The impact of the social environment in depression trajectories: a life-course epidemiology approach

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Introduction

The social environment exerts an influence on the health of populations. Many chronic diseases display a social gradient - people who enjoy better social position have better health outcomes. Yet, the exact mechanisms of how the social factors alter the biological aspects of health are not fully understood.

Mounting evidence has shown that mental illnesses are closely associated to the social environment. Depression is the most common psychiatric disorder. It affects 1 in 4 women and 1 in 6 men.

Inflammation is thought to play a role in how the social becomes biological. Adversity in the social environment can upregulate components of the immune system involved in inflammation through proinflammatory cytokines, which in turn are responsible for the presence of many depressive-like symptoms such as anhedonia, fatigue and social-behavioural withdrawal. Another line of research has focused on the role that lipoproteins and triglycerides play in this mechanism.

The majority of studies on the social/biological interaction in depression have been conducted in western populations. The Eastern European populations are relatively understudied in this regard and they possess a different set of characteristics in the social environment, due to the rapid social transitions that have characterised these countries.

Aim: Advance the understanding of the biological mechanisms through which the social environment affects the pathophysiology of depression in Eastern European populations.

i. Assess age-related trajectories of depressive symptoms through middle and older age.

ii. Identify life-course social factors that predict the onset and modification of depressive symptoms.

iii. Investigate differences in the trajectories of depressive symptoms according to socio-economic position.

iv. Assess the bidirectional pathways between depression and inflammation (through serum CRP measurements).

v. Compare trajectories of depressive symptoms with trajectories of serum lipids (TG and lipoproteins).

Methods

The Health, Alcohol and Psychosocial Factors in Eastern Europe – "HAPIEE Cohort"

Multicentre cohort study: Russia, Czechia, Poland, Lithuania

Baseline: 2002 – 2005

Recruited: 28,947 participants

Population: Men and Women aged 45-69 years old

Follow-up time: ~18 years

Data on: Depression (CESD-20 Scale); Blood Samples (HDL, LDL, Triglycerides, CRP, Gamma-glutamyl transferase); Social status (self reported marital status, education, employment, income)

Data analysis: Multilevel Models (Growth Trajectories); Structural Equation Modelling, Multiple Imputations