Smoke-Free Pilot Evaluation

National No Smoking Day on Wednesday 13th March 2013 was chosen by the Behavioural & Developmental Psychiatry Clinical Academic Group (B&DP CAG) to begin our smoke-free pilot in all our in-patient clinical areas. This pilot is a critical milestone in achieving the goals that are outlined in the SLaM Trust *Smoke Free Strategy* (2010-2015), and the SLaM Trust *Smoke Free Policy* (June 2012) and aims to support the public health initiatives required to tackle health morbidity. This paper sets out the drivers for this clinical practice development and charts the journey to bring about this significant culture change. It concludes with some early observations on the impact of this change.

The B&DP CAG is one of seven mental health clinical academic groups within the South London & Maudsley NHS Foundation Trust. It provides a full range of learning disability and forensic mental health services to adults from the London Boroughs of Croydon, Lambeth, Southwark and Lewisham. It also provides some specialist services to national patients. Services are delivered by approximately 500 staff in 10 wards, with a total of 162 beds as well as in a range of community facilities. The CAG has strong links with the Institute of Psychiatry and engages in a stimulating education and research programme.

Diaz et al in 2009 estimated that 57% of people with major depression, 66% of people with bipolar disorder and 74% of people with schizophrenia smoke on a daily basis compared to 21% of the general population (Health and Social Care Information Centre 2010). It has been estimated that people with mental illness smoke around 42% of all the tobacco consumed in the UK (McManus et al 2010). There is no doubt that this is directly related to high rates of physical health morbidity and premature mortality of people with serious mental illness. People suffering from schizophrenia are 10 times more likely to die from respiratory disease than smokers without mental health problems (McNeil, 2004). Linked to this Parks et al in 2006 asserts that people with serious mental illness are now dying 25 years earlier than the general population. There is mounting evidence presented by Miller in 2000; Malone et al in 2003 Wilhelm in 2004 and Hughes in 2007 pointing to the fact that smokers are at a greater risk of suicidal ideation and behaviour. It has also been concluded by Coultard et al in 2000 and McDermott et al in 2013 that smokers have increased levels of anxiety.

According to Kisely & Campbell, 2008 people with serious mental illness spend up to 40% of their income on cigarettes. Given that many people with serious mental illness are claiming benefits, spending a large proportion of their income on cigarettes means they have less money for clothing, leisure pursuits and items that could improve their quality life (McNeil, 2004).

But it is not just that people with serious mental illness smoke more cigarettes that is of concern, Keltner & Grant in 2006 raised another issue, that they smoke harder than the general public does. From our observations we have seen good evidence of this with our patients smoking the cigarettes right down to the last drag and almost burning their fingers as well as drawing hard on the cigarette and inhaling more carbon monoxide. We also observed that this was a greater concern among our patients with serious mental illness and learning disability.

Given that the majority of our patient group have serious mental illness and are smokers we recognised that smoking cessation amongst our patient population would bring about the single most important health benefit and was therefore a worthwhile intervention in our clinical service. Campion et al 2008 stated that routine provision of smoking cessation support would have the largest positive impact on those with serious mental illness. We were also reassured by the findings of Lawn & Pols (2005) that cessation does not exacerbate mental health symptoms.

The CAG Executive made a commitment to address the issue and approved an audit to assess the issues around smoking in our CAG in March 2011. This was achieved by using pre-set questionnaires for staff, patients who smoke and patients who do not smoke; it also required direct observations of the clinical environments. The key findings when fed back to the management team cemented the resolve to pursue an action plan to achieve a smoke free status.

We found that the prevalence of smoking in our wards ranged from 8% in our learning disability service to 92% in one of our forensic wards. It was clear that each ward had a different starting point and a unique plan would be needed for each clinical environment. Through listening to each of the patient's stories we recognised that an individualised plan would also be important. Some patients has started smoking after admission to our wards, others had been smoking for most of their life, ranging from 2months to 50 years. We also found out that our patients smoked for different reasons; 33% used cigarettes to help manage their stress, 22% smoked to enable them to integrate to the ward culture, 18% found that smoking helped relieve the boredom they experienced in hospital, and 11% attributed their smoking to a habit. Interestingly none of the patient's interviewed as part of this study said that they were addicted to cigarettes.

Patients were spending different amounts of money, from £1-£8 per day on their cigarettes and tobacco and they were spending varying amounts of time smoking, ranging from a few minutes each day to hourly episodes lasting up to 15 minutes each. Of interest we discovered that 58% of our patients had previously quit, and therefore knew that it was a realistic and achievable goal. Many of the patients in our forensic services had transferred from Broadmoor High Secure Hospital where they have been smoke-free since 2007. Being admitted to our ward environments where smoking was accommodated in all the ward gardens and hospital grounds had triggered their relapse to smoking, often in a matter of minutes. Smoking behaviours are strongly influenced by our local social networks, our friends, families, and the social norms. It was evident that our ward culture was contributing to establishing and maintaining smoking behaviours.

25% of our non-smokers told us that they had been tempted to smoke in our wards. 32% of the non-smokers felt that the ward culture which supported smoking in the ward garden negatively impacted on their experience. When further explored this was related to lack of access to fresh air, reduced access to staff who were engaged in facilitating smoking, incidents and disputes related to smoking which made the ward feel unsafe. Both smokers and non-smokers were able to articulate both positive and negative effects of smoking but for some the awareness was limited and we recognised that there was scope for redressing this through targeted educational sessions and health promotion initiatives.

We found out that 11% of our staff were smokers, 15% were ex-smokers and 74% were non-smokers, this was encouraging. Crucially we learnt that 71% of our staff group supported a total smoking ban and thought that it was morally and ethically wrong to support our patients to smoke.

For staff working in our forensic services there was concern raised about the significant amount of time, typically 90 minutes per shift, that was being spent each shift supporting patients to smoke. This included shopping for patients cigarettes (most patients in the forensic services are not authorised any leave and so are dependant on staff to do their shopping) facilitating smoking breaks to the garden and resolving disputes and incidents related to smoking. Only 30% of our staff had completed any education or training programme on smoking and this was a contributory factor to their lack of confidence in delivering even brief interventions. Despite this 58% were regularly assessing smoking status but this was focussed around security management plans rather than care planning.

Our ward environments were blighted by cigarette waste, with 54% of our gardens considered to have a significant amount of cigarette waste. One patient described the garden as "Dog end city". Just 69% of the wards had any no-smoking signage and yet 38% were advertising smoking times/breaks. However, some wards (30%) were addressing smoking as part of a health promotion programme.

The CAG management team reflected on the audit findings and sought approval from the Trust Board to introduce a smoke-free pilot. A project leader was appointed to take forward the action planning and a smoke free date was agreed to coincide with National No Smoking Day (13/03/13). The action plan made reference to the clinical guidelines and advice for successfully integrating smoking cession support in mental health settings published by Lawn and Campion in 2010 and Higgins et al in 2010. It also took into consideration and benefited from Commissioning for Quality and Innovation (CQUIN), focussed on meeting staff training and patient assessment targets.

In order to ensure consistent and visible leadership around driving the change physical health champions in each clinical area were briefed and then engaged in the project planning. This was enhanced by collaboration with each ward manager. This allowed for issues to be explored and clarified before taking to the team. Outcomes were shared with each team around key decisions taken.

Focus groups were held with patient and staff groups to explore any potential obstacles and find acceptable resolutions. It was important that the patient group were able to inform some of the decision making so that there was ownership and engagement in the process. Ward plans were developed in community meetings with each patient group working out whether they wanted to employ a cut down to quit regime or a more sudden death approach. The team leaders facilitated these discussions weekly and allowed the patent groups to develop their own way forward – the only point that was not negotiable was the Smoke-Free date, how each patient group prepared for the date varied considerably. The majority of groups decided to use a cut done to quit plan, this involved patients agreeing together which cigarette break they would stop and when. Plans were always displayed in each ward so that the decisions reached were widely communicated. Using this approach allowed the patient group to decide on the pace of the change.

Alongside this some work was undertaken with family and carer representatives; this took the form of listening events, responding to concerns about the change and sharing information about the plans for improved well-being. In addition letters were sent to all patients' family and carers so that they were involved and aware of the plan and invited to join us in supporting their family member to cut down or quit. There is early evidence from Catherine Gamble and Robert Joseph; colleagues in

South West London & St Georges NHS Trust that family work and smoking cessation are very successful as joint ventures.

Ensuring that all the teams were engaged in the process of planning and bringing about the change required a range of communication streams, the key element of which was being creative. Bright and strategically placed posters were used; leaflets that presented the key messages and provided links for more information were created. Regular team meetings provided space to reflect on progress made, explore concerns, find solutions and agree next steps. Cohesive teamwork is a critical element of all changes in practice and recognises that everyone in the team has an important part to play in supporting this aspect of the patient's recovery.

An e-learning level 1 staff training programme was developed in the Trust and rolled out to all the teams. In the B&DP CAG the number of staff who successfully completed the training exceeded our target by 230%. This is an indicator of how engaged the staff were in the process of bringing about this change. They responded positively to the training, they promoted it with each other and more importantly they felt that it prepared them for driving through the smoking ban. Achieving the staff training target brought CQUIN money to the CAG. Each team consulted with their patients and developed shopping lists of items that they felt would support the smoke free pilot. Much of this was equipment that could be used for activities both indoor and outdoor; it also covered the cost of carbon monoxide monitors which are an essential element of any smoke free initiative.

Meanwhile Medical staff colleagues refreshed their knowledge of nicotine replacement therapy (NRT) prescribing, and considered how medication reviews would be incorporated as required for some patients. A seminar was held for all medical staff to address these points and doctors were given a nicotine prescription guide. For some it was necessary to dispel the myth that only one NRT can be used at one time. In addition the visiting GP and practice nurse were engaged in the smoke free plan as they were well placed to incorporate smoking cessation advice for all those they came in contact with. Pharmacy staff were involved in giving advice around prescribing, both to patients and staff and also on a practical level by ensuring that sufficient supplies of NRT were provided and correctly used.

Local smoking cessation services were invited to support the smoke free pilot and some were able to give allocated time and expertise. It was felt that in order to sustain the patients quit attempts it would be essential to make links with local services such as stop smoking services, local pharmacies, and advisors.

Within the in-patient setting other key professionals who played crucial parts in driving the smoke free pilot are the occupational therapists, psychologists, dieticians and the physical exercise specialists. All provide important interventions to support quit attempts, particularly in relation to making healthy life-style choices, addressing boredom, behavioural changes and stress management.

Each ward provided a smoking cessation group; this aimed to educate and empower the patients about the effects of smoking, dispel some of the myths around smoking, and provide advice about the services that are available to support quitting. In the first of these groups out of a total of 6 patients that attended all 6 sessions, 2 patients went on to quit. The staff began to incorporate an

assessment of smoking status prior to admission so that NRT was ready and waiting for all new patients as they arrived to the service.

The Smoke – Free Project leader used the following interventions;

Persuading – this was paticularly in relation to proposing the change, giving rationale for the change and empowering the staff and patients to bring about the change. The project leader must be consistent and confident in seeing the change through to completion.

Asserting – this was in relation to stating what was expected clearly, providing essential data from the benchmarking exercises including the smoking audit, and data from incident reports, and finally by using incentives such as money from achieving CQUIN targets to be spent on direct patient care

Bridging – This required the project leader to find common ground with other initiatives, such as working with the security lead to reduce violence and aggression, getting involved in community meetings, focus groups, staff meetings, management meetings, being able to listen to concerns and help people to build on their strengths, develop realistic plans, provide encouragement and support throughout the life cycle of the change.

Attracting – this involves being able to articulate and share the vision of being smoke free with others, being able to imagine the changed environment and the outcomes, being able to give and get feedback and be creative in tackling problems and determined to find solutions.

Disengaging – knowing when to change the subject, take a break and avoid confrontation so that the plan remains on track.

In this section of the report some early observations are made with the benefit of hindsight reflecting six months of being smoke-free. There has been a mixed response from the patient group. A selection of patient stories from the medium secure service below reflects this.

Patient A: Is a non-smoker who has had several previous hospital admissions. She told me that this ward was the cleanest ward she had ever been in; it was the only ward where she was able to enjoy the garden, because staff ensure that waste is completely and properly managed. She enjoys open daily access to the garden, unlike her experience in other wards where garden access only happened when staff were taking patients to smoke. She is happy that smoking is completely banned.

Patient B: Told me that she quit last week – it had been much easier than she expected. She was feeling confident that she would be able to achieve her goal of stopping completely. She has been able to take this step because of the support available from staff and because of the ward arrangements. It would have been much harder for her outside of hospital. She felt pleased with herself so far – she was busy planning what she would buy and looking through an Argos catalogue looking forward to having money to purchase items for her flat that she would be able to afford because she will be stopping her cigarette spending. She spoke about the fact that the ward staff have confidence in her quitting and help her believe in herself, this has re-enforced her belief in herself that she can tackle other problems in her life too. She feels that just because she has mental health problems doesn't mean she can't quit.

Patient C: Used to smoke 60+ cigarettes per day in her previous ward environment where staff had placed no control on the access to the garden or smoking. In this ward it had been difficult for her to accept the decision to reduce the smoking breaks and initially she did not think that she would be able to do it. She was surprised how the gradual staged approach had ensured that she did not really miss the cigarettes. In fact although she hates to admit it she has to confess that since she has been in this ward she has not yet had a chest infection, which had previously been a regular occurrence, and she attributes this to smoking less. She also noted that she now is able to walk further, breathe easier and feels healthier. She still smokes about 15 cigarettes per day and is not thinking about quitting but will take each of the next steps as they come with the support for her peer group and the staff.

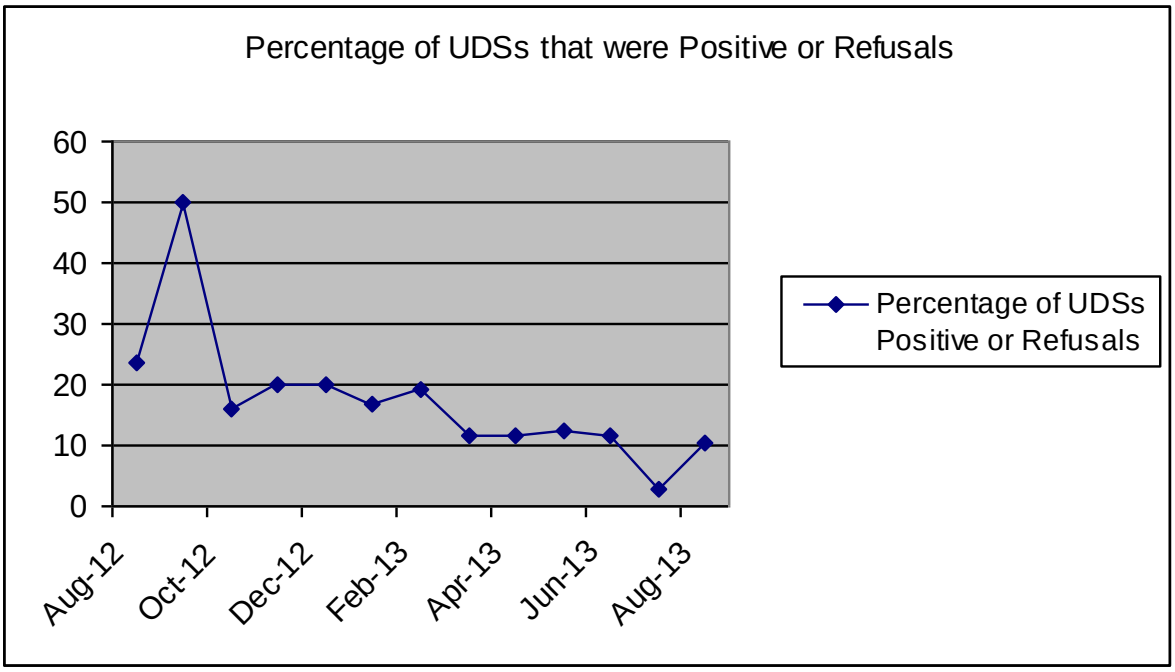
Patient D: This patient reported that she had been a long-term and heavy smoker since she was a teenager. She now smokes less than 10 cigarettes a day and is pleased about this. It has not been as bad as she expected. She finds that staff are able to facilitate more therapeutic activities on the ward and there is no restriction in getting access to fresh air and the garden. Because she has leave outside of the ward she is able to cope with this reduction and can now actually imagine herself cutting down further – this would have been hard to contemplate this time last year.

Patient E: This lady does smoke but says it's just a habit – she does not think she will continue to smoke when she leaves hospital because there will be so many other things she wants to buy and so much more opportunity to shop. She says that for her, smoking has been something to do to cope with the boredom in hospital and to go along with the crowd. Cutting down and quitting has been fine, and she has not really noticed any withdrawal symptoms. She does enjoy the freedom in the ward of having the garden door open all day – it creates a really relaxed atmosphere on the ward.

Staff from the therapy department report that patients are no longer preoccupied by watching the clock to make sure that they do not miss their smoking break. They have seen better engagement in the therapy programme with patients attending more sessions, staying for all the sessions and wanting to persuade the team that they are ready for having authorised leave from the ward. Some if this is prompted by wanting to smoke outside of the environment.

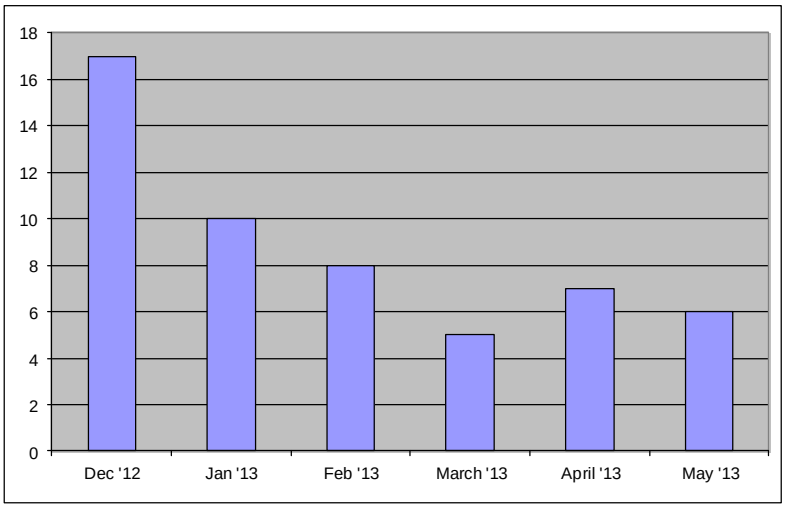
In addition there has been a small but noticeable reduction in illicit substance use. Although the service is provided in a secure unit, there has always been a problem with some members of the patient group continuing to use illicit substances, managing to circumvent the security systems, or using illicit substances when on authorised leave. Since the smoking ban was introduced in March 2013 there are early indications that this has had a positive impact on these results. Taking out March (given that the smoke-free policy began mid-month) it is possible to compare the 5 month pre and post periods. Looking at the post period from the start of April 2013 through to the end of August 2013 inclusive there were 157 tests, of which 5 were positive and 142 were negative. During this four month period there were 10 refusals. If we consider the refusals to be positive (which in clinical practice they are) this accounts for 15 tests (9.6%). Comparing this to the period before the smoking ban from the start of October 2012 to end of February 2013 inclusive we can see that there were 162 tests carried out. 9 of these yielded positive results, 123 were negative and 21 tests were refused. Again combining refusals and positive results accounts for 30 (18.5%) of the 162 tests. This result suggests that the percentage of those tested recording a positive urine drug screen (UDS) result or refusing to give a sample (and therefore clinically considered to be a positive result) is

roughly half in the post period when compared to the pre period – this can also be seen in the table below. This early finding indicates some support for the hypothesis that substance use will decrease post-smoke-free.



The primary concern voiced by staff in advance of the smoke-free period was around a perceived increase in violence and agression. This is not surprising because there is a link between smoking and violent incidents in SLaM. An trust wide audit in 2009 found that 300 of all SLaM incidents were related to smoking, resulting in violence, fire and absconsions. It also established that 15% of physical interventions used was associated with managing smoking related behaviours. It is not surprising that staff would be worried about seeing this figure increase. However, evidence from psychiatric in-patient services in Australia Dingman et al (1988) and from Smith et al (1999) in USA where a smoking ban was successfully introduced reported no significant increase in patient aggression. More importantly the smoking ban in Broadmoor Hospital and throughout the forsensic services of Northamptonshire in the UK since 2007 have proved highly successful with enormous health behefits for staff and patients alike.

This table shows the number of smoking related incidents in the B&DP CAG, covering the period from 1st December 2012 to 31st May 2013. There is a marked decline in the number of incidents during March – this is most likely to be as a result of a very determined and committed approach during this month. It was during this time that weekly smoking cessation groups were being facilitated in each ward, and smoking cessation had a high profile in all clinical environments. The rise in incidents in May and June points to a small core group of patients that are struggling with the ban, and found to be in possession of smoking materials in their bedroom; a risk that requires ongoing vigilence and careful risk management planning and implementation.



All of the clinical environments are much cleaner. The risks of passive smoking are reduced and we have seen a rise in the number of compliments that we received from our infection control and health and safety inspectors.

Ward One – transformation from cigarette waste outside the main entrance door to clean space, blooming flowers in pots and the removal of the smoking shelter.

Ward two - patients made a countdown calendar as part of their preparation for March 13th.

Stop smoking Start Living

Ward three – staff prepared easy read smoke-free plans for their patients

Celebration well-being event on March 13th with a variety of sports activities facilitated.

Staff have been able to release a considerable amount of time to care, this is being used to facilitate more therapeutic activities and ensure that essential documentation is maintained in the interest of joined up care provision.

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References:

Coultard, M., Farrell, M., Singleton, N., *et al* (2000) ***Tobacco, Alcohol and Drug Use and Mental Health***. UK Department of Health.

Diaz F. J., James D., Botts S., Maw L., Susce M. T., De Leon J., (2009) Tobacco smoking behaviours in bipolar disorder : a comparison of the general population, schizophrenia, and major depression. ***Bipolar disorders,*** 11(2): pp. 154-165

Dingman P, Resnick, M, Bosworth E, Karnada D.(1988) A non-smoking policy on an acute psychiatric unit, **Journal of Psychosocial Nursing,** 26:11-14

Health and Social Care Information Centre (2010). Statistics on NHS Stop Smoking Services: England, April 2009 – March 2010

Higgins A. (2010) Stop Smoking Interventions in Mental Health Settings: A Systems Approach, Smoke Free Solutions

Hughes J.R. (2008) Smoking and Suicide: A Brief Overview. *Drug Alcohol Depend*. 98(3): 169–178

Keltner, N., Grant, J., (2006) Smoke, Smoke, Smoke That Cigarette. Perspectives in Psychiatric Care 42(4): pp 256–261

Kisely, S., and Campbell L., (2008). Use of smoking cessation therapies in individuals with psychiatric illness: An update for prescribers. **CNS Drugs**, 22(4): pp 263-273.

Kumari & Postma in 2005

Lawn S. and Campion J. (2010) Factors associated with smoke free success in Australian Psychiatric inpatients units: Psychiatric Services March 10, Vol. 61 no.3

Lawn S. & Pols R. (2005) Smoking bans in psychiatric inpatient settings? A view of the research. **Australian and New Zealand Journal of Psychiatry,** 39; 866-885.

Miller et al (2000) Cigarettes and Suicide: A Prospective Study of 50 000 Men. American Journal of Public Health 90(5): pp768-773

Malone et al (2003) Cigarette Smoking, Suicidal Behaviour, and Serotonin Function in Major Psychiatric Disorders. ***American Journal of Psychiatry***, 160(4): pp 773-779

McDermott M.S., Marteau, T.M., Hollands, G.J., Hankins M & Aveyard P, (2013) Changes in anxiety following successful and unsuccessful attempts at smoking cessation: cohort study. The British Journal of Psychiatry 202, 62-67

McManus, S., Meltzer, H., Campion, J., (2010) **Cigarette smoking and mental health in England: Data from the Adult Psychiatric Morbidity Survey *2007*** National Centre for Social Research

McNeil, A. (2004) Smoking and patients with mental health problems. NICE: pp1-16

Parks, J., Svendsen, D., Singer, P., Foti M. E., (2006) ***Morbidity and Mortality in People with Serious Mental Illness****. (A Technical Report)* from the National Association of State Mental Health Program Directors

SLaM Smoke Free Strategy (2010 – 2015) South London & Maudsley NHS Foundation Trust

SLaM Smoke Free Policy (2012) Version 3, South London & Maudsley NHS Foundation Trust

Smith C.M., Pristach, C.A. & Cartagena, M.D. (1999) Obligatory Cessation of Smoking by Psychiatric Inpatinets, **Psychiatric Services,** Vol 50, No1, 91-94.

Wilhelm' K., Arnold, K., Niven, H., Richmond, R. (2004) Grey lungs and blue moods: smoking cessation in the context of lifetime depression history. ***Australian and New Zealand Journal of Psychiatry***, 38(11-12): pp 896-905