Smoking and mental health conditions

Chew-Graham, Carolyn A; Shiers, David; Johnston, Gordon ; Farley, Amanda; Burn, Wendy ; Clark, Mike; Campion, Jonathan

DOI:
10.1177/17557380231185161

InnovAiT, 0(0), 1–7

Smoking and mental health conditions: What you need to know

Professor Carolyn A. Chew-Graham
General Practitioner, Manchester
Professor of General Practice Research, Keele Staffs University, Keele
Email: c.a.chew-graham@keele.ac.uk
Twitter handle: @CizCG

Dr David Shiers
Carer
Honorary Senior Research Fellow, School of Medicine, Keele Staffs University

Mr Gordon Johnston
Person with Lived Experience of Mental Health conditions

Dr Amanda Farley
Associate Professor,
Institute of Applied Health Research, University of Birmingham, Birmingham

Professor Wendy Burn
Consultant in Old Age Psychiatry, Leeds and York Partnership NHS Foundation Trust
National Mental Health Clinical Advisor
Health Education England

Dr Mike Clark
Associate Professorial Research Fellow, Care Policy & Evaluation Centre (CPEC)
London School of Economics & Political Science

Dr Jonathan Campion
Consultant Psychiatrist and Director for Public Mental Health (South London and Maudsley NHS Foundation Trust)
Clinical and Strategic Co-director of Public Mental Health Implementation Centre (Royal College of Psychiatrists)

Smoking is the largest single cause of preventable death and accounted for 74,600 deaths in 2019–20. One of the targets in the England Tobacco Control Plan is that the population prevalence of smoking will reach less than 5% of the population. The key to achieving this will be addressing smoking in societal groups where rates are stubbornly high, such as people with mental health conditions. People with mental health problems experience disproportionate levels of tobacco-associated harm, alongside wider social and economic impacts. Primary care can help tackle this health inequality.

Clinical scenario 1.

Ursula is 25 years old and has been in the Early Intervention Psychosis (EIP) service for nearly 3 years and is soon to be discharged. She is on aripiprazole and sertraline. She has put weight on since being on antipsychotic medication. She smokes about 20 cigarettes a day.

The practice receives notification from the EIP that Ursula's condition is now stable and she is being discharged home.

What actions should the practice take?

What type of smoking cessation services are available to patients registered with your practice/in your Primary Care Network?

How would you ensure that Ursula receives person-centred support?

InnovAiT, 2023, Vol. 0(0), 1–7, © The Author(s) 2023.
Article reuse guidelines: sagepub.com/journals-permissions
DOI: 10.1177/17557380231185161
journals.sagepub.com/home/ino

What is known about smoking cessation and mental health?

Smoking is associated with an increased risk of developing a mental disorder. People with severe mental illness (SMI) die 15–20 years earlier than the general population. Three-quarters of deaths arise from physical illnesses, the biggest cause being cardiovascular disease (CVD), far commoner than suicide. Psychotic illness, adverse treatment effects, lifestyle and socio-economic disadvantage combine to markedly increase the risk of acquiring CVD and diabetes, often exacerbated by inadequate or discriminatory healthcare. This population is about three times more likely to smoke, yet less likely to receive support to quit, compared with the general population. It is thought that 40–45% of people with SMI smoke, compared with the 12–15% of smokers in the general population.

There is a common perception among both smokers and healthcare professionals that people who smoke tobacco are unwilling to try to stop smoking. People often report that smoking helps them deal with stress and improves their mood. It is often seen as a form of self-medication in people who have mental health conditions. Therefore, concerns may be expressed by some people with mental health conditions and by some healthcare professionals, that smoking cessation could be detrimental to mental health (see Fig. 1).

This erroneous belief has acted as a barrier to smokers with mental health problems attempting smoking cessation and to healthcare professionals offering active support to quit. A recent Cochrane review, however, has challenged this perception, and the results strengthen the case for offering smoking cessation support to people with mental health conditions (Taylor, Lindson, Farley, et al., 2021).

This Cochrane review summarised findings from 102 studies comparing change in mental health in people quitting smoking and people continuing to smoke. Across all outcomes measured (including depression, anxiety, positive affect and psychological quality of life) there was an improvement in all these mental health outcomes in the population quitting smoking. The size of the effect was similar to antidepressant treatment. This effect was detectable from as early as 6 weeks after quitting once nicotine withdrawal symptoms

Figure 1. First cigarette of the day.

Illustration by Tom Bailey.

had abated. This longer-term improvement in mental health was discernable in people with pre-existing mental health conditions, as well as in the general population. Sensitivity analyses confirmed that this was not an artefact of the study design (Taylor, Lindson, Farley, et al., 2021).

A few reasons are proposed for the improvements in mental health after smoking cessation. Perceived mental health-maintaining properties of smoking may be a misattribution: shortly after smoking a cigarette, blood nicotine levels will drop causing withdrawal symptoms, including irritability, anxiety and low mood. Smoking alleviates these symptoms, creating the impression that smoking is maintaining mood, whereas in fact smoking and nicotine withdrawal are causing the instability in mood. The Cochrane evidence supports the hypothesis that breaking the cycle of nicotine withdrawal from cigarette to cigarette improves the mental health of those who quit smoking (Taylor, Lindson, Farley, et al., 2021).

There are other reasons proposed for the improvements in mental health and wellbeing seen in those achieving smoking cessation. Most smokers want to quit smoking, but find it hard to do so. Contrary to the perceptions of many healthcare professions, survey evidence shows that people with mental conditions are motivated to stop smoking. Successful smoking cessation is likely to improve a person's sense of control over life and health. Successful quitters experience other immediate benefits including improved taste and smell, increased energy and financial savings. Although people with serious mental health conditions may need more intensive and tailored support to quit, it can be achieved (Taylor, Lindson, Farley, et al., 2021). The evidence provides a strong case for advocating and supporting smoking cessation in people with a mental health condition. People are likely to see improvements in their mental and physical health after quitting, and people with mental health conditions can be successful in quitting when given the right support (Gilbody et al., 2019). See Fig. 2.

Why is monitoring medication important?

Smoking increases the metabolism of many psychotropic medications, and thus upon smoking cessation doses of such medications may require immediate dose reduction to prevent medication toxicity (see Table 1). If smoking is resumed, original doses need to be reinstated. Monitoring

Figure 2. Quit with the right support.

Illustration by Tom Bailey.

Table 1. Required dose changes and monitoring of psychotropic medication following smoking cessation.

Medication	Drugs	Required action including medication dose change during smoking cessation
Antidepressants	Doxepin, duloxetine, fluvoxamine, trazadone	Monitor closely and dose may require reduction
	Escitalopram	Monitor closely and consider 25% dose reduction
	Mirtazapine	Monitor
	Tricyclic antidepressants	Monitor closely and consider 10–25% dose reduction over 1 week Consider further dose reductions
Antipsychotics	Olanzapine	Take plasma level before stopping. On stopping, 25% dose reduction. Repeat plasma level a week after cessation and consider further dose reduction
	Risperidone	Monitor
	Haloperidol	Reduce dose by 25%, monitor carefully and consider further dose reductions
	Clozapine	*Clozapine toxicity can be particularly serious.* Take plasma level before stopping. On stopping, gradual 25% dose reduction over a week. Repeat plasma level a week after cessation and anticipate further dose reduction
	Fluphenazine	Reduce dose by 25%, monitor carefully over 4–8 weeks and consider further dose reductions
	Zuclopenthixol	Monitor
Mood stabilisers	Carbamazepine	Monitor adverse effects and plasma levels
Benzodiazepines	Diazepam	Monitor closely and consider up to 25% dose reduction over 1 week

Adapted from Taylor et al. (2020).

medication is a key role for the GP, pharmacist or the practice nurse who may be supporting smoking cessation.

When should smoking cessation advice be offered to people with severe mental health problems?

People with severe mental illness should be invited into the practice at least annually for a physical health check. This should include measurement of blood pressure and body mass index, alcohol consumption, and measurement of HbA1C and lipids. Smoking is no longer a target, but the National Institute for Health and Care Excellence (NICE) suggests in NICE CG178 that assessment of smoking status should be done and endorses the use of the Lester assessment tool (Shiers et al., 2014) which includes asking about smoking (NICE, 2014). The Lester tool states '*don't just screen, intervene*' – so as primary care clinicians we should ensure we act on findings, including offering smoking cessation advice and support.

Evidence from the SCIMITAR study suggested that the smoking cessation intervention needs to be flexible and tailored to the individual (Gilbody et al, 2019). See Fig. 2.

People with severe mental health problems on psychotropic medication should be offered a 'medication review' at least annually (possibly more frequently for some medications and some groups of patients). The annual medication review is an ideal opportunity to enquire about smoking and to offer advice and support to quit.

Smoking is linked to poor oral health, a forgotten health inequality

Although the importance of smoking on the physical health of people experiencing severe mental illness is recognised, attention has largely focused on disorders suchas diabetes and CVD. It is well established that smoking is linked to poor oral health in the general population, but this issue has previously received scant attention in people with mental health problems. However, compared to the general population, research shows people with SMI (Turner et al., 2022):

- Are three times more likely to lose all their natural teeth
- Have on average five more decayed teeth
- Are twice as likely to experience late detection of oral cancer, and less likely to receive specialised treatments

- Are less likely to brush their teeth
- Are less likely to access routine dental services

High rates of smoking in people with severe mental illness are an underpinning cause of harm for many conditions including poor oral health. Diabetes and CVD are examples of conditions particularly prevalent in people with SMI where smoking is a major concern. Furthermore, poor oral health can adversely interact with diabetes and heart disease; for instance, poor oral health can impact on diabetes control, while diabetes makes gum disease more likely. Thus, poor oral health can be part of a vicious cycle of interdependent disorders.

As trusted practitioners, GPs can play a critical role in tackling this oral health inequality. This was recently acknowledged in *The Right to Smile* campaign which highlights, for example, how primary care's annual physical health check can extend health promotion advice about healthy eating, tobacco and substance use to include discussion about oral health.

What about smoking cessation in people with anxiety and depression?

People with anxiety and depression, taking antidepressants should be offered a 'medication review' at least annually (possibly more frequently for some medications and some groups of patients). This should not be a 'tick-box' exercise and again is an ideal opportunity to enquire about smoking and to offer advice and support to quit.

Clinical scenario 2.

Paul is 49-years-old and has a routine appointment with a GP for a 'medication review'. Paul has been on Mirtazepine 30 mg at night for 2 years. He also takes 30 mg Amitriptyline for persistent pain. Paul works in IT and has negotiated reduced hours for the past year to reduce his stress. He says he is well supported by his partner. He admits that he drinks alcohol most evenings and smokes about 10 cigarettes a day.

What should the GP cover in the consultation?

How might you raise the subject of smoking cessation with Paul?

Where should smoking cessation interventions be provided?

Smoking cessation interventions are effective and can be provided in different settings including primary care (Campion et al., 2014), secondary care (NICE, 2014), pharmacies (Campion et al., 2017) and specialist smoking cessation services (NICE, 2014).

In primary care it is vital to:

- Ask about smoking status in ALL consultations with people with mental health conditions
- Offer smoking cessation advice including for those not yet ready to stop
- Monitor or reduce doses of relevant medication (as outlined in Table 1). This requires clear communication and coordination between different prescribers and providers of smoking cessation services across primary and secondary care.
- Monitor mental health symptoms following cessation
- Watch for smoking resumption, which is common and requires prompt dose increases of some medications
- Offer support and signposting to practice staff thato smoke and may wish support to stop.

How can we close the implementation gap?

NHS Stop Smoking Services in England supported 1.7% smokers successfully quitting during 2021–22 (NHSD, 2022). Over the last 10 years in England, however, there has been a 81% drop in number of prescriptions by NHS Stop Smoking Services for smoking cessation pharmacotherapy, due to reductions in funding during the period of austerity.

Several actions are required to reverse the implementation failure of smoking cessation for people with mental health problems, and support achievement of the England Tobacco Control Plan target that all population groups will reach less than 5% smoking rates by 2030.

In England, of people with mental health conditions, only a minority receives support and help to stop smoking (Campion, 2019). Despite the impact of smoking and existence of effective smoking cessation and prevention uptake interventions, implementation is poor.

Primary care has a key role in smoking cessation. Cohort studies in England reveal that the proportion of smokers with mental disorder receiving Nicotine Replacement Therapy (NRT) fell from 14.4% in 2007 to 3.9% in 2015 (Taylor et al., 2020). Furthermore, only 5% of smokers received NRT from primary care, including 8.7% of smokers with depression and 10.1% of smokers with SMI with very low provision of bupropion or varenicline and less than 5% of smokers were referred to stop smoking services (Falcaro et al., 2021). Primary care prescription items for smoking cessation pharmacotherapies in 2020–21 per 100 population were 1.3 including 0.7 for NRT, 0.5 for varenicline and zero for bupropion (Falcaro et al., 2021).

Conclusions

Smoking is the single largest cause of premature mortality in people with mental health conditions. Primary care should be

a key provider of smoking cessation support for this group of patients. Primary care needs to offer smoking cessation services within their practice or sign-post people to services within their primary care network. Resources to support primary care clinicians are given in Box 1.

Box 1. Resources.

National Elf Service

www.nationalelfservice.net/mental-health/substance-misu se/smoking-cessation-people-severe-mental-illness-scimitar/

www.nationalelfservice.net/author/carolyn-chew-graham/

www.nationalelfservice.net/mental-health/substance-misuse/smokingandmentalhealth-conversations-nihr-3-schools-webinar/

www.youtube.com/watch?v=YxDIDeJzYAM&feature=youtu.be

https://doi.org/10.3399/bjgp23X732921

BJGP Life

https://bjgplife.com/depression-in-older-adults-why-medication-review-should-not-be-just-a-tick-in-the-box/

https://bjgplife.com/being-bothered-about-billys-oral-health/

The Right to Smile Consensus Statement

https://bit.ly/3nZCYeD

KEY POINTS

- People with mental health conditions are more likely to smoke than the general population
- Mental health does not get worse when people stop smoking
- People with mental health conditions often want to stop smoking – tailored, person-centred support can help people with mental health conditions to stop smoking
- 'Don't just screen, intervene' – adopt the Lester mantra for people with SMI at annual physical health reviews
- Optimise use of 'medication reviews' for people with mental health conditions – enquire about smoking cessation and offering advice and support to quit
- Primary care clinicians need to understand about the impact of smoking cessation, how to support people to stop smoking and be familiar with drug monitoring and dose changes which might be needed

Conflicts of interest

DS is expert advisor to the NICE centre for guidelines; the views expressed are the author's and not those of NICE.

ORCID iDs

Carolyn Chew-Graham https://orcid.org/0000-0002-9722-9981
David Shiers https://orcid.org/0000-0003-2531-5837

References and further information

Campion J (2019) Public mental health: Evidence, practice and commissioning. Royal Society for Public Health. Available at: www.rsph.org.uk/our-work/policy/wellbeing/public-mentalhealth-evidence-practice-and-commissioning.html (accessed 20 March 2023).

Campion J, Hewitt J, Shiers D, et al. (2017) *Pharmacy Guidance on Smoking and Mental Disorder*. London: Royal College of Psychiatrists, National Pharmacy Association & Royal Pharmaceutical Society.

Campion J, Shiers D, Britton J, et al. (2014) Primary care guidance on smoking and mental disorders – 2014 update. Available at: www.rcpsych.ac.uk/docs/default-source/improving-care/better-mh-policy/policy/primary-care-guidance-on-smoking-and-mental-disorders-2014-update.pdf?sfvrsn=5824ccd5_2 (accessed 20 March 2023).

Falcaro M, Osborn D, Hayes J, et al. (2021) Time trends in access to smoking cessation support for people with depression or severe mental illness: A cohort study in English primary care. *BMJ Open*, 11(12): e048341.

Gilbody S, Peckham E, Bailey D, et al. (2019) Smoking cessation for people with severe mental illness (SCIMITAR+): A pragmatic randomised controlled trial. *Lancet Psychiatry* 6: 379–390. DOI: 10.1016/S2215-0366(19)30047-1.

NHSD (2022) Statistics on NHS Stop Smoking Services in England April 2021 to March 2022 Data tables. NHS Digital. Available at: https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-nhs-stop-smoking-services-in-england/april-2021-to-march-2022 (accessed 20 March 2023).

NICE (2014) Psychosis and schizophrenia in adults: Prevention and management. Available at: www.nice.org.uk/guidance/cg178 (accessed 20 March 2023).

NICE (2021) Tobacco: Preventing uptake, promoting quitting and treating dependence. Available at: www.nice.org.uk/guidance/ng209 (accessed 20 March 2023).

Shiers DE, Rafi I, Cooper SJ, et al. (2014) update (with acknowledgement to the late Helen Lester for her contribution to the original 2012 version) Positive cardiometabolic health resource: An intervention framework for patients with psychosis and schizophrenia. Available at: www.rcpsych.ac.uk/docs/default-source/improving-care/ccqi/national-clinical-audits/ncap-library/ncap-e-version-nice-endorsed-lester-uk-adaptation.pdf?sfvrsn=39bab4_2 (accessed 26 March 2023).

Taylor DM, Barnes TRE and Young AH (2021) *The Maudsley Prescribing Guidelines in Psychiatry*. 14th edn, John Wiley & Sons. ISBN: 978-1-119-77222-4.

Taylor GM, Lindson N, Farley A, et al. (2021) Smoking cessation for improving mental health. *Cochrane Database Systematic Reviews* 3(3): CD013522. DOI: 10.1002/14651858.CD013522.pub2.

Taylor GMJ, Itani T, Thomas KH, et al. (2020) Prescribing prevalence, effectiveness, and mental health safety of smoking cessation medicines in patients with mental disorders. *Nicotine & Tobacco Research* 22(1):48–57. DOI: 10.1093/ntr/ntz072.

Turner E, Berry K, Aggarwal VR, et al. (2022) Oral health self-care behaviours in serious mental illness: A systematic review and meta-analysis. *Acta Psychiatrica Scandinavica* 145(1): 29–41. DOI: 10.1111/acps.13308.

UK Government (2017) Smoke-free generation: Tobacco control plan for England. Available at: www.gov.uk/government/publications/towards-a-smoke-free-generation-tobacco-control-plan-for-england (accessed 28 March 2023).