

Smoking among nursing staff at Tygerberg Hospital, Cape Town

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A tobacco-free hospital environment sends an important signal to patients and visitors with regard to both safety and a healthy lifestyle. Today patients, staff and visitors increasingly expect an antismoking policy to be in place in hospitals and other venues where sick people are treated. Health care staff can play an important role in the implementation of an antismoking policy in their hospital.

Eighty per cent of the medical, technical and nursing staff of the Magenta Hospital in Italy¹ were in favour of a total ban on smoking inside the hospital. It was interesting to note that these workers underestimated the health risks of smoking: only 34% of doctors, 13% of nurses and 16% of technicians identified smoking as the main preventable cause of death in Italy at the time of the survey.

A smoking control programme involving all staff members was instituted in a hospital in Barcelona, Spain.² Within 18 months the prevalence of smoking decreased from 51% to 40% and the percentage of ex-smokers increased from 16% to 23%. There was also a noticeable change in the attitude of the health workers, especially with regard to encouraging patients to stop smoking.

The aim of the present study was to examine the smoking

The first three authors were fourth-year medical students at the University of Stellenbosch when they did this research project, which was supervised by Jo Barnes, of the Department of Community Health.

habits of a sample of the nursing staff in clinical wards in Tygerberg Hospital, and to ascertain their opinions on the introduction of an antismoking policy.

What was done

This study constituted part of the training of fourth-year medical students and was carried out under the supervision of the Department of Community Health of the University of Stellenbosch. Permission to interview nursing staff was granted by the authorities of Tygerberg Hospital. Participation was voluntary and informed consent was obtained from all participants. Care was taken that participation in the survey did not impact on the participants' work schedule.

Five clinical locations representing a cross-section of clinical activities at the hospital were selected for inclusion in the study. The locations selected were obstetrics and gynaecology, trauma, psychiatry, respiratory intensive care, and the burns unit. An anonymous, self-completed questionnaire was compiled for the survey and tested on a few non-sampled respondents for comprehensibility and length. The final questionnaire was simplified a little. The questions dealt with smoking behaviour, the advisability of smoking in a hospital, and feelings about an antismoking policy.

The questionnaires were handed individually to the nurses in the selected wards and they were requested not to discuss the contents with their colleagues. A sealed 'post' box with a slot cut in the lid was made so that respondents could place their completed answers in the box anonymously. This was



Table I. Relationship between age and reported smoking behaviour for a sample of nurses

Age (years)	Total in age group (N)	Smokers (N)	Smokers (%)
< 30	52	12	23.1
30 - 40	21	10	47.6
> 40	6	3	50

Table II. Relationship between duration of night duty and the percentage of nursing staff who smoked

Months on night duty	Smokers (N)	Total (N)	Smokers (%)
0	2	12	16.6
1 - 3	8	28	28.6
4 - 6	9	29	31
8 - 12	3	7	42.9

done to ensure that no connection could be made between respondents' names and their completed questionnaires and to reassure the respondents that their participation was anonymous. The questionnaires were handed out by the first three authors. In each ward the person who handed out the questionnaires waited until all the participants had completed their questionnaires. The box was then taken round to each participant, who personally placed their completed questionnaire in the box. The box was only opened at the end of the data gathering.

One hundred questionnaires were handed out and 80 responses were received (9 from male participants, 70 from female participants and 1 unspecified). A few questions were left uncompleted on a small proportion of questionnaires. There are therefore small variations in the totals used to calculate the percentages. The response rates from the obstetrics and gynaecology and trauma wards were the highest at 92%.

What was found

The overall percentage of current smokers among the participants was 31.3% (25/80). In the obstetrics and gynaecology and trauma wards the percentage of smokers was slightly higher at 35.6% (21/59).

Of the smokers, 52% (13/25) were already smoking when they started their nursing training, while 36% acquired the habit during training. Only 12% started smoking after their training. That means that 48% of the smokers started during or after their training. The age distribution of smokers is given in Table I.

The relationship between night duty and smoking

prevalence is given in Table II.

Forty-four per cent (8/18) of the respondents whose parents had primary school education smoked, while only 28% (16/57) of those whose parents had secondary school or tertiary education smoked.

Sixty per cent of the smokers (15/25) reported that stress played a role in their smoking habits. Fifty-two per cent of the smokers (12/23) felt that staff should not smoke at work. Sixty per cent of the ex-smokers (6/10) and 78% of those who had never smoked (32/41) were opposed to smoking in the hospital. The majority of smokers (68%, 17/25) reported smoking most frequently in the tearoom, while 20% (5/25) reported smoking most frequently in the toilet. Only 8% (2/25) of the smokers reported that they did not smoke at work.

Of the smokers, 24% were in favour of an antismoking campaign, while 24% were against it. The rest were neutral. Of the smokers, only 40% (10/25) reported that pressure was exerted on them to stop smoking, while 56% reported no such pressure. One person was unsure about this. Eighty-three per cent of the smokers (20/24) reported previous unsuccessful attempts to stop smoking.

The smokers were asked whether they thought that the smoking behaviour of nurses would influence their patients. Eleven per cent of the smokers (3/26) thought that nurses' smoking would encourage their patients to smoke, while 65% thought that it would have no influence.

Discussion

In 1995 Olsen *et al.*³ found that in a Danish hospital 37% of male and 33% of female employees were daily smokers, which is slightly higher than the overall prevalence of 31% found in our study. Smoking prevalence can vary quite a lot inside the same country or health system. Sanz Cuesta *et al.*⁴ conducted a survey among 680 staff members at their hospital in Spain and found that the current smoking prevalence was 50%, with the highest rate found among nurses (61%). On the other hand Arevalo Alonso *et al.*⁵ found a smoking prevalence of 36.4% among the staff of a hospital in Vitoria, Spain. Martinez Perez *et al.*⁶ found a smoking prevalence of 38% among the health personnel in the Guadalajara Primary Medical Care Service. A recent survey⁷ among all employees of the University Hospital in Zürich, Switzerland reported that 19% were smokers. The smoking prevalence in a teaching hospital in Penarth, South Glamorgan, England was found to be 23%.⁸

The Danish study³ also found that the prevalence of smoking and the distribution according to social class mirrored those of the general population. The exceptions were male doctors and female nurses, among whom the prevalence of smoking was lower than in their corresponding social classes in the general population. The Danish study found that 87% of the smokers smoked at work, while in our study 92% of smokers reported smoking at work.



It is important to note that almost half of the current smokers in our study acquired the habit during training or afterwards while working as nurses. With an effective antismoking campaign and a well-enforced antismoking policy many of these smokers could have been prevented from adopting the habit. These staff members should be one of the priority targets of such a campaign.

The increasing prevalence of smoking with increasing age reported in our study (Table I) could be due to many reasons. Older people started smoking before the dangers of the habit were widely known, but they may also for some reason be more willing to admit to smoking. Nardini *et al.*⁹ also reported a clear age-cohort effect in their survey of the staff of a general hospital in Sondalo, Italy, with the youngest age group having the highest prevalence of lifetime never-smokers and the oldest age group (above 40 years old) the highest prevalence of heavy smokers.

In our study there was a steady increase of smoking prevalence as the months on night duty increased (Table II). Night duty is another risk factor for taking up smoking that should be addressed in an antismoking campaign. Zanetti *et al.*¹⁰ looked at a slightly different sample of hospital workers. They conducted a questionnaire survey among 2 453 staff members of three hospitals in Emilia-Romagna in northern Italy, of whom 53% were nurses. Of those who responded, 39% smoked at work. Most importantly, they found that during night shifts the majority of them increased their tobacco consumption. Almost all of the subjects were aware of the harm caused by passive smoking. Encouragingly, 56% of smokers, 65% of ex-smokers and 72% of non-smokers said that they were willing to participate in future campaigns to limit smoking in their hospitals.

There seem to be many encouraging signs that the sample of nurses surveyed in the present study may be receptive to an antismoking campaign. Fifty-two per cent of the smokers felt that staff should not smoke at work, and only 24% of the smokers were against an antismoking campaign. Eighty-three per cent of the smokers had tried to stop smoking in the past, which indicates a great interest in stopping. Support programmes as part of an antismoking campaign could make a real difference to the success rate. Since stress was reported as a reason for smoking by more than half of our sample, stress management ought to be included in such a programme. The majority of nurses in our survey were non-smokers or ex-smokers and their feelings about smoking in the workplace should be taken into account when an antismoking policy is instituted. Seventy-five per cent of the current non-smokers were against smoking in the workplace. Of the total number of persons in the survey, 67% felt that staff should not smoke in the workplace.

Passannante and co-workers¹¹ discussed the implementation of a smoke-free policy in a university hospital in the USA.

Despite the pervasive belief that such a policy can be successfully instituted, they warn that it can be quite difficult to implement. A strong policy statement, administrative support and a comprehensive implementation plan have helped them to achieve widespread compliance in their hospital. They report however, that the smoke-free policy had to date been less successful than it should have been in changing the smoking behaviour of patients. The same problem is reported by Goldstein *et al.*¹² in a study of five hospitals in Augusta, Georgia. They came to the conclusion that the smoke-free policies had benefited the employees more than the patients. Almost half of the hospitalised smokers had not received any advice to quit smoking since admission.

Tsushima and Shimizu¹³ reported increased acceptance of the smoking ban at work and greater willingness to consider smoking cessation in future 1 year after the institution of an antismoking policy in their medical institution. They also reported a decreased number of cigarettes smoked per day among employees.

Vigilance is needed in the institution of an antismoking policy. Hudzinski and Sirois¹⁴ reported that smokers made significant reductions in their daily smoking during the first 6 months, but gradually returned to pre-policy smoking levels over the following year. Passannante and co-workers¹¹ also made a strong point that compliance with the smoke-free policy is a real problem that many institutions will face. Without sustained attention to reinforcement and compliance, smoke-free policies are gradually eroded.

According to the results of this survey the time may be more favourable for the institution of a smoke-free policy in this hospital than is generally credited.

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