

Unplugged intervention and risk behaviour among Slovak schoolchildren

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Background

Improving the availability of data-based and culturally adopted drug use prevention programs is a current issue. The effectiveness of “Unplugged,” a European school-based program for substance use prevention among adolescents, has been explored in some EU counties (Vigna-Taglianti et al., 2014).

The aim of this study was to use a follow-up measurement to test the effectiveness of the EU-DAP intervention program "Unplugged" in changing risk behaviour (RB) among Slovak schoolchildren.

Unplugged

- Universal school-based program for preventing smoking, substance use and alcohol abuse among early adolescents (www.eudap.net)
- Based on the Comprehensive Social Influence model
- Consisted of twelve 45-minute lessons for pupils in primary schools
- Administered by teachers trained in Unplugged (3-day course).

Method

- A cluster randomized controlled trial was carried out in 2013/2014 with 1295 participating schoolchildren (M=11.52; 46.8% boys).
- The schools were randomly assigned to either experimental (EG, n=641) or control group (CG, n=654). EG was exposed to the program Unplugged.
- Data collections were conducted immediately before (T1) and then 12 months (T2) after the program Unplugged implementation.
- Self-reported smoking, alcohol consumption and drunkenness on at least one occasion during the past 30 days were separately dichotomised and the total score of RB was calculated (from 0=none to 3=all) at T1 and T2.
- Descriptive normative beliefs (DNB) about friends’ risk behaviour (tobacco smoking, alcohol drinking, drunkenness episodes) were measured by the questions (Hibell et al. 2012). These items were assessed on 5 point scale from 1 – Nobody to 5 – Everybody. The total score of normative beliefs about friends’ risk behaviour (DNB) was calculated (from 3 to 15, Mean^{T1} = 4.10, SD^{T1} = 1.80, Mean^{T2} = 4.93, SD^{T2} = 2.26).
- The direct and indirect effect of participating in the Unplugged program was explored in relation to the rate of change of schoolchildren’s RB through the descriptive normative beliefs about friends’ risk behaviour change (DNB) from T1 to T2. This was explored at T2 using Hayes’ *PROCESS* tool.

Results

At T1 87.8% and at T2 78.9% of schoolchildren had not reported an incidence of RB (Fig. 1).

There was a significant indirect effect of the Unplugged program on the rate of RB through DNB only among girls (Figure 2, 3).

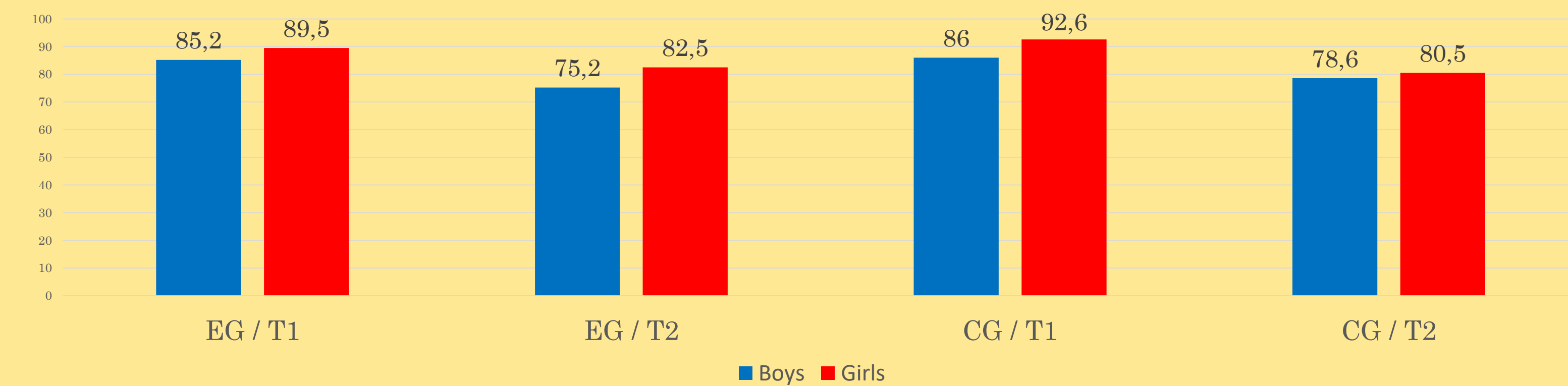


Fig. 1 Distribution of schoolchildren of experimental group (EG) and control group (CG) who had not reported an incidence of RB at baseline (T1) and follow-up testing (T2)

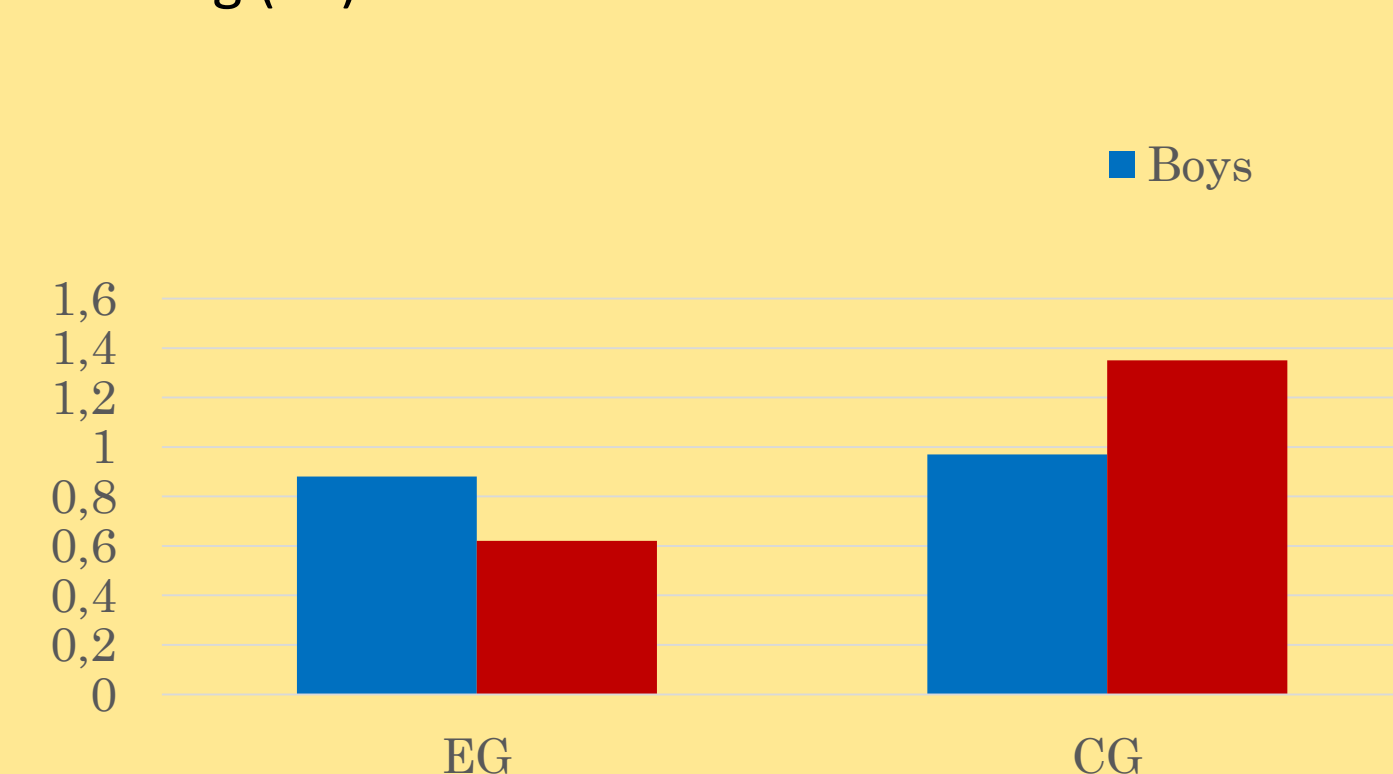


Fig. 2 The change of the descriptive normative beliefs about friends' risk behaviour (Mean T2 minus T1)

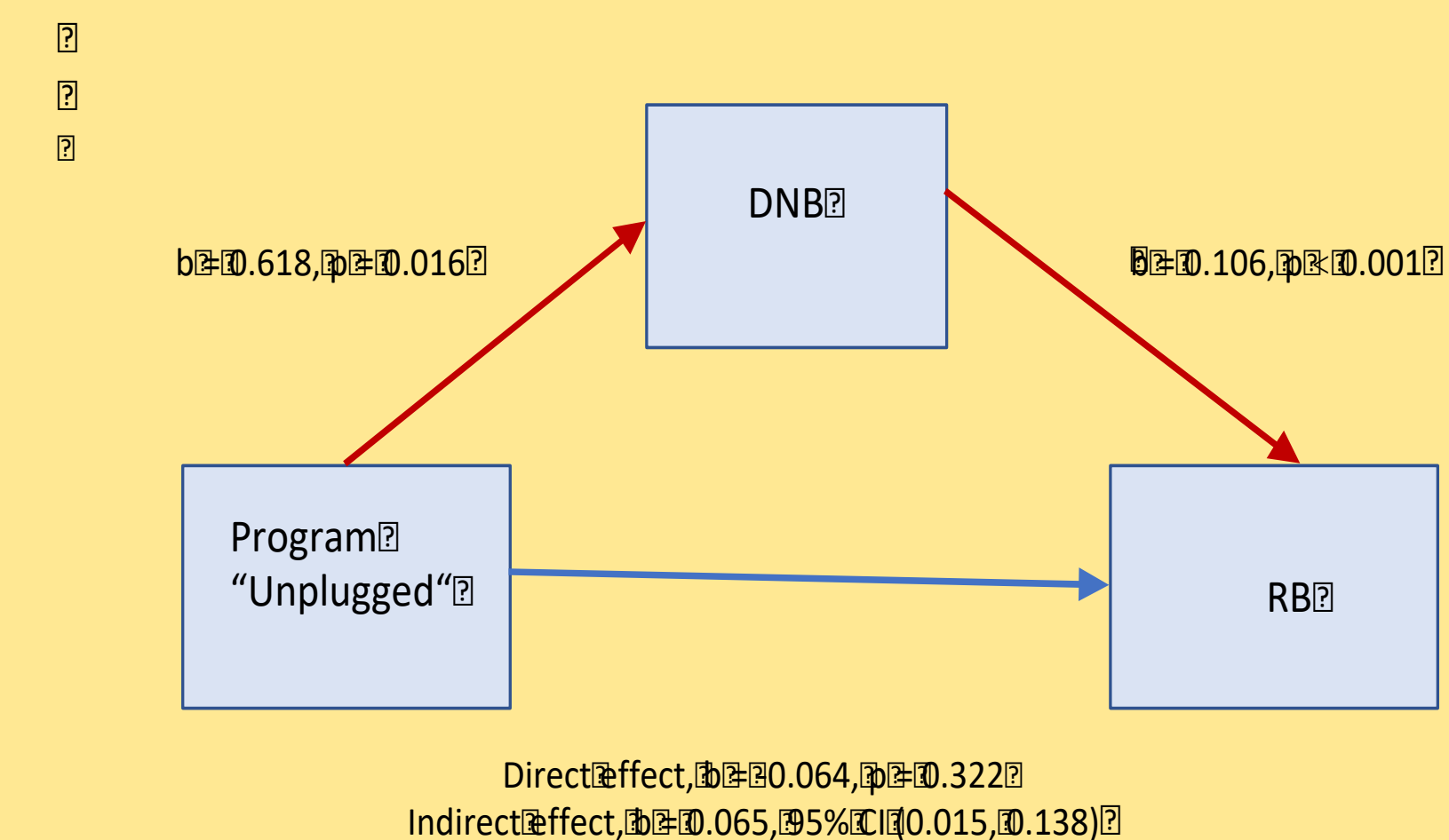


Fig. 3 Diagram of the mediation model among girls

Notes:

DNB = the descriptive normative beliefs about friends’ risk behaviour change from T1 to T2, RB = the change of schoolchildren’s risk behavior from T1 to T2
T1 = data collection conducted immediately before the program Unplugged implementation, T2 = data collection conducted 12 months after the program Unplugged implementation

Conclusion: Previous study confirmed that Unplugged was effective in reducing cigarette smoking, episodes of drunkenness, and the use of cannabis at short term, and this association was confined to boys, and beneficial effects associated with the program persisted at fifteen-month follow-up for drunkenness, alcohol-related problems, and cannabis use (Vigna-Taglianti et al., 2014). The present findings suggest that health-risk behaviour may be associated with a change in DNB and the interventions based on normative education may prevent schoolchildren smoking and alcohol drinking although this effect may differ according to gender.

Main messages: The study did not find a direct effect of the Unplugged program on the RB of Slovak schoolchildren. An indirect effect of the Unplugged program on the rate of RB through DNB was confirmed only among the girls.

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Reference:

Hibell, B., Guttormsson, U., Ahlström, S., Balakireva, O., Bjarnason, T., Kokkevi, A., & Kraus, L. (2012). The 2011 ESPAD report. Substance use among students in 36 European countries. Stockholm, Modinttryckoffset AB, ISBN 978-91-7278-233-4. Vigna-Taglianti, F. D., Galanti, M. R., Burkhart, G., Caria, M. P., Vadrucchi, S., & Faggiano, F. (2014). “Unplugged,” a European school-based program for substance use prevention among adolescents: Overview of results from the EU-Dap trial. *New directions for youth development*, 2014(141), 67-82.

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