

# HEALTH & LIFE COURSE

**Markus Jokela**

[markus.jokela@helsinki.fi](mailto:markus.jokela@helsinki.fi)

Epidemiology is about the etiology and distribution of diseases—physical and mental—in the population. This information provides better opportunities to prevent and intervene in the incidence and progress of diseases.

It is crucial to understand the longitudinal course of physical and mental health trajectories from early childhood to old age, as many health indicators show considerable stability over time. This is not to say that people's health is predetermined at conception—not all individuals follow the risky health pathways on which they start their life. The purpose of life-course epidemiology and psychology is to determine which risk factors are important at different phases of people's lives, and how people stay on and steer away from longitudinal trajectories of health and illness over time.

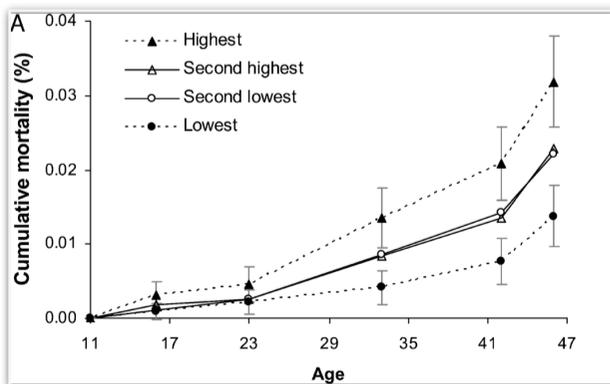
It is not often that one is asked to provide a commentary on an article that one expects to become a cornerstone of justifications for new psychiatric research (and especially longitudinal and developmental research), but that is what "Childhood Problem Behaviors and Death by Midlife: The British National Child Development Study"<sup>1</sup> is. It is also scary to claim that this is the first study of its kind (there is always the fear that someone better read will point out that X showed something similar in the 1920s), but I believe it is.

—Adrian Angold in his editorial on our study on childhood behavioral problems and mortality

## 1. Early origins

In childhood, symptoms of psychopathology are most commonly expressed as externalizing disorders (e.g., aggression, impulsivity, antisocial behavior) and internalizing disorders (e.g., withdrawal, anxiousness, fearfulness).

We showed that externalizing and internalizing behaviors assessed at the age of 7 and 11 were predictive of the children's mortality risk up to midlife:

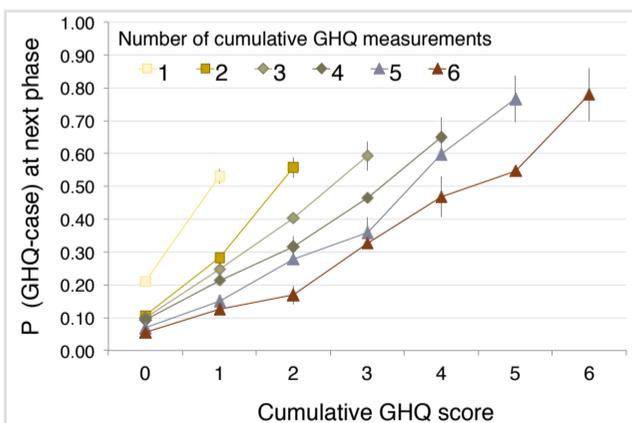


We have also shown that early behavioural problems have long-reaching associations with physical injuries, health behaviors, chronic diseases, and family formation later in adulthood.

## 2. Cumulative course

Many mental health problems tend to be chronic and recurring. It is suggested that mental health problems—when not taken care of—perpetuate an increasing risk of experiencing mental health problems in the future.

Using repeated measurement times over 20 years in the Whitehall II study, we showed that the risk of future psychological distress increased linearly with the number of earlier times the person had experienced psychological distress:



We have explored similar cumulative patterns of risk with other measures. For example, we showed that accumulating psychological distress increased the future risk of obesity, but long-term obesity did not increase worsening psychological distress. This suggested causal association from distress to obesity, but not vice versa. Cumulative effects are important to demonstrate, as they may add to the evidence for (or against) causal interpretation of non-experimental data.

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I don't see what the problem is with... oh. "Deaths." This is the deaths graph. Sorry, I thought these were sales figures.



## 3. Social selection and causation

Life-course approach is also helpful in teasing apart causal associations from selection effects. For example, people with poorer health are more likely to retire early, which makes it difficult to estimate how retirement affects health. In the Whitehall II study, we showed beneficial effects of retirement for mental and physical health, which would have been masked if we had only used cross-sectional data.

