

Smoking habits among medical students in the University of Malaya

By: I. Pathmanathan

Department of Social and Preventive Medicine
University of Malaya.

The health hazards of cigarette smoking have been extensively documented, and the smoking habits and morbidity associated with smoking have been investigated in several communities. In many countries restriction of sales promotional activities are coupled with attempts at publicising the health hazards in an effort to reduce the prevalence of cigarette smoking. The role of the medical profession has been repeatedly emphasised and the Report of the Royal College of Physicians, London 1970 stated that "doctors should abstain from smoking and take every opportunity to urge their patients to follow their example. Medical students should be instructed about the effects of smoking and their responsibilities in this matter must be brought home to them".

In Malaysia, there is little epidemiological information on the smoking habits of Malaysians or of the morbidity associated with smoking. However, local cigarette tobacco production has increased from 12.9 million lbs in 1966 to 16.7 million lbs in 1970. There is no restriction on cigarette sales promotion, and little community wide publicity on the health hazards of smoking. However the medical undergraduate programme in the University of Malaya does emphasise the health consequences of smoking. The aim of this study was to investigate the smoking habits of Malaysian medical students and compare them with studies on their counterparts in other parts of the world.

METHOD

A questionnaire intended for self completion

was administered during September – November 1972 to each class of medical students during laboratory sessions of the entire class in which students occupied individual desks. The questionnaire was distributed by the lecturer in charge who emphasised that the questionnaire was anonymous. Students who did not wish to participate were advised to return their questionnaires uncompleted and non response was calculated by the number of blank forms that were returned. Students who were absent at the class were subsequently administered the questionnaire on an individual basis. The questionnaire which was based on the pattern used by the U.S. Bureau of Census to collect data on the smoking histories of the people in the U.S. was in four short sections – personal identification data (other than name), personal smoking habits, parental smoking habits and personal educational background. Students who claimed to be smoking at least one cigarette a day or an average of more than 7 cigarettes a week were classified as regular smokers while others were designated occasional smokers. Those who had only taken a few puffs were regarded as never having smoked. Although students were not forbidden to discuss their questionnaire with each other, most students completed and returned their questionnaires in 10–15 minutes and few students indulged in discussion. Students who indicated on their questionnaire that they were in doubt as to the meaning of any question were coded as "UNKNOWN" for that characteristic.

RESULTS

The 654 matriculated students came from every

TABLE I
ETHNIC GROUP, SEX AND SMOKING HABIT OF MEDICAL STUDENTS

SMOKING HABIT	SEX				ETHNIC GROUP						
	MALE		FEMALE		MALAY		CHINESE		IND. & OTHERS		TOTAL
	No.	%	No.	%	No.	%	No.	%	No.	%	
CURRENT	125	25.2	2	1.6	46	28.2	62	16.3	19	23.5	
BEFORE	88	17.7	0	0	22	13.5	54	14.2	12	14.8	
NEVER	284	57.1	126	98.4	95	58.3	265	69.5	50	61.7	
TOTAL	497	100.0	128	100.0	163	100.0	381	100.0	81	100.0	625
	df = 2 X ² = 76.99 p < 0.001				df = 4 X ² = 10.97 0.02 < p < 0.05						

State in the country. There were students from each of the three major ethnic groups resident in the country and 80.3% of the students were males.

Over 95% of the students returned adequately completed questionnaires. The non response rate ranged from 4.5% among Chinese students' to 5.5% among Indians. Among males the non-response rate was 5.3% while only one female did not respond.

Of the 625 respondents, 20.3% claimed to be

current smokers while a further 14.1% had smoked previously. The smoking habit was confined almost entirely to male students, there being only two female students who had ever smoked. Among the three major ethnic groups, Malay students had the highest proportion (28.2%) of current smokers compared to 16.3% amongst Chinese and 23.5% amongst Indians and others. The association between ethnic group and smoking habit was significant at the 0.05 level.

TABLE II
AGE DISTRIBUTION, YEAR OF ENTRY AND SMOKING HABITS OF MALE MEDICAL STUDENTS

	AGE				YEAR OF ENTRY			
	< 22 yrs		22 yrs+		1971-72		1966-70	
	No.	%	No.	%	No.	%	No.	%
Current	23	15.1	96	30.5	26	15.7	91	28.8
Previous	30	19.7	52	16.5	33	19.9	53	16.8
Never	99	65.1	167	53.0	107	64.5	172	54.4
TOTAL	152	100	315	100	166	100	316	100.0
	Age unknown: 30 df = 2 X ² = 12.73 0.001 < p < 0.01				Year of Entry unknown: 15 df = 2 X ² = 10.214 0.001 < p < 0.01			

Age group and year of entry

Among the male students, an average of only 15.5% were currently smoking during their first two years in the Faculty. However during the third year of university life 25.7% became current smokers and there was an average of 28.8% current smokers among students who remained in the faculty for the third, fourth, fifth and sixth year. Similarly, among students below the age of 22 years only 15.1% were current smokers while 30.5% of those aged 22 years and above were smoking currently ($p < 0.01$).

Age started smoking

Of the 215 students who had ever smoked 37 could not recall the age at which they started the habit. Of the 178 (82.8%) who responded to this question 43.8% had been introduced to the habit during the ages 18–20. The ethnic variation in age of starting was small and not significant.

Parental smoking habit

607 students reported on their father's smoking habits compared to only 483 who gave information on maternal smoking habits. There was no association between student's smoking status and paternal smoking habit. The relatively poor response rate for information on maternal smoking habits which was probably due to weakness in questionnaire design makes it difficult to assess association between maternal and student's smoking habits.

Regularity of smoking habit

Of the 127 current smokers 80 (62.9%) claimed to be regular in their habit, the others being occasional smokers. 78 of these regular smokers provided information on the amount they smoked and only 19 admitted to smoking an average of more than 10 cigarettes a day. There was no significant association between ethnic group and either regularity of habit or the amount smoked.

TABLE III

PARENTAL AND STUDENTS' SMOKING HABITS

STUDENT'S SMOKING HABIT:	FATHER'S SMOKING HABIT*				MOTHER'S SMOKING HABIT					
	YES		NO		YES		NO		UNKNOWN	
	No.	%	No.	%	No.	%	No.	%	No.	%
CURRENT	74	59.7	50	40.3	24	18.9	83	65.4	20	15.7
BEFORE	55	63.2	32	36.8	6	6.8	57	64.8	25	28.4
NEVER	212	53.5	184	46.5	36	8.9	277	67.6	97	23.5
TOTAL	341	—	266	—	66	—	417	—	142	—
*Father's habit unknown: 18 (2.9%) $\chi^2 = 3.492$ $df = 2$ $0.01 < p < 0.2$										

TABLE IV
REGULARITY OF BACKING HABIT AND AMOUNT SMOKED

	CURRENT SMOKER'S HABITS				AMOUNT SMOKED BY REGULAR SMOKERS*				
	Regular		Occasional		1 - 9		10 - 39		TOTAL
	No.	%	No.	%	No.	%	No.	%	
MALAY	30	66.7	15	33.3	23	82.1	5	17.9	28
CHINESE	37	59.7	25	40.3	27	73.0	10	27.0	37
INDIAN/OTHERS	13	65.0	7	35.0	9	69.2	4	30.8	13
TOTAL	80	63.0	47	37.0	59	75.6	19	24.4	78
	$\chi^2 = 0.59$ $df = 2$ $0.7 < p < 0.8$				*Amount smoked unknown = 2 students $df = 2$ $\chi^2 = 1.07$ $0.5 < p < 0.7$				

DISCUSSION

The Malaysian medical profession has displayed a sporadic interest in the health hazards of smoking in the community but this has not yet resulted in any organised sustained measures to counter the economic, commercial and social pressures favouring cigarette smoking. In the Malaysian medical undergraduate curriculum students are made aware of the mortality and morbidity as well as the socio economic and psychological factors associated with cigarette smoking. The topic is discussed in lecture, or seminar form as well as in patient-case discussions during the second through to the fifth year of the course.

Despite the access to information on smoking

hazards Malaysian medical students have a higher smoking rate (20.3%) than their counterparts in the Faculties of Engineering, Education, Agriculture and Science (15.5%)⁽¹⁾. Comparison of smoking habits among Malaysian and Glasgow medical students⁽²⁾ showed that male Malaysians smoke more (25.2%) than their Glasgow counterparts (19.8%). Malaysian females hardly indulged in the habit (1.6%) compared to their Glasgow sisters who had rates similar to their male counterparts.

Both in Malaysia and in Glasgow, smoking prevalence increased suddenly from approximately 16% to 27% after two (Malaysian) or three (Glasgow) years of University life. Physicians in the United Kingdom have been seen to have lower smoking

TABLE V
COMPARISON OF MALAYSIAN AND GLASGOW MEDICAL STUDENTS

	Total No. of Matriculated Students	% responding to questionnaires	Percentage current smokers		
			M	F	Both
Malaysian 1972	654	95.6	25.2	1.6	20.3
Glasgow 1971	749	95.3	19.8	17.5	19.1

rates after wide publicity given to medical and scientific evidence on the health hazards associated with smoking⁽³⁾. Malaysian medical students have a higher smoking rate during the years when they are studying this evidence than during the years immediately preceeding. It would be interesting to study the factors contributing towards this phenomenon.

It is of note too that among Malaysian students, Malays had a higher smoking rate than the Chinese. But the smoking habits of students and their fathers was not associated. Since all the students live and work in the same environment during most of their years in the Medical faculty, the reasons for the ethnic difference in smoking rate is another interesting question.

SUMMARY

In a study during 1972 of smoking habits of Malaysian medical students, smoking rates of medical students was seen to be higher than that of students in four other faculties in the University of Malaya. Male Malaysian medical students had higher smoking rates than their counterparts in Glasgow in 1971 but Malaysian females had very low smoking rates.

Despite the fact that in the medical curriculum students are made aware of the scientific evidence on the health hazards of smoking, smoking rates were higher in students in their later years of study. Ethnicity was associated with smoking rates although father's smoking habit was not — and Malays had the highest smoking rates.

REFERENCES

1. Pathmanathan, I. (in preparation)
2. McKay A.J., Hawthorne, V.M., and McCartney H.N. (1973) *British Medical Journal* *1*, 540–543.
3. Doll, R. and Hill, A.B. (1964) *British Medical Journal* *1*, 1399.