SMOKING IN A LOCAL COMMUNITY IN SINGAPORE

H.P. Lee
K.S. Ng
K.H. Chan
H.L. Liang

SYNOPSIS

A survey was conducted on the smoking habits of residents in a local Housing & Development Board estate (Telok Blangah New Town, Neighbourhood 1). It is essentially a low-income community, but with demographic characteristics reflective of the Singapore population. Interviews were conducted by 20 medical students during the first week of May 1978.

22.8% of the respondents aged 10 years and above were current smokers, with males predominating 5 to 1. 5% were ex-smokers. Prevalence was higher at succeeding decades, from about 6% at 10.19 to 44% and 50 and above. The rate for Malays seemed to be higher, although statistically not significant. 95% of the smokers were on cigarettes, mainly filtered. 44.3% of these smokers were light ones (1-9 per day) and only 18% were on 20-39 per day, giving an average of about 13 per day overall. Majority of smokers started in their late teens and early twenties, mainly due to social/peer-group pressure and curiosity. About 56% attempted to stop but failed.

Non-smokers, who formed 70% of the respondents, were asked to express their views. Almost 50% of them refrained from the habit because they thought it was "bad for health". About 70% of the females and 50% of males objected to others smoking in their presence, with the majority in both groups for banning of the practice from all public places.

The survey has helped to indicate certain target-groups for an anti-smoking programme. For purposes of education and motivation, there are the males, Malays and teenagers. For supportive therapy, there are the smokers who are making attempts to stop.

Department of Social Medicine and Public Health
University of Singapore

H.P. Lee, MBBS, M.Sc (P H), AM

Medical Students
K.S. Ng
K.H. Chan
H.L. Liang

INTRODUCTION

Epidemiological studies over the last 25 years have demonstrated associations between cigarette smoking and lung cancer, some other cancers, coronary heart disease, bronchitis and emphysema and low birth weights (W.H.O. 1975). With additional data from more recent studies, there are good reasons to indicate that some of these associations

are causal relationships notwithstanding the fact that there are other factors to be considered including genetic susceptibility. Undoubtedly, cigarette smoking has become a major challenge to preventive medicine today, rousing world-wide interest and concern.

The first National Morbidity Survey in Singapore (Ministry of Health, 1976/77) showed that 23% of our population aged 15 years and above smoked at least one cigarette a day. According to the Tobacco Research Council (1975), the estimated tobacco consumption in Singapore seemed to have increased from an average of 2,330 cigarettes per adult (defined as aged 15 and above) in 1964 to 2,490 cigarettes in 1973. In terms of weight, it was 5.9 lbs of tobacco per adult in 1964 and 6.3 lbs in 1973. Although the increases were marginal, the trend is certainly undesirable.

Any further information to complement present estimates of smoking rates would help to provide a better understanding of this problem in Singapore. As part of a community health survey undertaken annually as an academic exercise by third-year medical students, a special project on smoking was conducted in a local community. The objectives were as follows:—

(a) To determine the prevalence rates of smoking in the community;

(b) To investigate some social aspects of the practice;

(c) To ascertain some opinions and attitudes of non-smokers.

MATERIALS AND METHODS

The survey was conducted in a low-cost housing estate which represents the mode of habitation for 56% of Singapore's population (HDB 1976/77). The community delineated for the study, in Neighbourhood I, Telok Blangah New Town, is now about 5 years old.

The study area comprised about 1400 apartments, about 60% of which was of the 1-room type and the rest 3-and 4-room units. (2 blocks of 5-room units in the locality were excluded from survey). Based on stratified random sampling, a sample of 118 units was obtained (about 1 in 13). This was to provide the respondents for the interview survey.

All those aged 10 years and above were asked to co-operate with the study. They were visited during the first week of May 1978 by 10 teams of 2 medical students each, all of whom were involved in the planning and briefing during the previous week. Interviews were conducted in English, Malay or one of the major Chinese dialects with the help of pre-determined translations.

A current smoker is one who smokes daily, irrespective of the number of cigarettes smoked. Ex-smokers are those who succeeded in stopping the habit after having been a regular smoker.

RESULTS

Response

Out of the 118 flats sampled, only 92 (78.0%) responded. This provided a potential survey population of 343 persons aged 10 years and above, of which 281 (81.9%) responded.

Among the non-respondents were those who could not be contacted on at least 3 occasions, being away on holiday, at work or with relatives. A small number refused to co-operate, the reasons being mainly apprehension of strangers and general disinterest. None of the refusals were attributable to questions relating to the practice of smoking and there was no reason to suggest any bias in the group that responded.

The survey population coincided closely in proportion to Singapore's 1976 estimated population in terms of ethnic-grouping (Table I). The age-distribution showed a slightly younger group compared to the general population. There were slightly more females in the group, giving a ratio (M : F) of 0.77. It is essentially a low-income group, more than 50% of whom having household incomes of less than $150/= per head.

TABLE I

Demographic characteristics of survey respondents compared with Singapore population (1976 estimates)

Characteristic	Study population		Singapore (1976)
	No.	%	%
Sex:			
Male	122	43.4	51.0
Female	159	56.6	49.0
Ethnic group:			
Chinese	209	74.4	76.1
Malay	46	16.4	15.1
Indian	25	8.9	6.9
Others	1	0.4	1.9
Age-group:			
10-29	161	57.3	56.8
30-49	95	338	26.7
50 + above	25	8.9	16.5

Prevalence rates

The prevalence of smoking at the time of survey was 22.8% in this group of 10 year-olds and above (Table II). Males were predominant in the ratio of 5.4 : 1 ($p < 0.01$).

Malays seem to have higher rates compared to Chinese and Indians, although the differences are not statistically significant.

Successful ex-smokers formed 5.0% of the population. Thus the overall rate for persons who have ever smoked was nearly 30%, not including experimental smokers who would have tried once or twice without becoming regular smokers.

The prevalence rates were higher at succeeding age-groups, starting with about 6% in the 10-19 group. There was none in the sub-group 10-14 years, thus all the smokers were at least 15 years of age. The 50 and above group with a rate of 44% included many males who were smokers (Figure 1).

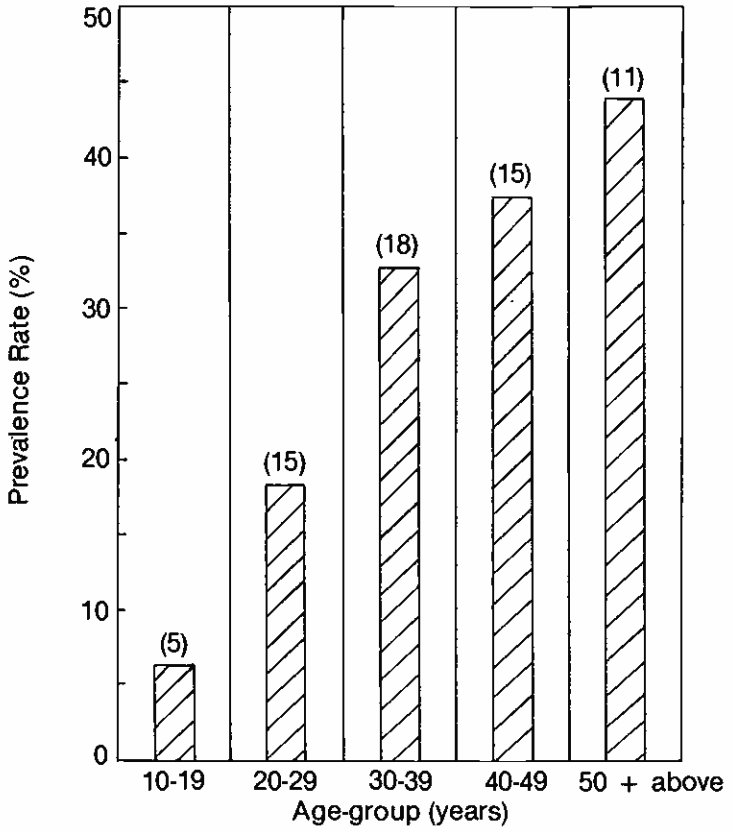
TABLE II

Prevalence of smoking, by sex and by ethnic group

Characteristics	Current smokers		Ex-smokers		Ever smoked	
	No.	Rate (%)	No.	Rate (%)	No.	Rate (%)
Sex:						
Male	54	44.3	11	9.0	65	53.3
Female	10	6.3	3	1.9	13	8.2
Both sexes	64	22.8	14	5.0	78	27.8
Ethnic group:						
Chinese	45	21.5	8	3.8	53	25.3
Malay	13	28.3	2	4.3	15	32.6
Indian	6	24.0	3	12.0	9	36.0

(Note: all respondents are aged 10 years and above).

Figure 1 Prevalence of current smoking, by 10-year age groups.



( ) figures in brackets refer to absolute numbers.

Types and dosages of tobacco-products smoked (Table III)

About 95% of all smokers were on cigarettes, with filtered ones outnumbering non-filtered by almost 5 to 1. A very small minority smoked pipes or cigars.

44.3% of the cigarette smokers were light smokers, taking 1-9 sticks per day, with an almost even distribution between 1-4 and 5-9 cigarettes. Only about 18% were heavy smokers, that being 20-39 per day. None took more than 40 per day.

Initiation of practice (Table IV)

About 70% of the males and 50% of the females who ever smoked started at 21 years and below, the majority starting in their teens. Very few started below 10 years.

More of the females started after 22 years, with a small minority starting after 25 years in both sexes. Thus, nearly all smokers started in their teens and early twenties.

The main reason for initiation was social/peer group pressure — due to influences at home or from friends, accounting for almost 50% of all concerned. Among the younger initiators (aged 21 and below) another major reason was curiosity about the effects of smoking. This was not the case for those who started later where the next important reason was pressure due to problems at work and in the family.

TABLE III

Type and dosage of tobacco-products smoked

	No.	%
Type:		
Cigarette — filtered	50	78.1
Cigarette — non-filtered	11	17.2
Cigars/Pipes	3	4.7
Total	64	100.0
Dosage of cigarettes:		
1 — 9	27	44.3
10 — 19	23	37.7
20 — 39	11	18.0
40 +	0	—
Total	61	100.0

TABLE IV

Initiation of smoking among all who ever smoked

	Age at initiation				TOTAL	
	21 + below		22 + above			
	No.	%	No.	%	No.	%
Sex:						
Male	45	69.2	20	30.8	65	100.0
Female	6	46.2	7	53.8	13	100.0
Main Reason:						
Social/Peer-group pressure	24	47.1	12	44.4	36	46.1
Curiosity	19	37.3	5	18.5	24	30.8
Work/Family pressure	4	7.8	8	29.6	12	15.4
Others	4	7.8	2	7.4	6	7.7
Total	51	100.0	27	99.9	78	100.0

Cessation of practice

Close to 60% of the male smokers and 40% of the females attempted to stop but failed, (Table V). It is not known what methods were used, and who these smokers were in terms of age of initiation and dosage of smoking.

Among those who are now ex-smokers, 64% of them attributed their success to self-determination (Table VI). The rest had help from family members, friends and colleagues. None had heard of any public therapeutic programmes like the 'Five Day Plan'.

Attitudes of non-smokers

There is no difference in the main reasons for not smoking between the males and females. The most often mentioned reason is that it is "bad for health", accounting for almost 50% of all non-smokers (Table VII). Another quarter did not like the practice or the taste. The other minor reasons include waste of money, objection from parents and social etiquette ("improper for women to smoke").

A larger population of the females (72%) compared to males (52%) objected to others smoking in their presence (Table VIII). The majority of these people in both sexes thought that smoking should be banned from all public places.

TABLE V
Attempts at cessation among current smokers, by sex

Attempts	Male		Female		Both sexes	
	No.	%	No.	%	No.	%
Never tried	22	40.7	6	60.0	28	43.8
Tried but failed	32	59.3	4	40.0	36	56.2
Total	54	100.0	10	100.0	64	100.0

TABLE VI
Methods used by successful ex-smokers

Method	No.	%
Self determination	9	64.3
Family	1	7.1
Others (unspecified)	4	28.6
Total	14	100.0

TABLE VII
Main reasons for not smoking

Reason	No.	%
Bad for health	99	48.8
Waste of money	16	7.9
Parents' objection	6	2.9
Personal dislike	55	27.1
Others	14	6.9
Unknown	13	6.4
Total	203	100.0

TABLE VIII
Non-smokers' attitudes on public smoking, by sex

Attitude	Male		Female		Both sexes	
	No.	%	No.	%	No.	%
Objection to others smoking and ban in public places	26	45.6	95	65.1	121	59.6
Objection but no ban	3	5.3	10	6.8	13	6.4
No objection	28	49.1	41	28.1	69	34.0
TOTAL	57	100.0	146	100.0	203	100.0

DISCUSSION

The overall prevalence rate of current smoking in this community was about 23% in all persons aged 10 years and above, with none of the smokers below 15 years. This seems to reflect the findings of the National Morbidity Survey — a similar 23% in the population of 15 years and above. Thus, it is reasonable to estimate that current smoking rates are about 20-25% of all teenagers and adults in Singapore. This is a sizeable problem in view of the increasing mortality due to lung cancer and ischaemic heart disease.

The main findings of this survey were as follows:-

(a) Male smokers were predominant (about 5 to 1) and they tended to start in their late teens, whereas females though still a small group tended to start later in their early twenties.

(b) Prevalence was higher at each succeeding decade, from about 6% in the 10-19 age-group to 44% at 50 and above.

(c) Nearly all smokers were on cigarettes, mostly filtered. The majority were light smokers (1-9 sticks a day).

(d) The main reasons for initiating the practice were social and peer-group pressure and teenage curiosity.

(e) A large proportion of smokers (57%) attempted to stop the practice but failed. The successes were few, mainly due to self-determination.

(f) Non-smokers were clearly in the majority and 50% of them acted on the basis of their health-consciousness. The majority objected to others smoking in their presence, especially in public places.

The results therefore substantiate most of those obtained by the National Survey, including the apparent predominance of Malay smokers. Although the difference is not statistically significant for this study, unlike the National Survey, it is nevertheless an interesting observation. More attention should be paid to Malays, especially in health educational programmes.

On the average, it was estimated that the cigarette smokers smoked about 13 sticks a day. None took more than 40 a day. This may well be a reflection of the low socio-economic level of the community. While the practice of smoking cuts through all classes, an important limiting factor would be the monetary capacity to purchase cigarettes. Increased taxation on tobacco products may not prevent people from smoking but will certainly limit their dosages in the community.

In 1970, it was estimated that 71% of adult smokers in U.S.A. attempted to stop the habit (Horn, 1972). A much larger proportion (85%) thought of the idea thus indicating the growing trend of smoking withdrawal in countries where concerted efforts have been made to motivate and help smokers. An estimated 10 million smokers in U.S.A. managed to stop the habit from 1966 to 1970, more among males than females.

The finding of more than 50% of smokers in the community who attempted cessation is heartening. But the fact that they failed gives cause for concern. Only a handful managed to succeed. The need for special clinics to help these people cannot be ignored, although views are divergent on who really is the best person to conduct these clinics. As the problem is more a psycho-social one, it would seem that some form of psychological intervention is in order (e.g. group therapy).

Except for a clinic in a private hospital, there is no public smoking withdrawal service in Singapore. Educational campaigns in the various forms must be supported by such a service if they are to generate concrete results.

Ultimately, the most important preventive measure must be to ensure that teenagers avoid picking up the habit. From the various studies done elsewhere, it is to be noted that smoking among adolescents is:

(a) a complex behavioural problem which requires a multi-disciplinary strategy for inducing change (Mausner & Platt, 1971);

(b) more often the result of social, parental and peer-group influence than mere curiosity (McKennell & Thomas, 1967);

(c) a definite indication of the risk of progression from child to adult regular smoking (O'Rourke & Wilson-Davies, 1970);

(d) not usually controlled by mere knowledge of hazards to health and persuasion (Cartwright & Thomas, 1960).

Every effort must be made to portray smoking as a socially undesirable practice, besides causing disease. The impact of good social behaviour by example is crucial, and no programme can succeed without the co-operation of all interested agencies concerned with this problem.

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