Australian nurses’ smoking behaviour, knowledge and attitude towards providing smoking cessation care to their patients

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SUMMARY
This study examined smoking-related knowledge, attitudes and practices of hospital-based nurses. The specific aims were: to determine the prevalence of self-reported smoking and the characteristics of hospital nurses who smoke; to describe nurses’ knowledge of the health risks of smoking and strategies which aid quitting; and to describe their attitudes to smoking and quitting and providing smoking cessation care. The sample was formed from all direct-care nurses from six large hospitals in the Hunter region of New South Wales, Australia rostered on the randomly selected data collection days over 4 months in 1991 (n = 388, 98%). Participating nurses completed an interview measuring demographic and smoking history characteristics, and knowledge of smoking-related diseases, quitting strategies and referral options (open-ended questions). A self-completed questionnaire measured attitudes about smoking, quitting and nurse provision of smoking cessation care. Twenty-two percent of nurses reported being current smokers and 21.5% reported being ex-smokers, with higher smoking rates reported by enrolled nurses compared with registered nurses. Knowledge about the health effects of smoking was high, but knowledge of more effective strategies to aid quitting and referral options was poor. Nurses had positive attitudes towards assisting patients to stop smoking (60%), but restricted this to patients who wanted to quit. Only 21% felt competent to discuss cessation with patients and identified skills training as necessary. The findings suggest that smoking rates among nurses may be lower than those reported in past decades and lower than rates among women of the same age in the general population. The findings also suggest that nurses, while perceiving a role in smoking care, require training in the provision of smoking cessation care to hospital patients, and that hospital policies and nurse education providers need to strongly support the provision of smoking cessation by providing nurses with time, access and incentive to undertake such activities.

Key words: attitudes; hospital patients; knowledge; nurses; prevalence; smoking cessation

INTRODUCTION
Over the past decade there has been increasing focus on integrating health promotion and disease prevention strategies into mainstream health care. Yet the hospital sector has been one of the last health care delivery settings to incorporate health promotion initiatives among its service role.

Nurses have the greatest frequency and duration of contact with patients, have a recognized role in providing patient education, and are perceived as a credible source of health information by patients (DeMello et al., 1989; Castles, 1992). However, nursing has followed medicine in the move towards highly specialized technical care and a focus on curing diseases rather than preventing illness (Cloutier Laffrey and Page, 1989). Robson, among others, has claimed that nurses’ potential in preventive
health care has been largely underutilized (Robson et al., 1989).

Surveys during the last decade have revealed that whilst nurses appear to believe in their role as health educators in relation to smoking cessation (Faulkner and Ward, 1983), they were not utilizing opportunities to provide this care (Goldstein et al., 1987), and their skills and knowledge base were perceived as poor (Faulkner and Ward, 1983; Macleod et al., 1990). Goldstein et al. (1987) found that whilst 95% of nurses believed that it was their responsibility to counsel some of their patients about smoking, only 52% believed that they should counsel all patients who smoke, and only 35% actually reported counselling patients. Smoking has been described as the single most important cause of preventable death, and calls have been made to classify smoking as the fifth vital sign [alongside temperature, pulse rate, respiratory rate and blood pressure] (Fiore, 1991).

Insufficient knowledge of the risks of smoking and a lack of interpersonal skills have been suggested as the main barriers to nurses' role as smoking educators (Faulkner and Ward, 1983). Additionally, it has been argued that the high smoking rates reported among some populations of nurses may diminish their willingness and effectiveness as potential providers of smoking cessation care (Dore and Hoey, 1988; Adriaanse et al., 1991). During the 1970s, smoking rates of more than 40% were reported among nurses in Austria, Denmark, Ireland, New Zealand, Australia and West Germany, higher than those among physicians and the general population of women (Adriaanse et al., 1991). However, during the 1980s the smoking rate among nurses dropped across industrialized countries, but was still claimed to be higher than either physicians or general female population groups (Becker et al., 1986; Dore and Hoey, 1988).

During the late 1980s, methodologically tighter studies reported a prevalence of smoking among hospital nurses ($n = 168$ and response rate = 69%) of 25% (Goldstein et al., 1987). Becker et al. (1986) found a prevalence of 22% among registered nurses with a response rate of 80% (Becker et al., 1986), and Dore and Hoey et al. (1988) found a prevalence of 22.9% among female hospital nurses with a response rate of 90% (Dore and Hoey, 1988). The smoking rates which were found in these studies are likely to be lower than the prevalence reported among women of a similar age range in the general population.

The study reported in this paper recruited hospital-based nurses who were providing direct care to patients on the wards, and explored those factors which might facilitate and which may act as barriers to the provision of smoking cessation care. The aims of the study were to determine the prevalence of self-reported smoking, and describe nurses' knowledge and attitudes to smoking health risks, quitting strategies and referral options, and nurse-provided smoking cessation care.

**METHOD**

**Sample**

The six largest hospitals in the Hunter area of New South Wales (NSW), Australia participated in the study. These ranged from a 500-bed tertiary teaching hospital in the metropolitan area to a smaller, less than 100-bed hospital in a rural town. The study was part of a larger patient and nursing study. Paediatric wards, delivery suites and immunology wards were excluded from the study, as provision of smoking cessation advice by nurses was deemed inappropriate care within these settings. Each of the remaining 52 wards was accessed on a randomly selected weekday during 1991. This data collection procedure was repeated 3 weeks later, and previously interviewed nurses were excluded. All nurses who were on day shift in eligible wards on the randomly selected data collection days (two per ward) were included in the study.

This sampling method provided a sample of Assistant Directors of Nursing, Nursing Unit Managers, Registered Nurses, Clinical Nurse Specialists, Enrolled Nurse Aids and student nurses, who were responsible for the direct care of patients.

**Procedure**

The survey was classified as a quality assurance project, enabling access to nurses for a 15-min interview during their workshift. The protocol was negotiated with the Nursing Unit Manager (NUM), including use of a quiet room for the interviews close to the nursing station. NUMs received a reminder telephone call 24 h prior to the data collection day when they were asked to complete a list of all nurses rostered for duty on the day shift of the data collection day (next day). At the ward changeover meeting on the data...
collection day, the NUM briefly informed nurses about the study. The NUM also ensured that each nurse selected a 15-min interview time. All day shift nurses (including NUM) were then interviewed and given a questionnaire to complete during the day. These were collected at the end of the shift. Confidentiality was assured and nurses were asked not to discuss the nature of the interviews with other staff on that day.

Measures
Items for the self-complete questionnaire and interview schedule were generated from a review of the literature (Dickinson et al., 1989; Macleod et al., 1990; Latter et al., 1992) and manuals of best practice in the provision of smoking cessation care by health professionals (Glynn and Manley, 1989). The survey instrument was reviewed by an expert panel and pilot tested in one hospital.

Nurse knowledge interview
Domains included in the interview were socio-demographic characteristics, smoking history (including onset, duration and intentions to quit smoking), knowledge of smoking risks, quitting strategies and referral options. Smoking status was described as follows.

Smoker—smoked at least 100 cigarettes in their life and currently smoking cigarettes, cigars, or pipes (in the last 4 days).

Ex-smoker—not currently smoking (in the last 4 days) but having smoked more than 100 cigarettes in their life.

Non-smoker—not smoked more than 100 cigarettes in their life.

Intention to quit smoking was measured with two questions: Would you like to stop smoking? (responses: yes, no and don’t know), and How likely is it that you will be giving up cigarettes in the next 3 months? (seven-point Likert scale). Nurses were asked: Do you think that your smoking status is a help or a hindrance in providing smoking advice for patients? (five-point Likert scale).

Knowledge questions were asked in an open-ended format with responses coded according to pre-determined criteria of smoking and quitting. Nurses were asked: Can you name up to seven diseases which you think can be caused by smoking? Knowledge of smoking cessation strategies was measured by the questions: Imagine that Mrs Smith is a patient in your ward. She has decided to stop smoking today. Can you tell me any ways (maximum of six) in which you could help her to quit? Nurses were also asked: Can you name three places in your Health Area where you could refer Mrs Smith to receive help to quit smoking?

Nurse questionnaire
Attitudes to smoking, quitting and nurses’ role were measured using a Likert-type response scale applied to a series of statements (strongly agree to strongly disagree). Additionally, nurses were asked to report whether certain conditions would make it much more likely, a little more likely or no more likely that they would provide advice on stopping smoking and support for their patients. These conditions included increases in time, support, confidence, training, knowledge and skills, as well as structural prompts, e.g. follow-up of patients after discharge, access to nurse specialists in smoking cessation, assessment and history forms, requests from patients, and incentives. Nurses were then asked to rank the items and nominate the three most important items. Reported current levels of cessation care provided to patients were measured on four dimensions: correctly identifying smokers; taking a detailed smoking history; asking patients if they wanted to quit smoking; and talking to patients about how they might go about quitting.

Coding
All open-ended knowledge questions were coded by two trained registered nurses. Random sampling of the coders’ work and the provision of feedback ensured quality control during coding. Diseases related to smoking were categorized into Cardiovascular, Respiratory, Cancer and Others, according to Dickman and Gibberd (1990).

RESULTS
Sample characteristics
There were 399 nurses rostered onto the day shift on the data collection days. Of these, 388 (97%) were present in the ward on the data collection day, and 382 (98%) were interviewed on the ward using the Nurse Knowledge Interview (six nurses were absent due to emergencies). Of these, 335 (88%) self-completed the Nurse Questionnaire.
The sample comprised predominantly female nurses (93.7%), and mainly young nurses: 40.8% were aged 20–29, 33.1% were 30–39, 17.3% were 40–49 and 8% were 50–59 years. A total of 30.7% had never been married, 58.7% were married or in de facto relationships, and 10.5% were divorced, separated or widowed. The majority of the nurses completed their nursing training in Australia (92.1%), within the hospital setting (71.8%) rather than the University, had post-basic nurse training (51.2%), worked a regular rotating shift (78.3%), and had worked in their area of nursing for more than a year (65.4%). The sample included enrolled nurses (12.8%), NUMs (11.8%), Clinical Nurse Specialists (12.3%), Registered Nurses (55.8%), and others, e.g. students, educators (7.3%).

Smoking prevalence and smoking history
Among the sample of nurses, 21.7% reported being current smokers (i.e. smoked in the last 4 days), 21.5% ex-smokers and 56.5% never smoked. The smoking rate, particularly among younger nurses, was lower than for the general female population of Australia (26.6%) surveyed in 1992 and for comparable age groupings (Hill and White, 1995) [Figure 1].

There was a significant difference in the proportion of smokers among different categories of nursing positions. Nineteen percent of registered nurses, 24% of clinical nurse consultants, 12% of NUMs and 40% of enrolled nurses were smokers ($\chi^2 = 25.5$, d.f. = 8, $p < 0.001$). Hospital-trained nurses were also significantly more likely to have been an ‘ever smoker’ than university-trained nurses ($\chi^2 = 7.6$, d.f. = 2, $p < 0.02$).

Table 1 shows that the majority of nurses who did smoke, began smoking prior to completing their nursing training (50.6% prior to training and 42.2% during their training). Only 14.5% of currently smoking nurses had been smoking for less than 5 years, whilst more than half (54.1%) had been smoking for more than 11 years. Of those nurses who were smokers, the majority (56.6%) reported that they would like to quit smoking, with a further 8.4% being ambivalent. When asked about the likelihood of quitting smoking in the next 3 months, 26.5% thought that it was likely.

**Nurses’ knowledge of smoking and quitting**
Table 2 shows that in terms of the number of diseases named by nurses, 380 nurses (99%) were able to name at least one smoking-related disease, 191 nurses (50%) were able to name five smoking-related diseases, and 62 nurses (16%) were able to name seven smoking-related diseases. As shown in Table 2, cancer was the most frequently named disease (58%), followed by cardiovascular (27.1%) and respiratory (11.5%).
No nurses named diseases which were not causally related to smoking (Dickman and Gibberd, 1990).

In terms of knowledge of strategies which might aid quitting, 379 nurses (99%) were able to name at least one strategy, 276 (72%) were able to name at least three strategies, and 43 (11%) were able to name six strategies. The most commonly provided strategies were diversional activities, e.g. knitting, sucking lollies, etc. (22.1% of responses); emotional support/encouragement (19%); and referral to other health practitioners (10.8%). Responses relating to other strategies were relatively infrequent: increasing fluid (2%), providing literature (5.5%) and nicotine replacement therapy (3.6%).

Table 2 shows that QUIT (Health Department group smoking cessation course) was the most well-known potential referral source for further advice or support (37.9%), followed by a psychologist or hypnotherapist (12.4%), a hospital specialist (11.6%), and Community Health or Department of Health (10.9%). Less well represented were responses which named Drug and Alcohol Counsellor (5.9%), 7th Day Adventist program (5.8%) and the patients’ general practitioner (4.8%).

Nurses’ attitudes to smoking and quitting
The majority of nurses perceived smoking to be harmful (98% thought that cigarette smoking could cause major damage to health); and quitting smoking to be both beneficial (81% thought that giving up smoking helped a person live longer) and achievable (72% thought that quit smoking programs really helped people to stop smoking). The variables of age, location of nurse training, and nurses’ smoking status were cross-tabulated with attitudes to smoking and quitting to determine significant differences. There was no significant difference in attitudes and knowledge based on smoking status, the only significant association found was that more younger nurses thought that most smokers do not want to quit smoking ($\chi^2 = 8.2$, d.f. = 3, $p < 0.04$).

Nurses’ attitudes to their role as providers of smoking cessation care
Seventy-two percent of nurses perceived the hospital stay as a useful place for patients to quit smoking. The majority (58%) of nurses thought that they should educate all smoking patients about the effects of smoking on health, and counselling patients who wanted to stop smoking was
perceived as being part of the nurses’ role by most nurses (75%). In all, 59% of nurses thought that nurses would make good quit smoking counsellors, however, only 22% thought that nurses who smoke would make good quit smoking counsellors. The majority thought that nurses were too busy to teach their patients about quitting smoking (63%).

As shown in Table 3, asking about a patient’s smoking status was the step which nurses felt most confident about in terms of providing smoking cessation care and their current knowledge. Additionally, more nurses reported receiving training in this step than any of the four steps identified. Overall, nurses reported generally inadequate levels of past training in the four steps of smoking cessation care. Perceptions about past training, knowledge and skills in discussing how to quit smoking were rated as generally inadequate by nurses. However, the majority of nurses were enthusiastic about attending in-service training courses on smoking cessation care. Nurses’ age, location of training, post-basic training and smoking status were cross-tabulated with perceptions of confidence in providing smoking cessation care. Nurses who had no post-basic training were significantly more confident in asking patients if they wanted to quit smoking than nurses who had post-basic nurse training ($\chi^2 = 8.5$, d.f. = 1, $p < 0.003$).

**Nurses’ perceptions of the impact of their smoking status on the provision of smoking cessation care**

Fifty-one percent of smoking nurses, 78% of ex-smoking nurses and 40% of never smoked nurses found their smoking status helpful in providing
smoking cessation care. Thirteen percent of smoking nurses thought that their smoking status was a hindrance to the provision of smoking cessation care to inpatients, compared to 11% of ex-smoking nurses and 31% of never smoked nurses. Ex-smokers and smokers were significantly more likely than non-smokers to find their smoking status helpful ($\chi^2 = 26.6$ d.f. = 2, $p < 0.00001$).

### Table 3: Nurses’ perception of ability to provide smoking cessation care

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Direct-care nurses who agreed (n = 327)$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Past training</td>
<td></td>
</tr>
<tr>
<td>Received adequate training in:</td>
<td></td>
</tr>
<tr>
<td>Asking smoking status (326)</td>
<td>190</td>
</tr>
<tr>
<td>Taking smoking history (327)</td>
<td>128</td>
</tr>
<tr>
<td>Assessing intentions to quit (326)</td>
<td>141</td>
</tr>
<tr>
<td>Discussing how to quit (327)</td>
<td>80</td>
</tr>
<tr>
<td>Future Training</td>
<td></td>
</tr>
<tr>
<td>Enthusiastic about attending in-service training on providing cessation care</td>
<td>247</td>
</tr>
<tr>
<td>Confidence</td>
<td></td>
</tr>
<tr>
<td>In current knowledge of:</td>
<td></td>
</tr>
<tr>
<td>Asking smoking status (326)</td>
<td>201</td>
</tr>
<tr>
<td>Taking smoking history (324)</td>
<td>123</td>
</tr>
<tr>
<td>Assessing intentions to quit (323)</td>
<td>158</td>
</tr>
<tr>
<td>Discussing how to quit (325)</td>
<td>69</td>
</tr>
<tr>
<td>In providing care:</td>
<td></td>
</tr>
<tr>
<td>Asking smoking status (326)</td>
<td>315</td>
</tr>
<tr>
<td>Taking smoking history (326)</td>
<td>248</td>
</tr>
<tr>
<td>Assessing intentions to quit (327)</td>
<td>251</td>
</tr>
<tr>
<td>Discussing how to quit (325)</td>
<td>200</td>
</tr>
</tbody>
</table>

$^a$Approximately 10 nurses returned questionnaires with no responses.

### Table 4: Nurses’ perceptions of patients’ willingness to accept smoking cessation care from a nurse

<table>
<thead>
<tr>
<th>Care</th>
<th>Proportion of nurses who perceived that patients would</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Welcome care</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Talked to about smoking or quitting (308)</td>
<td>195</td>
</tr>
<tr>
<td>Advised to stop smoking (307)</td>
<td>69</td>
</tr>
<tr>
<td>Told how smoking was affecting their health (305)</td>
<td>128</td>
</tr>
<tr>
<td>Given literature on quitting (303)</td>
<td>174</td>
</tr>
<tr>
<td>Referred to quit agencies (304)</td>
<td>188</td>
</tr>
<tr>
<td>Discussion of how to quit smoking (306)</td>
<td>184</td>
</tr>
</tbody>
</table>

Acceptability to patients

Table 4 shows nurses’ perceptions of how patients would react to the provision of smoking cessation care. The supportive aspects of smoking cessation care, e.g. talking about smoking cessation (63%), being referred to a quit agency (62%), discussing how to quit smoking and provision of literature (58%), were considered the most acceptable to patients. However, the more confrontational aspects, e.g. telling the patient
how smoking was affecting their health (42%) and advising them to stop smoking (22%) were less well supported. In fact, 35% of nurses felt that patients would resent being advised to stop smoking.

Factors perceived to facilitate the provision of smoking cessation care

The majority of nurses perceived the following factors to be facilitators of providing care: patient requesting care (98.2%); more time (88.3%); availability of in-service training (87.1%); quit counsellors/nurse specialists available for staff to consult with (86.5%); having better skills (86.2%); in-service training available (83.1%); patients followed up after discharge (81.2%); incentives for nurses (75.7%); smoking history forms (74.2%); medical practitioner pre-admission advice to quit (71.7%); more support from supervisor (68.6%); and more confidence (67.7%). Nurses ranked patient requesting care as the most important factor followed by more time and availability of in-service training. The lowest priority was given to more confidence, support from supervisor, smoking history forms and nurses’ personal smoking status.

Nurses’ perceptions of current levels of smoking cessation care

Table 5 shows that in an ideal world the majority of nurses felt that all smoking patients should be receiving smoking cessation care. When asked the same question but within the limitations of the current system, less than 25% thought that all smoking patients could receive this care. When asked about levels of care provision over the preceding 4 weeks, less than 10% of nurses felt that all smoking patients had received the items of care listed.

DISCUSSION

Whilst nurse-provided smoking cessation programs in public hospitals have the potential to capitalize on the window of opportunity presented by the hospital stay, reorientation of the nursing workforce in the area of preventive health care (and in the area of tobacco control in particular) is essential. This study provides information on nurses’ current knowledge, attitudes, skills and confidence in providing smoking cessation care. Factors which facilitate and impede nurses’ adoption of smoking cessation care as part of routine nursing care are discussed in relation to their implications for the design and development of interventions to facilitate the adoption of smoking cessation care by hospital nurses.

Nurses’ smoking behaviour

The current study found a smoking rate of 21.7% among hospital nurses, which was lower than receiving smoking cessation care. When asked the same question but within the limitations of the current system, less than 25% thought that all smoking patients could receive this care. When asked about levels of care provision over the preceding 4 weeks, less than 10% of nurses felt that all smoking patients had received the items of care listed.

<table>
<thead>
<tr>
<th>Perceptions of care provision</th>
<th>The majority of smokers (51–99%)</th>
<th>All smokers (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>In the ideal world</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking status known</td>
<td>70</td>
<td>24</td>
</tr>
<tr>
<td>Smoking history taken</td>
<td>54</td>
<td>18</td>
</tr>
<tr>
<td>Intentions to quit assessed</td>
<td>45</td>
<td>15</td>
</tr>
<tr>
<td>Strategies for quitting discussed</td>
<td>56</td>
<td>19</td>
</tr>
<tr>
<td>Within the limitations of the current system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking status known</td>
<td>183</td>
<td>60</td>
</tr>
<tr>
<td>Smoking history taken</td>
<td>147</td>
<td>49</td>
</tr>
<tr>
<td>Intentions to quit assessed</td>
<td>109</td>
<td>36</td>
</tr>
<tr>
<td>Strategies for quitting discussed</td>
<td>119</td>
<td>38</td>
</tr>
<tr>
<td>Currently occurring (in the past 4 weeks)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking status known</td>
<td>104</td>
<td>36</td>
</tr>
<tr>
<td>Smoking history taken</td>
<td>34</td>
<td>12</td>
</tr>
<tr>
<td>Intentions to quit assessed</td>
<td>30</td>
<td>11</td>
</tr>
<tr>
<td>Strategies for quitting discussed</td>
<td>27</td>
<td>10</td>
</tr>
</tbody>
</table>
among women in the Australian community at the time [23.8% in 1992] (Hill and White, 1995). The data regarding onset of smoking point to a change over time in the smoking behaviour of nurses, with smoking prevalence being highest among older nurses. Thus, in contrast with earlier concerns about high rates of smoking among nurses, current trends suggest that nurses are among the leaders in role modelling smoking cessation and are thus in a good position to provide smoking cessation care.

Onset of smoking occurred almost exclusively during or before training (92.8%), suggesting the need for an increased focus on smoking in the undergraduate curriculum. Work-based and faculty-based smoking cessation programs specifically targeting nurses and student nurses could potentially reduce the uptake and assist the 26.5% of nurses who smoke and who thought there was a likelihood of being a non-smoker in the next 3 months.

Smoking behaviour among nurses was perceived to impact on their role as smoking cessation advocate or counsellor. Nurses who smoked were perceived to be less effective smoking cessation advocates by their peers than non-smoking nurses. However, the majority of smoking nurses thought that their smoking behaviour would be helpful for the role of smoking cessation educator.

Nurses’ knowledge of smoking and quitting
Other researchers have reported that when not cued by a multiple-choice question, nurses displayed poor knowledge of the health risks of smoking (Faulkner and Ward, 1993). Data from the current study showed that when nurses were asked to name as many diseases as possible (maximum seven), only 50% were able to correctly name at least five diseases caused by smoking. Diseases related to cancer (58%) were more frequently known than cardiovascular disease (27%) and respiratory diseases (11.5%). Of the 19 000 deaths caused by smoking in Australia per year, the majority (43%) are attributable to CVD, compared to cancer (34%) [Australian Bureau of Statistics, 1992].

The majority of nurses (72%) were able to describe at least three strategies to assist a smoking patient who wanted help with quitting. However, the responses most often did not reflect state-of-the-art practice guidelines for providing smoking cessation interventions. Instead they reflected a more passive style of intervention, i.e. diversional activities, e.g. knitting and sucking on lollies (22% of strategies named), and providing emotional support (19%). Knowledge of more active strategies was less frequent (5.5% for provision of literature and 3.6% for use of nicotine replacement therapy). These data suggest a lack of training in the health effects of smoking and the delivery of brief smoking cessation interventions.

Similarly, nurses’ limited knowledge of places where they might refer a smoking patient also suggested the need for improved training. Whilst 37.9% of referral options named QUIT (the major Department of Health smoking cessation agency), only 4.8% named general practice. Research and public health initiatives have focused strongly on the increased role and effectiveness of general practitioners (GPs) in providing quit smoking advice (Kottke et al., 1988), and discharge planning is an established pattern of care, however, nurses seem unwilling to consider GPs as a viable referral option. Nurses’ attitudes towards smoking as a health risk were very positive, with the majority of nurses believing that smoking was harmful (98%), that quitting was beneficial (81%) and achievable (72%). Such attitudes are likely to predispose nurses to providing smoking cessation care, given adequate training and environmental support.

Nurses’ perceptions of their role as providers of smoking cessation care
Nurses felt that helping patients to stop smoking should be part of their role (60%), particularly if patients wanted to quit (75%). The patient requesting care was considered by nurses to be the most important facilitator of an increased nursing role in the provision of smoking cessation care. Smoking cessation interventions by hospital nurses will thus need to incorporate assessment of intentions about quitting and interest in receiving smoking cessation support. Such information if then explicitly displayed on the patient’s medical record would constitute a request for help and may act as a prompt for nurses in providing smoking cessation support.

The second implication of this finding is that any nurse training program should discuss and promote proactive provision of smoking cessation care rather than a reliance on reactive care. This reorientation has already been flagged in policy documents of leading nursing organizations, e.g. the American Nurses Association in their
Nursing's Agenda for Health Care Reform (1991). This document suggested that nurses take a proactive role in taking preventive health care to the consumer rather than waiting to be asked for assistance. Nurses may be viewing smoking as a patient's lifestyle choice rather than as a vital sign of a major chronic disease. Fiore has suggested that within the health profession, smoking status should be regarded as the fifth vital sign, along with blood pressure, pulse rate, respiratory rate and temperature (Fiore, 1991).

A large gap was found to exist between nurses' perceptions of the ideal provision of smoking cessation care in the hospital setting and the reality of the ward setting. The majority of nurses (57–62%) thought that in the ideal world all smoking patients should receive the four items of smoking cessation care (identification of smoking status, history taken, intentions assessed and quit strategies discussed). Within the limitations of the current system, less than 24% of nurses felt that all smoking patients would receive the four items, and when asked about the preceding 4 weeks, only 4–10% of nurses felt that all smokers had received this care. This large discrepancy between the ideal world and the ward reality suggests that even with positive attitudes and the perceived appropriateness of the role, there are factors which are impeding the delivery of care.

Nurses' perceptions of their own abilities in providing smoking cessation care

Nurses thought that they lacked skills to provide smoking cessation care. Whilst the majority of nurses felt that providing smoking cessation care should be part of their role, 41% of nurses felt that they would not make good smoking counsellors. Nurses perceived a lack of knowledge of the skills required to deliver interventions. For example, while 61% felt that they had enough knowledge on how to ask a patient about smoking status, only 21.2% felt that they had enough knowledge to discuss smoking cessation. This poor skill-based knowledge was also found in the responses to the open-ended question on which strategies might aid quitting. Approximately 60% of nurses reported that they lacked training in these skills, and in-service training programs were cited as the third most important factor in increasing the provision of smoking cessation care. The implications of these findings are that both in-service training and undergraduate training courses need to be developed and implemented with a focus on the health impact of smoking and skills acquisition in providing proactive care. It is encouraging that 75.9% of nurses were enthusiastic about attending in-service training.

Nurses' perceptions of what patients find acceptable

The more supportive aspects of care, e.g. talking about smoking and quitting, giving literature, referral, and discussion of how to quit smoking, were perceived by nurses as being acceptable to patients (58–63%). However, the more confrontational activities, e.g. telling the patient how smoking was affecting their health and advising the patient to stop smoking, received less support (42% and 22%, respectively). This wariness of raising the topic with smokers was not supported in a patient study undertaken by the investigators (Nagle, 1996), where only 11.9% of smoking patients thought that they would resent a nurse talking to them about smoking or quitting.

Barriers to provision of cessation care

Whilst 72% of nurses perceived that the hospital setting was an appropriate place for patients to quit smoking, 63% reported that they were too busy to provide smoking cessation education. By contrast, Goldstein et al. (1987) reported that only 8% of nurses felt that providing smoking cessation care involved too much time. It is possible that increased demands on the role of the nurse have increased the time constraints involved in adopting any new care. These findings suggest that hospital administrators must allow for the provision of preventive care in their allocation of staff time, and that brief interventions must be developed and evaluated for use in this setting. The majority of nurses thought that the structural factors, e.g. availability of quit counsellors, post-discharge follow-up, pre-admission advice to quit from a general practitioner, availability of smoking history forms, incentives for nurses, and supervisor support, would make them more likely to provide smoking cessation support (ranging from 68 to 98% of nurses). Interestingly, while 86.5% of nurses said that having quit counsellors/nurse specialists available for staff to consult with would facilitate the provision of care, only 5.9% of nurse responses cited the Drug & Alcohol Counsellor (D&A) as a possible referral option. It appears that the role of D&A counsellors on staff within the hospital is not considered to cover
smoking. Programs designed to enhance the adoption of smoking cessation care should therefore incorporate these structural supports and reinforcers.

**Recommendations for nurse education, hospital policy and further research**

The findings suggest that in-service training would be well received by hospital nurses. Such training should incorporate opportunities to share and discuss attitudes, e.g. the delivery of proactive versus reactive smoking cessation care, smoking as a vital sign for chronic disease versus smoking as a lifestyle choice, the myth of high smoking rates among nurses, and the separation of professional and personal behaviour. The training should also incorporate population data on diseases caused by smoking and skills acquisition in the delivery of brief smoking cessation interventions. There is opportunity to incorporate all of the above in undergraduate nursing training with particular emphasis on the importance of nurses as non-smoking role models. Every effort should be made to involve student nurses who smoke in quit smoking programs, to reduce the prevalence of smoking among student nurses before they graduate to practice.

In terms of review of hospital policy, the importance of reorienting health care delivery and increasing preventive health activities needs to be recognized and incorporated into strategic planning by hospital management. Strategies need to be implemented and structural prompts developed which are likely to facilitate the proactive provision of cessation care, including assessing patients’ intentions regarding quitting and their willingness to accept support from nurses. Allocation of hospital resources should incorporate time allowances both for training and the delivery of brief smoking cessation care. Further, there needs to be clear articulation of pre-discharge, inpatient and post-discharge planning to coordinate referral to GPs and hence strengthen the awareness of collaborative opportunities.

Further research which describes the stages of change traversed when health providers adopt new health care behaviour is needed, as it has the potential to inform the way in which in-service training is delivered. Potentially, different training programs may be required where training is tailored specifically to the health providers’ particular stage of change. Such work has been undertaken by Prochaska et al. (1983) in relation to clients’ health behaviour change. Research is also needed to evaluate interventions aimed at increasing the adoption of smoking cessation care by nurses, as are interventions which evaluate the cost and resources required to achieve particular quit rates within the hospital setting.

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**REFERENCES**


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