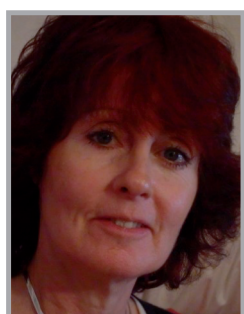
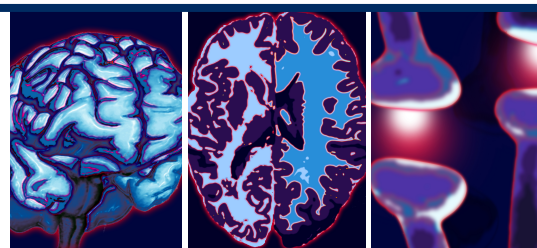


## INTERVIEW

# Smoking cessation and mental health



**Gay Sutherland\* speaks to Dominic Chamberlain, Assistant Commissioning Editor:**

Dr Sutherland is a Research Psychologist at the Institute of Psychiatry, Tobacco Research Unit, King's College London (London, UK) and Honorary Consultant Clinical Psychologist at the Specialist Smokers' Clinic, South London and Maudsley NHS Foundation Trust (London, UK). The clinic has over 40 years history, making it the longest-standing smokers' clinic in the UK. It was highlighted in the Government White Paper 'Smoking Kills', receiving a Beacon Award from the Minister of Health in recognition of its evidence-

based treatment approach. She has specialized in treating and researching nicotine addiction for nearly 30 years. In recent years, she has been involved in the implementation of the plans set out in the White Paper, including training several thousand healthcare staff across the UK and internationally, in smoking cessation methods. Sutherland has published a range of research on nicotine addiction and treatment, including studies on pharmacotherapy. She is a past President of the Society for Research on Nicotine and Tobacco Europe, a Trustee of the national charity – QUIT, and a Training Partner for the UK Department of Health's National Centre for Smoking Cessation and Training.

**Q What drew you to the field of clinical psychology & smoking cessation specifically?**

In a nutshell, my father! He was an eminent experimental psychologist, which is why I became interested in psychology, but he also suffered from bipolar disorder, and wrote, with great candor, a book called "*Breakdown*" about what it is like to live with this illness and his experience of the various treatments, both pharmacological and psychological. This was at a time when the stigma of mental health disorders was greater than today. Like many people with bipolar disorder, he was also an extremely heavy smoker who made repeated unsuccessful attempts to stop as he was very aware of and worried about

the damage to his physical health. As a child, with no understanding of addiction and dependence, I could never understand how my highly intelligent and educated father could be so stupid as to smoke! He developed coronary heart disease in his 40s, due in large part to his smoking and had cardiac bypass surgery, but he was still unable to stop smoking despite many serious efforts to quit. So his coronary heart disease worsened and, eventually he had a massive heart attack and despite my attempt at cardiopulmonary resuscitation, I was unable to save his life. This traumatic event keeps me motivated in my clinical work and made me passionate about the need to help people with mental health problems stop smoking and to encourage

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"There is very good consistent evidence from more than 100 randomized controlled trials worldwide that behavioral support increases quit rates both in the short and long term..."

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“At the moment, approximately 50% [of patients] are choosing nicotine-replacement therapy and 50% are choosing varenicline.”

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psychiatry to take nicotine addiction much more seriously.

What had been so frustrating was that each time my father was admitted to an inpatient facility when he was extremely depressed, he would use it as an opportunity to try and give up smoking because he was away from his home environment, his work and the pub, all the cues that he associated with smoking. But smoking was rife in the hospital and impossible to avoid in the dayroom and, with a few honorable exceptions, his psychiatric team really didn't support his efforts to give up smoking. They would not even prescribe stop-smoking medication to assist his withdrawal because they were worried about the effect on his mental health if he stopped. In a sense they were colluding with his smoking, while I don't blame them and I understand their concerns, but it was a very unhelpful message and one that I think we can now say was wrong, as the evidence suggests you can effectively and safely help people with mental health problems quit smoking, albeit with a quit rate a bit lower than the general population. A huge cultural change towards smoking is needed, particularly in inpatient psychiatric units. The very high prevalence of smoking in this patient group, 2–3-times higher than the general population has not changed over the past 30 years, although we have made progress with the latter group. Of the 10 million smokers in the UK approximately a third also have mental health problems, and it remains the major cause of premature death and disability for these patients.

**Q What would you consider to be the most pivotal studies you have been involved in during your career?**

I think I am most proud of having been a member of the late Michael Russell's multidisciplinary tobacco research team at King's College London (London, UK), rather than of any specific study. This group was set up in the early 1970s and, under Mike's leadership, revolutionized our understanding of smoking as an addiction. The significance of his work was not always recognized at the time but now forms the basis of most current tobacco control and

treatment policies worldwide. The current National Health Service services for smokers, involving pharmacotherapy combined with psychological support, which came into existence approximately 13 years ago, are a direct result of the original and influential work of this research team.

**Q What are the current treatment options for smoking cessation?**

There is very good consistent evidence from more than 100 randomized controlled trials worldwide that behavioral support increases quit rates both in the short and long term, and when stop-smoking pharmacotherapy is added to this support, the odds of quitting are further doubled or trebled.

Behavioral support encompasses anything from brief support in primary care to much more intense, longer sessions over many weeks involving more specialized cognitive-behavioral therapy. But, importantly, all face-to-face and even telephone support will significantly increase the chance of someone quitting short and long term. What has been more difficult to establish is exactly which elements of the behavioral support are essential and contribute to efficacy.

We now believe that the following components of support are very important: setting a quit date, encouraging people to aim for complete 'not a puff' abstinence rather than reducing their smoking, accessing social support both between and within sessions, trying to get people to think of themselves from an early stage as being a nonsmoker, and assisting the development of coping strategies for managing nicotine withdrawal symptoms and cravings or urges to smoke.

There is no doubt that behavioral support doubles quit rates, but it is even better when you combine that with pharmacotherapy as recommended by NICE [1,101]. Whether you add any of the many nicotine replacement therapies or prescription-only pharmacotherapies (varenicline or bupropion), short- and long-term quit rates are more than doubled over what can be achieved by behavioral support alone.

So when you have the whole package of behavioral support plus pharmacotherapy,



it roughly increases quitting by a factor of four. Smokers wishing to make a quit attempt need to be assessed for their suitability for all these medications and given sufficient information on side effects and how well each works to enable them to make an informed choice as to which to use.

**Q When treating a patient with mental health issues for smoking cessation what is your approach?**

All smokers we see, whether with or without comorbid mental health disorders, are offered intensive behavioral support, either in a group setting or on an individual counseling basis and are very strongly encouraged to use one or more of the NICE-approved stop-smoking drugs. So we assess medical suitability for the drugs and let the smoker choose.

At the moment, approximately 50% are choosing nicotine-replacement therapy (NRT) and 50% are choosing varenicline. Of those using NRT the vast majority will be using two in combination: the slow-acting patch combined with a fast-acting oral or nasal NRT. We have observed very low rates of use of bupropion, less than 1%, which is reflected nationally. Bupropion, although effective, is used much less frequently than it was, since varenicline was licensed and available as a result of the latter's higher efficacy and absence of any drug interactions and very few contraindications.

We have higher quit rates in smokers entering our group support program compared with those seen individually. But of course not everyone wants to go into or is suitable for a group. The advantage of group treatment is that we are able to utilize various group dynamics, which cannot be done on an individual basis, such as mutual support, peer group pressure and role models.

**Q What is the link between mood disorders & the prevalence of smoking?**

It is very complex and not fully understood, but there is absolutely no doubt that people with mood disorders and other mental health diagnoses, particularly schizophrenia, are much more likely to smoke than

the general population. This leads to the chicken and egg question! Whether smoking 'causes' mood disorder or the latter 'causes' smoking is much debated, but it seems that the influence works both ways in that people who take up smoking, even when you control for other background characteristics, seem to have an increased risk of later developing anxiety or depression. But also those with pre-existing vulnerability to depression or anxiety are much more likely to take up smoking in the first place. Increasingly, there seems to be some common genetic links. The other complexity is that nicotine withdrawal symptoms include anxiety, low mood, poor concentration and irritability, which are also experienced by people with mental health disorders.

In the UK, Australia and certain states in the USA where there is a big antismoking culture building up and good public health messages about the dangers of smoking, people are gradually giving up smoking. Prevalence is down, to approximately 21% in the UK, and even lower in Australia, but very worryingly and frustratingly there is no sign that prevalence is coming down in people with mental health problems [2,102,103]. The rate of smoking in this population is as high as it was 30 years ago and they have been left out of the efforts to try and encourage people to quit smoking. There appears to be some 'hardening' of smokers, in that the population who smoke are different to the population 30 years ago, and it is now much more prevalent in people with severe psychosocial deprivation and in people with mental health problems and drug and alcohol dependency. Sadly, research into the best methods of motivating and assisting this group to quit has been scarce, although this is changing rapidly now.

**Q What are the difficulties in treating smokers who have concurrent mental illness?**

There are several, including the fact that they tend to be much more highly nicotine-dependent than other smokers and much more likely to suffer smoking-related illness. A very important problem

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“It appears that there are no significant differences between the effects of the stop-smoking drugs on people with mental health problems than on those without, although people with mental health problems may suffer worse nicotine withdrawal symptoms.”

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is the attitude of healthcare professionals, including psychiatry, towards mentally ill smokers quitting. There are still some very common misconceptions, such as this population of smokers do not want to quit, are unable to quit and that if they did quit it would have a negative impact on their mental health. All incorrect!

There is a perception that this population is not as motivated to quit as other smokers, which is not supported by the data. Approximately 50% of people with mental health diagnoses want to quit smoking compared with approximately 60% of other smokers, so the difference is very small. The second problem is the belief that they can't quit, that they don't have psychological resources in order to do it, again not borne out by the data. There is no doubt that people with mental health problems, given appropriate support and pharmacotherapy, can quit smoking, although the quit rate is slightly lower than the general population. The third problem is the erroneous belief that quitting will exacerbate existing signs and symptoms in this population. Although we need a great deal more research, initial findings so far are reassuring, suggesting that when they quit smoking people are less likely to have future depression and anxiety than those who carry on smoking.

Overall, quitting smoking has not obviously been associated with any special risks in people with mental health problems, but of course we have to monitor them closely for mood changes. An extra difficulty mentally ill people have when quitting is lack of social support and networks to quit. They often have few friends or family who are nonsmokers to support them and many have never met anyone who has succeeded in quitting smoking.

In addition, there is the complication of having to ensure, if they are on various psychotropic medications, that their blood levels are watched closely if they quit because metabolism of some of these drugs will be changed by quitting smoking. Particular care needs to be taken with clozapine. The corollary of this is that if an exsmoker on clozapine relapses back to smoking they may need their dosage of clozapine increased.

#### Q Are pharmacotherapies effective in these populations? Do the adverse effects differ?

Yes they are most certainly effective as they are for all smokers. It appears that there are no significant differences between the effects of the stop-smoking drugs on people with mental health problems than on those without, although people with mental health problems may suffer worse nicotine withdrawal symptoms. There have been some concerns about varenicline and depression based on Yellow Card reporting, although no evidence of any causal association in the placebo-controlled, randomized controlled trials. Reassuringly, several recent studies, including one specifically in smokers with past or present diagnoses of major depressive disorder, found significantly higher quit rates for varenicline versus placebo up to 1 year and no difference in the rate of serious psychiatric adverse events between the drug and placebo. This is in line with our own experience using this drug in our smokers clinic with similar patients.

There are no known drug–drug interactions between stop-smoking drugs and the psychotropic drugs except in the case of bupropion. Bupropion has to be used with caution if people are taking other drugs, particularly antidepressants. There are no drug–drug interactions between nicotine replacement or varenicline and psychiatric drugs.

In the case of anyone quitting smoking, once tar is removed, liver enzyme activity changes so we metabolize various drugs more slowly, including caffeine interestingly, so if people are quitting and they are on various psychiatric drugs it is important to monitor them. Some doctors have mistakenly assumed this effect of quitting smoking on metabolism of other drugs is a nicotine effect. But it is nothing to do with nicotine. Tar is the culprit, so it doesn't matter if someone is taking nicotine replacement when they quit smoking, their blood levels of psychotropic drugs as well as things such as warfarin and insulin will be affected. In fact, this other good, but relatively unknown, 'side effect' of quitting smoking can be used to motivate those on psychotropic medications as their

dose can often be reduced on smoking cessation.

**Q How can we better predict patient response to smoking cessation therapy in the future?**

I hope we will get there. I imagine the work in genetics will be helpful in the future because there is no doubt when you look at clinical trial data from various stop-smoking drugs you get some people who respond incredibly well and others who don't respond at all and we do not yet know why. We do need to know more about predicting who is going to do well with a particular drug or particular psychological intervention. Like many drugs used for a wide range of illnesses, we are unfortunately only at the very early stage of that, but I'm sure this will be very important in the future.

**Q What are your hopes for the future of smoking cessation, particularly in those with mental illness?**

Massive and optimistic. It's really scandalous that we spend, quite rightly, time and effort trying to treat the mental health of these patients while ignoring their smoking, and the reality is that they are far more likely to die an early and uncomfortable death through smoking than their primary mental health problem. They also spend a disproportionate amount of their income on cigarettes. But attitudes are changing and the recent joint Royal College of Physicians and Royal College of Psychiatrists report "Smoking and Mental Health" is a very welcome first step.

There has to be huge cultural changes so that people in the field of psychiatry feel comfortable and feel it is appropriate and 'safe' to intervene with smoking cessation. I believe we need more specialist services for this client group because a lot of the stop-smoking interventions are being performed in primary care and pharmacy settings so, understandably, cannot offer the intensity of psychological intervention and relapse prevention required for this very challenging population. All community and inpatient mental health services need staff to strongly encourage quit attempts and be given training to be able to support and treat smokers.

All NICE-approved stop-smoking medications need to be available and on the respective formularies.

We need proper care pathways, we need to ensure people that when they are engaging any psychiatric services, whether in the community or an inpatient unit, that smoking is assessed and addressed, and that people are strongly encouraged to quit and given proper support to do so.

The other issue facing us is that traditionally there has been a great focus on the so-called 'all-or-nothing' 'quit or die' approach. In other words, the only worthwhile option is complete abstinence from tobacco. Unlike the substance misuse field, there has been no harm reduction approach in smoking. This was because research indicates that when people cut down their smoking they simply inhale more intensively to compensate for smoking fewer cigarettes so end up with as much tar and carbon monoxide as when smoking a greater number of cigarettes. However, we now know there is a role for cutting down in those who cannot or will not abstain completely, but only if smokers cut down while also using smoking cessation medication. This more gradual method of quitting is growing in popularity with smokers and is particularly likely to have a role in smokers with mental health disorders, who do not have the confidence or motivation at this point in time to quit completely. Supporting people to cut down their smoking, and gradually increasing their confidence so they can eventually quit completely is likely to become much more prevalent.

**Q Finally, a big topic in the news has been the use of e-cigarettes. Could you offer your thoughts on the matter?**

Ah this is a tricky and controversial topic! It is becoming clear that e-cigarettes are being taken up at a greater and greater rate in the UK. However, at the moment these products are totally unregulated, there are thousands of different ones and we don't really know how safe or effective they are. There has been talk about whether people with mental health problems who can't quit smoking with all the evidence-based treatments we have currently, should be

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encouraged to move to e-cigarettes rather than to continue smoking.

The Medicines and Healthcare Products Regulatory Agency (MHRA) announced in June that all nicotine-containing products, including e-cigarettes, would be regulated as medicines in future in the same way they regulate all other drugs. The European Commission expects the legislation to be adopted in 2014 and to come into effect in the UK from 2016. The MHRA said, “This will allow time for manufacturers to ensure that their products meet the safety, quality and efficacy requirements of a medicine [104]. Until that law is in place, the MHRA would encourage those manufacturers with unlicensed products currently on the market to apply for a medicine license”. At the moment we don’t have any e-cigarettes that have been through proper safety testing, currently companies, including tobacco companies, are collecting those data. Watch this space!

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#### Disclaimer

*The opinions expressed in this interview are those of the interviewee and do not necessarily reflect the views of Future Medicine Ltd.*

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