

# ASHES, Vol. 5(6) - Resisting tempting foods and cigarette smoking

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Many smokers are concerned about gaining weight if they quit smoking. Doctors recommend that individuals concentrate on smoking cessation rather than dieting until they are certain that they will not relapse (Fiore et al., 2008). Imagine you are a cigarette smoker in front of a table full of tempting sweets that you are not allowed to eat. When you finally leave the room, will you be tempted to have a cigarette? This week the ASHES provides a critical review of a study by Shmueli and Prochaska (2009) that raises a similar question and then explains why it might be difficult to moderate food consumption and avoid smoking at the same time.

## Method

- Investigators measured participants' expired alveolar air to assess baseline levels of carbon monoxide (i.e., CO); CO levels serve as an indicator of recent tobacco smoking.
- Experimenters randomly assigned 97 smokers to two independent groups: one exposed to sweets and the other exposed to vegetables. An experimenter brought each participant to a room, where there was a plate of either sweets (i.e., cookies, and brownies) or vegetables (i.e., radishes and broccoli).
- Researchers required the participants to sit at the table for five minutes and did not allow them to eat anything from the plate. During the five-minute period, a bell rang at random intervals and at each ring the participant had to smell the plate of food and think about the temptation of eating the food.
- After a 10 minute break, participants provided investigators with another CO sample and also answered if they smoked during the break.

## Results

- The agreement level between self-reported smoking and CO test was

good, but not perfect ( $k = .88$ ). All but one of the discrepancy cases involved participants who reported smoking during the break, but the CO reading did not confirm this.

- Participants who resisted sweets were more likely to smoke (based on an increase in CO level) during the break ( $n = 25, 53\%$ ) than those who resisted vegetables ( $n = 17, 34\%$ ),  $X^2(97) = 3.65, p < .05$ . However, the effect size was small (i.e.,  $\phi = .19$ ) and the self-reported smoking rates of 51.1% and 42.0% for the sweets and vegetables groups were not significantly different.

## **Limitations**

- Although statistically significant, the effect of “sweets” vs. “vegetables” resistance was small and was not supported by self-reported smoking.
- Participants in the study were not trying to inhibit smoking; therefore the self-control strength model was not directly tested.

## **Conclusion**

The authors of this paper explain the results in terms of a self-control strength model (Muraven & Baumeister, 2000). According to this model, a person has limited resources for self-control. Therefore, after resisting temptation to eat a plate of food it becomes more difficult to resist smoking. This study supports the advice not to quit smoking and attempt a diet at the same time. However, the observed effect was not substantial and not supported by the self-reported results. Other studies (e.g., Drobles, 2002) have shown successful concurrent treatment for alcoholism and smoking. Despite the reported limitations, Shmueli and Prochaska present an interesting methodology for studying self-control and developing effective interventions for promoting quitting behavior.

## **References**

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