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# CATIE-News

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## Smoking cessation: Innovative group therapy–centered support found to double quit rate

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Surveys have found that tobacco use is common among some HIV-positive people. As much as 40% of some clinic populations have been found to smoke cigarettes. In the time before potent combination anti-HIV therapy (commonly called ART or HAART) became widely available, smoking cessation was not a major concern for HIV-positive people and their health care providers.

In the present era, researchers increasingly expect ART users to have survival rates broadly similar to those of HIV-negative people. However, there are increasing reports of shortened survival among some HIV-positive people due to complications arising from cancers, co-infections and cardiovascular disease. Smoking tobacco elevates the risk for cancers, heart attack and other complications, ultimately worsening quality of life and decreasing lifespan. In one international study of more than 5,000 HIV-positive people, researchers estimated that smoking tobacco was either directly or indirectly responsible for 24% of the deaths that occurred over the long term.

### Help for quitting

Concerned about the harmful impact of smoking and trying to improve ways to help HIV-positive people quit, researchers at the Albert Einstein College of Medicine in the Bronx, New York, have been conducting studies related to this issue. Their latest study was a randomized controlled trial comparing an intensive group therapy–centered approach to standard advice about quitting. All participants were offered nicotine replacement therapy. Participants who received intensive group therapy–based support had nearly double the quit rate after three months.

Furthermore, the researchers found that two factors—loneliness and participants' confidence in their ability to resist the urge to smoke—were significantly associated with their ability to break free from smoking. The results of this and other studies should encourage clinicians to refine their tobacco-cessation programs for HIV-positive people.

### Study details

Participants in the study were randomly assigned to either enter the intensive program, called Positive Smoke Free (PSF), or receive brief standard counselling. Within the PSF program, participants were divided into small groups of six to eight people. Each group was led by two facilitators, one was an HIV-positive peer and the other was a graduate student of a psychology program. Both facilitators had training about tobacco addiction.

### Focus on PSF

PSF is an eight-session intervention based on the *Tobacco Dependence Treatment Handbook* . The PSF program was created by making modifications to the work in the handbook, so that the concerns of HIV-positive people could be incorporated. These concerns, identified in pilot studies, included the following:

- specific risks of smoking for HIV-positive people
- co-existing mental health and emotional issues
- substance use
- social isolation
- stress reduction

Each group had a weekly 90-minute session. Key issues covered in these meetings including the following:

- reviewing the many health risks associated with exposure to tobacco smoke
- dispelling myths about the alleged benefits of smoking
- exploring self-discipline and delaying instant gratification and their impact on improved health
- understanding the importance of adherence
- understanding and enduring temporary discomfort in exchange for long-term health
- assertive training to negotiate HIV care
- dealing with urges to skip medical appointments or doses of HIV medications
- understanding the link between HIV, pain, tobacco use and quitting
- remaining free from tobacco over the long-term

Smoke-free status was confirmed by the evaluation of the exhaled air of participants for carbon monoxide at several points throughout the study.

Of the 184 people who volunteered for the study, 147 made it through the screening process and were randomly assigned to one of the following groups:

- 73 participants – PSF
- 72 participants – so-called standard therapy, consisting of a brochure about quitting, brief advice (less than five minutes) about quitting and free nicotine replacement therapy if they wished

The average profile at the time participants entered the study was as follows:

- gender – 50% women, 49% men, 1% transgendered
- age – 48 years
- CD4+ count – 500 cells
- housing status – 90% had stable housing status
- employment – 89% were unemployed

HIV infection risk factors included the following:

- unprotected heterosexual sex – 58%
- unprotected sex between men – 15%
- injection drug use – 15%
- contaminated blood transfusion – 3%

Commonly used substances in the month prior to enrollment in the study were as follows:

- marijuana – 42%
- cocaine – 29%
- heroin – 8%

Most people had been smokers for more than 30 years, consuming an average of 12 cigarettes daily.

## Results

Overall, 21 participants (15%) were able to quit after the three-month program ended, distributed as follows:

- PSF – 19%
- standard therapy – 10%

Although the outcome of this study is highly promising and likely clinically meaningful—nearly twice as many PSF participants quit—the difference in quit rates did not reach statistical significance.

The study team assessed possible reasons that might have influenced people to quit, including the following:

- group facilitators – a comparison of different group leaders did not find any impact on outcomes
- prescribed medicines – although 40% of participants received nicotine replacement therapy or other

prescribed drugs, such as bupropion (Wellbutrin, Zyban) and varenicline (Chantix, Champix), to help ease the path to quitting, prescribed medicines on their own did not apparently affect quit rates in this study
- race/ethnicity – people of Latino ethnicity were more likely to quit
- loneliness – people who were lonelier were less likely to quit

## Improvements to the next clinical trial

The PSF program was clearly advantageous in helping people to quit. Researchers found that quit rates were significantly greater among PSF participants if they attended seven or more counselling sessions **and** also received prescribed therapy to help them quit. Keeping people motivated in any clinical trial is not easy, particularly in trials of smoking cessation. Future trials should consider prescribed medicines for smoking cessation as well as ways to maximize attendance at support group meetings. Additional considerations include the following:

- race/ethnicity – Researchers are not certain why Latino participants were more likely to quit smoking in the present study. They found that Black people were less likely to quit and so more research is needed to understand these issues concerning race and ethnicity.
- loneliness – Past research has found that loneliness is linked to an increased risk for tobacco use. Perhaps this may be related to boredom and stigmatization, which are also related to the use of tobacco. The social aspects of the PSF program were the most appreciated part of the program by participants. This finding may be useful for future studies.

The present study has produced highly promising results and shows that smoking cessation is possible among HIV-positive people who are motivated to quit. Perhaps future studies should be of a longer duration, both to provide more social support for participants and to assess how long they are able to remain smoke free.

**Resources:**

- *CATIE-News: Understanding Tobacco Addiction*
- Canadian Cancer Society: Smoking and tobacco
- Canadian Lung Association: Smoking & tobacco
- Santé et services sociaux Québec: Tobacco and your health
- CATIE: Up in Smoke - The ifs, ands or buts of butting out
- CATIE Factsheet: HIV and Cardiovascular disease

*—Sean R. Hosein*

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