

Smoking Cessation in Family Practice

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Introduction

As in other countries throughout the world, smoking in Malta is a widespread problem associated with significant morbidity and mortality. Being a primary advocate for community health care, the family doctor is ideally placed to provide counselling on smoking prevention and cessation. This paper endeavors to assist family doctors in managing tobacco abuse in family practice.

Definition of smoking and related facts

The definition of smoking fits the World Health Organisation (WHO) criteria for addiction adapted by Steele¹ as follows: the compulsion to take a drug (nicotine) on a continuous basis (200 shots a day) in order to experience its effects (small doses stimulate, large doses sedate), or to avoid the discomfort of its absence (anxiety, irritability, tremor, loss of concentration, memory impairment, insomnia, constipation, weight gain, craving).

Smoking starts off as a psychosocial habit. Twenty cigarettes a day translate into 200 hand-to-mouth movements and puffs a day, 6,000 a month, 72,000 a year, or more than 2,000,000 for a 45-year-old smoker who started at 15 years of age²! This habit rapidly develops into pharmacological dependence on tobacco, due to its constituent nicotine. The latter substance reaches the brain within 7 seconds of inhaling, twice as fast as if it were injected intravenously¹. In fact, craving occurs within minutes of finishing a cigarette, due to the short half-life nicotine has in the body.

In 1998, the WHO³ issued the following statements of fact about tobacco smoking:

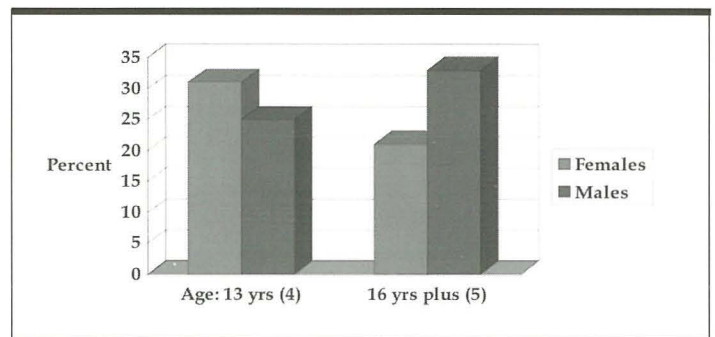
- Tobacco products have no safe level of consumption.
- They are the only legal consumer products that cause ill health and premature death when used exactly as the manufacturer intends.
- Unless concerted action is taken quickly, 250 million of today's children will die prematurely from an avoidable cause - tobacco use.

Local epidemiology

Prevalence

Smoking prevalence among the Maltese public (Figure 1) shows that, among children, girls are smoking more than boys (31% versus 25%)⁴, while, over the age of 16 years, more males than females smoke (33% versus 21%)⁵. On the other hand, less doctors are smoking now than before. While in 1989 25% of doctors and dentists smoked⁶, in 2000 only 15% of family doctors did so⁷.

Figure 1:
Smoking prevalence in Malta



Mortality

Over the past ten years or so, smoking in Malta is calculated to have been responsible for approximately 350 deaths a year, i.e. about one death every day⁸.

Smoking habits

In a study of the smoking habits of applicants for smoking cessation clinics in Malta⁹, 57% believed that they would not be smoking one year later and 72% thought they would be much healthier after quitting. However, quitting smoking is easier said than done, as 84% had tried to quit before and failed. As 94% of applicants to stop-smoking clinics believed in quitting with help, this indicates that Maltese smokers do feel the need for assistance to stop.

Risks of smoking & benefits of quitting

From their 50-year study of British male doctors, Doll et al¹⁰ calculated that, on average, cigarette smokers die about 10 years earlier than non-smokers. Smokers smoke for the addictive effects of nicotine, but suffer the morbid and mortal effects of carbon monoxide and smoke condensate (known as 'tar'). While nicotine acts on the brain and circulation, carbon monoxide prevents blood from carrying the maximum amount of oxygen to the body's tissues, together resulting in coronary artery disease, stroke and peripheral vascular disease. Tar contains 4,000 different chemicals that lead to chronic bronchitis and emphysema. Of these, 300 are known carcinogens that contribute to the development of cancer of the respiratory, digestive and urinary tracts, amongst others.

Thus, tobacco smoking is associated with an increased risk of the following diseases:

- **Cancers:** lung (>90% are smokers); lip; mouth; oesophagus; stomach; pancreas; colon; kidney; bladder; breast; cervix; leukaemia/lymphoma.

- *Coronary/cerebro-vascular disease*: coronary artery disease (CAD); stroke; peripheral vascular disease.
- *Chronic lung disease*: chronic obstructive pulmonary disease (COPD)/emphysema; recurrent chest infection; exacerbation of asthma.
- *Complications of pregnancy*: pre-eclamptic toxemia; intra-uterine growth retardation; pre-term delivery; low birth weight; perinatal death.
- Mouth disease, dyspepsia, gastric ulcers.
- Non-insulin dependent diabetes mellitus (NIDDM), osteoporosis, hypothyroidism, reduced fertility

Passive smoking too is associated with a raised risk of disease, as follows:

- lung cancer (increased by 30-35%)
- CAD (increases death by 25%)
- exacerbation of allergies, eczema & asthma
- decreased lung function
- bronchitis
- cot death
- otitis media in children

On the other hand, quitting smoking does have its benefits. First of all, it reduces the risk of acquiring a disease. For example, if one stops smoking today, by tomorrow he/she will have halved the chance of dying of a heart attack (British Medical Association Annual Scientific Meeting, Malta, 22-26 September 1992). Cessation at the age of 50 halves the added hazards of smoking, while quitting at 30 avoids almost all of it¹⁰. Secondly, it also benefits patients already having a disease, by arresting the progression of the disease (unless it is cancer). In fact, stopping at the ages of 60, 50, 40, or 30 years results in gains of approximately 3, 6, 9, or 10 years in life expectancy respectively¹⁰.

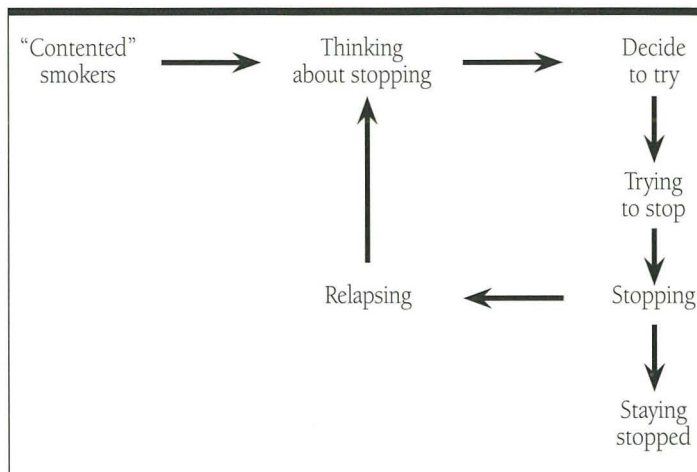
Smoking cessation

Stopping smoking is a process: advice can start it off or help it along the stages of contemplation (based on the Prochaska & Diclemente 'stages of change' model – see Figure 2). Simple advice from a general practitioner to stop, reinforced by a leaflet and warning of follow-up, resulted in 5% of patients not smoking one year later¹¹. Individual counselling can help smokers quit, being 1.5 times more effective than control¹².

Family doctors play an important role in tobacco control through delivering positive health messages counteracting tobacco use and promotion, and by assisting in smoking cessation through counselling and pharmacotherapy. Thus it is important to know which diseases are smoking related, inform patients on the dangers of smoking (with the benefits of quitting), and advise all those who smoke to quit and how. This may be done by using the following 5 A's technique¹³:

- **A**sk about smoking at every opportunity;
- **A**dvice all smokers to quit;
- **A**ssess readiness to stop smoking;

Figure 2:
Process of changes of attitude in stopping smoking (adapted from Raw²)



- **A**ssist the patient in stopping;
- **A**rrange follow-up visits.

1. ASK about smoking status

All patients should be asked if they smoke, with smoking status being recorded in their medical record. For example, if paper-based files are used, a black sticker could identify smokers, with a yellow sticker used for those trying to quit and a blue sticker for non- or ex-smokers. The status of ex-smokers should be reinforced by congratulating them on their achievement. Of course, it is important that such records are kept up to date.

2. ADVISE benefit of stopping

All smokers should be advised to quit, and the best way to do this is in a personalised and appropriate manner by linking such advice to the patient's situation, symptoms and clinical condition (see Table 1).

Secondly, when counselling a smoker to quit, the dangers of smoking must be balanced with the benefits of stopping, trying to use terms which are easily understood, as shown in Table 2.

3. ASSESS motivation to stop

Smokers' readiness to quit should then be assessed by being asked a direct and simple question: "Do you want help to stop smoking?"

Table 1: Linking Cessation Advise to Smokers' Circumstances

Situations	Symptoms	Conditions
<ul style="list-style-type: none"> • Parent of young children • Women on the pill • Pregnancy & post delivery • Before and after surgery 	<ul style="list-style-type: none"> • Cough, sputum production • Chest pain, shortness of breath 	<ul style="list-style-type: none"> • Vascular diseases • Hypertension • Recurrent RTI's • Diabetes mellitus • Hyperlipidaemia • Allergy • COPD/asthma • Peptic ulcer

Table 2:
Dangers of smoking versus benefits of quitting

Smoking Is Dangerous	It is worth stopping
9 in 10 of deaths from lung cancer and COPD, and 1 in 4 of heart disease, are caused by smoking ²	If you stop smoking today, by tomorrow you will have halved your chances of dying of a heart attack
From an average 1,000 young men who smoke cigarettes regularly <ul style="list-style-type: none"> • about 1 will be murdered • about 6 will be killed on the roads • about 250 will be killed by tobacco² 	Quitting at 30 avoids almost all the added hazards of smoking, while quitting at the age of 50 halves the increased risks ²

If the client is not interested and says no, his/her decision should be respected. In such cases, he/she should just be offered an information leaflet (available from the Health Promotion Department – see ‘Resources’), advised to consider the matter further, and given an open invitation for further discussion. When the opportunity presents itself, the patient should be asked again during subsequent visits, but in a discrete and non-intrusive manner.

If, on the other hand, the client is interested in quitting and wants help in doing so, he/she is then provided with assistance in stopping.

4. ASSIST in stopping

Stopping is easy if the would-be quitter possesses the necessary want-power and will-power. The family doctor should assist by providing useful self-help literature (available from the Health Promotion Department – see ‘Resources’) and offering appropriate support and counselling (see Table 3).

Pharmacotherapy has been found to improve the chances of quitting. As such, the family doctor should recommend the use of nicotine replacement therapy (NRT) or bupropion (if not contraindicated) and provide accurate information and advice about them. However it must be emphasised that NRT and bupropion are only aids, and that willpower is still needed to stop smoking.

Table 3:
Support and counselling tips for quitting smoking

Prepare Carefully	Wake up a non-smoker
<ul style="list-style-type: none"> • Highlight reasons for quitting • Keep a smoking diary • Discuss withdrawal symptoms • Agree on a quit date • Quit with a friend • Study self-help literature 	<ul style="list-style-type: none"> • Avoid temptation • Coping strategies (4Ds) <ul style="list-style-type: none"> - <u>d</u>elay for 3 minutes - <u>d</u>rink water/juice - <u>d</u>istract oneself - <u>d</u>eep breathing • Change regular routine • Take one day at a time • Eat healthy food • Regular exercise, adequate rest • “Cash not ash”

Nicotine replacement therapy

NRT has been found to increase the quit rates by 1.5-2 times, irrespective of the use of additional counselling¹⁴. It is available as patches, chewing gum, inhaler, nasal spray, lozenges and sublingual tablets, all of which are equally effective. NRT helps the motivated smoker to quit by reducing the symptoms of nicotine withdrawal, while avoiding the hazards to the other constituents of tobacco. One should start off with higher doses for patients highly dependent and continue treatment for 3 months, tailing off the dose gradually before stopping. Contraindications to the use of NRT include arrhythmia and immediately after myocardial infarction, stroke and transient ischaemic attacks¹⁵.

Bupropion

Bupropion can double the chance of quitting¹⁶. The mode of action is unclear but is thought to involve a specific effect on noradrenaline and dopamine neurotransmission underlying nicotine addiction. Smokers over 18 years of age (under which bupropion is not recommended) start taking the tablets 1-2 weeks before their intended quit day (150 mg daily for 6 days, then 150 mg twice daily) for 7-9 weeks in all. A 1 in 1000 risk of seizures has been documented. Contraindications to the use of bupropion are a history of seizures, eating disorders, bipolar disorder; pregnancy; and breast-feeding¹⁵.

Newly-approved drug for smoking cessation

A new drug - varenicline - was approved in May 2006 by the US Food and Drug Administration after six clinical trials (including five randomised controlled trials - RCTs) demonstrated its effectiveness in helping cigarette smokers to stop¹⁷. Varenicline was found to be superior to placebo in the 5 RCTs and more successful than bupropion in two of them. It is a nicotinic acetylcholine receptor partial agonist and is reported to reduce the urge to smoke and ease withdrawal symptoms, and to diminish the sense of satisfaction if smoking is resumed¹⁸. However, Klesges et al¹⁹ have pointed out that, in 3 RCTs, nausea was reported by nearly 30% of participants taking varenicline, significantly more than those taking bupropion or placebo. Following approval of varenicline by the European Medicines Evaluation Agency (EMA) in September 2006, UK interim guidelines¹⁸ issued in November 2006 stated that it “looks to be an effective and welcome addition to our range of medications to help smokers stop”.

Referral to smoking cessation clinic

Group behaviour therapy programmes for smoking cessation are more than twice as effective for helping people to stop smoking as being given self-help materials without face-to-face instruction and group support²⁰. The family doctor may refer would-be quitters to Smoking Cessation Clinics run locally by the Health Promotion Department (see ‘Resources’).

An evaluation of Smoking Cessation Clinics in Malta carried out by Sammut²¹ studied 101 clients attending quit sessions of all smoking cessation clinics held during one year starting in October 1999. Of these, there were 27 who stopped smoking by the last session (27% immediate success rate). Six months after the end of the clinics, 10

of the quitters were still not smoking (10% long-term success rate). This rate is low compared to international standards (20-30% and 15-30% at one year in the UK and USA respectively), one possible reason being the non-mandatory use of NRT by clinics at the time.

5. ARRANGE follow-up visits

Follow-up of would-be quitters is important to enable discussion of their progress and any problems. Fears of busy family doctors that this arrangement will be time-consuming are unfounded. In actual fact, three visits at weekly intervals, followed by 3 visits at fortnightly intervals (i.e. 6 appointments in all, lasting about 5 minutes each), add up to a grand total of just 30 minutes over 2 months. During these meetings, the doctor should maintain a positive attitude and encourage when despondent. Thus one must differentiate between a slip (one or two cigarettes) and a relapse (going back to smoking on a regular basis), and remember the maxim quoted by Steele¹ "If at first you don't succeed - quit, quit again!"

Conclusion

Preventive measures in tobacco control involves knowing which diseases are related to smoking, informing patients on the dangers of smoking and the benefits of quitting, and advising all patients who

smoke to quit and how. Giving up smoking is probably the biggest single thing smokers can do in their life to improve their health, with at least 146,000 lung cancer deaths in U.S. males during 1991-2003 having been prevented by reductions in tobacco smoking²². The intervention of the family doctor in this respect will probably be the most important single influence he/she can have on their health³.

Resources

Health Promotion Department

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Website: <http://sahha.gov.mt/pages.aspx?page=318>

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