Reviewer’s report

**Title:** The effectiveness of the Allen Carr smoking cessation training in companies tested in a quasi-experimental design.

**Version:** 2  **Date:** 4 May 2014

**Reviewer:** Ron Borland

**Reviewer’s report:**

This is an important research study. There are very few studies that attempts to evaluate the effectiveness of popularly delivered interventions in any field let alone smoking cessation. The Allen Carr method has been widely disseminated and remains extremely popular among smokers, as evidenced by being frequently discussed on smoking blogs on websites. That the program achieves its effects in one session, has led some to doubt that it is possible, and the absence of good quality of evaluations has reinforced those doubts. This study should go a long way towards allaying those doubts and focusing the attention of those interested in smoking cessation on what it is that is so effective about this strategy. It is a well-designed study given the inherent limitations, and these are well-discussed.

That all said, I have some relatively minor concerns with the manuscript in its current form.

**Essential issues:**

L118. Please make it clear somewhere here as to what, if anything, the control group got in the way of smoking cessation assistance. If no assistance was provided, were they encouraged to quit or, if not, was the issue of quitting raised with them beyond assessing their initial interest?

Somewhere in the results, please provide data as to whether any of the participants in either condition used stop smoking medication to help them quit. I know that the Carr method recommends against it, but it would be useful to have this information if it is available.

L340. Somewhere in the discussion there needs to be comment on the possibility that at least some of the observed effect is a function of a group of smokers who have committed to a smoking cessation program being compared with ones who were merely participating in research. In a recent paper of ours (Borland, Balmford & Benda, 2013 in Addiction) we found a marked difference in success rates as a function of those who had sought help from those who were recruited independent of seeking help when using the same interventions. This has implications for the interpretation of the results.

L365. It is age of starting to smoke that is the age-related variable of most importance to predicting smoking cessation.

**Optional:**
L260. It would be useful to be more systematic about the various kinds of sensitivity analyses undertaken, both to increase the likely comparability of the 2 samples, and secondly to check for biochemical validation. I think it would help if these results were summarised in a table. I recommend that the 1st line report on the outcomes using all control cases both reporting those to which there is an resolved outcome, and separately the results imputing all missing cases to be smokers. In subsequent lines the various forms of sensitivity analyses could be introduced, starting with removing the less representative subsample from the control group, and then going on to treating as failures those who didn’t pass the biochemical validation measure and/or do not take it. In this regard, as I understand it only the Allen Carr group who claimed abstinence were tested, so the reduction in effect size here is a biased estimate, as is possible that some in the control group may also have either returned to smoking or otherwise failed the test.

L396. I agree with the authors, it is likely that at least some of the largest difference in outcome is attributable to the intervention, but as noted above the additional possibility of the commitment to seek help potentially meaning choosing the Carr training is only identifying a group who were more ready to quit (ie, that the training had no effect). This cannot be ruled out, as at least a partial contributor to the large effect size. That said, I think it reasonable to argue that given the large effect size, it being responsible for the whole effect seems unlikely.

I would hope this paper stimulates greater interest in conducting research around this extremely interesting smoking cessation strategy.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I have published with Arie Dijkstra in the past, and may again in future, although we have no current formal associations.