Smoking Cessation Telephone Quitlines Effective Regardless of Recruitment Method

A new meta-analysis supports proactive telephone counseling as an effective method for smoking cessation (J Natl Cancer Inst. 2011;103:922-941).

“While other reviews have also shown proactive telephone counseling to be beneficial for smoking cessation, the current analysis took into account recruitment channels, study methodology, measures of abstinence, and follow-up time more closely to give a more refined picture of efficacy,” says Flora Tzelepis, PhD, lead author and postdoctoral research fellow at the University of Newcastle in Callaghan, New South Wales, Australia.

To the authors’ knowledge, this is the first review to examine differences in active recruitment (such as individually addressed mailings or telephone calls initiated by a health care provider or other “recruiter”) and passive recruitment (initiated by the smoker, often after viewing mass communications such as newspaper or radio advertisements) methods. Regardless of whether recruitment is passive or active, once smokers become clients of a proactive quitline, they receive counselor-initiated telephone calls. The authors also say this is the first meta-analysis to analyze point prevalence abstinence (no smoking for a short period from 1-7 days prior to follow-up) separately from prolonged/continuous abstinence.

This meta-analysis included 24 randomized controlled trials employing proactive telephone counseling for smoking cessation. Seven trials used active recruitment, 16 used passive recruitment, and one used both. Methodological quality was evaluated using the Quality Assessment Tool for Quantitative Studies. The meta-analysis also evaluated the effectiveness of proactive telephone counseling on point prevalence abstinence and prolonged/continuous abstinence at 6 to 9 months and 12 to 18 months of follow-up separately, as well as segregated by recruitment methods (active vs passive) and methodological quality (strong/moderate vs weak). Point prevalence abstinence means the subject has not smoked for at least 1, 2, or 7 days (depending on the study details) prior to outcome measurement. For prolonged/continuous abstinence, a longer interval without smoking is required (usually 3-12 months).

Quitline Efficacy for Point Prevalence Abstinence

At 6 to 9 months of follow-up, proactive telephone counseling that included studies with either passive or active recruitment conferred a significantly greater effect (in comparison with self-help material or no-intervention control arms) on point prevalence abstinence (relative risk [RR], 1.26). At 12 to 15 months of follow-up, there was no significant difference between proactive telephone counseling and the control groups, however. At 6 to 9 months of follow-up, both active recruitment and passive recruitment trials had a significantly increased point prevalence abstinence compared with the control arms, but the effect size differed slightly (RR, 1.35 for active and 1.22 for passive recruitment). At 12 to 15 months, however, neither active nor passive recruitment trials retained a significant advantage in point prevalence abstinence over the control groups.

At 6 to 9 months, point prevalence abstinence was significantly greater in the proactive telephone counseling arms for both strong/moderate quality (RR, 1.26) and weak

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quality (RR, 1.31) trials, but again, no difference from the control groups was noted at 12 to 15 months of follow-up.

Quitline Efficacy for Prolonged Abstinence
Examining the effect on prolonged or continuous abstinence, the effect of proactive telephone counseling was significantly greater than the control groups at the 6- to 9-month follow-up period (RR, 1.58) and at the 12- to 18-month mark (RR, 1.40). When analyzed by recruitment method, at 6 to 9 months only passively recruited trials showed a significant benefit, but the authors point out that only one study provided data at this time period for active recruitment and therefore this result should be interpreted with caution. At 12 to 18 months after recruitment, an identical increase in prolonged/continuous abstinence was seen for both passive and active recruitment trials (RR, 1.46) At 6 to 9 months of follow-up, a significant effect on prolonged/continuous abstinence was seen in the weak quality studies (RR, 1.81), but not the strong/moderate studies. At the 12- to 18-month mark, however, both weak and strong/moderate studies showed a significant benefit (RR, 1.45 and 1.35, respectively).

Public Health Impact
Prolonged or continuous abstinence was greater than the control groups at 6 to 9 months and 12 to 18 months of follow-up in studies with either actively or passively recruited smokers, and the authors believe this is the most important cessation measure. However, the point prevalence rates were not increased versus the control groups at the 12- to 15-month mark. The authors suggest that this has clinical implications in that adding more booster telephone sessions over a longer period of time or re-enrolling smokers back into quitline treatment may improve long-term smoking cessation rates.

In an accompanying editorial, Damon Vidrine, PhD, assistant professor of behavioral science at The University of Texas MD Anderson Cancer Center (MDACC) in Houston, Texas, and Jennifer Vidrine, PhD, assistant professor of health disparities research at MDACC, point out that studies have demonstrated high enrollment rates into quitline services using active recruitment methods. “Research demonstrates that active telephone recruitment can enroll between 41% (Tob Control. 2007;16(suppl 1):i30-i32) to 52% (Am J Prev Med. 2009;37:324-329) of smokers from the general population,” she says. “Incorporating active recruitment methods has the potential to substantially increase the proportion of smokers using quitlines and this review illustrates that such support is effective for actively recruited smokers.”

Dr. Glynn says quitlines are becoming a go-to smoking prevention tool. “Quitlines are an increasingly important element in the comprehensive approach to tobacco control that we know works such as maintaining smoke-free environments, adding to the cost of cigarettes through higher taxes, providing cessation services, reducing youth access to tobacco, strong warning labels, continuing public education, and reduction of tobacco advertising and promotion,” he adds.

Thomas J. Glynn, PhD, director of cancer science and trends and director of international cancer control for the American Cancer Society, says the most significant issue facing quitlines is one of reach. “We need to make the 30-plus million smokers in the US who want to stop smoking aware that there is an effective, free, easy-to-use counseling service available to them.” He points out that there are federal initiatives in the United States that will help raise awareness, including the placement of the national quitline telephone number (1-800-QUIT-NOW) on all cigarette packs beginning in September 2012. Other initiatives include making $25 million available to the Centers for Disease Control and Prevention in 2012 to expand the national tobacco cessation quitline network, and authorization by the Centers for Medicare and Medicaid Services enabling state Medicaid directors to provide support for quitlines. In addition, the Patient Protection and Affordable Care Act includes a variety of quitline-friendly initiatives. Furthermore, a number of states and cities have offered free medications, primarily nicotine replacement products.

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Note: The name of this section has been changed from “News & Views” to “Perspectives: Research in Context.” It continues to provide the context for major developments in cancer prevention, detection, and treatment.