Gene-Environment Interactions in Health Services Utilization and Access to Care

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Background

The Health Behavioural Model

The Behavioural Model of Health Care Use (Andersen, 2012): the fifth iteration. The components are interrelated recursively by a series of feedback loops.

Purpose

Here, we discuss how behavioral genetics can influence understanding access to care, use of health services and outcomes of use

Method, Data, and Results

Methods & Data

A twin data analysis based on the ACE Model (Additive (A), Shared (C), and Error Variance (E) for gene-environment interaction using twin studies for gene-environmental contribution to self reported health data was conducted. The data were obtained from 5.5 million VN Era Twin Registry, & matched on same last name, different first name, similar ssn, same date of birth. 7375 twin pairs were identified. The data were analysed using Cholesky Genetic Model.

Conclusion and Next Steps ...

This model indicates significant independent influence of genes for high-risk adult male populations for health services utilization and self reported health. The results suggest continued exploration of genotypic influence as well as gene environment interactions on health services access and utilization. The environment needs to be inclusive of physical and virtual environments and related gene-environment interactions on patterns of health services access.