Socioeconomic determinants of traditional diet in Eastern Europe: result from the HAPIEE study

Denes Stefler¹, Xinxuan Yi¹, Sofia Malyutina²,³, Ruzena Kubinova⁴, Andrzej Pajak⁵, Eliska Hrezova⁶
Hynek Pikhart¹, Anne Peasey¹, Martin Bobak¹

¹ Department of Epidemiology and Public Health, University College London, London, United Kingdom
² Research Institute of Internal and Preventive Medicine - Branch of the Institute of Cytology and Genetics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia
³ Novosibirsk State Medical University Novosibirsk, Russia
⁴ National Institute of Public Health, Prague, Czech Republic
⁵ Department of Epidemiology and Population Studies, Jagiellonian University Collegium Medicum, Krakow, Poland
⁶ Research Centre for Toxic Compounds in the Environment (RECETOX), Masaryk University, Brno, Czech Republic

Background: Traditional eating habits in Eastern Europe are associated with higher risk of all-cause and cardiovascular disease mortality. However, it is unclear whether this eating pattern is related to socio-economic characteristics of individuals. The aim of this analysis was to examine the socioeconomic determinants of traditional diet in Eastern European populations.

Methods: Data was available from the baseline survey of the Health, Alcohol and Psychosocial Factors in Eastern Europe study, including 21,752 eligible subjects from Russia, Poland and the Czech Republic. Dietary data was collected using food frequency questionnaires, and adherence to the traditional diet was assessed with the Eastern European Diet Score (EEDS). Information on participants’ education, parental education and experience of financial difficulties in buying food were used as indicators of participants’ socioeconomic position (SEP).

Results: In the multivariable adjusted logistic regression models, high EEDS, indicating higher adherence to the traditional diet, was significantly associated with lower education attainment (university vs. primary or less; OR: 0.85, 95%CI: 0.75-0.96) and lower parental education (0.82, 0.72-0.94). High EEDS was also more common in people who reported financial...
difficulties in buying food, but this association was weaker (often vs. never; 1.12, 1.00-1.25). Specific components of the EEDS, including intakes of lard, processed meat and preserved fruit and vegetables, were also closely linked to SEP indicators.

**Conclusion:** Our results suggest that individuals with lower SEP are more likely to follow the traditional eating pattern in Eastern Europe, and education seems to be a particularly important determinant. Public health nutritional interventions should focus on the more disadvantaged groups to improve diet and reduce health inequalities in this region.

**Funding:** This work was partly funded by the Horizon 2020 CETOCOEN Excellence project (grant no. 857560).

This work shows that socioeconomic factors, particularly education, are important determinants of traditional eating habits in Eastern European countries.

As traditional diet in this region is linked with poor health, nutritional interventions have the potential to improve population health and reduce socioeconomic inequalities in Eastern Europe.