Should multifaceted smoking cessation programmes be more widespread?

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Tobacco was introduced into the UK in the late 16th century and its popularity has risen ever since then. However, shortly afterwards, the son of Mary Queen of Scots, King James I of England was the first monarch to implement a tax on tobacco use. He also published his famous ‘Counterblast to tobacco’ in 1604 where he reflected on his dislike of the ‘precious stink’ and observed that:

Smoking is a custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black, stinking fume thereof nearest resembling the horrible Stygian smoke of the pit that is bottomless.

Despite the noble and early attempts to practice primitive public health medicine, cigarette smoking for centuries has been one of the most prevalent, addictive and harmful pastimes throughout many countries of the world. Cigarette smoking delivers nicotine—a powerfully addictive drug—quickly and in high doses directly to the brain; addiction is usually established through experimentation with cigarettes during adolescence and commonly results in sustained and lifelong smoking. Apart from being the most common and important cause of chronic obstructive pulmonary disease (COPD), it is the major cause of a plethora of other chronic diseases and cancers affecting almost every bodily system and organ. Curiously, only up to 20% of those who smoke cigarettes actually develop airflow obstruction, with reasons behind this only poorly understood.

Smoking cessation is the most effective means of preventing COPD and reducing the rate of progression in those with this diagnosis. Indeed, it has long been established that smoking cessation reduces the rate of decline in lung function in individuals with COPD to that of a non-smoker, and it forms the cornerstone of management in all major national and international guidelines. Moreover, those with COPD who quit smoking also experience a substantial improvement in overall health, functional status and survival, in addition to a reduced incidence of many forms of cancer and cardiovascular diseases. Exacerbations of COPD are highly significant events in the life of a patient as they have been linked to an accelerated decline in lung function and health status, impaired quality of life and restriction of daily living activities. It therefore stands to reason that prevention of cigarette smoking (primary prevention) and encouraging established smokers to quit is one of the most important public health measures needing urgently addressed in most developed and developing countries.

In last month’s issue of the Quarterly Journal of Medicine, Kabir et al. describe—by way of a retrospective analysis—the effects of a multifaceted tobacco control programme in Massachusetts on the rates of COPD exacerbations requiring admission to hospital. This programme involved strategies such as higher tobacco prices and tax increases, smoke-free policies, increased availability of smoking cessation services, more stringent regulations on advertising tobacco products and widespread counter advertising. Since its introduction in 1993, the
authors demonstrated a clinically relevant overall decline in annual age-related hospitalizations across this particular US state; this amounted to nearly a 6% annual decline over the first 3 years, with a slower subsequent annual (0.5%) decline to 2005. However, the reduction in admission rates to hospital for an exacerbation in females was less than in males, and no changes were noted in those over the age of 65 years. The authors do highlight a number of potential drawbacks and areas of uncertainty relating to their study which may in turn limit their findings; these include potential discrepancies and inaccuracies in reporting and documentation of exacerbations across the state, population migration, changing referral practices over time and the study’s retrospective nature. Other possible confounding factors include changing clinician prescribing habits, patient practices and threshold of seeking medical advice and use of different (and potentially more effective) non-pharmacological and non-pharmacological manoeuvres over time.

Nevertheless, this study, involving large numbers of individuals, does lend convincing weight to the common sense notion that smoking cessation strategies do reduce rates of hospital admission with COPD. Moreover, the fact that beneficial effects can be seen shortly after institution of a comprehensive smoking cessation programme provides further support that significant medical benefits—along with potential financial gains due to reductions in hospital bed occupancy—can be achieved within a relatively short period of time. The authors do also correctly acknowledge that similar (and perhaps prospective) studies are necessary across different populations and different countries before definite conclusions can be made. However, smoking cessation policy makers, the smoking population, those with COPD, politicians, governments and public health clinicians should now be cautiously optimistic that major beneficial effects upon reduction of rates of hospital admission may actually take place within a very short period of time following smoking cessation intervention.

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References