

The “Don’t smoke in our home” randomized controlled trial to protect children from second-hand smoke exposure at home

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ABSTRACT

Aims and background. Increasing smoke-free homes is an important public health goal, but only few interventions have yielded positive results. The aim of the “Don’t smoke in our home” trial was to evaluate a counseling intervention focused on promoting totally smoke-free homes and cars (TSFHC) delivered to women with children resident in four Tuscan towns.

Methods and study design. We used a two-group randomized controlled trial design. Participants were asked about their smoking habits and about restrictions on smoking in their homes and cars. All women received a self-help booklet promoting TSFHC, and 110 women randomized to the intervention also attended brief counseling on second-hand smoke exposure protection and received three gifts to remember the commitment to TSFHC. Follow-up was conducted by phone after four months.

Results. We recruited 218 women, 64 of whom had a university degree and 131 of whom were smokers; 62% reported smoking indoors and 58% in cars. Before the intervention, nonsmokers were more likely to report totally smoke-free homes (TSFH, 52%) and cars (TSFC, 53%) than smokers (26% and 17% respectively; $P < 0.001$). Participants of the experimental arm had similar odds as controls of having implemented TSFH after the intervention, and nonsignificantly increased odds of having introduced TSFC (odds ratio [OR] 1.47; 95% confidence interval [CI] 0.69-3.11), particularly among smokers (OR 2.24, 95%CI 0.69-7.26). All participants independently of the study arm recorded significant increases of 12 and 15 percentage points in TSFH and TSFC, respectively. Few smokers quit smoking (7%), stopped smoking indoors (5%), and stopped smoking in cars (7%), with no differences between the intervention and control groups.

Conclusions. Adding brief counseling to written materials did not significantly increase TSFHC. However, delivering written materials only may produce modest but noteworthy TSFHC increases at the population level, even though the participants in the study did not represent a population-based sample, given the high proportion of highly educated women. Further studies are required to confirm these results.

Key words: second-hand smoke exposure, smoke-free homes, smoke-free cars, counseling, children.

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