

The differences in attitudes and beliefs among smokers and ex-smokers regarding the benefits of smoking cessation in Ireland

Abstract

Introduction: Smoking-related diseases account for almost 5,500 deaths per year in Ireland and cost the Irish economy €1-2 billion per year. Some 50% of all smokers will die of a smoking-related disease, and smokers on average die 10 years younger than non-smokers. The aim of this project was to assess attitudes and beliefs regarding smoking cessation in both smokers and ex-smokers.

Methods: The study took place in Beaumont Hospital, Dublin. Patients who were smokers or ex-smokers were identified from the inpatient wards and respiratory outpatient department (OPD), and interviewed using a standardised questionnaire. Data regarding underlying medical history was acquired from medical records.

Results: A total of 104 patients were included, comprising 50 smokers and 54 ex-smokers. There were no differences in gender or medical history. Ex-smokers were slightly older, with a mean age of 66.5 years compared to 56.9 years in smokers ($p=0.0017$). Current smokers had a longer smoking history; 39.14 years compared to 32.9 years in ex-smokers ($p=0.047$). Smokers reported lower expectations regarding the benefits of smoking cessation than the ex-smokers; only 60% believed that there would be a short-term health benefit and only 74% believed that quitting was worthwhile compared to 88.9% and 94.4%, respectively, in the ex-smoking group ($p=0.0025/p=0.01$).

Conclusion: There is significant variation among smokers and ex-smokers regarding attitudes to smoking cessation; this is despite receiving the same smoking cessation advice and having low Fagerstrom scores.

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Introduction

Some 22% of the world's population over the age of 15 smoke.¹ This figure is worrying given that, on average, smokers die 10 years younger than lifelong non-smokers,² with tobacco use killing almost six million people each year as a result of both direct use and second-hand smoke.¹ This equates to almost 5,500 smoking-related deaths currently per year in Ireland.³ A study by Doll *et al.*, which followed male British doctors for 50 years, showed that up to two in three long-term cigarette smokers will die of a tobacco-related illness, while cessation at age 50 halves the risk, and cessation at age 30 almost completely avoids it.² As well as the financial and health-related costs to the individual, tobacco use carries huge economic costs for a country. Treating tobacco-related disease amounts to €1-2 billion a year in Ireland. Recent data indicates an average cost of €7,700 per tobacco-related hospital admission³ and smoking-related conditions account for over 7,000 hospital admissions per year in Ireland.⁴ In 2008/09, the Omnibus Survey identified that over two-thirds (67%) of smokers in Great Britain⁵ want to quit, indicating a possible deficit in the availability of smoking cessation services. The main reason given for wanting to quit was for health purposes, with 83% citing at least one health reason, 31% wanted to quit for financial reasons, 22% to protect children and 16% due to family pressure.⁵ However, despite the explicit warnings and dangers of smoking, people continue to start smoking and the onset of smoking now occurs primarily in adolescence.⁶ Beliefs and expectations regarding the outcomes of smoking cessation are important determinants in moderating an individual's likelihood to quit and remain abstinent. Latimer-Cheung *et al.* found that men who received gain-framed smoking cessation advice through a state quit line and had positive outcome expectancies were more likely to quit and remain abstinent than men who were unsure of the benefits of smoking cessation. However, these findings were not replicated for females, suggesting the need for gender and individual considerations when delivering such advice.⁷ Magnan *et al.* found that both the perceived risk and worry about the medical consequences of smoking were associated with an increased motivation to quit smoking, with worry being the foremost motivator.⁸ Peasley-Miklus *et al.* also found that smokers prone to worrying were more motivated to quit smoking to reduce the negative effect, but that they also perceived greater barriers to smoking cessation.⁹ The aim of this study was to assess the attitudes and beliefs regarding smoking cessation between a group of current smokers and a group of ex-smokers in Ireland.

Methods

Participant selection and questionnaire delivery

Participants involved two patient cohorts: those attending the respiratory outpatient departments (OPD), and those in the general inpatient wards in Beaumont Hospital, Dublin. Patients were excluded if they were under 18 years of age, unable to

provide valid consent, unable to speak English, cognitively impaired (according to information in the patient's chart) or comatose. For the inpatient cohort, wards were selected at random and all patients on the selected wards were asked about their smoking history. Those attending the respiratory OPD were also interviewed if they were current or ex-smokers.

Those who were smokers or ex-smokers were interviewed using a standardised questionnaire devised by the department of psychology in RCSI. The questionnaire was comprised of basic demographic features, smoking history including quit attempts, beliefs and expectations about smoking cessation, actual experiences of ex-smokers after cessation, and a Fagerstrom test for current smokers. Interviews lasted approximately 10-15 minutes. Data regarding the underlying medical history was acquired from medical records.

Data analysis

A database was created using Microsoft Excel (Microsoft Excel 2010; Microsoft Corporation, WA, USA) to record all the data collected. This included basic demographic features, smoking history including quit attempts, professional advice received and methods used, and beliefs regarding smoking cessation. In addition, ex-smokers were also asked about the actual effects experienced following smoking cessation. Student's t-tests were used to analyse differences between the groups. Data analysis was performed using Microsoft Excel and SPSS v. 17.0.1 (IBM Corporation, NY, USA).

Results

Participant sample and smoking history

The study included 104 participants: 50 smokers and 54 ex-smokers. There were no significant differences in gender ($p=0.7$), medical history ($p=0.7$), or insurance status ($p=0.35$) between the smoking and ex-smoking populations. The ex-smoking population was older, with a mean age of 66.5 years compared to 56.9 years in smokers ($p=0.0017$). Although the smoking population was younger, smokers had a longer smoking history than ex-smokers; 39.14 years compared to 32.9 years ($p=0.047$). However, overall ex-smokers had a higher mean pack year history than smokers, 39.6 years compared to 26.1 years ($p=0.02$).

Quit attempts

Despite having a low nicotine dependency score as calculated by the Fagerstrom test (mean Fagerstrom score = 3.375 +/- SD 2.4), only 34% of current smokers attempted to quit in the past year, with only 18% attempting to quit more than five times. The main reason given for starting to smoke again after a cessation attempt in the past year was stress (41.2%), closely followed by social reasons, which comprised smoking on social outings or smoking with others (35.3%) (Table 1). Of the 33 smokers who had never attempted to quit, 30.3% were thinking about quitting but not

Table 1: Reasons identified by smokers for starting to smoke again. (Note: some respondents gave more than one answer.)

Reason given for smoking again	Number of participants
Stress	7 (41.2%)
Social reasons	6 (35.3%)
Boredom	3 (17.6%)
Other family members smoke	2 (11.8%)
Does not really want to quit	1 (5.9%)
Loneliness	1 (5.9%)
Habit	1 (5.9%)

actively planning to quit, and 51.5% were not thinking about quitting at all.

Of the ex-smokers, 63% quit on their first attempt, with a further 18.5% succeeding in quitting after fewer than five attempts. The ex-smoking population also showed a slight male predominance (54%). Only 31.5% of ex-smokers used nicotine replacement therapy (NRT) or other aids to quit smoking, compared to 53% of smokers who attempted to quit in the previous year ($p=0.176$).

The main reason cited by ex-smokers for quitting was deteriorating health, with 53.7% noting it as a reason for smoking cessation. This was followed by the desire to maintain good health (13%), advice from healthcare workers, and the increased cost of smoking (both 11.1%) (Table 2).

Smoking cessation advice

Only 43% of ex-smokers and 60% of current smokers reported receiving smoking cessation advice in the previous year (year before quitting for ex-smokers). This was irrespective of a respiratory diagnosis or other underlying medical condition. However, when asked if they would like to receive such advice, only 48% of smokers indicated that they would.

Attitudes and beliefs

Smokers reported lower expectations regarding the benefits of smoking cessation than the ex-smokers; only 60% believed that there would be a short-term health benefit and only 74% believed that quitting was worthwhile compared to 88.9% and 94.4%, respectively, in the ex-smoking group ($p=0.0025/p=0.01$). Smokers

Table 2: Reasons identified by ex-smokers for successful smoking cessation. (Note: some respondents gave more than one answer.)

Reason given for smoking cessation	Number of participants
Deteriorating health	29 (53.7%)
Maintain good health	7 (13%)
Advice from healthcare worker	6 (11.1%)
Increased cost of smoking	6 (11.1%)
Family members developing smoking-related diseases	4 (7.4%)
Just wanted to	3 (5.6%)
Pressure from family or friends	2 (3.7%)
Health messages (television, cigarette boxes, etc.)	2 (3.7%)
Pregnancy	2 (3.7%)
Other	2 (3.7%)

also reported higher expectations regarding the adverse outcomes of smoking cessation than ex-smokers; 52% believed that they would gain weight and 52% believed that they would find it harder to handle stress compared to only 31.4% and 29.6% in the ex-smoker cohort.

When ex-smokers were asked about their actual experiences following smoking cessation, only 38.9% reported gaining weight and an even smaller 25.9% reported that stress became more difficult to manage. Regarding the benefits of smoking cessation, the reported outcomes were generally lower than the expected outcomes with only 62.9% reporting an improvement in health in the short term and 61.1% indicating an improvement in the long term. However, 96% of ex-smokers felt that overall smoking cessation was a worthwhile action to take.

Discussion

The main reason identified by ex-smokers for wanting to quit was deteriorating health (53.7%), with only 13% quitting to maintain their good health. This indicates that more emphasis needs to be placed on the importance of smoking cessation to protect good health rather than to slow the deterioration of already damaged health due to smoking. This lack of awareness of the importance of smoking cessation is also highlighted in that only 34% of current smokers attempted to quit in the previous year despite having a low nicotine dependency score (mean Fagerstrom score = 3.375 +/- SD 2.4). Indeed, 51.5% of current smokers are not even thinking about quitting, which demonstrates an apathy towards prevention of ill health before it occurs.

An important result was that only 60% of current smokers reported receiving smoking cessation advice in the previous year. It is vital that smokers are actively advised to quit, as a systematic review concluded that the provision of such professional advice has a considerable effect on the point prevalence of smoking and the continued abstinence of patients.¹⁰ Training of healthcare workers on the subject may be necessary, as the review also found that those who had received training on smoking cessation were more likely to offer smoking cessation to patients than those who were untrained.¹⁰ It has also been shown that 39.14% of physicians do not feel that they have adequate training to help patients to quit.¹¹ The lack of provision of such advice cannot be blamed on physician time restraints, as Katz *et al.* concluded that emergency room staff can provide effective smoking cessation advice in a time-efficient manner.¹²

It seems that patients' beliefs and expectations regarding the outcomes of smoking cessation do play a vital role in determining a patient's likelihood to quit smoking. This is highlighted by the fact that current smokers showed lower levels of expectations regarding the positive effects of smoking cessation and higher levels of expectations regarding the negative effects of smoking cessation. Thus, educating smokers on the benefits of smoking cessation both short and long term is essential to motivate smokers to quit. It is also important to address the concerns of weight gain and stress following smoking cessation. Aubin *et al.* identified that on average, people who quit smoking gained 4-5kg in the first year following smoking cessation, with most weight gain in the first three months. However, there was considerable variation in weight change, as

16% lost weight and 13% gained more than 10kg.¹³ Thus, fluctuations in weight are not inherently linked to smoking cessation and measures can be taken to help the patient to avoid weight gain. Only 38.9% of ex-smokers in this study reported gaining weight after smoking cessation. However, as this information was taken retrospectively there could be recall bias present. It is impossible to obtain completely accurate information in this regard. There is also a possibility of selection bias as patients who were not present on the wards at the time the interviews were conducted were not questioned. Also, as all the participants were either inpatients or outpatients in Beaumont Hospital, they all have some degree of health impairment and may not be entirely representative to a group of smokers in the community.

Conclusion

This study suggests that smokers' beliefs and expectations regarding the outcomes of smoking cessation do influence their likelihood to quit smoking, highlighted by the differences between current smokers' and ex-smokers' beliefs. It is thus vital that healthcare professionals educate patients on the benefits of smoking cessation to motivate them to quit.

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