

ORIGINAL ARTICLE

SMOKING AMONG MEDICAL WORKERS IN THE
INSTITUTE OF RESPIRATORY MEDICINE (IPR)
HOSPITAL KUALA LUMPUR (SHAMSIR STUDY), 2002.

Sallehudin AB

Institute of Respiratory Medicine, Hospital Kuala Lumpur, Jalan Pahang, 50590 Kuala Lumpur

ABSTRACT

Cigarette smoking is so widespread that even medical workers are not exempted. A cross-sectional survey was conducted among health care workers of the Institute of Respiratory Medicine, Hospital Kuala Lumpur to determine the prevalence of smoking and to assess readiness among the current smokers to quit. A total of 165 workers from all categories was surveyed using a pre-tested self-administered questionnaire. The survey began in Mac 2002 and ended in April 2002. The survey showed that 24.8% of the workers surveyed were current smokers. Only male workers were found to smoke and the prevalence among them was 60.3%. Majority were moderate smokers, smoking between 10 to 20 cigarettes a day and were mainly lower category of workers. Median age of starting to smoke was 17.6 years. There were 20 smokers (52.6%) who were ready to quit. This study found the prevalence of smoking among male health care workers to be higher than males in the general population. The low level of education of these workers seemed to influence smoking status.

Key words: smoking prevalence, quit smoking, health care workers, Institute of Respiratory Medicine

INTRODUCTION

Cigarette smoking is so widespread in Malaysia that even health care workers are not spared from the epidemic. The Alcohol and Tobacco Usage Study Among Malaysians 2000 undertaken by Market Insights Sdn. Bhd, conducted in Selangor and Kuala Lumpur for the Disease Control Division, Ministry of Health, found the prevalence of smoking among adult population aged 18 years and above was 32.1%. The prevalence was higher in males at 54.6% than in females at 5%. Feedback gathered by the Tobacco Control Unit of the Disease Control Division Ministry of Health from reports submitted by the state health departments in 1998 showed that 20% of the health department workers smoked.

The World Health Organization (WHO) has called for further recognition among medical professionals of the problems that smoking brings to their own field and their responsibility in term of personal conduct and appropriate practice. In response to this call, and the fact that Institute of Respiratory Medicine (IPR) being the national referral center for respiratory diseases, whereby smoking related diseases such as lung cancer and chronic obstructive pulmonary cases are treated, this survey was conducted in order to determine the prevalence of smoking among IPR workers and the proportion of current smokers who were willing and ready to quit, so that appropriate action can be taken.

METHODOLOGY

This is a cross-sectional study involving all workers from all categories (including Radicare workers) working in the IPR. The total number of workers in IPR at the time of the study was 165, comprising of 75 males and 90 females. The survey period was between May and April 2002. All unit heads were briefed about the survey with regard to the methods and significance to the institute. Self-administered questionnaires in an envelope were then distributed to all IPR workers through their respective unit heads. After completion, the questionnaire was placed in the envelope and returned to the unit head. All returned questionnaires were collected by the investigators within two to three weeks after distribution.

The questionnaire consisted of five components with a number of items in each component. There were 5 items on personal background, 10 items on smoking status and history, 4 items on readiness to quit, 5 items on knowledge about tobacco facts, and 1 item on the workers's attitude towards smoking in restricted areas.

Definitions

Current smoker is defined as those who smoke a certain amount of cigarette (even one cigarette) every day and is still smoking at the time of survey. Those who smoke less than 10 sticks per day is considered as light smoker; 10 to

20 cigarettes per day as moderately heavy smoker; and more than 20 sticks per day as heavy smoker. The prevalence of smoking was expressed as proportion percentage between the numbers of current smoker to that of the responders.

Data entry and analysis were done using Epi Info version 6.0. Where appropriate, Chi-square Test for Goodness of Fit was used to determine that the observed values from the survey were not equally distributed.

RESULTS

A total of 153 out of 165 IPR workers responded to our questionnaires, giving a response rate of 93%. There were 12 male workers who failed to complete the questions on smoking status and were excluded from the analysis. The response rate by workers in the various units is shown in Table 1.

Table 1: Number of workers eligible and responded according to units in IPR.

Unit	No. of workers eligible	No. of workers responded
Out Patient Department	30	30 (100%)
Supervisor Office	16	15 (93.8%)
Wards	32	32 (100%)
Laboratory	22	21 (95.5%)
Maintenance (Radicare)	30	20 (66.7%)
Management & Admin	20	19 (95%)
Physiotherapy	2	2 (100%)
X-ray department	5	5 (100%)
Record Office	8	7 (87.5%)
Total	165	153 (92.7%)

Smoking Prevalence

Table 2 show that the overall prevalence of smoking among IPR workers was 24.8%. Prevalence of smoking among male workers was 60.3%, and there were no smokers among the female workers.

Table 2: Number and prevalence of smoking according to gender in IPR

Gender	Total responders	Smokers	Prevalence (%)
Male	63	38	60.3
Female	90	0	0
Total	153	38	24.8

Types of smokers

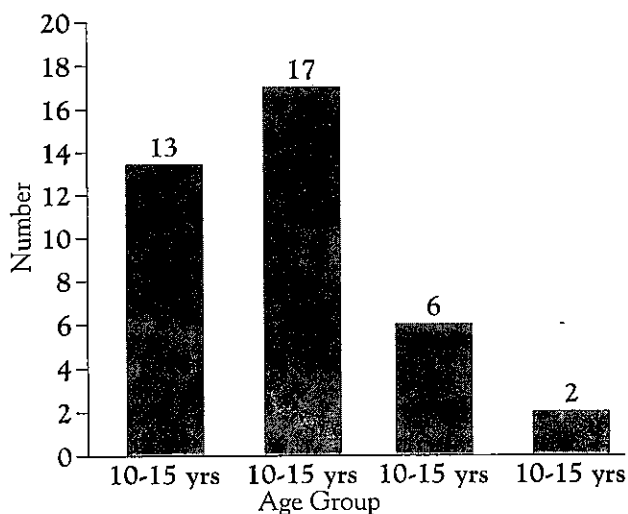
As shown in Table 3, the proportion of smokers according to type of smokers varies. Majority of them (47.4%) are moderate smokers who smoked less than 20 but more than 10 cigarettes per day. Light smokers who smoked less than 10 cigarettes per day account for 34.2 %, and heavy smokers form the remaining 18.4% of the smokers.

Table 3: Number and proportion of smokers according to types of smokers

Types of smokers	No. of cigarettes smoked	No. of smokers	Proportion
Heavy	> 20 per day	7	18.4 %
Moderate	10 - 20 per day	18	47.4 %
Light	< 10 per day	13	34.2 %

Age when first started smoking

Figure 1: Frequency by first age of starting to smoke among current smokers in IPR

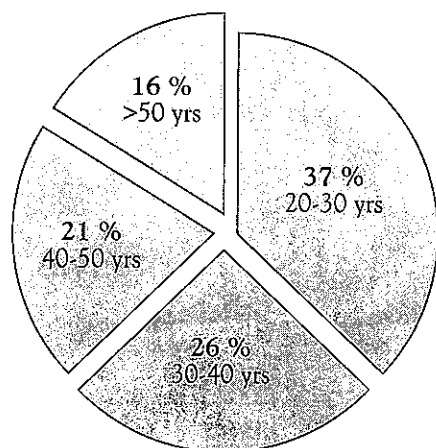


The median age of starting to smoke among the current smokers in IPR was 17.6 years.

Age distribution of the smokers

As shown in Figure 2, the majority of the smokers (63%) were within the 20-40 years age group.

Figure 2: Distribution of the smokers in IPR by age group



Readiness to quit

Of the 38 smokers surveyed, 20 (52.6%) were ready to quit. The remaining 18 smokers were not ready to quit, giving various reasons (Table 6).

Table 6: Reasons for not ready to quit

No.	Reasons Stated	Frequency of smokers
1	Still want to enjoy smoking	6
2	Smoking gives pleasures	3
3	Social reasons /release tension	2
4	Looks macho	1
5	Difficult to quit	3
6	No time to go to quit clinic	1
7	No apparent reason	3
	Total	18

Table 4: Proportion of smokers according to designation and workers category.

Designation	Category	No. of smoker	Proportion
Medical Assistant	Middle	1	2.6 %
Lab. Technician	Middle	2	5.3 %
Technician (Redicare)	Middle	8	21.1 %
Admin. Clerk	Middle	3	7.9 %
Store Keeper	Low	1	2.6 %
Hospital Attendant	Low	17	44.7 %
Driver	Low	3	7.9 %
Laborer (Radicare)	Low	2	5.3 %

Association between smoking status and level of education

Table 5: Smoking rate by category among male IPR workers

Education level	Smoke	Non-smoke	Rate	χ^2	p
High	0	5	0	5	<0.05
Middle	16	12	57%	0.57	>0.1
Low	22	8	73.3%	6.54	<0.025
Total	38	63	60%	-	-

Work category of the smokers

As shown in Table 4, most of the smokers (63%) were from the lower category of workers. Among the low category of workers, hospital attendants form the majority whereas for the middle category, the majority group are the technicians doing maintenance work.

Table 5 indicate that the level of education seems to influence smoking status. Workers with higher levels of education were more likely not to smoke while workers with low level of education were more likely to smoke. Likelihood to smoke among workers with moderate level of education was equivocal.

DISCUSSION

This survey was initiated not only to determine the prevalence of smoking among workers in IPR but also to identify the smokers so that appropriate intervention can be taken to help them quit. Since the intention was to identify the smokers, it was therefore necessary to survey all IPR workers. The smoking prevalence of 60% among the male workers in IPR is definitely higher than the prevalence of 54.6% among the general male population. The zero smoking prevalence among the female IPR workers compared favourably with the 5% among the general female population. However, this reduces the

overall smoking prevalence to 24.8% which is lower than the national prevalence of smoking, which is at 32.1%.

The high smoking prevalence among the male workers in IPR, however, is a major concern. Apart from tarnishing IPR's image as the national referral center for respiratory medicine and smoking cessation, it is a sign that IPR workers are not adequately sensitive about the smoking problem. The smoker's profile revealed that the majority of them were from the lower category of workers with a low level of education. The association between smoking habit and level of education had been reported in many studies. Majority of the smokers (79%) started smoking before the age of 20 years, among whom 43% started smoking before 15 years old. The median age of starting smoking was 17.6 years. This finding indicates that most of IPR workers were smokers before they started working for IPR.

The study indicated that the majority of the smokers (63%) were still young (20 - 40 years) at the time of the study and majority of them (81.6%) were either moderate or light smokers. Slightly more than half (53%) of the smokers, all of whom were either light or moderate smokers and aged 20 to 40 years were ready to quit. Because of these two factors, there is a high likelihood that this group of smokers will be successful in quitting. Therefore, a tobacco cessation programme specific for this group of smokers should be implemented.

CONCLUSIONS

Smoking habit is quite a major problem in IPR affecting 60% of the male workers. This prevalence is much higher than the national prevalence among adult male (>18 years). Smoking was more prevalent among the lower category of workers, especially the attendants. About half the smokers who were ready to quit were either light to moderate smokers and were mostly 20-40 years of age, which makes them very likely to succeed in quitting if a proper tobacco cessation program is implemented.

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