# Gay Men: Therapy Curbs Risky Sexual Acts, HIV

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OAKLAND, CALIF. — Gay men seeking treatment for methamphetamine use significantly reduced both drug use and risky sexual behaviors during a 16-week program, Steven Shoptaw, Ph.D., said at a conference sponsored by the American Foundation for AIDS Research.

A study that randomized 162 gay and bisexual men to one of four treatment groups found strategies that employed "contingency management," in which participants were rewarded for drug-free urine samples, worked best to reduce methamphetamine use. A version of cognitive-behavioral therapy (CBT) geared specifically toward gay and bisexual men worked best to quickly reduce the riskiest sexual behavior—unprotected receptive anal intercourse, he said.

Drug abuse treatment deserves a primary role in HIV prevention strategies for gay men, said Dr. Shoptaw of the University of California, Los Angeles.

The four treatment groups used conventional cognitive-behavioral therapy, contingency management, a combination of the two, or gay-specific CBT. All participants underwent urine screening thrice weekly, and those in the contingency management groups whose urine samples were drug free received monetary vouchers that could be redeemed for goods or services. Participants called contingency management "peeing for dollars."

The gay-specific CBT addressed both drug abuse and HIV-related sexual risk behaviors and incorporated references to gay culture. For instance, the group might discuss how revealing one's drug problem is similar to the coming-out process. A session on identifying triggers for drug abuse relapse might discuss circuit parties or sex clubs frequented by methamphetamineusing gay or bisexual men.

Monthly monitoring of sexual behaviors showed that all groups had reduced risky sexual behavior at 4 weeks of thera-

py, with significantly greater improvement seen in the gay-specific CBT group throughout the 16-week program, compared with the other groups.

After the program ended, the differences among groups evened out, but all maintained improvements compared with baseline. At 6-month and 1-year followups, participants reported approximately one or fewer occasions of unprotected receptive anal intercourse in the previous 6 months, compared with two or three occasions reported at baseline.

Among the entire cohort, 83% of urine samples at the end of 16 weeks were drug free, compared with 52% at baseline.

Participants in the groups that employed "peeing for dollars" were significantly more likely to complete the 16-week program, provide more drug-free urine samples, and to have longer periods of consecutive drug-free urine samples during treatment, compared with the group using conventional CBT alone, Dr. Shoptaw said at the conference, which was cosponsored by the Pacific AIDS Education and Training Center.

The gay-specific CBT group also produced more drug-free urine samples during treatment than did the conventional cognitive-behavioral therapy group.

The study will appear in the journal Drug and Alcohol Dependence.

As with the changes in risky sexual behavior, the differences in drug use between groups disappeared after the program ended, but all groups maintained improvements. At 1 year, urine samples were drug free in 82% of the cognitive-behavioral therapy group, 73% of the contingency management group, 73% of the combination-therapy group, and 67% of the gay-specific therapy group. The differences were not significant.

Previous data showed methamphetamine use clearly is associated with sexual behaviors that increase the risk of HIV transmission. "When gay and bisexual men avoid methamphetamine use, they generally engage in sexual behaviors at considerably lower risk," Dr. Shoptaw said.

# Percentage of Holiday Deaths That Are Alcohol Related 70% 65% 50% 45% Christmas Thanksgiving 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 Source: National Highway Traffic Safety Administration

# EVIDENCE-BASED PSYCHIATRIC MEDICINE

## Is Nicotine Replacement Therapy Effective?

### The Question

You work in an outpatient psychiatric clinic, and one of the patients asks your opinion on the efficacy of nicotine replacement therapy.

### The Analysis

We searched the Cochrane Collabora-

tion Web site (www. cochrane.org) for the key words "nicotine replacement therapy" and found a systematic review titled "Nicotine Replacement Therapy for Smoking Cessation" by Christopher Silagy, M.B., and associates (Cochrane Database Syst. Rev. 2004;3: C D 0 0 0 1 4 6; www.cochrane.org/reviews/en/ab000146.html).



### The Evidence

Nicotine replacement therapy takes many The nicotine forms. resin-complex chewing gum is available in 2-mg and 4-mg preparations, and plasma concentration in gum users reaches approximately half of that seen after smoking a cigarette. Transdermal patches provide 7-22 mg over a 24-hour period,

with plasma concentrations similar to trough levels seen in heavy smokers. Other delivery systems include intranasal nicotine sprays and nicotine inhalers, lozenges, and tablets.

For this review, 123 studies with a total of over 35,600 participants were included. Smokers were included irrespective of their initial level of nicotine dependence. Studies comparing gum, patches, nasal sprays, inhalers, tablets, and lozenges with placebo or "no nicotine replacement" were included.

Any trial that had less than a 6-month follow-up was excluded. Generally, the included studies were 6-12 months in duration. (In 95 of the studies, participants were followed for at least 12 months.) When patients were lost to follow-up, they were considered ongoing smokers.

Smoking reduction was defined as a 50% reduction in the number of cigarettes smoked per day. All but 14 of the studies incorporated some form of validation to self-reported abstinence. Carbon monoxide in expired air was the most common method used.

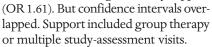
Only five of the gum trials and three of the patch trials yielded negative results. The rest of the studies showed that nicotine replacement therapy is significantly more effective than placebo or no nicotine replacement in smoking cessation. The odds ratio (OR) of abstinence for any form of nicotine replacement therapy was 1.77. Nasal spray had the highest OR (2.35), fol-

lowed by 2.14 for the inhaler, 2.05 for the tablet, 1.81 for the patch, and 1.66 for gum. The OR comparing 4-mg and 2-mg gum in highly dependent smokers was 2.2. There was no difference in low-dependence smokers.

The abstinence rate for all trials was 17% for any form of nicotine replace-

ment therapy, compared with 10% for placebo or no replacement. The highest abstinence rate was 24% for the nasal spray, 17.4% for the gum, 17% for the inhaler and the tablet, and 13.7% for the patch.

Seven trials compared two forms of nicotine replacement therapy to a single form. Pooling of data from all trials showed a significant benefit of combining two forms of nicotine replacement (OR 1.42). Pooling of data from three trials showed a significant benefit in using nicotine replacement therapy to reduce the number of cigarettes smoked to less than 50% (OR 1.80). In trials using nicotine gum, quitting rates were higher in trials with low-intensity support (OR 1.76) than with high-intensity support



Side effects to gum use included hiccups, GI symptoms, jaw pain, and orodental problems. With the patch, many users reported skin irritation and sensitivity. The nicotine inhaler and the nasal spray caused local irritation at the site of administration. Tablets caused hiccups, a burning sensation in the mouth, sore throat, coughing, dry lips, and mouth ulcers. A review of 35 trials with more than 9,000 study participants found no excess adverse cardiovascular events for the patch.



### **The Conclusion**

All forms of nicotine replacement therapy are efficacious in smoking cessation. Inhalers and nasal sprays are more effective than tablets, patches, or gum, but some caution should be used in interpreting these results, as there was overlap of confidence intervals. Combining two forms of nicotine replacement may be more effective than a single form, and could be considered in patients who have continued smoking when using a single form of replacement.

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