

# Psychosocial vulnerability and patterns of alcohol and stimulant use in adolescence

Ana-Maria Dădulescu, Cristiana Glavce and Suzana Turcu

Francisc I. Rainer Institute of Anthropology, Romanian Academy, Bucharest, 050474, Romania;

## INTRODUCTION & AIM

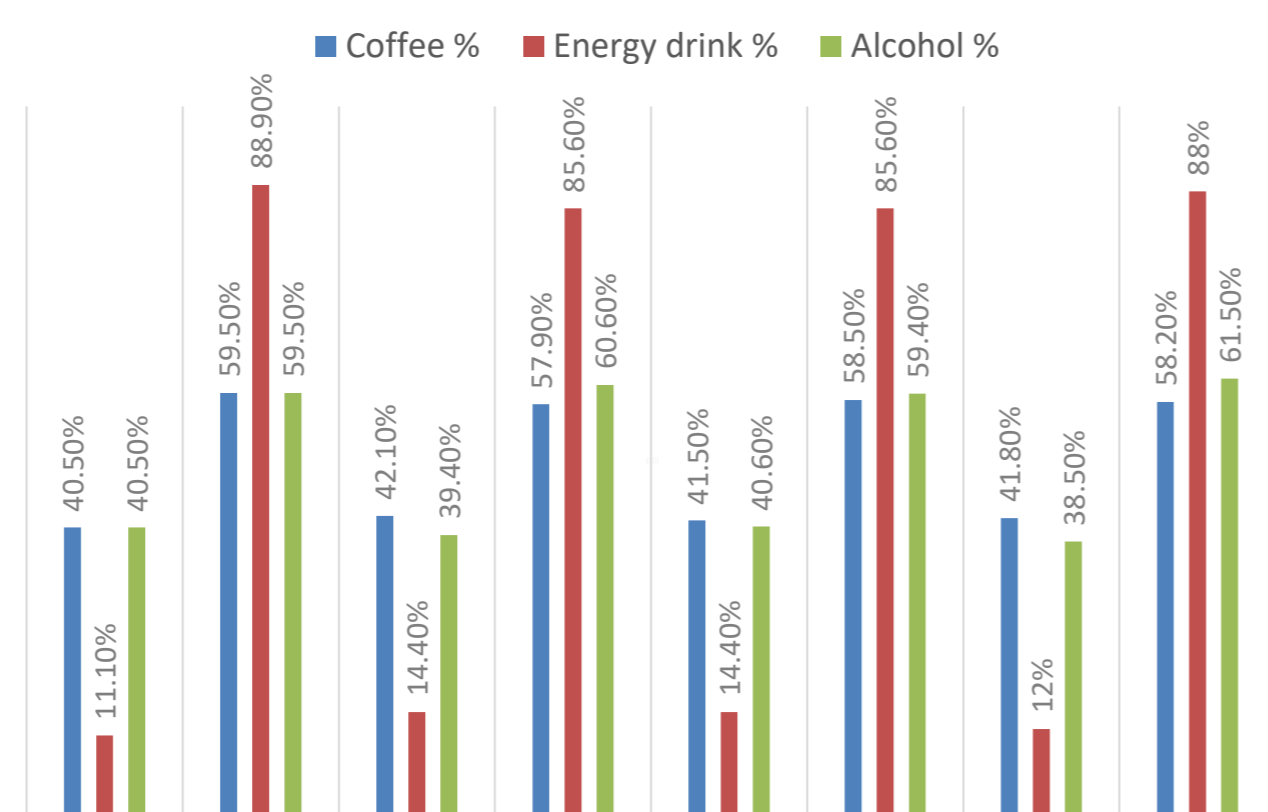
Adolescence is a critical developmental period characterized by increased experimentation with psychoactive substances and heightened sensitivity to social influences. From a health psychology perspective, substance use behaviors are shaped by the cumulative interaction of individual, social and contextual factors.

While adolescent alcohol use is widely recognized as a major public health concern, stimulant consumption (coffee and energy drinks) is often viewed as normative, despite its frequent co-occurrence with other risk behaviors.

This study examines whether cumulative psychosocial vulnerability differentially predicts alcohol and stimulant use among adolescents.

## METHOD

A cross-sectional study of 521 adolescents assessed alcohol, energy drink and coffee consumption using self-report questionnaires.



Age Distribution of Coffee, Energy Drink, and Alcohol Consumption

Binary logistic regression analyses were performed for each type of consumption, including demographic (sex, age), contextual (residence; living with/without family), socio-economic (perceived family income), behavioral (smoking) and psychosocial (perceived peer influence) predictors. A composite behavioral score capturing cumulative psychosocial vulnerability was constructed, and its associations with consumption behaviors were tested using correlational and regression analyses.

## RESULTS & DISCUSSION

Predictor	Coffee (B, p)	Energy drink (B, p)	Alcohol (B, p)
Gender (female vs. male)	-0.04, p = .84	-0.27, p = .37	0.08, p = .70
Age	-0.03, p = .68	0.01, p = .93	0.05, p = .54
Area of residence (Urban vs. Rural)	0.02, p = .92	0.16, p = .58	0.18, p = .39
Perceived family income – medium	-0.68, p = .17	0.34, p = .57	-0.54, p = .29
Perceived family income – high	-0.60, p = .25	0.39, p = .54	-0.56, p = .30
Housing (without family)	0.43, p = .034*	-0.08, p = .78	0.30, p = .16
Smoking (yes vs. no)	-0.28, p = .20	0.89, p = .026*	1.56, p < .001*
Social influence	0.04, p = .85	0.72, p = .016*	0.65, p = .003

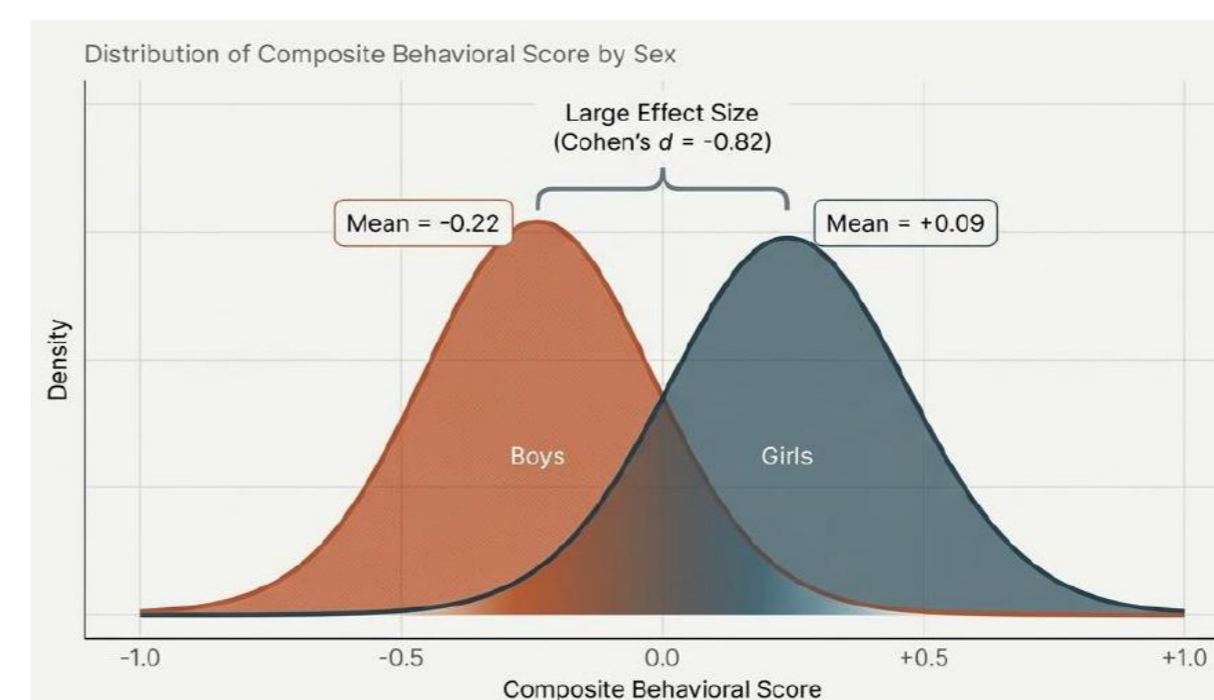
Regression analysis for alcohol consumption. Adolescent alcohol consumption was strongly predicted by smoking and perceived social influence, highlighting the co-occurrence of risk behaviors.

## RESULTS & DISCUSSION

Behavioral	Pearson correlation (r)	p	Logistic coefficient (B)	OR	p (logistic)
Coffee	-0.04	0.312	-0.248	0.78	0.251
Energy drink	-0.06	0.165	-0.350	0.70	0.262
Alcohol	-0.15	0.001	-0.672	0.51	0.002

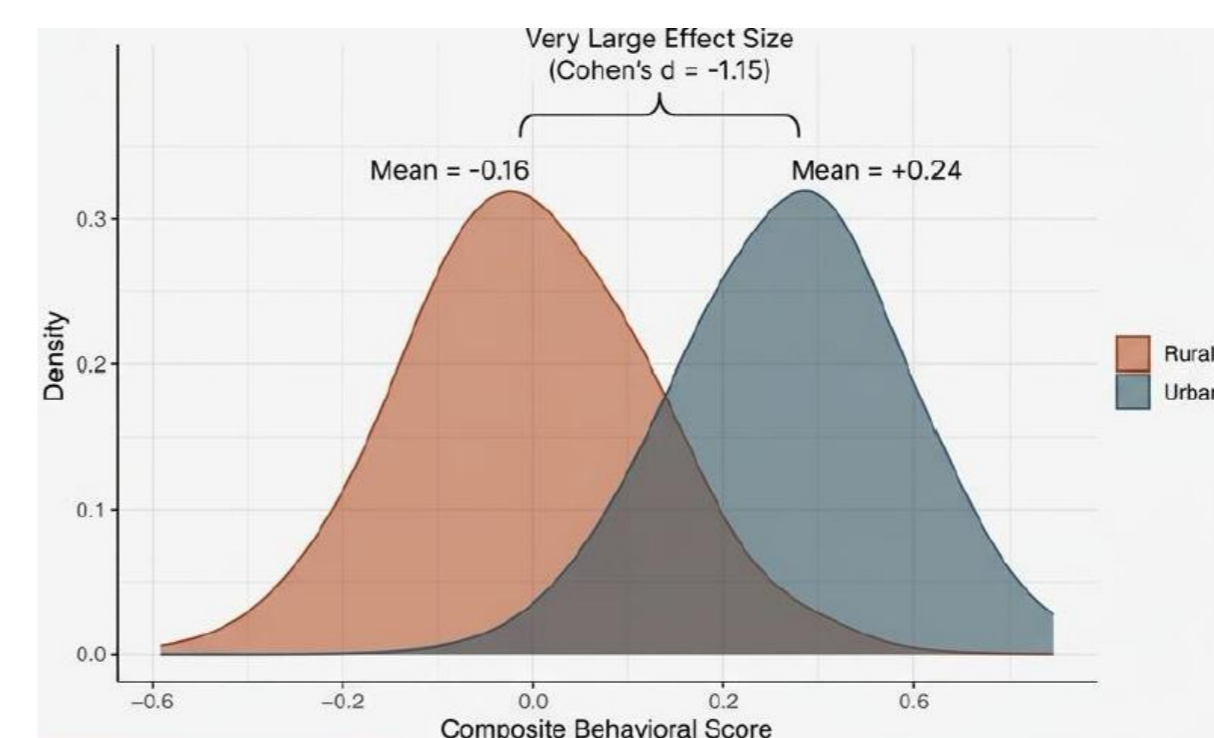
Table. Associations between the composite behavioral score and consumption behaviors (coffee, energy drinks, alcohol)

The composite behavioral score was inversely associated with alcohol use (OR = 0.51), but not with coffee or energy drink consumption; smoking and peer influence predicted alcohol and energy drink use, while coffee consumption was mainly linked to living conditions.



Score distributions show boys clustered in the negative range, while girls display higher scores, indicating greater behavioral stability among adolescent girls.

The Gender Divide: Boys exhibit significantly higher behavioral vulnerability



Rural adolescents show predominantly negative scores, indicating lower behavioral and contextual stability, whereas urban adolescents display more positive scores, reflecting more structured behavioral and social profiles.

Distribution of the composite score by area of residence

## CONCLUSION

Cumulative psychosocial vulnerability predicts alcohol consumption in adolescence, but not coffee or energy drink use, highlighting the need to differentiate between these behaviors; smoking further indicates co-occurring risk patterns.

## REFERENCES - selection

- Loke AY, Mak Y-w. Family process and peer influences on substance use by adolescents. *International journal of environmental research and public health*. 2013;10: 3868–3885. doi: 10.3390/ijerph10093868
- World Health Organization (2024). Global status report on alcohol and health and treatment of substance use disorders 2024. Available online at: <https://www.who.int/publications/i/item/9789240096745>
- Benson, S., Verster, J. C., Alford, C., and Scholey, A. (2014). Effects of mixing alcohol with caffeinated beverages on subjective intoxication: a systematic review and meta-analysis. *Neurosci. Biobehav. Rev.* 47, 16–21. doi:10.1016/j.neubiorev.2014.07.008