Developmental trajectories of substance use and externalizing problems from early adolescence into young adulthood

Funding country: Netherlands
Project starting year: 2007
Project ending year: 2011
Area(s) of research: Prevalence, incidence and patterns of drug use, Determinants of drug use, Consequences of drug use
Objectives: To assess and explain developmental trajectories of substance use and externalizing problems throughout adolescence and young adulthood

Scientific discipline(s) involved: Epidemiology, Psychology, Sociology

Initial identified needs: Given the strong comorbidity between patterns of (heavy) substance use and externalizing problems, analysing the trajectories as co-occurring developmental phenomena is urgently called for.

Performed by:
Project leader Wilma Vollebergh, Dep of Interdisciplinary Social Science, Faculty of Social and Behavioral Sciences, University of Utrecht
Prof Tineke Oldehinkel, Interdisciplinary Centre for Psychiatric Epidemiology, University Medical Centre Groningen (UMCG)
Prof Menno Reijneveld, Dep of Public Health, University Medical Centre Groningen (UMCG)

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Summary references:
This project is based on TRAILS, a population-based study following 2,230 respondents from age 11 until at intervals of 2-3 years. At each measurement waves information was assessed on a number of topics, including substance use and other types of risk behavior. The results showed that the development of patterns of substance use is structurally related to the development of externalizing problems at this age. This finding has important implications as it suggests that an integrated approach to the prevention of risk behavior is likely to be more effective than an approach targeting each type of risk behavior separately. Furthermore, the results showed that those who show high levels of risk behavior are very likely to maintain these high levels, at least until young adulthood. Thus, this finding underlines the importance of delaying the age of substance use and the need for evidence-based preventive interventions. The study further showed that, compared to those that scored low levels of risk behavior across adolescence into young adulthood, all respondents transitioning to high levels of risk behavior during this life phase where at higher risk for substance use disorder and the use of hard drugs (amphetamine, ecstasy, heroin, cocaine, hallucinogenic mushrooms).

Those, who showed a later onset of high levels of risk behavior (13 years), where at highest risk for the more severe outcomes, i.e. a comorbid disorder (an alcohol and drug disorder) and the use of hard drugs. Thus, the early onset group appears to be a particularly important target group for prevention. The development of risk behavior appeared not to be associated with mental health outcomes (i.e., anxiety and depression) or with the development of neurocognitive functioning. The group of respondents showing persistent high levels of risk behavior from early adolescence into young adulthood was most clearly associated with an adverse childhood profile (i.e. early onset smoking and alcohol use, externalizing problems, low socio-economic status, divorced parents, low levels of impulse control, and high levels of sensation seeking). Respondents who made a later transition to high levels of risk behavior (around age 16 years) were also characterized by childhood factors, but fewer and they were less strong. Those who first showed high levels of risk behavior at the age of 19 years were similar in terms of childhood factors compared to those who showed consistent low levels of risk behavior. Thus, childhood factors predict the development of risk behavior and can therefore help in the identification of target groups for prevention.

Website: www.trails.nl

Published reference(s):