

Pattern of injuries and illnesses in the Malaysian Olympic team

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Introduction

THE PURPOSE OF this paper is to outline the range of injuries and illnesses suffered by the members of the Malaysian Olympic Team during their stay in Munich for the 1972 Olympics from the 17th of August to the 10th September.

The contingent consisted of the following competitors:

Athletics	— 7 males & 2 females
Badminton	— 3 males
Cycling	— 4 males
Football	— 19 males
Hockey	— 19 males
Shooting	— 1 male
Swimming	— 1 male & 1 female

making a total of 57, including three females.

Prior to their departure for Munich, the members of the Olympic contingent were subjected to an extensive medical examination, including E.C.G. before and after exercise, chest X-rays and patho-

logical tests by the sub-committee on Medical Aspects of the Sports Medicine Consultative Committee to the National Sports Council.

Findings

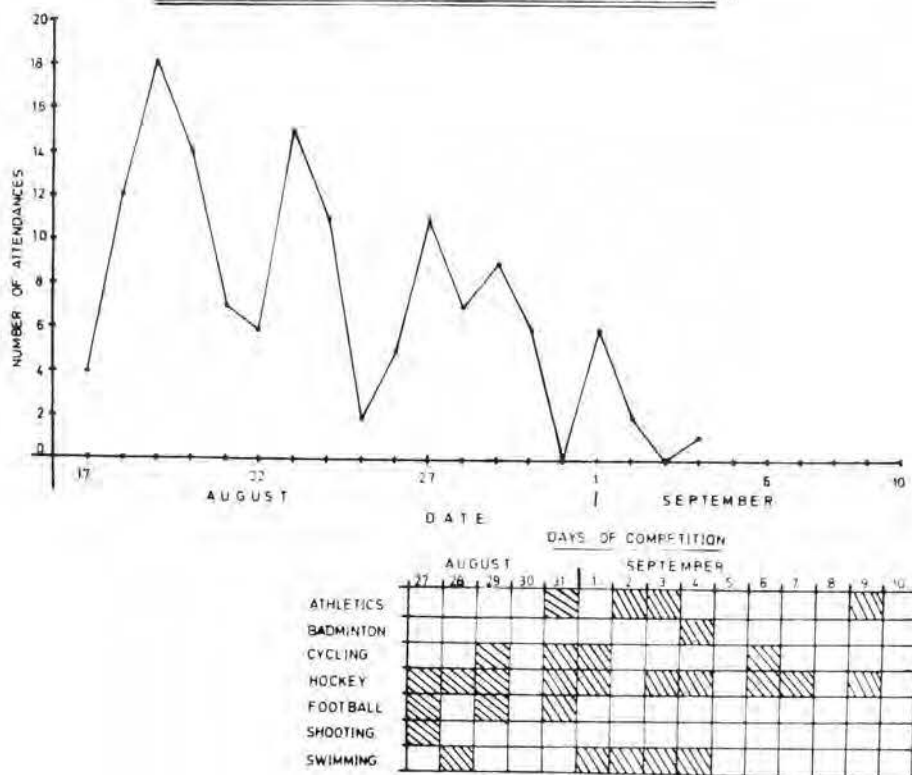
Illnesses and injuries recorded in this paper were those that occurred throughout the duration of the team's stay in Munich and were attended to by the author in the contingent's clinic.

Figure I shows the trend of the daily attendances at the team's clinic and includes not only the medical problems of the athletes but also of the officials, pressmen and supporters who sought medical attention. Further discussion in this paper will be restricted to athletes only as it is assumed that the pattern of complaints among officials and supporters would in no way differ from those encountered in ordinary general practice.

The medical problems that the athletes faced while in Munich can be divided into two categories:

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FIGURE 1 - FREQUENCY OF ATTENDANCE AT THE MALAYSIAN TEAMS CLINIC



- (a) Those that were directly related to their participation in their particular sport, which will from now on be referred to as athletic injuries.
- (b) Incidental illnesses — medical conditions which were not directly brought on through participation in sporting activities.

Table I shows the breakdown of these episodes in relation to the different disciplines of sport.

Tables II (a) and (b) list out the medical conditions encountered and their relative frequency of occurrence among the different groups. Table II (a) refers to athletic injuries while Table II (b) refers to incidental illnesses.

The classification of athletic injuries follows as far as possible the recommendations laid down by the American Medical Association in its handbook "Standard nomenclature of athletic injuries" (1968).

There were 38 separate episodes of injuries due to athletic activity and 19 of incidental illness. In

a number of cases, one particular athlete suffered from more than one separate complaint in either or both categories.

Of the total contingent of 57, 32 sought medical attention at some time or other, giving a percentage of 56.1; 25 athletes sought attention for athletic injuries while 16 (including nine from the previous category) suffered some form of incidental medical illness.

Illness or injury in nine athletes was severe enough to affect their performance adversely.

Discussion

Looking at Figure I showing total number of attendances per day at the author's clinic, it can be noticed that there was an initial peak on the 2nd-4th days. This could be due to a number of factors, namely:—

- (a) The change of climate and environment.
- (b) The fact that the hockey and athletic teams had arrived earlier in Europe and had

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Table I

Frequency of episodes of illnesses/injuries in the different categories of sportsmen.

Type of Sport	Total No. of Competitors	Injuries / Illnesses				Total No. of athletes affected	Percentage affected
		Activity related		Incidental			
		No. of athletes affected	Total No. of episodes	No. of athletes affected	Total No. of episodes		
Athletics	9	4	5	3	5	6	66.6%
Badminton	3	1	1	—	—	—	33.3%
Cycling	4	—	—	—	—	1	0%
Football	19	9	15	7	8	12	63.1%
Hockey	19	10	15	5	5	11	57.8%
Shooting	1	—	—	—	—	—	0%
Swimming	2	1	2	1	1	2	100%
Total	57	25	38	16	19	32	56.1%

Table II (a) — Athletic injuries.

Type of Injury	Frequency according to type of sport						
	Athletics	Badminton	Cycling	Football	Hockey	Shooting	Swimming
1. Contusion (14)	—	—	—	7	7	—	—
2. Laceration (3)	—	—	—	—	3	—	—
3. Muscle Strains (pulls)							
(a) hamstring (5)	1	1	—	2	—	—	1
(b) gastrocnemius (1)	—	—	—	—	1	—	—
(c) adductors of thigh (3)	1	—	—	2	—	—	—
(d) gluteus maximus (1)	1	—	—	—	—	—	—
4. Ligament Injuries							
(a) sprained ankle (3)	1	—	—	1	1	—	—
(b) sprained medial ligament of knee (2)	1	—	—	1	—	—	—
5. Miscellaneous							
(a) forefoot metatarsalgia (1)	—	—	—	—	1	—	—
(b) peroneal tenosynovitis (2)	—	—	—	—	2	—	—
(c) bruised heel (1)	—	—	—	1	—	—	—
(d) plantar fasciitis (1)	—	—	—	—	—	—	1
(e) recurrent patella dislocation (1)	—	—	—	1	—	—	—

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Table II (b) — Incidental illnesses.

Type of Illness	Frequency of occurrence according to type of sport						
	Athletics	Badminton	Cycling	Football	Hockey	Shooting	Swimming
1. Gastroenteritis (2)	2	—	—	—	—	—	—
2. Conjunctivitis (1)	—	—	—	1	—	—	—
3. Upper Respiratory Tract Infection/Pharyngitis (12)	3	—	—	5	3	—	1
4. Abscess (1)	—	—	—	1	—	—	—
5. Gastritis (1)	—	—	—	—	1	—	—
6. Dermatomycosis (2)	—	—	—	1	1	—	—

sustained injuries but had deferred treatment until the main contingent had arrived.

One would also notice another peak just prior to the competitions began. This, perhaps, is due to the fact that the athletes have been experiencing pre-competitive tension. Another factor is a number of "friendly" competitions played by the hockey team. In the "friendly" games, the umpires tended to be less strict and hence the chances of injury were higher.

One may be surprised to note that as the competitions commenced, the number of attendances at the clinic decreased. During this period, the athletes were so preoccupied not only with their own participation but also in watching other competitions and tended not to seek medical attention for minor problems. Even injured athletes, who were supposed to have physiotherapy daily, tended to stop coming for treatment once their own particular event was over.

The different conditions that were encountered will now be discussed in greater detail.

A. Sports Injuries

Williams (1971) divides all sports injuries into two basic categories:

- (a) Consequential.
- (b) Non-consequential.

Consequential injuries are those that arise from the participation in sports or of training for sport.

Non-consequential injuries are those due to other non-sporting causes but which interfere with the practice of sport.

Consequential injuries may be further classified as primary or secondary. Primary injuries are those directly due to sports activity. Secondary injuries arise because of immediate or past pre-

sence of some other untreated, partially treated or mistreated injury.

The causes of primary injuries may be **extrinsic** — due to human, implemental, vehicular or environmental causative agents; or **intrinsic** — due to some failure in the coordination of the individual.

Secondary injuries are necessarily due only to **intrinsic** factors.

In the Malaysian Olympic Team, the commonest injuries encountered were contusions, lacerations and muscle strains.

Contusions and lacerations are due to direct trauma caused by either human or implemental agents. It is not surprising, therefore, that all such cases seen in this series were from members of the hockey and football teams. Lacerations were only seen in hockey players. This is also expected as in hockey there are two potential sources of injury — the stick and the ball, in addition to the risks of bodily contact as is encountered also in football.

It is interesting to note that the cyclists suffered no injuries. This is because in cycling the incidence of injuries is unpredictable and depends on whether there has been a collision or mishap and it was just fortunate that members of our cycling team were not involved in any such accident. Cycling events are run on both the road and in the velodrome. In Munich, the velodrome was exceptionally steeply banked and our lone cyclist kept out of the way of the others by not making much use of the banking which was unfamiliar to him.

Minor contusions, abrasions and lacerations are considered by many of our footballers and hockey players as being part and parcel of their activity

and they usually do not seek medical attention for these complaints unless these are severe enough. This emphasises the need for routine anti-tetanus prophylaxis in all outdoor sportsmen.

Muscle strains, otherwise known by athletes as "pulls", can vary in severity depending on the circumstances during which such injury is sustained. Muscle strains are due to the tearing of muscle fibres or connective tissue of muscle and since muscle is so vascular, the immediate effects are internal haemorrhage, swelling, pain and loss of function of the affected part. Treatment is aimed at minimising the initial bleeding and once the stage of active bleeding is over, to apply physiotherapy so as to hasten healing and prevent adhesions. Muscle strains usually occur in athletes who have to perform "explosive" movements, such as sprinting and jumping. Of the ten cases of muscle strain encountered, only one occurred during actual competition and was severe enough to necessitate withdrawal from further competition. The other cases were less severe and remedial procedures were satisfactory enough to enable the athletes to continue participation.

B. Incidental illnesses

Most of the cases in this category belonged to the expected episodes of upper respiratory tract infections and gastroenteritis.

In a team which is housed together, infectious diseases of the upper respiratory tract are bound to spread rapidly throughout the team, particularly among roommates and the incidence of upper respiratory tract infections were minimised by placing the patients in an isolation room during their period of infectivity. Why some persons are more susceptible to such infections than others is a matter for debate but it has been pointed out by other authors that physical fitness does not necessarily go together with increased resistance to infection.

Only two cases of gastroenteritis occurred. This was probably due to the fact that except in a

few instances, members of the team were in the Olympic Village where preparation and serving of food was under strict supervision. Another possibility was that many cases with mild symptoms did not report for treatment. This was in sharp contrast to the Mexico Olympics where the fear of gastroenteritis was second only to that of the high altitude.

Dermatomycosis is another complaint for which the athletes seldom sought medical attention unless pruritus and scaling were severe and the lesions were unsightly. This explains the low incidence of such complaints in this series.

Conclusion

There is a wide range of injuries and medical problems that athletes in international games can experience and this was evidenced by the fact that 56.1% of our team had to seek medical attention.

Each particular sport had its own pattern of injuries and the football and hockey players were more susceptible to injuries of the primary **extrinsic** type, while athletes who performed in individual events suffered more from injuries of the **intrinsic** type.

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