Helping Adolescent Smokers Quit: Can Telephone Quitlines Lead the Way?

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The numbers remain staggering and unacceptable, but the sad reality in the United States is that each day “approximately 3,600 young people between the ages of 12 and 17 years initiate cigarette smoking, and an estimated 1,100 young people become daily cigarette smokers” (1). We know that many of these children will become addicted and that many will eventually die of tobacco-caused cancer or other disease. And given these tobacco-caused deaths, tobacco companies have long recognized that young smokers are a key to their future because the population of smokers must be replenished as others die or quit. Or, as stated in a proposed tobacco company marketing plan, “As this 14–24 age group matures, they will account for a key share of the total cigarette volume—for at least the next 25 years.” (2)

These sobering facts lead to the obvious question: What do we know about preventing and treating tobacco use in the youngest populations, before it is truly ingrained into a lifestyle? Much attention and funding are directed at tobacco use prevention, and prevention programs are common in schools and communities. But research and programs for treating adolescent tobacco use are far less common—and we know little about denying tobacco companies a new population of addicts. So when a game-changing study provides new hope for how tobacco-using youth can be treated, the collective “ears” of the public health community should perk to attention. The report by Peterson et al. (3) in this issue, along with its accompanying methodological piece by Kealey et al. (4), is such a study.

Dozens of studies have investigated both behavioral and pharmacological interventions to help youth quit smoking, but as Peterson et al. (3) point out, “to our knowledge, no randomized trial in adolescent smoking cessation has found a statistically significant intervention effect on prolonged (6 months or more) cessation.” Until now.

In the study by Peterson et al., 50 high schools were randomly assigned to receive either an experimental (25 schools) or control smoking cessation treatment (25 schools), in which the experimental treatment was proactive telephone-based counseling that used Motivational Interviewing and Cognitive Behavioral Skills Training. At the end of 6 months of treatment, daily smokers—who are most likely already addicted to tobacco—were more likely to be abstinent than those in the control condition. However, in a curious caveat to that impressive outcome, the treatment worked in male but not female daily smokers.

This study is remarkable for multiple reasons, not least because it is the first to show substantial quit rates in adolescent smokers at 6 months after quitting. Indeed, for those scientists not familiar with behavioral research, this study and the accompanying article on study design and implementation provide an outstanding example of how theory driven and methodologically sound behavioral research can be.

This complex and elegant design brings together a rich variety of “ingredients” that blend together into a scientific study that is very likely to set the standard for many years and will be a benchmark to which other similar studies will be compared. More specifically, the authors have designed and implemented an investigation that (1) has a very strong theoretical foundation, (2) carefully addresses barriers to reach and effectiveness that have plagued many adolescent treatment studies to date, (3) was possible because the investigators developed an exceptional relationship with the school system, (4) was feasible because the authors had the forethought when collecting surveillance data to plan for the potential of intervention studies (ie, foot-in-the-door that made it easier to contact parents and students proactively), (5) is built on an outstanding study design and rigorous implementation (eg, inclusion of both smokers and nonsmokers and tailored treatment drawn from a menu of options so that it is unique to each participant), (6) uses an innovative proactive telephone counseling intervention with the best potential to be maximally engaging to high school students, and (7) pays solid attention to quality control at all levels of the study.

Three of these strengths are particularly noteworthy. First, the adherence to Motivational Interviewing and Cognitive Behavioral Therapy in this study is both brilliant and prudent in its simplicity. These two components have consistently been shown in several reviews and meta-analyses to have promise; yet, they have not been assembled and offered in the way that Peterson et al. have. Second, as with the Hutchinson smoking prevention study that was led by this same first author (5), recruitment and retention into this intervention is nothing short of remarkable. And third, although this study is described as a highly personalized individual level intervention, the inclusion of nonsmokers creates the possibility for system level change that can enhance peer support for smokers who have made the decision to quit.

What are the implications of this study? Despite a few limitations, this research team has conducted an outstanding study and has discovered a treatment for daily adolescent smoking that is the new standard. Typically, those in the role of making decisions on which treatments to implement would wait for a replication before implementing a treatment protocol like the one used by Peterson et al.
However, we believe that the outcomes of this study, plus the lack of good alternatives, warrant a more aggressive implementation plan.

More specifically, because smoking cessation quitlines in the United States receive core funding from the Centers for Disease Control and Prevention, and there is the potential for substantial increases in that funding via economic stimulus funds, we have two strong recommendations. First, all state quitlines should be encouraged in the strongest possible way to implement the intervention investigated by Peterson et al. (3) to the extent feasible (recognizing that their intervention was quite complex), with the goal of increasing on a national scale the number of adolescents who quit smoking. Second, funding should be provided to both replicate the existing design and also investigate modifications of the protocol that would tease out the relative impact of specific components of the protocol.

At last, we have a new and promising foundation for youth tobacco cessation intervention that can serve both as a catalyst for future research as well as a community resource to address the immediate need of young daily smokers who wish to quit.

References