

# Smoking Intervention Delivers Modest Success

BY DIANA MAHONEY

Motivational interviewing can be an effective counseling technique for smoking cessation, particularly when it is delivered by a primary care physician, a review of intervention studies shows. However, the review results should be interpreted with caution, the authors wrote.

Dr. Douglas T.C. Lai, a family medicine physician affiliated with the Chinese University of Hong Kong, and his colleagues from that university and the University of Oxford (England), conducted a Cochrane Collaboration review of data from 14 studies involving more than 10,000 individuals and published between 1997 and 2008.

The review included randomized controlled trials, identified through the Cochrane Tobacco Addiction Group Specialized Register, in which motivational interviewing or its variants were used to assist in smoking cessation (Cochrane Database Syst. Rev. 2010 Jan. [doi: 10.1002/14651858.CD006936.pub2]).

Motivational interviewing (MI) is a non-confrontational counseling technique designed to help people explore and resolve their uncertainties about behavior changes, the authors wrote. The brief psychotherapeutic technique has been widely implemented as a smoking cessation technique and is recommended in smoking cessation guidelines.

However, little attempt has been made “to systematically review the evidence” about the intervention, Dr. Lai and his colleagues wrote.

In the current review, the investigators sought to include studies of interventions that made explicit reference to core MI principles as described by W. R. Miller and S. Rollnick in their book, “Motivational Interviewing: Preparing People to Change”

## VITALS

**Major Finding:** Motivational interviewing has the greatest impact on smoking cessation when it is delivered by a primary care physician, compared with delivery by counselors or nurses (relative risk 3.49 vs. 1.23 and 1.27, respectively).

**Data Source:** Meta-analysis of 14 smoking cessation studies involving over 10,000 individuals in which motivational interviewing was used.

**Disclosures:** The authors reported no conflicts of interest.

(New York: Guilford Press, 2002).

The studies that were included had a monitoring element, such as the details of counselor training or measures to ensure the quality of MI sessions (video-taping sessions or use of an assessment scale and supervision, for example). The main outcome measure used in the review was abstinence from smoking after at least 6 months’ follow-up, based on the most rigorous definition of abstinence in each trial and biochemically validated rates, where available.

All except two of the intervention studies reviewed took place in the United States, and the most commonly used MI approach was one in which the smoker received nonthreatening feedback designed to develop discrepancy between smoking and personal goals, the authors explained.

Dr. Lai and his colleagues noted that the interventions involved face-to-face sessions, except for three in which the counseling was telephone based.

Ten of the studies looked at single-session interventions, and the rest looked at three- and four-session interventions. Most of the studies compared the MI intervention with usual care or brief advice, often accompanied by self-help materials, the investigators reported.

The investigators conducted a conventional meta-analysis to estimate

pooled treatment effects. They observed a modest but significant increase in smoking cessation among patients who underwent motivational interviewing, compared with those who received usual care.

With the strictest definition of abstinence and the longest follow-up, the overall effect across all 14 trials was a relative risk for smoking cessation in the treatment vs. usual care group of 1.27, the authors reported.

A slightly higher but similar effect (relative risk 1.37) was observed in a sensitivity analysis that excluded trials of participants who were already motivated to make a quit attempt, and a comparable relative risk (1.31) was noted in an analysis of findings from the nine trials in which the outcomes were validated biochemically, they said.

In a subgroup analysis by therapist type, the largest effect was observed in the interventions delivered by primary care physicians, followed by those with counselors and nurses, with respective

relative risks of 3.49, 1.23, and 1.27, the authors reported.

Primary care doctors might be best suited to deliver this type of intervention because they are already familiar with the patients and, presumably, have an established rapport.

The authors point out that “this finding is based on two relatively small studies and should not be overstated.”

Despite the positive findings of the meta-analysis, “absolute quit rates were relatively low,” probably because most of the trials included smokers who were not motivated to quit, Dr. Lai and his colleagues reported.

The authors urged caution in interpreting results because of “variations in study quality, treatment fidelity, and the possibility of publication or selective reporting bias.” Future studies “should attempt to identify which core components of the motivational interviewing approach are effective,” they wrote.

The authors reported no conflicts of interest. ■

## Efficacy of MI Is Fairly Consistent

### MY TAKE

Motivational interviewing has received a great deal of attention as a therapeutic modality for substance use disorders. As this article highlights, the efficacy of MI is fairly consistent across studies, but the effect size is modest. It might be that MI is most effective for individuals who have less severe illness and/or are at an earlier stage in the addiction process (i.e., “problem” drinkers). MI has also been used with success as an adjunct to help motivate and engage indi-

viduals in more intensive substance abuse treatment.



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# Varenicline Helps Smoking Cessation in Patients With COPD

BY BRUCE JANCIN

SAN DIEGO — Varenicline is a particularly effective and well-tolerated smoking cessation therapy in one of the toughest-to-treat of all groups: long-time smokers with chronic obstructive pulmonary disease.

That was the key finding in a 27-center, randomized, double-blind, placebo-controlled trial involving 499 highly nicotine-dependent subjects with mild to moderate COPD and an average 41-year history of smoking, Dr. Donald P. Tashkin said at the annual meeting of the American College of Chest Physicians.

Participants were randomized to 12 weeks of varenicline (Chantix) at 1 mg twice daily or to placebo and were followed out to 52 weeks in the blinded post-treatment phase of the trial. All of the subjects received smoking cessation counseling throughout the study.

The primary study end point was continuous abstinence during weeks 9-12—the last month of therapy—as confirmed by exhaled carbon monoxide measurements. This was achieved by 43% of the varenicline group and 9% of controls, reported Dr. Tashkin, emeritus professor of medicine at the University of California, Los An-

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**Major Finding:** Continuous abstinence was achieved by 43% of the varenicline group and 9% of controls.

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**Disclosures:** The investigator is a consultant to Pfizer, which sponsored the study.

geles. The major secondary end point was continuous abstinence during weeks 9-52, which was accomplished by 19% of the varenicline group and 6% of the controls.

Serious adverse events occurred in 2.8% of varenicline-treated patients and 4.4% of controls. The most common adverse events associated with varenicline were nausea, reported by 27% and 8%, respectively, and abnormal dreams, reported by 11% and 3%. There was no difference between the two groups in the incidence of depression or other psychiatric disorders; however, patients with serious mental illnesses had been excluded.

The participants averaged 24 cigarettes a day at baseline. Eighty percent had made one or more unsuccessful attempts to quit. Their mean 6.1-point score on the 10-point Fagerström Test for Nicotine Dependence was indicative of their high level of nicotine dependence.

Dr. Tashkin noted that more than 12 million Americans carry the diagnosis of COPD, and 80%-90% of them are smokers. Global Initiative for Chronic Obstructive Lung Disease treatment guidelines identify smoking cessation as the single most effective intervention in preventing COPD and in slowing its progression.

“I would think that varenicline would be first-line therapy for patients with COPD who continue to smoke,” Dr. Tashkin said in an interview. He was the lead investigator in an earlier trial that established sustained-release bupropion as a safe and effective aid in helping smokers with COPD to quit (Lancet 2001;357:1571-5).

However, “the effectiveness of bupropion in [that] study ... was less impressive” than that of varenicline in the current study, he observed. ■

Watch a video interview with Dr. Tashkin at [www.youtube.com/ClinPsychNews](http://www.youtube.com/ClinPsychNews).