

Title: The relationship between NCD risk and mental wellbeing in adolescence: a cross-sectional study utilising objective measures in Indonesia.

Authors:

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Background:

Risk factors for non-communicable diseases (NCDs; cardiovascular diseases, cancers, chronic respiratory diseases, diabetes, and mental disorders) arise in adolescence but are mostly framed as relevant to health in adulthood; little is known about the relationship between NCD risks and mental wellbeing in young people. This study aims to describe the prevalence and co-occurrence of distinct NCD risk factors, and how they relate to current wellbeing amongst adolescents in Indonesia, a young and populous country where NCD burden is increasing.

Methods:

We assessed NCD risk and wellbeing amongst 1,331 school-based 16-18-year-olds in Jakarta (N = 609) and South Sulawesi. Five domains of NCD risk (adiposity, substance use, physical inactivity, excess sedentary time, and diet) were measured or self-report. In Jakarta, we also measured blood glucose, triglycerides, cholesterol, and blood pressure. Wellbeing was assessed using three indicators: general quality of life (QoL), physical function QoL, and psychological distress. We used linear regression to estimate the associations between co-occurring risks and wellbeing, adjusted for covariates of wellbeing: province, gender, socioeconomic-status, and religion.

Results:

NCD risk clustering was common, and most adolescents had co-occurring risks in 3 or more of the 5 domains (58.9% (95%CI 53.7 - 63.9)). Adolescents with any NCD risk were more likely to report psychological distress, with this relationship most pronounced in those with excess sedentary time spent on video gaming and computer use. A higher number of NCD risk factors was associated with poorer psychological wellbeing and decreased general and physical function QoL. In the Jakarta subsample, reduced HDL and raised blood glucose was associated with psychological distress; and a higher number of risk biomarkers was associated with lower physical function QoL.

Conclusions:

Our analysis also shows that these NCD risks (both individual risks and co-occurring risk count) are related to poorer profiles of wellbeing in adolescents, after adjusting for likely confounders.

Disclosure of Interest Statement:

The authors disclose no conflict of interest.