

5.1

Behavioural Treatment Dimensions Physical Activity & Weight Control

Introduction

Smoking does not occur in isolation from other health related behaviour. Issues such as drug use, excessive alcohol consumption, poor diet and low levels of physical activity may not only co-exist with smoking but also influence the likelihood that a person will succeed in quitting smoking. Therefore, it would seem sensible that stop smoking support should be delivered with some reference to these other behavioural issues. While the aim may not be a complete 'overhaul' of an individual health-related lifestyle, examining how other behaviours interact with a person's smoking may enhance the likelihood of smoking cessation treatment being successful. This section will examine exercise and diet, while the next section (Section 5.2) will discuss drug and alcohol misuse.

Physical Activity & Smoking

One may assume that, because of the effects of smoking on physical fitness, and because of their attitudes to health, smokers engage in lower levels of physical activity than non-smokers. However, while the findings of a recent review did suggest that smokers engage in a lesser amount of vigorous activity than that of nonsmokers, the difference for moderate or low-intensity activities was often negligible (Kaczynski et al. 2008).

Importantly, it may be that engaging in moderate or low-intensity exercise increases the likelihood that an individual will successfully quit smoking. In particular, while more research is needed in the area, a review by (Ussher et al, 2008) presented some evidence that adding exercise components to stop smoking support increases abstinence rates. As the authors highlight, the mechanism underlying the observed beneficial effect of exercise on smoking abstinence is not clear, although it may be relevant that exercise has been shown to have some similarities to smoking in its effects on stimulating the central nervous system and neurobiological processes in the brain (Dishman, 2006)

Given the likelihood that smoking among mental health service users may be particularly reinforced motivated by its acute effect on neurobiological processes (see Section 2.2), addressing and encouraging an increase in physical activity during quit attempts may be particularly beneficial in this group. Levels of physical activity are particularly low among mental health service users (Brown et al., 1999) and therefore it will often be that engaging in only low to moderate levels of activity will represent a significant improvement. What is more, the positive influence of exercise on reducing withdrawal symptoms and the desire to smoke has been shown to be the case for brief (5 to 10 minute) bouts of moderate physical activity as well as more vigorous exercise (Taylor 2007).

Encouraging Physical Activity

Physical Efforts to encourage physical activity during a quit attempt may be more successful if some time is take to establish which forms of activity may be most acceptable to the service user. Prescriptive recommendations relating to joining a gym or playing sport may not be fruitful if the service user lacks any motivation to do so. Rather, it may be better to ask the service user for their own ideas, keeping in mind that regular, informal activity (eg- a brisk walk) is as likely to have as much benefit as more formal or vigorous exercise.

Physical activity may also be better maintained if it also provides the opportunity for social interaction. There is review level evidence to suggest that social support and having a companion for physical activity are the factors most consistently associated with the maintenance of different types of physical activity in adults (Wendel-Vos et al, 2007). Therefore, incorporating moderate physical activity into a group-based smoking cessation programme, or identifying local schemes in which physical activity provides the opportunity for social interaction, may be particularly beneficial.

Weight Gain & Smoking

Individuals who stop smoking often gain weight. Among people who sustained quitting for five years, [O'Hara 1998](#) found that women gained 5.2 kg in year one and a mean of 3.4 kg in years one to five, while men gained a mean of 4.9 kg in year one and a mean of 2.6 kg in years one to five.

Weight gain, or even the fear of weight gain, may inhibit attempts to stop smoking. There is widespread concern among smokers about post-cessation weight gain, and it has been cited as a primary reason for putting off quit attempts and weight gain experienced during or after smoking cessation has been associated with relapse ([Klesges 1992](#)).

Weight gain is a particular issue, independently of smoking, for many mental health service users. In particular, increases in weight and obesity are major side effects of many anti-psychotics (Taylor & McAskill, 2000). This weight gain is linked to increased appetite and decreased activity, but is mainly caused by changes in metabolism, meaning dieting may be of limited value.

This does not mean that weight gain when quitting smoking should be ignored among mental health service users. Extra gains in weight, on top of that caused by medical treatment, may still represent an adverse outcome, both for an individual's health, and their self-esteem.

In their review, Parsons et al (2009) report that nicotine replacement therapy (NRT) has been found to reduce weight gain smoking cessation. The greatest weight of evidence was found for patch and gum preparations, which both independently attenuated weight gain. However, the attenuation of weight gain was reversed after pharmacotherapy ceased to be given, with no significant attenuation by six or 12 months. Ant-depressants such as bupropion also served to reduce weight gain. However, as discussed in Section 4.1, bupropion may be often be unsuitable for use in mental health settings.

Importantly, Parsons et al. (2009) found evidence that simply giving people advice to reduce their calorie intake was not only ineffective in attenuating weight gain, but also may hinder success in quitting smoking. This may be because hunger is associated with increased urges to smoke ([Cheskin 2005](#)). Rather, it may be that smoking cessation advisors' best course of action in relation to diet should be to focus on simply supporting service users to eat properly and healthily during their quit attempt. Strategies such as reducing fatty foods and alcohol consumption, in conjunction with nicotine replacement therapy, will often serve to minimize the amount of weight gained while not posing a threat to smoking abstinence.

Conclusion

Neither physical activity or dietary behaviour should be ignored when delivering stop smoking support. In relation to physical activity, even moderate increases in activity may help attenuate withdrawal symptoms and make a successful quit more likely. Regarding diet, research suggests that advice to service users to count and reduce calories should be avoided. Rather, support in relation to healthy eating would seem to be the most sensible intervention, along with advice that nicotine replacement therapy can often serve to minimize weight gain after stopping smoking.

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