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Treating Nicotine Dependence in Mental Health Hospitals

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Abstract

Although guidelines for the treatment of nicotine dependence have been implemented in general hospital settings, treatment does not occur systematically in mental health hospitals. A number of barriers to treatment exist, including ambivalent staff attitudes, the prevalence of staff who smoke, a lack of education and training in nicotine dependence treatment, a lack of nicotine replacement therapy use and knowledge of referral options post discharge, and a lack of total smoking bans. Evidence from general hospital settings provides guidance on how to overcome these barriers. A first step is the implementation of total smoking bans. Further, evidence-based clinical practice guidelines and models of care need to be developed, melding the complexities of mental health and nicotine dependence treatment. Clinical systems in hospitals that support the provision of nicotine dependence treatment need to be enhanced. Finally, much more research on interventions is required to provide further evidence of what works.

Keywords: *smoking, nicotine dependence treatment, mental health hospitals*

Word Count: 4664

Burden of illness and need for care

For Australians with a mental illness, the smoking rate is at least double that for the general population, ranging from 36% among those with mental illness identified in general community surveys (Lawrence, Mitrou, & Zubrick, 2009) to 92% for those with psychosis and substance use diagnoses in mental health inpatient settings (Reichler, Baker, Lewin & Carr, 2001). It is estimated that 32% of current Australian smokers have a mental illness (Lawrence Mitrou, & Zubrick, 2009).

In Australia, an examination of hospital data has shown that people with mental illness have a 2.5 times higher mortality than the general population (Lawrence & Coghlan, 2002). Accordingly, the life expectancy of people with a mental illness is approximately 50 years for males and 59 years for females (Lawrence & Coghlan, 2002), relative to general population life expectancies of 77 years and 82 years respectively at that time (Australian Bureau of Statistics, 2008). The higher mortality rate and lower life expectancy are primarily due to physical illnesses and disease rather than mental illnesses (Lawrence Mitrou, & Zubrick, 2009). While suicide and trauma are well-recognized causes of death among people with mental illness, it is the seventh highest cause of death, behind cancer, stroke, heart attack, respiratory system disease, other circulatory disease and other heart disease (Lawrence, Holman & Jablensky, 2001). A common contributor to these diseases is smoking (Thun & Henley, 2010).

The physical health concerns of those with mental illness have traditionally been overlooked both by researchers and clinicians (Lawrence & Kisely, 2010; Olivier, Lubman & Fraser, 2007; Williams, 2008; Ziedonis et al, 2008). It is only in recent years that attention has been drawn to the smoking-related morbidity and mortality experienced

by those with mental illness (Lawrence & Coghlan, 2001; McNeill, 2001; Williams, 2008).

There is evidence that smokers with mental illness are interested in quitting. In Australia, smokers with psychotic disorders have reported numerous quit attempts, ranging from 2-3 (Baker et al, 2007) to more than 10 previous attempts (Lawn, Pols & Barber, 2002).

Community based studies from Australia (Moeller-Saxone, 2008; Ashton, Miller, Bowden & Bertossa, 2010) and the United States of America (USA) (Gallagher, Penn, Schindler & Layne, 2007) report clients are interested in quitting, and that tailored treatment can be effective in assisting those with mental illness to quit or to reduce their smoking. Interviews with community mental health clients indicated that most participants had tried to quit smoking in the past and all said that if they could quit 'painlessly', they would without hesitation (Lawn, Pols & Barber, 2002).

In a review of hospitalised patients (both patients with mental illness and those without), motivation to cease smoking and use of nicotine replacement therapy (NRT) while hospitalised were similar across both groups, however it was concluded that the low provision of post-discharge NRT may have contributed to the poor smoking cessation outcomes (Siru, Hulse, & Tait, 2009). A recent qualitative study showed that patients are receptive to nicotine dependence treatment in inpatient and community based services (Morris, Waxmonsky, May, & Giese, 2009).

Given the high smoking rates among people with mental illness, the prevalence of smoking-related morbidity and mortality, and this population group's interest in quitting, opportunities for nicotine dependence treatment are needed. Nicotine dependence

treatment is defined as smoking status assessment, advice to quit, management of nicotine withdrawal symptoms (for example, use of NRT) in a smoke-free environment, and the offer of referral for continued treatment post discharge. Such treatment is needed if patients are placed in a mental health hospital which has a total smoking ban. In this instance, treatment is related to a forced abstinence from smoking, not a forced cessation attempt.

It has been suggested that mental health hospitals are an appropriate setting for treating nicotine dependence (Baker et al, 2006; el-Guebaly et al, 2002a; Hall & Prochaska, 2009; McDaniel, Stratton & Britain, 2009; Williams, 2008; Ziedonis, Williams & Smelson, 2003). This paper reviews what is known about the prevalence of nicotine dependence treatment in mental health hospital settings, the barriers to the provision of such treatment, and what interventions may be useful to increase the quality and quantity of such treatment in this setting.

Nicotine dependence treatment in mental health hospitals

Mental health hospitals as a setting for the provision of nicotine dependence treatment

The Framework Convention on Tobacco Control recommends diagnosis and treatment of tobacco dependence and provision of counselling services on cessation of tobacco use in all hospitals (World Health Organisation, 2005). Admission to a smoke-free mental health hospital is accepted by the majority of patients who smoke, particularly if nicotine dependence treatment is available (Prochaska, Fletcher, Hall & Hall, 2006). The majority

of patients also report that staff should encourage patients who smoke to quit or cut back (Dickens et al, 2005).

Current provision of nicotine dependence treatment

Limited research has been conducted within mental health hospitals to determine the prevalence of nicotine dependence treatment for inpatients. The results of these studies suggest mental health patients are rarely advised to quit smoking or provided with nicotine dependence treatment (Prochaska, Gill & Hall, 2004; Prochaska et al, 2006; Wye et al, 2009; Wye et al, 2010a). In a USA study reported in 2004, none of the smokers received a diagnosis of nicotine dependence or withdrawal (Prochaska, Gill, & Hall, 2004). NRT was prescribed for 56% of smokers, and 92% of these used the NRT (Prochaska, Gill, & Hall, 2004). Only one smoker was encouraged to quit smoking, referred for cessation treatment, or provided with NRT on discharge (Prochaska, Gill & Hall, 2004). In the second USA study, although NRT was sometimes provided, counselling or cessation advice was rare (Prochaska et al, 2006).

Similar results have been reported in Australia, from a survey of all mental health inpatient facilities (n=131) in NSW (Wye et al, 2009). One third of units reported that less than half of patients were assessed for smoking, and more than half of units only sometimes recommended NRT to patients who smoked. The absence of a systematic approach to care delivery was emphasised by around one third of respondents reporting practices that supported both the provision of cigarettes and the use of cigarettes in the clinical management of patient behaviour. The results of a medical record audit confirmed and strengthened the findings of the previous Australian study (Wye et al, 2010a). In a sample of 1000 records 42% of records indicated that the patient was a

smoker. Of those identified as a smoker, no records indicated that a diagnosis of nicotine dependence was recorded. Of those identified as a smoker, the provision of nicotine replacement therapy was recorded on only four of 420 medical records. The apparent lack of provision of recorded nicotine dependence treatment suggests that patients may have continued to smoke during their inpatient stay, may have suffered withdrawal needlessly, and may have had limited access to continuity of nicotine dependence treatment following their discharge.

What are the barriers to treatment in mental health hospitals?

Research has identified the following as key determinants of adopting clinical practice change to incorporate nicotine dependence treatment: lack of a smoke-free environment; an absence of clinical practice guidelines; an accepted culture of smoking; patient attitudes; staff attitudes; staff smoking; lack of staff knowledge and skills; and availability of pharmacotherapy.

A lack of a smoke-free environment

Few studies consider the barriers to the provision of nicotine dependence treatment in mental health hospitals. This is probably due to the realization that the first major barrier is changing the smoking environment (American Psychiatric Association, 1996; Ziedonis, Williams, & Smelson, 2003), and that by creating a smoke-free environment, steps can be put in place to ensure the provision of nicotine dependence treatment. Traditionally, smoking and nicotine dependence have been largely ignored in mental health hospitals (Steinberg et al, 2004; Williams & Ziedonis, 2004), and some have promoted smoking to manage patient behaviours (Dickens et al, 2004; Foulds, 1999; Lawn & Pols, 2003; Resnick & Bosworth, 1988; Stubbs et al, 2004; Wye et al, 2009).

Evidence suggests that where smoke-free environments are not enforced, nicotine dependence treatment is less likely to occur (Bloor, Meeson, & Crome, 2006; Campion et al, 2008; Wye et al, 2009). Such a finding further highlights the importance of a systematic approach to nicotine dependence treatment that involves smoking policies, total smoking bans and the implementation of adherence-gaining strategies to enhance clinician provision of smoking care. Many of the barriers to nicotine dependence treatment are the same barriers to the implementation of a total smoking ban – lack of leadership, lack of assistance for staff who smoke, lack of staff training, and lack of system and procedural changes to ensure provision of NRT (Lawn & Campion, 2010; Wye et al, 2010b; Ziedonis, Williams, & Smelson, 2003).

A lack of evidence-based guidelines

Clinical guidelines are systematically developed statements to assist decision-making regarding appropriate health care for specific clinical circumstances, and have increasingly become a familiar part of clinical practice. Unfortunately, evidence-based guidelines for nicotine dependence treatment in mental health hospitals do not exist in Australia. Further, a literature search and review of Guidelines International Network database failed to retrieve any existing guidelines internationally (Guidelines International Network, 2010). General nicotine dependence treatment guidelines describe five main elements of nicotine dependence treatment. These include: assessment of smoking status and level of nicotine dependence, advice to quit, provision of NRT, monitoring of withdrawal symptoms, and provision of NRT at discharge (Public Health Service Guideline Update Panel, Liaisons, and Staff, 2008; McRobbie et al, 2008; West, McNeill, & Raw, 2000). The absence of practice-based evidence of the prevalence and

outcomes of such treatment illustrates the need for further research before evidence-based guidelines can be developed for this setting.

An accepted culture of smoking

Smoking has played a significant role in the delivery of care in mental health hospitals, with cigarettes being viewed as an acceptable substitute for other addictions (Prochaska, 2010; Williams & Ziedonis, 2004). In addition, a focus on the concept of ‘self-medication’ and the individual rights to smoke have delayed addressing smoking in mental health settings (Prochaska, 2010; Ziedonis et al, 2008). The culture that supports smoking impedes progression to nicotine dependence treatment (McChargue, Gulliver & Hitsman, 2002; Williams & Ziedonis, 2004; Wye et al, 2009; Wye et al, 2010c).

Smoking serves as a social activity for many with mental illness (Williams & Ziedonis, 2004). Because of this high reliance on smoking for social interaction, it has been reported that non-smoking patients admitted for treatment in mental health hospitals are at risk of becoming smokers while inpatients (Lawn & Condon, 2006; Lawn & Pols, 2003; Wye et al, 2009). There is also evidence that light to moderate smokers increase their smoking (Keizer & Eytan, 2005). A history of condoning smoking in mental health hospitals will require significant system change and management leadership to overcome these barriers to treatment (Lawn & Condon, 2006; Lawn & Pols, 2003; Lawn & Campion, 2010).

Client attitudes

Research suggests patients are comfortable with the social norm of smoking in mental health hospitals, and have not been exposed to nicotine dependence treatment in the past.

The results of a focus group of community clients with mental illness highlighted the role of health services in supporting a smoking environment and patient passivity and helplessness rather than encouraging a holistic, self-care approach to health (Lucksted, Dixon & Sembly, 2000). Participants reported that health professionals and carers often stated “enjoy your cigarettes, it’s the only thing you have...” (Lucksted, Dixon & Sembly, 2000, p.1546). A survey of mental health outpatients’ attitudes found that participants were aware that increased restrictions on smoking in mental health hospitals would occur, and were concerned that little assistance to quit would be offered (Green & Clarke, 2005).

In Australia, one study has considered mental health patient views regarding smoking. Semi-structured open-ended interviews strongly conveyed a feeling of safety, reassurance, and predictability that came with having an assured supply of cigarettes (Lawn, Pols & Barber, 2002). Several participants, regardless of their diagnosis, said that the most comforting times in hospital were when their nurse spent time with them having a cigarette (Lawn, Pols & Barber, 2002). It is suggested that effort will be required to re-educate patients regarding their ability to quit, with a minimum care requirement of support to assist them to abstain from smoking during an inpatient stay (Woods & Jaen, 2010).

Staff attitudes

Despite the obvious health benefits associated with total smoking bans, there is still hospital staff resistance to their implementation (Campion et al, 2008). The view that those with mental illness need to smoke to alleviate symptoms of their mental illness may have discouraged efforts in mental health treatment settings to promote nicotine dependence treatment (Ziedonis et al, 2008). Research suggests that clinicians have held

the view that persons with mental illness are not able or willing to quit (el-Guebaly et al 2002a), and therefore clinicians have tended to support and accept smoking habits (Lawn, Pols & Barber, 2002; Ziedonis, Kosten, Glazer, & Frances, 1994).

In the United Kingdom (UK), prior to legislation for total smoking bans in mental health hospitals, similar results were found (Jochelson & Majrowski, 2006). Hospital staff responded that smoking is used to develop rapport with patients, to offer comfort and support, and to manage threatening behaviour (Jochelson & Majrowski, 2006). In another UK survey of mental health hospital staff, the majority of staff believed that they should be allowed to smoke with patients, and that smoking had a therapeutic role (Stubbs, Haw, & Garner, 2004). Almost all (93%) believed that patients' mental health would deteriorate without access to cigarettes (Stubbs, Haw, & Garner 2004). Since the introduction of total smoking bans, a survey of staff views revealed that 65% of participants saw smoking as an important coping mechanism for many patients, helping them to deal with their mental illness (Ratschen et al, 2009a).

Other studies have elicited opposing views towards total smoking bans, based on role. Prior to the UK legislation banning smoking in mental health hospitals, a survey of mental health nurse attitudes indicated these staff view smoking as an acceptable part of the culture of mental health hospitals (Dickens, Stubbs, & Haw, 2004). Nurses were more likely to state that smoking with patients was therapeutic compared to medical staff (Dickens, Stubbs, & Haw, 2004), and almost a quarter of nurses thought that cigarettes should be handed out to patients as part of therapy, whereas no medical staff held this view (Stubbs, Haw, & Garner, 2004).

A comparison of staff attitudes to smoking-free policy between mental health and general health care settings elicited similar results. Using a large sample ($N = 2574$), mental health staff in the UK were significantly less supportive of total smoking bans compared to their general health care counterparts (McNally et al, 2006). There was also evidence that medical staff were more supportive of total smoking bans compared to nurses and other allied health professionals (McNally et al, 2006). These differences in attitudes may impact on staff behaviours, as suggested in a study where nurses were less effective at enforcing total smoking bans and less likely to quit smoking compared to medical staff (Stillman, Hantula, & Swank, 1994).

Similar findings have been reported in Australian mental health hospitals (Campion et al, 2008; Lawn, Pols & Barber, 2002; Wye et al, 2010c). In Australia, staff attitudes and perceptions towards total smoking bans have proven critical to policy success. A recent trial to implement a total smoking ban in Queensland resulted in failure, emphasizing the critical importance of staff perceptions and preparation, including appropriate training, ensuring staff consistency and developing alternatives to former smoking-related activities (Campion et al, 2008). Survey results of nurse unit managers in NSW indicated strong support for providing nicotine dependence treatment, however this support appeared to be dependent on patient readiness to quit, suggesting that where nicotine dependence treatment is provided, it may be on a selective basis according to patient wish, rather than as a routine component of clinical care (Wye et al, 2010c). Specifically, despite nearly three quarters of nurse managers reporting that nicotine dependence treatment should be an integral function of their unit, over half viewed patient request or perceived receptivity to such care as an important determinant of its provision. The importance of such a view in terms of its potential to impact care provision is illustrated

by the further finding that 69% of respondents perceived that patients who are smokers are not interested in giving up smoking. In the context of such views it is not surprising that the observed levels of nicotine dependence treatment provision were less than optimal.

These studies highlight the importance of clinical leadership as a factor that influences the likelihood of nicotine dependence treatment being provided. The finding that manager perceptions are an important determinant of nicotine dependence treatment provision (Wye et al, 2010c) supports research conducted by Lawn and Campion (2010) showing that education and training of managers in taking a lead role in the provision of nicotine dependence treatment is an important element in increasing levels of such care.

Staff smoking

Internationally, studies suggest that the number of mental health hospital staff who are smokers ranges from 25 – 48% (Bloor, Meeson, & Crome, 2006; Melamed, Peres, Gelkopf, Noam, & Bleich, 2007; Ratschen et al, 2009a). To address these high levels of staff smoking, the importance of services providing assistance to staff to address their smoking has been noted – either cessation assistance, or assistance to abstain from smoking while working (Ziedonis, Williams, & Smelson, 2003).

Evidence suggests that staff who smoke consistently underestimate the health consequences of smoking (Bobo & Davis 1993; Hurt, Croghan, Offord, Eberman, & Morse, 1995; Willaing & Ladelund, 2004; Williams et al, 2005). A small survey of mental health staff in the UK found that never smokers were more likely to support a total smoking ban compared to former smokers and current smokers (Bloor, Meeson, &

Crome, 2006). It is suggested that staff compliance with smoke-free policies is more likely to occur where managers are supportive of the difficulties experienced by staff who smoke (Keegan, 1996; Lawn & Campion, 2010). Unfortunately, nursing staff may be more reticent to support such policies compared to medical staff, given their greater propensity to pro-smoking views (Dickens, Stubbs, & Haw, 2004; Stubbs, Haw, & Garner, 2004), and higher prevalence of smoking (Bloor, Meeson, & Crome, 2006; McKenna et al, 2001; Willaing & Ladelund, 2004).

Lack of staff knowledge and skills

Staff training is a necessary and an important first step to address attitudes, skills, and knowledge (Lancaster, Silagy & Fowler, 2000; Wye et al, 2009; Wye et al, 2010b; Wye et al, 2010c; Ziedonis, Guydish, Williams, Steinberg, & Foulds, 2006). Research suggests that regular and varied training opportunities are required. A UK survey of mental health staff working in hospitals with total smoking bans found that although over half (54%) had received training, staff were ill-equipped to deal with patient nicotine withdrawal, forced abstinence in a non-smoking environment, and patient smoking cessation (Ratschen et al, 2009b). The results suggested that respondents – regardless of profession – lacked knowledge and skills regarding nicotine dependence, its prevalence, the associated health risks, and recommended treatment in relation with mental illness (Ratschen et al, 2009b). Further, the majority of medical staff were unaware of the inter-relationships between tobacco smoke and certain antipsychotic drugs (Ratschen et al, 2009b). Unfortunately, the existence of efficacious, evidence-based nicotine dependence treatment and training does not, in itself, guarantee that they will be properly implemented (McNeill, 2001). The delivery of effective nicotine dependence treatment requires that the rights of smokers to treatment are recognized (McNeill, 2001).

Provision of pharmacotherapy

Despite identified barriers to providing nicotine dependence treatment, failing to do so results in unnecessary harm to patients. If nicotine withdrawal is not properly recognized and treated, withdrawal-induced increases in anxiety, depression, insomnia, irritability and restlessness may result (Hughes, 1993). Smoking also increases the rate at which many widely used psychiatric medications are metabolized (Zevin & Benowitz, 1999). Such medications include clozapine, diazepam, haloperidol, and olanzapine (Brownlowe & Sola, 2008; Faber & Fuhr 2004; Jann et al, 1986).

When patients stop smoking, staff need to review prescribed drug regimens and adjust or monitor drugs whose metabolism is affected by smoking cessation (Schaffer, Yoon & Zadenzensky, 2009). This is particularly important for patients who abruptly stop smoking due to admission to a smoke-free hospital and for patients who are likely to be taking multiple medications (Hughes, 1993; Schaffer, Yoon & Zadenzensky, 2009).

As is the case in general hospital settings (Freund et al, 2009), a lack of NRT available in the hospital setting is a barrier to treatment (Ziedonis, Williams, & Smelson, 2003). As most of the research has been conducted around the implementation of total smoking bans, very little research has occurred regarding availability of NRT.

Where to from here?

Recommendations for system changes to support nicotine dependence treatment have been proffered, including: a strong leadership group, assistance for staff who smoke, staff training, system and procedural changes to ensure provision of NRT, and referral

processes (Wye et al, 2009; Ziedonis, Williams & Smelson, 2003). Descriptive studies highlight the need to address barriers to nicotine dependence treatment both through intervention at the level of individual practitioners but also through policy and infrastructure change at the system level (Morris et al, 2009).

A meta-analysis undertaken by Freund et al (2009) reviewed interventions to increase the provision of nicotine dependence treatment in hospitals. The majority of studies used reminders and system change strategies (Freund et al, 2009). This review could not conclude which particular strategies or combination of strategies is important in increasing nicotine dependence treatment in hospitals, however a multi-strategic approach was deemed appropriate (Freund et al, 2009). Clearly, the development of guidelines alone is not sufficient to create and sustain clinical practice change and greater emphasis on guideline implementation is required (Grol, Wensing, & Eccles, 2005), and system change to support new practices (Public Health Service Guideline Update Panel, Liaisons, and Staff, 2008; Freund et al, 2009).

A number of key considerations are necessary to provide practical steps forward and to determine future research priorities.

What do patients want, and will it work?

Research is required to determine patient views on nicotine dependence treatment. What is acceptable to them? Who would be best to provide such care? What support is needed? In addition, subsidised NRT may be useful for this population group. Much more research is required to ascertain the acceptability and effectiveness of nicotine dependence treatment for smokers with mental illness. What are the effects of nicotine dependence

treatment on concurrent substance use and mental health? Do all patients receive the same quality of care? No studies have reported the effectiveness of such practice change strategies in increasing clinician provision of smoking cessation care to mental health patients.

Development and adoption of treatment guidelines

Unfortunately, current treatment guidelines are not based on a systematic review of the literature. However, two small reviews concluded that treatments that work in the general population work for those with severe mental illness and appear approximately equally effective (Kisely & Campbell, 2008; Banham & Gilbody, 2010). As so few studies have been undertaken, existing treatment guidelines are drawn from the general health system and do not take into consideration the heavy reliance on smoking by both patients and staff in mental health settings. What is needed is a comprehensive review of the literature and specific guidelines developed for treating nicotine dependent patients in mental health hospitals.

Before such evidence-based guidelines can be developed however, more ‘practice-based evidence’ is required (Green, 2006; Green, Glasgow, Atkins, & Stange, 2009). Very little research has reported on the provision of nicotine dependence treatment in mental health hospitals, identifying practice procedures, levels of NRT usage or patient outcomes (Prochaska, Gill, & Hall, 2004; Prochaska, Fletcher, Hall, & Hall, 2006; Wye et al, 2009; Wye et al, 2010a). Very few studies have reported on the provision of nicotine dependence treatment for clients with mental illness in a natural treatment setting (Evins & Goff, 2008; Loudenburg & Leonardson, 2003; Wye et al, 2009; Wye et al 2010a). To move forward studies that can readily be implemented into natural treatment settings are

needed, rather than a reliance on clinical trials that do not translate into feasible or effective interventions (Green, Glasgow, Atkins, & Stange, 2009).

Resourced implementation and evaluation of guidelines

What is required is an organisational commitment to improving the health of mental health clients. This commitment will need to manifest itself as total smoking bans in mental health hospitals and adequate implementation of treatment guidelines. To do so will entail considerable system change, leadership and staff support in terms of education and training (Public Health Service Guideline Update Panel, Liaisons, and Staff, 2008; Freund et al, 2009; Lawn & Campion, 2010; Wye et al, 2009). A long lead time for planning, consultation, and implementation is required (Lawn & Campion, 2010). Once implemented, monitoring, evaluation and feedback is necessary to sustain positive changes (Public Health Service Guideline Update Panel, Liaisons, and Staff, 2008; Freund et al, 2009).

In addition, there is a growing body of evidence to indicate that total smoking bans can be successfully implemented in psychiatric hospitals (Cormac et al, 2010; el-Guebaly et al, 2002b; Etter, Khan & Etter, 2008; Lawn & Pols, 2005). There is a clear need to more effectively communicate to staff the evidence that consistently applied smoking bans do not increase patient aggression (Lawn & Pols, 2005), the benefits of smoking bans in aiding the delivery of nicotine dependence treatment, and the benefits of both smoking bans and such treatment in aiding patients to stop smoking (el-Guebaly et al, 2002b). The successful implementation of such bans in this setting is of particular importance as mental health treatment settings remain the only sector of health care that

have failed to implement total smoking bans and systematically offer nicotine dependence treatment to patients (Williams, 2008).

Maintenance of clinical practice change

There is need for a paradigm shift for a sustainable change in culture and clinical practices. Nicotine dependence treatment may be increased in these settings through encouraging practitioners to view nicotine dependence treatment as in line with the curative approach to care they are familiar with. This approach would see nicotine dependence as a chronic condition, requiring detection and treatment (Fiore et al, 2000). Together with the support of organizational and system changes, this approach may lead to a health service conducive to the routine provision of nicotine dependence treatment.

More can be done outside the hospital setting. Linkage with community and primary care support would benefit patients by offering continuity of care for quit attempts after discharge (Prochaska, Fletcher, Hall, & Hall, 2006; Lawrence & Kisely, 2010). Without such follow-up, smoking resumes as normal post-discharge (Prochaska, Fletcher, Hall, & Hall, 2006). This would also help with the process of change to normalising nicotine dependence treatment, and de-normalising smoking for those with mental illness (Lawn, 2004).

Evaluation studies are required to determine the impact of system-based strategies in not only terms of changing clinical behaviour, but also the sustainability of such a change. Long-term follow-up is required to determine if behaviour change is sustained across all patient groups, and the impact on other mental and physical health outcomes. For this population group, smoking reduction may be a significant positive change.

Conclusions

A number of assumptions, now increasingly discredited by research evidence, such that people with mental illness are not interested or motivated or able to quit smoking, have contributed to nicotine dependence treatment for this population group being ignored (Ziedonis, Kosten, Glazer, & Frances, 1994). Unless these barriers to care are overcome, clients of mental health services, the majority of whom are smokers, will continue to be underserved in terms of receiving appropriate care. Clearly, if people with mental illness are to be encouraged to quit or reduce their smoking, the best possible treatment should be offered. Inpatient facilities going smoke-free, and hence 'forced abstinence' with some supportive strategies being implemented within units, provides a valuable opportunity to provide nicotine dependence treatment. Guidelines for the implementation of total smoking bans in mental health hospitals have been developed and are ready for implementation. All that is required is a health system that is willing and able to provide appropriate support.

References

- American Psychiatric Association (2006). *Practice guidelines for the treatment of patients with substance use disorders*. Washington, DC: APOA, 2nd Ed.
- Ashton, M., Miller, C.L., Bowden, J.A., Bertossa, S. (2010). People with mental illness can tackle tobacco. *Australian and New Zealand Journal of Psychiatry*, 2010, 1021 – 1028.
- Australian Bureau of Statistics. (2008). *Australians are living longer*. ABS Cat. No 3302.0; ABS Cat, No. 3105.065.001.
- Baker, A., Ivers, R., Bowman, J., Butler, T., Kay-Lambkin, F.J., Wye, P., Walsh, R.A., Pulver, L.J., Richmond, R., Belcher, J., Wilhelm, K., Wodak, A. (2006). Where there's smoke there's fire: High prevalence of smoking among some sub-populations and recommendations for intervention. *Drug and Alcohol Review*, 25(1):85-96.
- Baker, A., Richmond, R., Haile, M., Lewin, T.J., Carr, V.J., Taylor R.L., Constable, P.M., Jansons, S., Wilhelm, K., Moeller-Saxone, K. (2007). Characteristics of smokers with a psychotic disorder and implications for smoking interventions. *Psychiatry Research*, 150, 141–152.
- Banham, L., Gilbody, S. (2010). Smoking cessation in severe mental illness: What works? *Addiction*, 105, 1176-1189.
- Bloor, R.N., Meeson, L., Crome, I.B. (2006). The effects of a non-smoking policy on nursing staff smoking behaviour and attitudes in a psychiatric hospital. *Journal of Psychiatric and Mental Health Nursing*, 13: 188-196.
- Bobo, J.K., Davis, C.M. (1993). Recovering staff and smoking in chemical dependency programs in rural Nebraska. *Journal of Substance Abuse Treatment*, 10, 221-27.

Brownlowe, K., Sola, C. (2008). Clozapine toxicity in smoking cessation and with ciprofloxacin. *Psychosomatics*, 49, 176.

Campion, J., Lawn, S., Brownlie, A., Hunter, E., Gynther, B., Pols, R (2008). Implementing smoke-free policies in mental health units: Learning from unsuccessful experience. *Australian Psychiatry*; 16:92-97.

Cormac, I., Creasey, S., McNeill, A., Ferriteri, M., Huckstep, B., D'Silva, K. (2010). Impact of a total smoking ban in a high secure hospital. *The Psychiatrist*, 34, 413-417.

Dickens, G.L., Stubbs, J., Haw, C.M. (2004). Smoking and mental health nurses: A survey of clinical staff in a psychiatric hospital. *Journal of Psychiatric and Mental Health Nursing*, 11, 445-451.

Dickens, G., Stubbs, J., Popham, R., Haw, C. (2005). Smoking in a forensic psychiatric service: a survey of outpatients' views. *Journal of Psychiatric and Mental Health Nursing* 12, 672-678.

el-Guebaly, N., Cathcart, J., Currie, S. (2002a). Smoking cessation approaches for persons with mental illness or addictive disorders. *Psychiatric Services*, 53, 1617–1622.

el-Guebaly, N., Cathcart, J., Currie, S. (2002b). Public health and therapeutic aspects of smoking bans in mental health and addiction settings. *Psychiatric Services*; 53, 1617-1622.

Etter, M., Khan, A.N., Etter, J.-F. (2008). Acceptability and impact of a partial smoking ban followed by a total smoking ban in a psychiatric hospital. *Preventive Medicine*, 46, 572-578.

Evins, A.E., Goff, D.C. (2008). Varenicline treatment for smokers with schizophrenia: a case series. *Journal of Clinical Psychiatry*, 69, 1016.

Faber, M.S., Fuhr, U. (2004). Time response of cytochrome P450 1A2 activity on cessation of heavy smoking. *Clinical Pharmacology and Therapeutics*, 76, 178-184.

Fiore, M., Bailey, W., Cohen, S. (2000). *Treating tobacco use and dependence: Clinical practice guidelines*. US Department of Health and Human Services, Public Health Service.

Public Health Service Guideline Update Panel, Liaisons, and Staff. Treating tobacco use and dependence: 2008 update U.S. Public health service clinical practice guideline executive summary. *Respiratory Care* 2008; 53: 1217-1222

Foulds, J. (1999). The relationship between tobacco use and mental disorders. *Current Opinion in Psychiatry*, 12, 303-306.

Freund, M., Campbell, E., Paul, C., Sakrouge, R., Lecathelinais, C., Knight, J., Wiggers, J., Walsh, R.A., Jones, T., Girgis, A., Nagle, A. (2009). Increasing hospital-wide delivery of smoking cessation care for nicotine-dependent in-patients: a multi-strategic intervention trial. *Addiction*, 104, 839-849.

Freund, M., Campbell, E., Paul, C., Sakrouge, R., McElduff, P., Walsh, R.A., Wiggers, J., Girgis, A. (2009). Increasing smoking cessation care provision in hospitals: A meta-analysis of intervention effect. *Nicotine & Tobacco Research* 11, 650-662.

Gallagher, S.M., Penn, P.E., Schindler, E., Layne, W. (2007). A comparison of smoking cessation treatments for persons with schizophrenia and other serious mental illnesses. *Journal of Psychoactive Drugs*, 37, 487-497.

Green, W.L. (2006). Public health asks of systems science: To advance our evidence-based practice, can you help us get more practice-based evidence? *American Journal of Public Health*, 96, 406-409.

- Green, L.W., Glasgow, R.E., Atkins, D., Stange, K. (2009). Making evidence from research more relevant, useful, and actionable in policy, program planning, and practice: Slips 'twixt cup and lip. *American Journal of Preventive Medicine*, 37(6S1), S187 – 191.
- Green, M.A., Clarke, D.E. (2005). Smoking reduction and cessation. *Journal of Psychosocial Nursing*, 43:5, 19-25.
- Grol, R., Wensing, M., Eccles, M. (2005). *Improving patient care: The implementation of change in clinical practice*. Elsevier: Edinburgh.
- Guidelines International Network, 2010. Available at: <http://www.g-i-n.net/>. Accessed: 12 August 2010.
- Hall, S.M. & Prochaska, J.J. (2009). Treatment of smokers with co-occurring disorders: Emphasis on integration in mental health and addiction treatment settings. *Annual Reviews in Clinical Psychology*, 5:409-31.
- Hughes, J.R. (1993). Pharmacotherapy for smoking cessation: Unvalidated assumptions, anomalies and suggestions for further research. *Journal of Consulting and Clinical Psychology* 61:751-760.
- Hurt, R.D.; Croghan, I.T.; Offord, K.P.; Eberman, K.M. & Morse, R.M. (1995). Attitudes toward nicotine dependence among chemical dependence unit staff--before and after a smoking cessation trial. *Journal of Substance Abuse Treatment* 12, 247-52.
- Jann, M.W., Saklad, S.R., Ereshefsky, L., Richards, A.L. Harrington, C.A., Davis, C.M. (1986). Effects of smoking on haloperidol and reduced haloperidol plasma concentrations and haloperidol clearance. *Psychopharmacology*, 90, 468-470.
- Jochelson, K., Majrowski, B. (2006). *Clearing the Air. Debating Smoke-Free Policy in Psychiatric Units*. King's Fund, 2006
http://www.kingsfund.org.uk/publications/kings_fund_publications/clearing_the.html).

- Keegan, J. (1996). Implementing a smoking ban: an analysis of nurses' attempts to negotiate change. *Australian Journal of Advanced Nursing*, 14, 8-12.
- Keizer, I., Eytan, A. (2005). Variations in smoking during hospitalization in psychiatric in-patient units and smoking prevalence in patients and health-care staff . *International Journal of Social Psychiatry*, 51(4), 317-328.
- Kisely, S., Campbell, L.A. (2008). Use of smoking cessation therapies in individuals with psychiatric illness. An update for Prescribers. *CNS Drugs*, 22, 263-273.
- Lancaster, T., Silagy, C., Fowler, G. (2000). Training health professionals in smoking cessation. *Cochrane Database of Systematic Reviews* CD000214.
- Lawn, S.J. (2004). Systemic barriers to quitting smoking among institutionalised public mental health service populations: A comparison of two Australian sites. *International Journal of Social Psychiatry*, 50(3), 204-215.
- Lawn, S., Campion, J. (2010). Factors associated with success of smoke-free initiatives in Australian psychiatric inpatient units. *Psychiatric Services*, 61, 300-305.
- Lawn, S., Condon, J. (2006). Psychiatric nurses' ethical stance on cigarette smoking by patients: Determinants and dilemmas in their role in supporting cessation. *International Journal of Mental Health Nursing*, 15, 111-118.
- Lawn, S., Pols, R. (2003). Nicotine withdrawal: Pathway to aggression and assault in the locked psychiatric ward. *Australasian Psychiatry*, 11, 199-203.
- Lawn, S., Pols, R. (2005). Smoking bans in psychiatric inpatient settings: A review of the literature. *Australian New Zealand Journal of Psychiatry* 39, 866-885.
- Lawn, S.J., Pols, R., Barber JG. (2002). Smoking and quitting: A qualitative study with community-living psychiatric clients. *Social Science & Medicine*, 54, 93-104.

Lawrence, D., Coghlan, R. (2002). Health inequalities and the health needs of people with mental illness. *New South Wales Public Health Bulletin*, 13, 155-158.

Lawrence, D., Holman, C.D.J., Jablensky, A.V. (2001). *Duty to Care: Physical illness in people with mental illness: Consumer summary*. Department of Public Health and Department of Psychiatry and Behavioural Science. Perth: University of Western Australia.

Lawrence, D., Kisely, S. (2010). Inequalities in healthcare provision for people with severe mental illness. *Journal of Psychopharmacology*, 24, 61-68.

Lawrence, D., Mitrou, F., Zubrick, S.R. (2009). Smoking and mental illness: Results from population surveys in Australia and the United States. *BMC Public Health*, 9, 285.

Loudenburg, R.A., Leonardson, G.R. (2003). A multifaceted intervention strategy for reducing substance use in high-risk women. *Neurotoxicology & Teratology*, 25, 737-744.

Lucksted, A., Dixon, L.B., Sembly, J.B. (2000). A focus group pilot study of tobacco smoking among psychosocial rehabilitation clients. *Psychiatric Services*, 51, 1544-1548.

McChargue, D.E., Gulliver, S.B., Hitsman, B. (2002). Would smokers with schizophrenia benefit from a more flexible approach to smoking treatment? *Addiction*, 97:785-793.

McDaniel, A.M., Stratton, R.M., Britain, M. (2009). Systems approaches to tobacco dependence treatment. *Annual Reviews in Nursing Research*, 27:345-63.

McKenna, H., Slater, P., McCance, T., Bunting, B., Speirs, A. & McElwee, G. (2001). Qualified nurses' smoking prevalence: Their reasons for smoking and desire to quit. *Journal of Advanced Nursing*, 35, 796-775.

McNally L, Oyefeso A, Annan J, Perryman K, Bloor R, Freeman S, Wain B, Andrews H, Grimmer M, Crisp A, Oyebode D, Ghodse AH. (2006). A survey of staff attitudes to

smoking-related policy and intervention in psychiatric and general health care settings.

Journal of Public Health, 28, 192-196.

McNeill, A. (2001). *Smoking and patients with mental health problems*. NHS Health Development Agency.

McRobbie, H., Bullen, C., Glover, M., Whittaker, R., Wallace-Bell, M., Fraser, T. (2008). New Zealand smoking cessation guidelines. *Journal of the New Zealand Medical Association*, 121, 57-70.

Melamed, Y., Peres, D., Gelkopf, M., Noam, S., Bleich, A. (2007). Psychiatric inpatient and staff attitudes regarding smoking reduction. *Israel Journal of Psychiatry Related Science*, 44, 231-233.

Moeller-Saxone, K. (2008). Cigarette smoking and interest in quitting among consumers at a psychiatric disability rehabilitation and support service in Victoria. *Australian and New Zealand Journal of Public Health*, 32, 479-481.

Morris, C.D., Waxmonsky, J.A., May, M.G., Giese, A.A. (2009). What do persons with mental illnesses need to quit smoking? Mental health consumer and provider perspectives. *Psychiatric Rehabilitation Journal*, 32, 276-284.

Olivier, D., Lubman, D.J., Fraser, R. (2007). Tobacco smoking within psychiatric inpatient settings: Biopsychosocial perspective. *Australian & New Zealand Journal of Psychiatry*. 41: 572-580.

Prochaska, J.J. (2010). Failure to treat tobacco use in mental health and addiction treatment settings: A form of harm reduction? *Drug and Alcohol Dependence*, 110, 177-182.

Prochaska, J.J., Fletcher, L., Hall, S.E., Hall, S.M. (2006). Return to smoking following a smoke-free psychiatric hospitalisation. *American Journal of Addiction* 15,15-22.

- Prochaska, J.J., Gill, P., Hall, S.M. (2004). Treatment of tobacco use in an inpatient psychiatric setting. *Psychiatric Services*, 55, 1265-1270.
- Ratschen, E., Britton, J., Doody, G.A., Leonardi-Bee, J., McNeill, A. (2009a). Tobacco dependence, treatment and smoke-free policies: a survey of mental health professionals' knowledge and attitudes. *General Hospital Psychiatry*, 31, 576-582.
- Ratschen, E., Britton, J., Doody, G., McNeill, A. (2009b). Smoke-free policy in acute mental health wards: Avoiding the pitfalls. *General Hospital Psychiatry*, 31, 131–136
- Reichler, H., Baker, A., Lewin, T., Carr, V. (2001). Smoking among in-patients with drug-related problems in an Australian psychiatric hospital. *Drug and Alcohol Review*, 20, 231-237.
- Resnick, M., Bosworth, E. (1989). A smoke-free psychiatric unit. *Hospital and Community Psychiatry*, 40, 525-527.
- Schaffer, S.D., Yoon, S., Zadenzensky, I. (2009). A review of smoking cessation: Potentially risky effects on prescribed medications. *Journal of Clinical Nursing*, 18, 1533-1540.
- Siru, R., Hulse, G.K., Tait, R.J. (2009). Assessing motivation to quit smoking in people with mental illness: A review. *Addiction*, 104, 719-733.
- Steinberg, M.L.; Ziedonis, D.M.; Krejci, J.A. & Brandon, T.H. (2004). Motivational interviewing with personalized feedback: A brief intervention for motivating smokers with schizophrenia to seek treatment for tobacco dependence. *Journal of Consulting and Clinical Psychology* 72, 723-28.
- Stillman, F.A., Hantula, D.A., Swank, R. (1994). Creating a smoke-free hospital: Attitudes and smoking behaviours of nurses and physicians. *American Journal of Health Promotion*, 9, 108-114.

- Stubbs, J., Haw, C., Garner, L. (2004). Survey of staff attitudes to smoking in a large psychiatric hospital. *Psychiatric Bulletin* 2004, 28: 204-207.
- Thun, M.J., Henley, S.J. (2010). *The great studies of smoking and disease in the twentieth century*. Chapter 2, Tobacco, 13-31.
- West, R., McNeill, A., Raw, M. (2000). Smoking cessation guidelines for health professionals: an update. Health Education Authority. *Thorax*, 55, 987-99.
- Willaing, I., Ladelung, S. (2004). Smoking behaviour among hospital staff still influences attitudes and counselling on smoking. *Nicotine and Tobacco Research*, 6, 369-375.
- Williams, J.M. (2008). Eliminating tobacco use in mental health facilities: Patients' rights, public health, and policy issues. *Journal of the American Medical Association*. 299, 571-573.
- Williams, J.M.; Foulds, J.; Dwyer, M.; Order-Connors, B.; Springer, M.; Gadde, P., Ziedonis, D.M. (2005). The integration of tobacco dependence treatment and tobacco-free standards into residential addictions treatment in New Jersey. *Journal of Substance Abuse Treatment* 28, 331-40.
- Williams, J.M. Zeidonis, D. (2004). Addressing tobacco among individuals with a mental illness or an addiction. *Addictive Behaviours*, 29, 1067-83.
- Woods, S.S., Jaen, C.R. (2010). Increasing consumer demand for tobacco treatments. Ten design recommendations for clinicians and healthcare systems. *American Journal of Preventive Medicine*, 38,(3S),s385-s392.
- World Health Organisation. (2005). *WHO Framework Convention on Tobacco Control*. WHO Library Cataloguing-in-Publication Data, WHO Document Production Services, Geneva, Switzerland.

Wye, P.M., Bowman, J.A., Wiggers, J.H., Baker, A., Knight, J., Carr, V.J., Terry, M., Clancy, R. (2009). Smoking restrictions and treatment for smoking: Policies and procedures in psychiatric inpatient units in Australia. *Psychiatric Services*, 60, 100-107.

Wye, P., Bowman, J., Wiggers, J., Baker, A., Carr, V., Terry, M., Knight, J., Clancy, R. (2010a). An audit of the prevalence of recorded nicotine dependence treatment in an Australian psychiatric hospital. *Australian New Zealand Journal of Public Health*, 34, 298-303.

Wye, P., Bowman, J., Wiggers, J., Baker, A., Carr, V., Terry, M., Knight, J., Clancy, R. (2010b) Providing nicotine dependence treatment to psychiatric inpatients: The views of Australian nurse managers. *Journal of Psychiatric and Mental Health Nursing*, 17, 319-327.

Wye, P., Bowman, J., Wiggers, J., Baker, A., Knight, J., Carr, V., Terry, M., Clancy, R. (2010c). Total smoking bans in psychiatric inpatient services: A survey of perceived benefits, barriers and support among staff. *BMC Public Health*, 10, 327.

Zevin, S., Benowitz, N.L. (1999). Drug interactions with tobacco smoking: An update. *Clinical Pharmacokinetics*, 36, 425-438.

Ziedonis, D., Guydish, J., Williams, J., Steinberg, M., Foulds, J. (2006). Barriers and solutions to addressing tobacco dependence in addiction treatment programs. *Alcohol Research and Health* 29, 228-35.

Ziedonis, D., Hitsman, B., Beckham J.C., Zvolensky, M., Adler, L.E., Audrain-McGovern, J., Breslau, N., Brown, R.A., George, T.P., Williams, J., Calhoun, P.S., Riley, W.T. (2008). *Tobacco use and cessation in psychiatric disorders: National Institute of Mental Health report*. Nicotine & Tobacco Research, 10, 1691-1715.

Ziedonis, D.M., Kosten, T.R., Glazer, W.M., Frances, R.J. (1994). Nicotine dependence and schizophrenia. *Hospital and Community Psychiatry*, 45, 204-206.

Ziedonis, D., Hitsman, B., Beckham, J.C., Zvolensky, M., Adler, L.E., Audrain-McGovern, J., Breslau, N., Brown, R.A., George, T.P., Williams, J., Calhoun, P.S., Riley, W.T. Tobacco use and cessation in psychiatric disorders: National Institute of Mental Health report. *Nicotine & Tobacco Research* 2008, 10, 1691-1715.

Ziedonis, D.M., Williams, J.M., Smelson, D. (2003). Serious mental illness and tobacco addiction: a model program to address this common but neglected issue. *American Journal of the Medical Sciences*, 326, 223-230.