



# Resilience, accessibility of alcohol, alcohol refusal skills and alcohol use among early adolescents



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## Background

While there is consistent research evidence that early initiation of alcohol consumption is associated with accessibility of alcohol, relatively little attention has been paid to mechanisms underlying this association. This study aimed to explore the relationships between resilience, accessibility of alcohol, alcohol refusal skills and lifetime prevalence of alcohol use of Slovak primary school pupils as well as to understand the mechanisms underlying these associations.

## Results

- The models containing all predictors were statistically significant for boys  $X^2=86.85; 30.8\%$ ,  $p<0.001$ ), and for girls  $X^2=90.84; 26.1\%$ ,  $p<0.001$ )
- The models showed that for boys there were significant associations between Novelty seeking (95%CI=1.01-1.2), Emotional regulation (95%CI=0.85-0.96) and lifetime alcohol use.
- For both genders, accessibility of alcohol (95% CI=1.15-1.52; 95%CI=1.14-1.43) and alcohol refusal skills (95% CI=0.11-0.32; 95%CI=0.10-0.26) affected lifetime alcohol use
- Mediation analyses showed that lifetime prevalence of alcohol use and alcohol refusal skills were mediated by the accessibility of alcohol for boys ( $z=-3.29$ ;  $p<0.001$ ) and also for girls ( $z=-2.68$ ;  $p<0.001$ ).

## Materials and methods

### Sample

The first wave of ongoing longitudinal UNPLUGGED study (APVV-0253-11, APVV-15-0662), N=1298 early adolescents, mean age 11.72 years; SD=0.67; 53,3% girls

### Measures

**Lifetime prevalence of alcohol use:** „ On how many occasions (if any) have you had any alcoholic beverage to drink in your life-time “, possible answers: 0, 1-2,3-5,6-9,10-19,20-39, 40 or more (dichotomised: 0 –not used, 1-used, n=332 boys, 55,1%, n=261 girls, 66,1% if answered 0 and 1, n=459 boys, 46%, n=225 girls, 32% if answered from 1-2 to 40 or more.

**Accessibility of alcohol:** „If you wanted, would it be difficult or easy for you to obtain alcohol“, response options: 1- impossible, 5-very easy

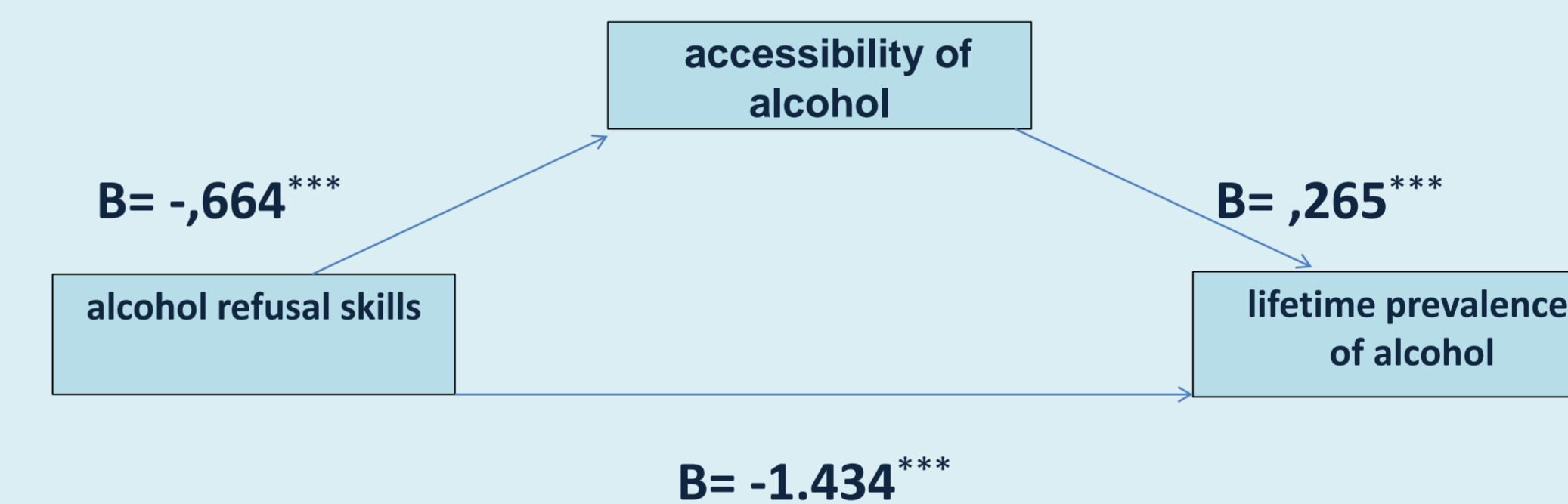
**The Adolescent Resilience Scale:** (Oshio et al., 2003), novelty seeking (7 items), emotional regulation (9 items), positive future orientation (5 items). Only emotional regulation (Cronbach's  $\alpha=0.68$ ) was used in this study, rating scale 1=definitely no to 5=definitely yes, A higher score indicated a higher level in each factor.

**Alcohol refusal skills** were assessed with the questions concerning the ability to refuse alcohol in a situation when it is available (cigarettes refusal yes=0; 55.4 % boys; girls 75%; alcohol refusal yes=0; 56.4% boys; girls 75.5%; marijuana refusal skills yes=0; 89% boys; 93,9%girls).

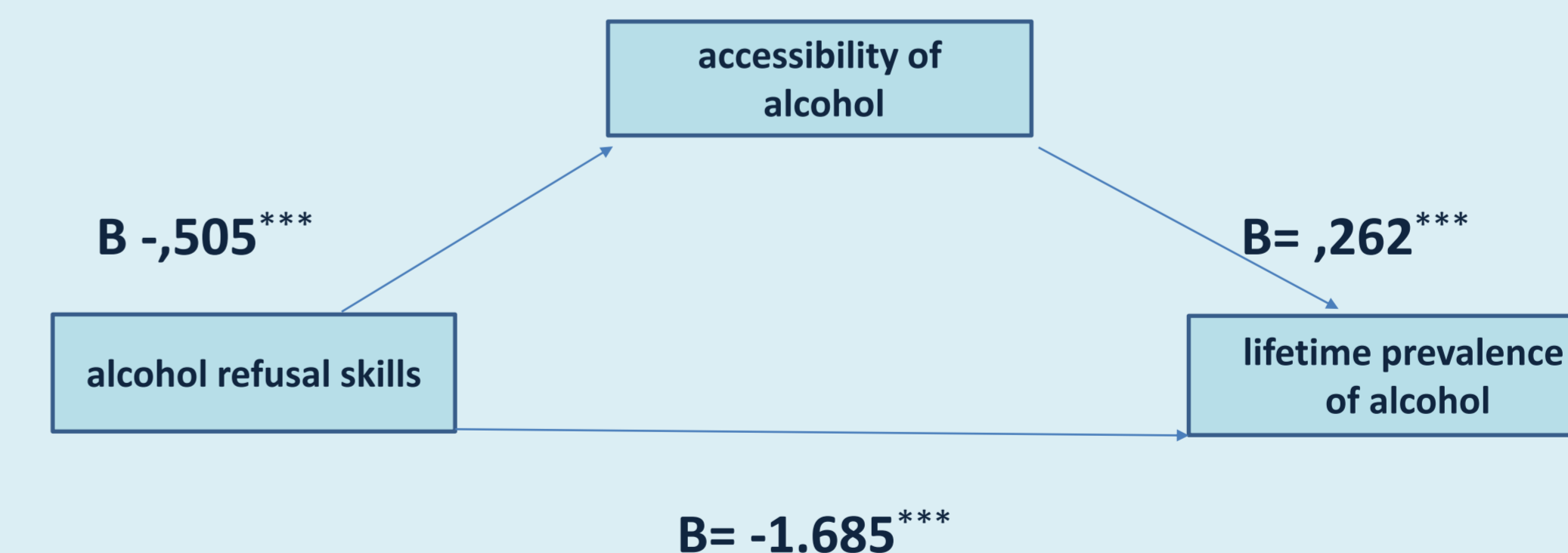
### Statistical analyses

Logistic and linear regressions, mediational analyses (Z score - Sobel test)

Pc 1 The effect of alcohol refusal skills on lifetime prevalence of alcohol mediated by accessibility of alcohol among boys ( $z=-3.29$ ;  $p<0.001$ )



Pc 2 The effect of alcohol refusal skills on lifetime prevalence of alcohol mediated by accessibility of alcohol among girls ( $z=-2.68$ ;  $p<0.001$ )



## Conclusion

The implementation of the findings about the significant role of alcohol refusal skills for both genders and specific functions of resilience regarding alcohol use, although with respect to gender might be important for effective targeting of prevention programs. We show on the direct and indirect effect of boys' and girls' alcohol accessibility in this relationship, to which policy may affect.

Main messages:

We stress the general importance of the role of public health policy concerning the issue of alcohol accessibility for this specific group of young students.

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