Reviewer's report

Title: Efficacy of a smoking cessation program in a population of adolescent smokers in vocational schools: a public health evaluative controlled study

Version: 1 Date: 8 August 2012

Reviewer: Andrea Villanti

Reviewer's report:

Major Compulsory Revisions

The authors have made a number of changes to the manuscript and it has improved, though there are still several remaining issues. The Introduction needs to be revised to briefly describe the evidence on cessation interventions among adolescents and young adults and the components chosen for the TABADO intervention; the point here would be to present the anticipated effects of such a program which could then be compared to the results of the current study in the Discussion section. The paragraph that cited some of this work in the previous iteration of the manuscript has been entirely removed.

There are three intervention groups in this study: 1) no intervention; 2) basic tobacco information; and 3) basic tobacco information, plus the enhanced program. The authors label the TABADO program as both 2 and 3, but it seems more appropriate to show results for all three groups separately (and in the multivariable analysis, 2 vs. 1, 3 vs. 1 and 3 vs. 2), followed by 2 and 3 combined (full intervention group) compared to 1. The differences between 2 (non-EP) and 3 (EP) deserve more attention, particularly as they seem to be the focus of discussion section. This could be accomplished by adding two columns to Tables 2 and 3 for EP and non-EP and additional multivariable models addressing these three distinct groups before combining groups 2 and 3 into a single analysis. This would also help to justify why it is appropriate to combine groups 2 and 3, despite differences in the interventions.

Additionally, important covariates like motivation to quit and chances of succeeding should be included in the multivariable analysis, regardless of level of significance in bivariate analyses. It is important to understand the magnitude of the associations of these cognitive variables with quitting, adjusting for all other covariates, especially in the context of a non-randomized study; it may also help to explain the differences in your primary outcome among EP and non-EP participants in the intervention group.

The Results and Discussion sections should present the crude abstinence estimates for the various groups, but focus on the adjusted values to draw conclusions. Given the current text and analyses, this would argue for an increased effect of the intervention on 30-day PPA compared to the control (AOR = 1.8, p = 0.03) and no difference in abstinence among EP compared to non-EP
participants in the intervention group (p = 0.36). It may strengthen the discussion of the potential spillover effect of the EP if there is no difference between the EP and non-EP groups within intervention VTCs and there is increased cessation in intervention sites compared to control sites.

It remains unclear how the unit of intervention in this study (the group) is incorporated in the statistical analysis, as any correlation between subjects in the same treatment group (i.e., group counseling sessions), same classroom, and same VTC is ignored. Discussion of the “group effect” in both the Results and Discussion sections would be more appropriate if the analysis took into account these correlations.

- Minor Essential Revisions

Introduction

• P. 3, line 14: The final paragraph describes “an evaluation study” but does not specify the content of that study or how it relates to the current study. Please be more specific about that study, what it evaluated, and how the current study builds upon that work.

Methods

- P. 4, lines 13-17: The inclusion criteria do not mention smoking as a prerequisite for participation. Please clarify that the program was delivered to all participants regardless of smoking status.
- P. 5, line 2: In the sample size calculations, the authors refer to a “spontaneous withdrawal rate.” Please clarify that this refers to spontaneous quit rate rather than attrition from the study.
- P. 6, lines 8-14: Move the text on Ethical approval earlier in the Methods section; recommend placing this in the Setting and Participants section.
- P. 6, line 16: Be specific in the Statistical Analysis section about the primary outcome – 30-day point prevalence abstinence at 12 months rather than “abstinence at 12 months.”

Results

- p. 10, lines 5-10: Clarify the comparison group for the EP participants. Is it control participants or intervention participants not enrolled in the EP?
- The unadjusted and adjusted analyses need to be clearly presented. Recommend removing the results adjusted only for age and sex from the text and from Table 3. Also, please add headings to the OR and p-value columns – Unadjusted and Adjusted. You can leave your footnote re: the covariates in the adjusted model, but should add motivation to quit and chances of succeeding as noted above.
- When presenting adjusted results for the first time, specify what the analysis adjusted for (i.e., after adjusting for age, sex, training course, initial cannabis consumption…)

Discussion
- P. 12, lines 29-31: Remove sentence on post hoc analysis by classroom as you describe it in the Results section above.
- P. 13, lines 8-11: Should adjust for correlation between individuals before making this claim.
- P. 13, lines 24-26: It is unclear whether the group effect justifies attributing all students in an intervention VTC to the same intervention; this would be more appropriate if the analyses for all three groups (control, basic information (non-EP), enhanced program (EP)) were presented before lumping the non-EP and EP groups together and if correlations between individuals were accounted for in the analysis.
- P. 14, line 12: Separate out “Secondary outcome” as you have done for “Primary outcome.”
- P. 14, line 15: Clarify the abstinence rate in the general population as the spontaneous annual abstinence rate, if that is correct.

Discretionary Revisions

Methods
- Remove sentence in “Setting and participants” that is addressed in the Inclusion criteria: “Students in vocational training courses of at least two years’ duration were eligible.”
- Remove citation for the intervention in the heading of the Intervention section and place it at the end of the first sentence in that section.

Results
- Change first sentence to: “Three VTCs were selected as intervention sites…”

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.