



Royal College
of Physicians



Smoking and mental health

A joint report by the Royal College of Physicians
and the Royal College of Psychiatrists

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Mental disorders

- Mental disorders comprise a spectrum of conditions ranging from the mild and transient to the severe and disabling.
- Mental disorders are common, occurring to some degree in about a quarter of adults and around 10% of children and adolescents in any year.
- Most people with mental disorders are cared for in the community, predominantly by GPs, but also by specialist multidisciplinary teams. A minority of people with mental disorders are managed in secondary care inpatient facilities.
- Mental disorders are associated with increased rates of a range of health risk behaviours (such as smoking, alcohol and drug misuse, poor diet, less physical activity, self-harm), poor educational and employment outcomes, homelessness, social stigmatisation, marginalisation, and reduced uptake or delivery of health services including for health risk behaviour and physical illness.
- Life expectancy among people with many mental disorders is substantially lower than that of the general population.

Smoking among people with mental disorders

- Smoking is around twice as common among people with mental disorders, and more so in those with more severe disease.
- Up to 3 million smokers in the UK, 30% of all smokers, have evidence of mental disorder and up to 1 million have longstanding disease.
- A third of all cigarettes smoked in England are smoked by people with a mental disorder.
- In contrast to the marked decline in smoking prevalence in the general population, smoking among those with mental disorders has changed little, if at all, over the past 20 years.
- Smokers with mental disorders are just as likely to want to quit as those without, but are more likely to be heavily addicted to smoking and to

anticipate difficulty quitting smoking, and historically much less likely to succeed in any quit attempt.

- Over the course of a year, smokers with mental disorders are more likely to receive advice from their GP to quit smoking, and be prescribed cessation medications, but this reflects the increased frequency of their consultations. Overall, only a minority receive cessation pharmacotherapy.

Neurobiological and behavioural mechanisms linking smoking and mental disorders

- Although smoking, and high levels of dependence on smoking, are both more common in people with mental disorders, the mechanisms underlying these associations are uncertain.
- There is some evidence of common genetic determinants of both smoking and specific mental disorders, particularly depression and schizophrenia.
- Experimental evidence suggests that nicotine can relieve symptoms of anxiety, depression, schizophrenia and attention deficit hyperactivity disorder (ADHD), although nicotine withdrawal symptoms may then exacerbate symptoms of mental disorders.
- People with some mental disorders may use nicotine to ameliorate symptoms such as depression or anxiety (the self-medication model).
- However, the symptoms of mental disorders can be confused with or exacerbated by those of nicotine withdrawal, hence resulting in false attribution of relief to effects on mental disorders.
- The effects of constituents of tobacco and tobacco smoke other than nicotine on mood and cognition remain unclear.
- The association between smoking and mental disorders is therefore complex and further work is needed to help improve understanding.

Epidemiology of the association between smoking and mental disorders

- Current smoking is associated with an increased risk of onset of depression, including postnatal depression, and people with depression are more likely to become smokers.
- Current smoking is associated with an increased risk of onset of anxiety disorders, and people with anxiety disorders are more likely to take up smoking.
- Former smokers are not at an increased risk of subsequent onset of depression.
- Adolescents with eating disorders are more likely to become smokers.

- There is some evidence that people with behavioural disorders, particularly ADHD and conduct disorder, are more likely to become smokers, but no evidence that smoking increases the risk of onset of these conditions.
- There is a strong association between smoking and schizophrenia in cross-sectional studies, but longitudinal evidence on the temporal relationship is mixed.
- Adolescents with bipolar disorder may be more likely to become heavy smokers.
- Smoking is associated with an increased risk of dementia.
- People with mental disorders appear to have higher risks of cardiovascular disease and stroke (after accounting for the effects of smoking); however, there is no consistent evidence regarding an increased risk of cancer.

Smoking cessation interventions for individuals with mental disorders

- Smoking cessation interventions that combine behavioural support with cessation pharmacotherapy, and are effective in the general population, are also likely to be effective in people with mental disorders.
- Nicotine replacement therapy (NRT) is effective in people with mental disorders, but is likely to be required in high doses, for longer durations and with more intensive behavioural support than in the general population of smokers.
- Bupropion and varenicline are both effective in people with mental disorders, but should be used with appropriate supervision and monitoring; further research on their use in this population is an urgent priority.
- Smoking cessation does not exacerbate symptoms of mental disorders, and improves symptoms in the longer term.
- However, symptoms of nicotine withdrawal are easily confused with those of underlying mental disorder, and should be treated with NRT or other cessation therapy.
- Smoking cessation reduces the metabolism of some drugs, such as clozapine, used to treat mental disorder, necessitating prompt reduction in doses of affected drugs at the time of quitting, and increases in the event of relapse.
- Smokers who do not want to quit smoking, or else feel unable to make a quit attempt, should be encouraged to cut down on smoking, and to use NRT or other nicotine-containing devices (in line with the tobacco harm reduction guidance of the National Institute for Health and Clinical Excellence (NICE)) to support smoking abstinence in secondary care or other smoke-free settings, and promote the likelihood of future quit attempts.
- All primary and secondary care services should record smoking status and provide effective cessation or harm reduction interventions as a central, systematic component of care delivery. Where access to community-based

services is limited, as, for example, in secondary care settings, services should be provided in house.

- As many people with mental disorders are managed by both primary and secondary care, provision of smoking cessation support in primary and secondary care settings requires coordination to ensure consistency.
- Further research is urgently required to improve the design and content of cessation and harm reduction interventions in mental health settings, and to maximise access to and delivery of evidence-based support.

Population strategies to prevent smoking in mental disorders

- Population-level tobacco control policies have a significant effect on smoking prevalence in the general population by promoting quit attempts, and discouraging smoking uptake.
- Although specific evidence on the effect of existing population-level policies in people with mental disorders is lacking, the stability of smoking prevalence in mental health populations over recent decades in the UK suggests that they are less effective in this group.
- It may be possible to increase the impact of some approaches, such as media campaigns, by tailoring to the specific needs of mental health populations.
- However, it is also important to capitalise on the opportunities presented by contacts with mental health services to intervene to support smoking cessation and harm reduction.
- Smoking is, however, a widely accepted component of the culture of many mental health settings, making cessation more difficult for smokers.
- Smoke-free policies are a vital means of changing this culture.
- Smoke-free policies are more likely to be successful and effective if they are comprehensive, and can be implemented successfully in mental health settings with appropriate leadership and support strategies for patients and staff.
- Training and support to overcome prevailing misconceptions and negative or indifferent attitudes towards treating smoking among mental health staff are urgently needed.
- Provision of effective smoking cessation and harm reduction support for people who smoke is crucial in maintaining smoke-free policy.
- Investment in achieving smoke-free mental health settings, and in the support needed by patients and staff to allow this to happen, is therefore an urgent national priority.

Smoking and mental disorders: special circumstances

- Smoking, and particularly high levels of nicotine dependence, are especially common among people in forensic psychiatric settings and prisons, homeless people, and those with alcohol or other drug misuse.

- Smoking is also engrained in the culture of many of the institutions that care or provide for these groups.
- People in these populations are no less likely to want to quit smoking, although the likelihood of success in any quit attempt may be lower than for the general population of smokers, and smokers may also encounter obstacles to engagement with existing cessation services
- It is therefore a priority to establish smoke-free cultures and to provide suitable smoking cessation support for all smokers, particularly those with high levels of dependence, in these settings.
- Interventions to address smoking concurrently with alcohol and/or drug misuse are effective and can also support alcohol and drug abstinence.
- Women with mental disorders are more likely to smoke throughout pregnancy, but are also more likely to accept cessation support.
- Smoking cessation interventions are effective among pregnant women but may be more so if tailored to the specific needs and co-morbidities of women with mental disorders.
- Systematic and sustained intervention and support are necessary to maximise smoking cessation among pregnant women.
- Child and adolescent mental health services, and local authority foster care and smoking policies, should explicitly protect children from passive smoke, and promote smoke-free foster homes.
- Professionals working with or caring for young people should provide positive (ie non-smoking) role models and be trained to deliver cessation advice and provide or arrange further support for those who want help to quit.
- In settings where young people are most vulnerable, such as adolescent inpatient units, there should be a broad programme of health promotion aimed at preventing initiation of smoking as well as smoking cessation.
- In view of the current lack of evidence on safe, feasible and effective tobacco dependence treatment in the settings and populations covered in this book, further research is urgently required.

The economic cost of smoking in people with mental disorders

- The NHS spends approximately £720m per annum in primary and secondary care treating smoking-related disease in people with mental disorders.
- These costs arise from an annual estimated 2.6 million avoidable hospital admissions, 3.1 million GP consultations and 18.8 million prescriptions.
- Most of these service costs arise from people diagnosed with anxiety and/or depression.
- Smoking increases psychotropic drug costs in the UK by up to £40m per annum.

- Achieving cessation in 25%, 50% and 100% of people with mental disorders would, respectively, result in a gain of 5.5 million, 11 million and 22 million undiscounted life-years in the UK. At 3.5% discounting, the corresponding figures are 1.4, 2.7 and 5.4 million life-years gained.
- Harm reduction through lifelong substitution with medicinal nicotine is highly cost-effective when compared with continuing smoking, at around £8,000 per quality-adjusted life-year (QALY) gained for lifetime nicotine patch use and £3,600 per QALY for inhalators.
- Addressing the high prevalence of smoking in people with mental disorders offers the potential to realise substantial cost savings to the NHS, as well as benefits in quantity and quality of life.

Ethical and legal aspects

- The entitlement of people with mental disorders to smoking cessation support is at least as strong as that of the general population.
- Their need for such support is in many cases actually greater.
- Patients with mental health problems should receive at least the same level of access to smoking cessation treatment and aids to quitting as members of the general population.
- The objectives of smoking cessation and tobacco control policies in the mental healthcare context need to take account of the complexity of the care needs of people with mental health problems.
- The case law relating to smoking policies in formal mental healthcare settings and prisons suggests that a careful balance needs to be struck between personal rights and welfare, the objectives of the institutions, and the rights and interests of other staff and residents/inmates.
- There is a need for greater investment in smoking cessation treatment in the mental healthcare context.
- Smoke-free policies in mental health institutions, as in other public places, are justified on the grounds of health and wellbeing of non-smoking patients and staff.
- The moral imperative of healthcare institutions to promote the mental and physical health of their patients (and to protect and support the mental and physical health of their staff) justifies a shift in culture within mental health institutions away from one that supports smoking.

Overall conclusions

- Smoking is extremely common in people with mental disorders, causing major reductions in life expectancy and quality of life, exacerbating poverty and presenting major economic costs to the NHS and wider society.

- Despite consuming a large proportion of tobacco in the UK and being heavier smokers, only a minority of people with mental disorders receive effective smoking cessation interventions.
- Prevention and treatment strategies to date have made little if any impact on smoking in this population.
- This failure does not arise from substantially lower motivation among smokers with mental disorders to quit smoking.
- It is likely that the persistent acceptance of smoking as a normal behaviour in primary and secondary care, and failure by health professionals to address smoking prevention as a health priority, drives and perpetuates the high prevalence of smoking in people with mental disorders.
- This persistent high prevalence of smoking reflects a major failure of public health and clinical services to address the needs of a highly disadvantaged sector of society.
- There is a moral duty to address this problem in the future, and to prioritise the rights of people with mental disorders to the same protection and health interventions as the general population
- Smoke-free policy is crucial to promoting smoking cessation in mental health settings.
- All healthcare settings used by people with mental disorders should therefore be completely smoke free.
- Smokers with mental disorders using primary and secondary care services, at all levels, should be identified and provided routinely and immediately with specialist smoking cessation behavioural support, and pharmacotherapy to relieve nicotine withdrawal, promote cessation and reduce harm.
- Commissioners should require mental health service settings to be smoke free, and to provide support for cessation, temporary abstinence and harm reduction.
- Service indicators, such as the primary care Quality Outcome Framework (QOF) and Commissioning for Quality and Innovation (CQUIN), should measure and incentivise cessation, not just delivery of advice to quit.
- All professionals working with or caring for people with mental disorders should be trained in awareness of smoking as an issue, to deliver brief cessation advice, to provide or arrange further support for those who want help to quit and to provide positive (ie non-smoking) role models. Such training should be mandatory.
- There is no justification for healthcare staff to facilitate smoking.
- Research funding agencies should consider encouraging and investing in research to address this major cause of ill-health, and health inequalities, in British society.