Smoking Patterns and Physical Fitness in a Gurkha Infantry Battalion†

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SUMMARY: The aims of this paper are to illustrate the average tobacco consumption in an Infantry Battalion of the Brigade of Gurkhas in an attempt to relate this to fitness standards. The discernable smoking trends are compared with data published and unpublished from the British and other European Armies. The daily routine of a Gurkha soldier is described and the results of a basic fitness test are examined.

†Paper presented at Preventive Medicine Group Symposium, RAOC Training Centre, Deepcut, Surrey on 30 April 1985.

Background

Gurkha is the name given to Nepali soldiers who serve in the British Army. They have done so since 1815.

Most of the present day Gurkhas have been recruited in their home villages at the foot of the Himalayas. In these hamlets all the outside supplies must be carried by man or donkey.

The Nepali villager and his equivalent in the Army, the Gurkha soldier, are therefore well used to daily intensive physical effort often carrying weights uphill.

Smoking Trends

A questionnaire was devised and sent for completion to each soldier on the strength of the Unit. The results can be seen in Figure 1. There were no non-responders

to the questionnaire. Exactly 200 members of the battalion (32%) were cigarette smokers.

The number of heavy smokers (20 cigarettes or more a day) were 42 (6.5%). No pipe or cigar smokers were present in our population (Table 1).

The remaining 446 were either lifelong non-smokers, ex-smokers (here defined as abstention from cigarettes for longer than one year) or Khaini users. Khaini is a mixture of tobacco and lime which is placed between the gum and the lip and absorbed, but not smoked.

The majority of the 75 Khaini users were below the age of 30. This is only partly explained by the bias introduced by the high numbers of soldiers under 30.

These figures compare favourably with figures from a survey carried out amongst young French Servicemen¹.

Table 1
Breakdown of Male Personnel's tobacco consuming habits. 1st 7th Gurkha Rifles, 1984.

Cigarette Smokers

Daily	Age 18-30	31-35	36-40	41 and over	Total
1-9	73	10	4	2	89
10-19	49	15	2	1	67
20 or more	27	6	8	3	44
TOTAL	149	31	14	6	200

Non-Smokers (including 64 ex-smokers)

Age 18-20	31-35	36-40	41 and over	Total
295	49	24	3	371

Khaini Eaters

Age 18-30	31-35	36-40	41 and over	Total
70	3	1	1	75

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Figure 1 Cigarette Smoking Survey Results 1st 7th Gurkha Rifles 1984. Breakdown of Cigarette Smokers by Age and Consumption. The Group Aged 41 and Over is not represented because of the small population numbers involved.

In that survey 73% (1,328) of young males beginning their military service in the French Armed Forces in 1980 smoked cigarettes, 34% (621 individuals) of this sample being heavy cigarette smokers. The total population of this study was 1,829 (Fig. 2).

The difference in percentage between cigarette smokers and non-smokers and also between heavy smokers in our sample and in the French survey is highly significant ($P > 0.001$).

The same favourable comparison can be made with a British mechanized infantry battalion surveyed by the author in 1985, in which 76.8% of the total strength of the unit were cigarette smokers with 61.3% being heavy cigarette smokers (20 or more a day).

These last data are in broad agreement with a survey of BAOR soldiers' smoking habits undertaken in 1980 (Crawford, personal communication) and smoking surveys on British troops in the 60s and 70s².

Data from Nepal on smoking habits of the young population are scarce, but one source claims that as many as 41% of youths above the age of five smoke in one District of Nepal³.

The Daily Routine of a Gurkha Rifleman

Table 2 is the half-weekly training programme of a Rifle Company. As can be seen approximately three hours a day are devoted to the physical fitness training programme, sports and field training take up another three hours a day.

Fitness training and sports are taken very seriously by all, as the results of the Basic Fitness Test (BFT) show.

Table 2
Half-Weekly Training Program for a Rifle Company
1st Battalion 7th Duke of Edinburgh's Own Gurkha Rifles

Day	0730-0800	Breakfast	0900-1240	Lunch	1345-1515	1515-1750
Wednesday	BFT Training		Ambush Lecture		English Lesson	Sports
Thursday	BFT Training		Section Fire and Manoeuvre		Section Fire and Manoeuvre	Sports
Friday	BFT Training		Patrol Practice		Battalion Fatigues	Sports
Saturday	BFT Training		Weapon Care			

Table 3
Basic Fitness Test (BFT) of January 1984
1st Battalion 7th Duke of Edinburgh's Own Gurkha Rifles
Pass Rate by Age Group and Timings

Age Group	Number Tested	Pass > 1 Minute Below Target Time	Normal Pass	Fail
40-44	12	12	NIL	NIL
35-39	26	23	3	NIL
30-34	43	28	15	NIL
29 or below	231	172	59	NIL
TOTALS	312	235	77	NIL

The Basic Fitness Test of January 1984

The BFT consists of a first part of 1½ miles, which is considered a warm-up, partly run and partly walked, and a second part which is an individual best effort which must be completed within the time allocated, which increases with older age groups.

The BFT is mandatory for all ranks twice yearly and must be run wearing Combat boots.

In January 1984 the author's unit took its BFT as part of a competition with other Major Units in the Station. Half of the military personnel were selected by external assessors to run the test and given 24 hours' notice. The runners included the Commanding Officer. The results are given in Table 3.

As can be seen the pass rate was 100%, and 235 out of 312 runners (74%) arrived with a minute or more to spare at the finish line. No published data are available to compare these results with similar results from a British Major Unit.

Discussion

It is impossible to quantify the exact level of fitness of a group. This is especially so in the absence of cardiovascular data. The evidence which I have presented seems to leave little doubt that a Gurkha soldier is a very fit individual who regards exercise as a part of his life. It is notable that 1st 7th Gurkha Rifles' results were bettered by a similar unit which ultimately won the competition.

It is also encouraging to note that the incidence of cigarette smoking is notably lower in a Gurkha battalion

Figure 2 Cigarette Smoking Habits of French Conscripts, a British Mechanized Infantry Battalion and 1st 7th Gurkha Rifles (excluding Khaini eaters). French Conscripts after J-G Bernard et al.
N = Number

than in its European counterparts. The Author has more recent evidence of an even lower percentage of smokers in another Gurkha unit⁴, an astonishing 11%.

The reasons for this are not wholly clear, but the environment in the Brigade of Gurkhas and the education received while still recruits seem to have a beneficial effect. The absence of tobacco advertising in the Gurkha Service environment and certain areas of Nepal is probably beneficial as well.

Acknowledgement

The Author would like to thank Colonel I P Crawford GM, L/RAMC and Colonel C J Lewthwaite L/RAMC for the help received in writing this paper.

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