### **OPPORTUNITIES FOR ADDRESSING SMOKING IN SUBSTANCE ABUSE TREATMENT**

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Aim of Abstract: Smoking rates continue to be substantially higher in alcohol and other substance abuse populations than the general community. Whilst there is strong support for addressing smoking as part of substance abuse treatment, traditional treatment has tended to focus only on the persons alcohol or other substance use. The aim of the symposium is to highlight opportunities for clinicians to address smoking as part of routine practice and to present results from a smoking focused trial recently conducted across The Australian Salvation Army. The first paper will present results from a longitudinal study examining naturalistic changes in smoking as part of routine care. The second study presents baseline results from an NHRMC funded trial that examined the intentions of people to engage in substance abuse treatment to address their smoking. The third paper presents the smoking related outcomes from a Cancer Institute NSW funded randomized controlled trial of a healthy lifestyle group program used within residential substance abuse treatment. The Final paper presents a meditational analysis examining the importance of self-efficacy in promoting reductions in smoking behaviours. The four papers demonstrate the need to address smoking, but also highlight that people attending substance abuse treatment are willing and capable of participating in smoking cessation activities.

### PRESENTATION 1 – SMOKING AMONGST SUBSTANCE USING POPULATIONS: NATURALISTIC CHANGES AMONGST PEOPLE ATTENDING SUBSTANCE ABUSE TREATMENT

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**Introduction and Aims:** Previous research has demonstrated that people attending residential substance abuse treatment are 13-times more likely to smoke than people from the general population. Within this population, more people die from smoking-related causes of death than other substances, yet smoking is rarely addressed as part of routine care. The current research aimed to: 1) Describe the prevalence of smoking; and 2) Examine demographic and clinical characteristics that are associated with smoking cessation and that might predict cessation post-discharge.

**Method:** Participants (N=242) were attending residential substance abuse treatment provided by the Australian Salvation Army. Demographics, measures of smoking, substance use, and clinical characteristics were collected between 2012 and 2016 at baseline and 3-months post discharge from the residential services.

**Results:** At baseline, 77% of people entering treatment were smokers (n=184). Of these smokers, only 15 people reported that they had quit smoking 3-months after they had left treatment (8%). Heaviness of smoking reduced significantly from baseline (M=3.47, SD=1.33) to follow-up (M=2.95, SD=1.52), t=3.97, p<.01. Regression analyses revealed that heaviness of smoking at baseline significantly predicted quit rate at follow-up,  $\beta$  =-.45, Wald X<sup>2</sup>(1) = 4.01, p<.05.

**Discussions and Conclusions:** Smoking rates continue to be exceptionally high for people attending residential substance abuse treatment. Although there is the potential for people to address their smoking as part of routine care, the current study demonstrates that only a small proportion of people quit smoking (8%).

**Implications for Practice or Policy:** Findings suggest that smoking cessation should be addressed as part of routine care. Results can be used to guide intervention and policy planning in order to identify those individuals most likely to require extra cessation support.

### PRESENTATION 2 – TOBACCO SMOKING CESSATION INTENTIONS AND PREFERENCES FOR QUIT SUPPORT AMONG CLIENTS OF DRUG AND ALCOHOL TREATMENT SERVICES IN AUSTRALIA

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**Introduction / Issues:** In Australia 77-95% of people entering drug and alcohol treatment smoke tobacco – five times the prevalence of the general adult population. A commonly cited barrier to addressing smoking in this setting is the belief that clients are not interested in quitting.

**Method / Approach:** Clients, who were self-reported smokers, attending one of 32 drug and alcohol services in NSW, QLD, ACT and SA, Australia enrolled in a larger NHMRC funded cluster-RCT study were invited to complete an online touchscreen tablet baseline assessment survey. Smoking history, cessation support preferences and demographics were assessed.

**Results:** N=900 smokers. Most participants received their primary income from a government pension (78%), earned <AUD\$400/week (55%), had not completed secondary schooling (55%) and identified as male (58%). On average smokers consumed 18 cigarettes/day, had attempted to quit in the past (80%), intended to quit within the next 6 months (75%) and made an average of 2.24 serious quit attempts in the past 12 months. The most popular types of smoking cessation care clients wanted from drug and alcohol services were the provision of free or cheap NRT (79%), support and encouragement to quit (68%), to be asked if they would like to quit (61%) and to be followed-up and given support to stay quit (60%). Only 51% of clients knew they could access NRT patches at very low cost through their doctor.

**Discussion and Conclusions:** Clients in substance abuse treatment who smoke tobacco are interested in quitting and would like support from drug and alcohol treatment services.

# PRESENTATION 3 - HEALTHY RECOVERY: PRIMARY OUTCOMES FROM A STEPPED WEDGE RANDOMISED CONTROLLED TRIAL

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**Introduction and Aims:** Cardiovascular disease and cancer are leading causes of mortality for people with a history of alcohol or other substance use disorders. Smoking and other unhealthy lifestyle behaviours (i.e. poor diet, physical inactivity, excessive alcohol use) are the primary behavioural risk factors that contribute to the development of these diseases. In addition to addressing problematic alcohol use, there is the potential for substance abuse treatment services to also address these other health behaviours. Healthy Recovery is an 8-session group-based intervention that targets smoking, diet and physical inactivity. It was developed specifically for people attending substance abuse treatment. The aim of the current study was to examine the effectiveness of an 8-session group based healthy lifestyle program (Healthy Recovery) on smoking outcomes.

**Design and Methods:** The project was conducted as a stepped wedge randomised controlled trial (N = 172; 89% follow-up at 6mths). Participants were attending residential alcohol and other substance abuse treatment provided by The Australian Salvation Army.

**Results:** Participants completing Healthy Recovery had a significantly lower rate of cigarettes smoked per day at 2 months follow-up than people in the control group (average of 5 cigarettes/day lower; p=0.001). At 8 months there was still a statistically significant difference between the two groups (p=0.05). When compared to treatment as usual, people completing Healthy Recovery were more likely to have quit smoking (21% v 9%).

**Discussion and Conclusions:** People attending substance abuse treatment are willing to engage in healthy lifestyle interventions. Future research should examine the implementation of Healthy Recovery within tobacco-free residential treatment.

# PRESENTATION 4 – POTENTIAL MECHANISMS OF TOBACCO REDUCTION IN SUBSTANCE ABUSE POPULATIONS

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**Introduction and Aims:** The prevalence of tobacco use remains high within substance abuse populations, exponentially increasing the likelihood of lifestyle diseases within this cohort. Understanding the psychological mechanisms facilitating successful behaviour change is necessary to implement effective interventions. The aim of the current study was to examine perceived self-efficacy and behavioural importance as potential psychological mechanisms underlying a healthy lifestyle group based program (Healthy Recovery) trialed within substance abuse treatment.

**Design and Methods:** The current study followed a stepped-wedge cluster randomised controlled trial (RCT), recruiting participants from four of The Salvation Army residential treatment facilities in New South Wales, across four time points. Smoking, perceived self-efficacy and behavioural importance were measured in a Healthy Recovery Group (n = 80) and treatment as usual (n = 84). Participants completed outcome measures at baseline, post-intervention, and 3-month follow-up. Multiple mediation analyses were conducted using site, wave and baseline data as covariates.

**Results:** At post-intervention, participants in the Healthy Recovery group rated themselves as higher on measures of behavioural importance and self-efficacy to quit smoking. Perceived self-efficacy was found to mediate the relationship between condition and number of cigarettes consumed, with participants in the Healthy Recovery group who were more confident in their ability to quit smoking at post-intervention having significantly reduced tobacco consumption at 3 month follow-up.

**Discussion and Conclusions:** Interventions focusing on increasing individual's self-efficacy to quit smoking during substance abuse treatment may lead to reductions in smoking. Behavioural importance may also play a role in tobacco reduction. Further longitudinal mediation analyses are needed to replicate this finding.

#### **Discussion Section:**

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Professor Baker in an international leader in the field of smoking in mental health and substance abuse populations. She will provide a summary of the key findings from the presentations and lead the audience in discussion regarding the key processes required to translate the research findings into routine clinical care.