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Project Overview: Development of a Methodology for the Digital Assessment of Risk and Protective Factors and the Prevalence of Risk Behaviours as a Foundation for Strategic Planning of Prevention in the Community (DIGIPREV)

Authors and Affiliation

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Background

Effective prevention requires systematic use of data on risk and protective factors to inform community prevention planning (Haggerty & McCowan, 2018). In Croatia, there is currently no standardised digital system for continuous monitoring of these factors, although the CTC approach has previously been introduced and examined in the Croatian context (Mihić et al., 2010).

DIGIPREV builds on the Social Development Model, which explains how individual and contextual factors across family, school, peer, and community environments shape prosocial and problem behaviour over development (Catalano et al., 2021). The project develops a digital methodology to support scientifically grounded and locally tailored prevention planning.

Methods

- Adaptation and digitalisation of the internationally recognised Communities That Care (CTC) Youth Survey for the Croatian context
- Longitudinal epidemiological study in one Croatian county
- Psychometric testing using Confirmatory Factor Analysis (CFA), Multi-Group CFA (MG-CFA), and Latent Profile Analysis
- Development of a modular digital system with an integrated user interface for data collection, processing, visualisation, and automated reporting
- Pilot testing to examine feasibility, participation, and measurement performance

Pilot testing

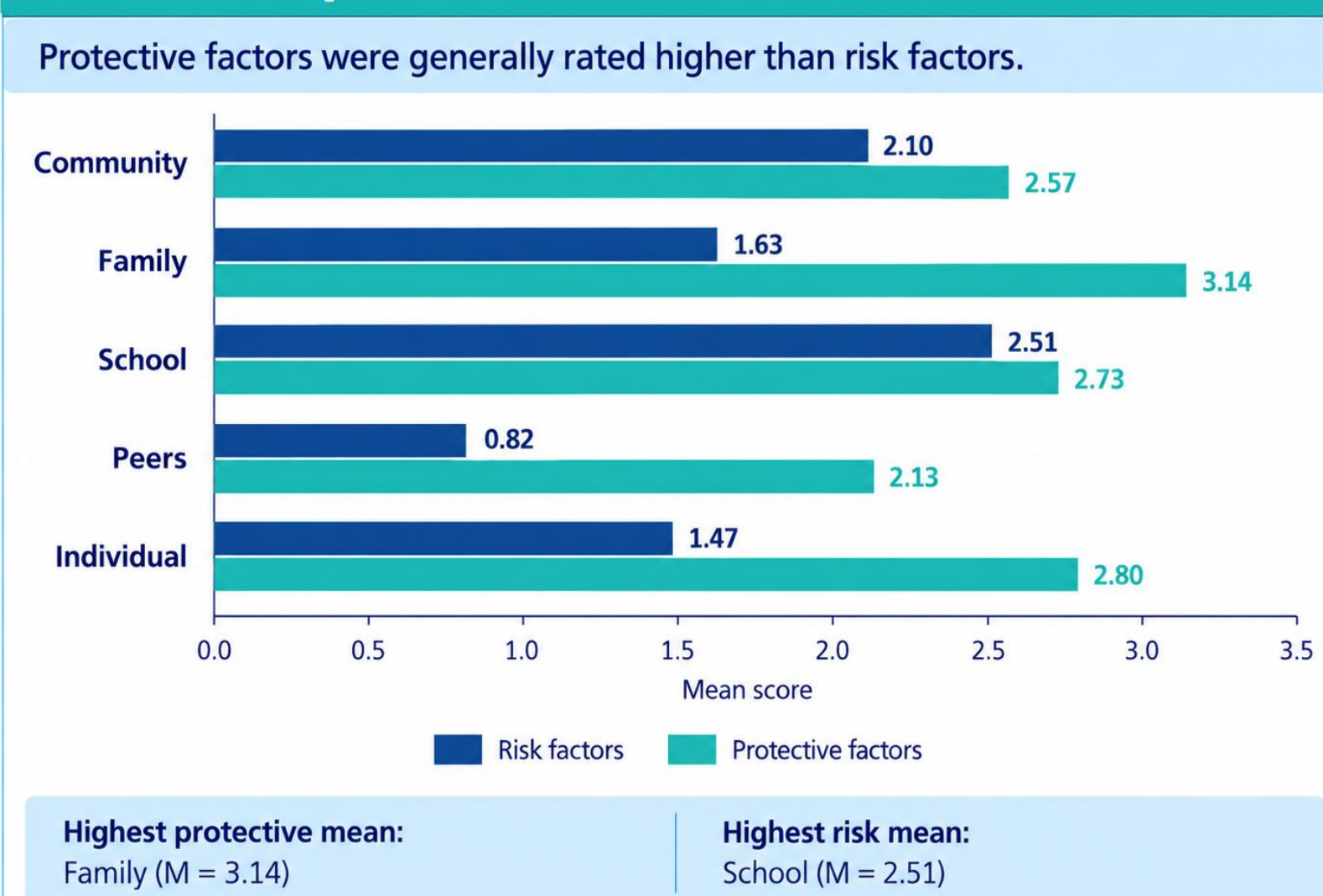
- conducted in Zagreb schools in May–June 2026 to examine feasibility, participation, and measurement performance
 - 8 Zagreb schools, final sample: N = 781
 - Grades: 6 and 8 primary school; 1 and 3 secondary school
 - Age range: 12–19 years
 - Data collection: 7 schools online, 1 school paper-and-pencil

Preliminary pilot results

Croatian adaptation showed promising fit in the pilot sample

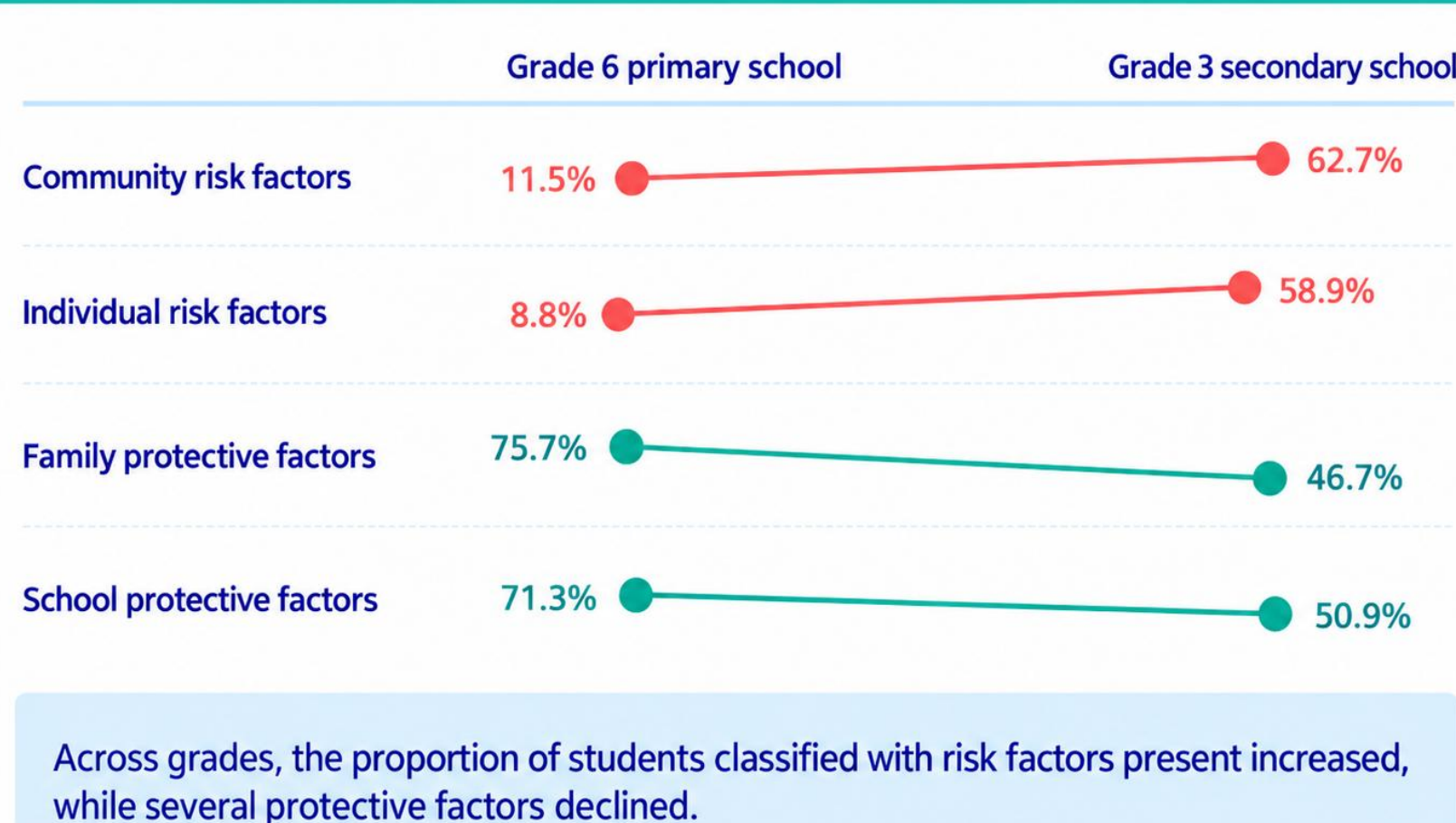
- CFA indicated that the original combined peer/individual domain should be separated into two distinct domains: peers and individual
- The resulting five domain-specific two-factor models showed acceptable fit
- Peer domain: CFI = .88; TLI = .86; RMSEA = .05; SRMR = .06
- Individual domain: CFI = .87; TLI = .85; RMSEA = .04; SRMR = .06
- Higher-order model fit: CFI = .90; TLI = .84; RMSEA = .08; SRMR = .08
- Metric invariance was supported across school level and sex; further item refinement is ongoing

A. Overall pattern

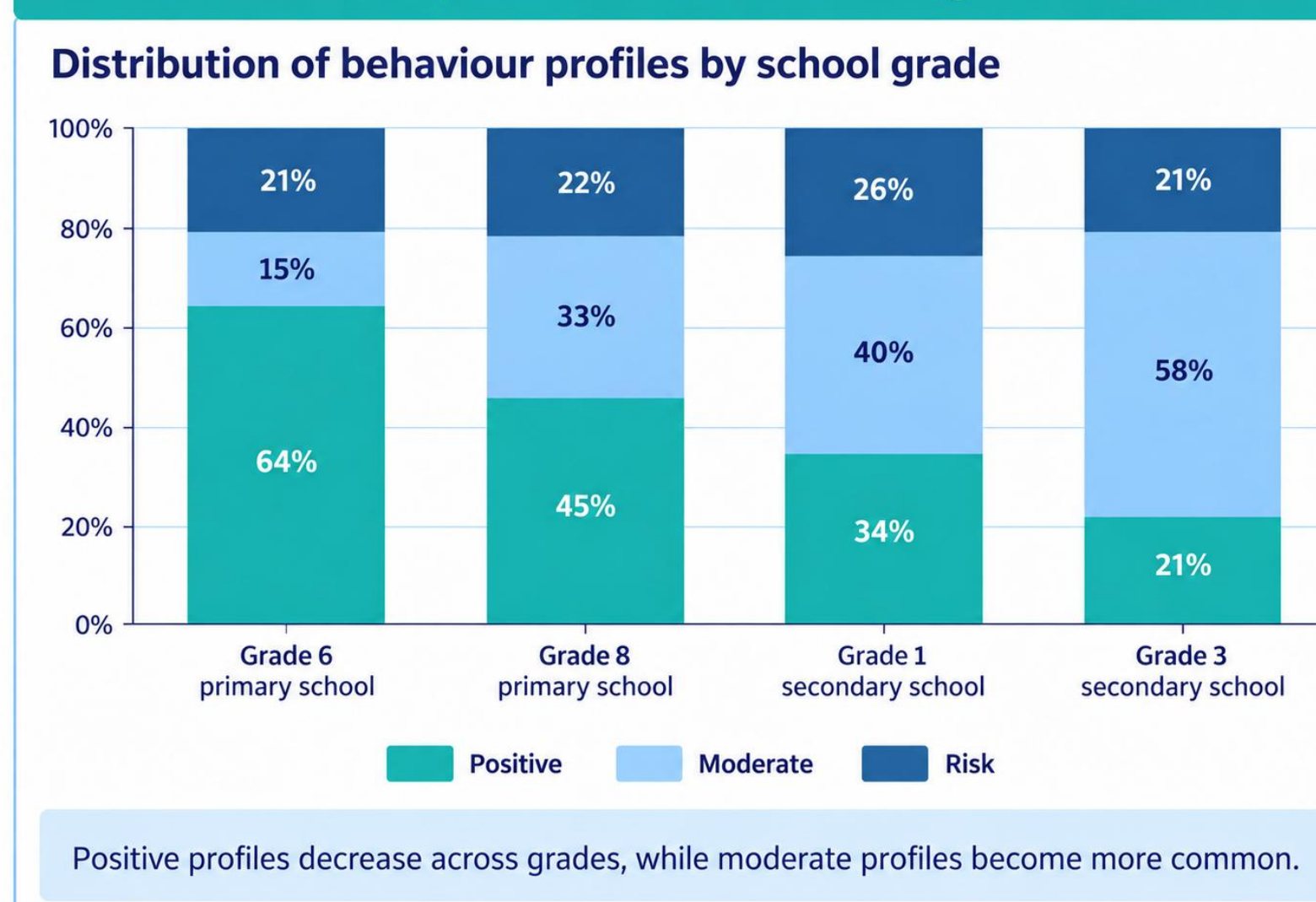


B. What stands out across grades?

From Grade 6 primary school to Grade 3 secondary school



C. Behavioural profiles shift across grades



Discussion

The pilot findings support the feasibility and value of the Croatian digital CTC adaptation. CFA results suggest a five-domain structure, with peer and individual factors functioning as distinct domains, while the grade-related patterns show increasing risk and declining protection across development. Together, these findings indicate that the system can generate meaningful local prevention profiles and support age-tailored, data-driven prevention planning. Further instrument refinement and longitudinal validation will strengthen its use in the next phases of DIGIPREV.

References

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- Haggerty, K. P., & McCowan, K. J. (2018). Using the social development strategy to unleash the power of prevention. *Journal of the Society for Social Work and Research*, 9(4), 741–763. <https://doi.org/10.1086/700274>
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