Applying the Quit & Win contest model in the Vietnamese community in Santa Clara County

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Abstract

Objective—To evaluate the effectiveness of modifying and applying a Quit & Win contest model to Vietnamese Americans.

Design—Uncontrolled trial, multicomponent program, including two Quit & Win incentive contests, smoking cessation classes, videotape broadcasts, and newspaper articles.

Subjects and setting—Vietnamese smokers living in Santa Clara County, California.

Main outcome measures—Contest participation rates and quit rates at six month follow up; saliva cotinine validation of quitting.

Results—There were 57 eligible contest entrants to the 1995 contest, approximately 0.9% of the potential pool of smokers, and 32 entrants to the 1996 contest, approximately 0.5% of the potential pool. Overall, 48 of 49 (98%) individuals who said that they had quit smoking had validation of that fact by saliva cotinine testing. At six months, telephone follow up of 76 individuals revealed a self reported continued abstinence rate of 84.2%.

Conclusion—Modification and application of the Quit & Win contest model for Vietnamese resulted not only in reasonable participation by Vietnamese male smokers, but also good success in initial quitting and an unexpectedly high abstinence rate at six month follow up.

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According to the 1990 census, over 615 000 Vietnamese live in the USA. California’s 280 000 Vietnamese represent nearly half (46%) of all Vietnamese in the country.1 One in every hundred Californians is Vietnamese. On the 1990 census, Santa Clara County was the northern California county with the largest Vietnamese population—an estimated 54 212. The Vietnamese community is one of the fastest-growing Asian/Pacific Islander ethnic groups in the USA.2

In California, 35% of Vietnamese men smoke,3 4 a rate one and a half times that of the general population.5 In contrast, fewer than 1% of Vietnamese women in California smoke cigarettes,3 4 compared with 15.3% of women in California.6 Vietnamese men, therefore, are at high risk for developing tobacco related diseases, such as cancer, heart disease, and chronic lung disease.

In 1982, the Quit & Win contest model was developed as a key component of the Minnesota Heart Health Program, a 10 year research and demonstration project aiming at reducing the prevalence of heart disease.7 8 The use of community contests to promote smoking cessation was found to be effective in Minnesota.7 8 This success may happen because the link between an intention and a decision to quit can be strengthened by providing opportunities for action.9 10

To address smoking cessation needs of Vietnamese in Santa Clara County, the Vietnamese Community Health Promotion Project (VCHPP), at the University of California, San Francisco, modified, applied, and tested the existing Quit & Win concept.

Two contests with incentives were organised. These contests were entitled Bo Hut Thuoc Co Thuong (Quit & Win). In this paper, we report contest participation rates and abstinence outcomes for contest participants.

Methods

DESCRIPTION OF CONTESTS

Santa Clara County Vietnamese residents 18 years and older who were current smokers were eligible for the contests. Participants were recruited during a three month period before the contests through Vietnamese television and newspapers advertisements. Posters promoting the contests were also posted at different locations frequented by Vietnamese, such as supermarkets, community organisations, and Vietnamese physicians’ offices.

To enter the contest, each participant had to return an entry form including the names, addresses, and telephone numbers of three friends or relatives certifying that he or she was a current smoker. Each participant was then required to abstain from all tobacco products for at least one month. For the first contest coinciding with the 1995 Vietnamese Tet Trung Thu (mid-autumn) festival, participants pledged to quit smoking from 21 August to 21 September 1995. For the second contest coinciding with the 1996 Vietnamese Tet (New Year) festival, participants pledged to quit smoking from 1 April to 30 April 1996.

To help them quit smoking, the VCHPP provided them with the booklet Lam The Nao De Bo Hut Thuoc (How To Quit Smoking) developed by the project. This culturally appropriate Vietnamese language booklet was developed using focus groups of Vietnamese male smokers to develop concepts, and featuring community role models and family members to model smoking cessation. At the same time, we aired weekly three 5 minute segments of a 15 minute video with the same title.
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We used the gas chromatographic method to determine saliva cotinine concentrations. The clinical pharmacology laboratory at the University of California, San Francisco, used the gas chromatographic method to determine saliva cotinine. The research protocol was approved by the committee on human research at the University of California, San Francisco.

Results

Contest Participation
Sixty-one adults entered the 1995 contest, but only 57 were eligible (four were ineligible because they did not live in Santa Clara County). Thirty-two adults entered the 1996 contest, all of whom were eligible.

To confirm that potential contest winners had in fact been smokers before the contest, we telephoned a subsample of the designated friends and relatives; in all cases, the entrants were confirmed smokers.

For the first contest, members of the VCHPP’s Community Advisory Board conducted a drawing to select 25 potential winners; for the second contest, 24 potential winners were selected.

During the first contest, of the 25 potential winners who submitted saliva for cotinine analysis, 22 showed saliva cotinine concentrations below the cut-off value, confirming smoking cessation, and three showed saliva cotinine concentrations above the cut-off value. Since these three individuals insisted that they had quit smoking, we obtained repeat saliva samples from them for cotinine analysis. Two of the three showed concentrations below the cut-off value, but one showed a persistently high saliva cotinine concentration indicating continued smoking, and this individual was excluded from further consideration for prizes. The remaining 24 individuals were awarded prizes. A news anchor for a prime time Vietnamese language television program interviewed the grand prize winners to talk about how they had succeeded in quitting smoking.

During the second contest, all 24 saliva cotinine results were below the cut-off value, confirming smoking cessation. All 24 were awarded prizes.

Thus, overall, 48 of 49 (98%) potential prize winners who said that they had quit smoking had validation of that fact by saliva cotinine testing. Even assuming that all contest participants not selected for prizes (and thus not having cotinine validation) continued to smoke, the quit smoking rate resulting from the contests was 48/89 (54%).

For both contests, we published a list of names of contest winners in popular Vietnamese language newspapers to attract the public’s attention in order to promote smoking cessation among smokers who did not have the chance to participate in these contests.

Saliva Cotinine Validation

Serum or saliva cotinine concentrations are commonly used to estimate nicotine intake and to confirm self-reported abstinence. Therefore, we asked all potential contest winners to submit a saliva specimen for cotinine analysis to determine if they had really quit smoking. Those with results below the cut-off value of 14.2 ng/ml were considered non-smokers. The clinical pharmacology laboratory at the University of California, San Francisco, used the gas chromatographic method to determine saliva cotinine.

The research protocol was approved by the committee on human research at the University of California, San Francisco.

Self-reported abstinence rates at six month follow-up

A total of 89 smokers qualified to enter both contests (83 men and six women). Six months following the completion of the contests, we attempted telephone follow-up interviews with all entrants: 76 (85.4%) contest entrants were successfully interviewed but 13 entrants (14.6%) were lost to follow-up. Of the 76 entrants who were followed up, 64 (84.2%) reported abstinence, 11 (14.5%) had relapsed, and one (1.3%) said that he had never succeeded in quitting during the contest.

Among the entrants to both contests, those who remained successful quitters at six month...
follow up tended to be older than those who relapsed \((51.6 \pm 45.2\text{ years})\), to be earlier immigrants (entry to US in 1991 \(\pm 1992\)), to have smoked more cigarettes per day \((18.9 \pm 15.1)\), to have smoked for a longer period of time \((28.3 \pm 18.4\) years), to be unemployed \((40.6\% \pm 27.3\%\)), and to be married \((78.1\% \pm 54.6\%)\). Except for marital status, however, none of these differences were significant by the \(\chi^2\) statistic.

**Discussion**

The results described here show that modification and application of the Quit & Win contest model for Vietnamese resulted in a not unexpectedly low participation rate by Vietnamese male smokers, but good success in initial quitting and an unexpectedly high abstinence rate at six month follow up among initial quitters and an unexpectedly high abstinence rate.

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One explanation might be that we combined Quit & Win contests with direct counselling in smoking cessation classes.

It must be acknowledged, however, that there were several limitations to our study. The first limitation consists of potential deception by contest entrants. Because of budgetary constraints, we did not perform biochemical validation of smoking before contest entry, only biochemical validation of quitting. Nonetheless, we did require names of three friends or relatives who could confirm participants’ smoking status and telephone calls to by subsample of them confirmed participants’ active smoking status.

The second limitation consists of a potential lead time bias. Chapman and colleagues have questioned whether quit lotteries genuinely increase the numbers of ex-smokers in the communities in which they are conducted or whether they simply provide an illusion of success by attributing quitting to a researched event. This may occur when the attributed increase in quitting might have occurred in the absence of the contest, reflecting a secular trend in quitting. Alternatively, smokers contemplating quitting, and who would have subsequently acted on their intentions, may bring forward their quit attempts by participating in the contest, resulting in a “borrowing from the future” effect or lead time bias in evaluation studies. Thus, it is possible that Vietnamese male smokers who entered the contests and quit afterward might have been people who would have quit anyway within a few weeks without the contest. We have no way of assessing the number of such individuals, however.

Third, there are limited data on follow up and it is self reported. We had only one telephone follow up six months after the contest ended, and no saliva cotinine validation at that time to confirm continued abstinence. Nonetheless, the high rate of truth telling at the time of quitting (97.6% validation by saliva cotinine testing) makes it likely that the six month follow up data are valid. Furthermore, there was no incentive to lie at that point in time.

Smoking continues to be a serious public health problem for Vietnamese Americans. Vietnamese men in California smoke at a rate of one and a half times that of men in the general population. Use of incentive contests, modified from the Quit & Win contest model in the general population, can help Vietnamese to quit smoking and to maintain abstinence.

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