School policies for preventing smoking among young people (a Cochrane systematic review)

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Background

School Tobacco Policies (STPs) might be a promising strategy to prevent smoking initiation among adolescents, as there is evidence that the school environment can influence young people to smoke. STPs are cheap, relatively easy to implement and have a wide reach. However, it is not yet clear whether this approach is effective.

Research questions

Do school tobacco policies prevent uptake of smoking?
Which characteristics, if any, of STPs increase their impact?

Methods

Types of participants
Students in primary and secondary schools (10 to 18 years old)

Types of interventions
All written policies that regulate tobacco use inside and/or outside the school property

Primary outcomes
Smoking prevalence among students, measured by individual self-report

Type of study
Cluster-randomised controlled trials (c-RCTs) in which schools or classes were randomised to receive different levels of smoking policy or no intervention. Cross-sectional studies were used to generate hypotheses for future studies

Search methods
We searched seven electronic bibliographic databases, including the Cochrane Tobacco Addiction Group specialized register, MEDLINE, EMBASE, PsychINFO and ERIC. We also searched the grey literature and ongoing trials resources. The most recent search was performed in May 2014. We included:

Results

We found only one study which was eligible for inclusion in the review. It was judged to be at high risk of bias: no details provided on random sequence generation and on management of allocation concealment, likely that participants could have been adequately blinded, no protocol available, unclear sample procedure and no citation of stratified sampling. The study compared two ‘middle schools’ from two different regions in China. The experimental conditions included the introduction of a tobacco policy, environment changes, and mental communication activities, while the control condition was no intervention. After a year’s follow-up the study found no differences in smoking prevalence between two pairs of intervention and control schools: risk ratio (RR) 0.98 (95% CI 0.71 to 1.4) and RR 1.35 (95% CI 0.57 to 3.2).

24 observational studies were analyzed about the following characteristics:
• formally-adopted STP vs no policy
• ban extended outdoor school premises vs internal ban
• ban extended to teachers vs teachers’ smoking allowed in limited area
• STP including (types of ) sanctions for transgressors vs including weak or no sanctions
• STP including assistance to quit for smokers vs STP without assistance
• STP plus prevention components vs STP alone
• STP highly enforced vs weakly or not enforced

These aspects were not associated with a decreased likelihood of smoking.

Conclusion

Implications for practice
We did not find any evidence of an effect of STP on students’ smoking behavior. This is mainly explained by the absence of rigorous studies. While this finding suggests that STP is an ineffective stand-alone intervention, we believe that the theoretical basis of this intervention should be tested under the control of well designed studies.

Implications for research
Large, possibly multi-centric studies, employing an experimental or a quasi-experimental design, are needed to assess the effectiveness of this intervention. Future research in this area must be rigorously designed and evaluated.

The intervention should be accurately and objectively described, in particular the rules of the policy, the persons involved, the penalties for the infringement of rules, and the process of enforcement. Information relating to the context (e.g. social, political and cultural factors) should also be collected and factored into the analysis.


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