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Commentary

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Promoting positive attitudes of tobacco-dependent mental health patients towards NRT-supported harm reduction and smoking cessation

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Research has shown that smoking cessation is at least as beneficial to people with a mental illness as it is to people without, with cessation leading to reduced levels of anxiety, depression and stress (Taylor et al., 2014). Despite this, while over 85% of smokers with a mental illness have tried to quit at some time, the smoking rates for patients with a mental illness are still 2–3-times higher than that of the general population (Ragg and Ahmed, 2008). In the past, the only alternative to abrupt quitting was to advise smokers to reduce their tobacco intake, potentially leading to smokers altering their smoking topography (breathing more deeply and holding their breath longer) in an attempt to “get more”

out of the cigarette but consequently increasing their exposure to carbon monoxide and particulate matter (Fagerstrom, 2005).

A relatively novel approach is a nicotine replacement therapy (NRT)-supported harm-reduction strategy. This strategy provides patients with access to NRT while allowing smoking to continue unrestricted, thus lessening a patient’s initial anxiety associated with idea of “quitting smoking” while reducing their inhalation of toxins. This method has been shown to reduce tobacco-related toxin consumption and increase smoking cessation and sustained abstinence rates in healthy adults (Fagerstrom, 2005; Stead and Lancaster, 2007).

It follows that this approach may engage and facilitate smoking cessation in patients with barriers to immediate cessation or sustained abstinence (Shiffman et al., 2007), such as those with higher dependence, higher vulnerability to withdrawal effects, anxiety, depression, and distress. As such, NRT-supported harm reduction may be appropriate in mental health settings (Morris et al., 2011); however, the acceptability of such an approach in mental health patients is unknown. The present study assessed the effects of simple education on attitudes to NRT-supported harm reduction in tobacco-dependent mental health outpatients. We hypothesized that informing mental health patients of this option would augment motivation to engage in this strategy.

Our outpatient study was conducted at the Brain and Mind Research Institute, Sydney, Australia. Consenting participants completed a socio-demographic

assessment questionnaire followed by a two-part attitude assessment. In a single session, the views of participants with self-reported tobacco use were assessed prior to and immediately following reading the educational statement below:

Recent research into smoking has proven that you can smoke and use nicotine replacement therapies (such as patches, gum, lozenge etc.) at the same time safely. In fact the use of nicotine replacement therapies while smoking may help you improve your overall health by reducing the harm that cigarettes do to you.

The demographic data gathered included age, gender, mental health diagnosis, education level, and employment status. In addition, tobacco-dependence levels were gauged via the two-item Heaviness of Smoking Questionnaire (Heatherton et al., 1989), via self-reported average numbers of cigarettes consumed per day and time to the first cigarette smoked after waking.

The attitude questionnaire targeted four primary barriers to the use of NRT-supported harm reduction, as indicated by previous research (Foulds et al., 2009). These comprised misconceptions regarding the health benefits, harm reduction effects, economic cost comparative to continued smoking in the absence of NRT, and safety of concomitant NRT and smoking. Post education, a single item assessed participants’ willingness to consider NRT-supported harm reduction.

Ethics approval was granted by the University of Sydney Human Ethics Committee. Before commencing the study, each participant provided informed oral and written consent.

Table 1. Participant demographic and smoking characteristics.

Characteristic	Study population (n=42)
Age (years)	
15–29	19 (45)
30–49	11 (26)
50–64	12 (29)
Sex (female)	28 (67)
Employed (yes)*	21 (51)
Education (above HSC)	24 (57)
Time to first cigarette (under 30 min) ^a	23 (56)
Duration of cigarette use (years)	19.4±13.7 (1–50)
No. of quit attempts	6.1±8.5 (0–35)
Longest period of abstinence (days)	312.9±636.2 (0–3650)
No. of cigarettes per day	15.9±9.2 (1–30)
Mental health conditions reported ^b	35 (83)
Mood (unipolar/bipolar depression)	26
Anxiety disorder	13
Psychotic disorders ^c	1
Other conditions ^c	2
Awaiting formal diagnosis	7 (17)

Values are n (%) or mean±SD (range).

^aOne participant not included.

^bEight participants (19%) reported multiple mental health conditions.

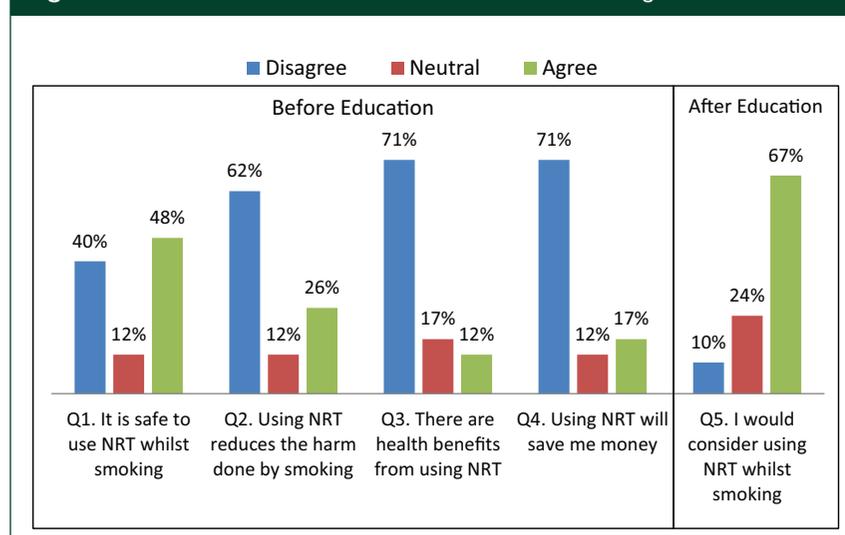
^cPsychotic disorders included schizophrenia; other conditions included AXIS II disorders and Parkinson's disease.

Approximately 400 consecutive patients were approached. Sixty-five (16%) self-reported smoking, of whom 42 (64%) consented and completed the study questionnaires. Participants represented a wide variety of age ranges and mental health conditions (Table 1).

Figure 1 shows the proportions of negative, neutral, and positive responses to each question. Before education, 40% of participants believed concomitant NRT and smoking to be unsafe, 62% did not believe that the strategy would reduce smoking-related harm, 71% did not consider the strategy to yield health benefits, and 71% thought the strategy would entail elevated financial cost. Following education in NRT-supported harm reduction, 67% of participants agreed to considering personal use of the strategy, potentially indicating a favourable cognitive shift toward and improved motivation to engage in this treatment (Figure 1).

Characteristics of diagnoses, tobacco dependence, and previous quit attempts did not predict differential responding. Those over 40 years of age reported significantly more negative baseline opinions of the use of NRT-supported harm reduction than younger participants (mean±SD: ≥40 years, 2.00±0.93; <40 years, 2.75±0.70, Mann–Whitney U-test 135, $p=0.031$).

As hypothesized, many participants had negative and erroneous beliefs about using NRT in conjunction with smoking, and some had not even considered it an option, believing instead that to use NRT you had to stop smoking completely. Once participants had read the educational paragraph, a significant proportion expressed a willingness to consider the strategy. This supports previous observations (R Bittoun, CP Mendelsohn, M Barone, data unpublished), extends previous studies (e.g. Ferguson et al., 2011; Morris et al., 2011), and signals a potential acceptability of NRT-supported harm reduction in smokers with mental illness.

Figure 1. Attitudes on the concurrent use of NRT and smoking.

Analysis was completed using SPSS version 21.0.0.0). Descriptive analyses were performed to assess intervention

effects and the Mann–Whitney U-test was used to examine differences associated with age.

The self-reported smoking prevalence rate of 16% was unusually low, possibly reflecting underreporting or sample characteristics. No tests were performed to validate self-reported smoking behaviours or response bias due to social desirability.

This work recommends better adequate health worker training, patient and carer education (Bittoun et al., 2013), and provision of accurate information regarding all viable options for tobacco-dependence treatment is requisite to quality psychiatric care.

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Declaration of interest

CPM has received honoraria for teaching, consulting, and travel from Pfizer and

GlaxoSmithKline. He is a member of Pfizer's Champix Advisory Board and has participated in GlaxoSmithKline's Nicotine Replacement Therapy Expert Panel. The other authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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