique position in Sports Medicine was reflected in the large attendance at his memorial service and was a fitting tribute to a much loved man and admired friend."

*(A short obituary appeared in Brit.J.Sports Med. 15:1)*