

## Institutionen för klinisk neurovetenskap

# Antisocial behaviour over the life course among females and males treated for substance misuse

### AKADEMISK AVHANDLING

som för avläggande av medicine doktorsexamen vid Karolinska Institutet offentligen försvaras i Hillarpsalen, Retzius väg 8, Karolinska Institutet, Campus Solna

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### **ABSTRACT**

Aims: (1) To compare the prevalence of adverse outcomes in adulthood between a clinic cohort and a matched sample from the general population; (2) To examine the associations between adolescent antisocial behaviour and adverse outcomes in adulthood; (3) To identify subgroups of male and female offenders with distinct features of offending, and to examine the long-term continuity of offending in the subgroups, and; (4) To identify long-term offending trajectories and examine the relationship between these offending trajectories and concurrent problems in other areas.

**Method:** Participants were part of a longitudinal study of adolescents who were treated at a substance misuse clinic during two periods: 1968-1971 (Cohort 1; 1992 participants), and 1980-1984 (Cohort 2; 1576 participants). The same number of individuals were randomly selected from the general population and matched to the clinic cohorts. Baseline data was extracted from archival data, and participants were followed to 2002 through multiple national registers.

**Results:** Individuals from cohort 1 were at increased risk of several adverse outcomes in adult life when compared to the matched sample. Additionally, adolescent antisocial behaviour increased the risk of adversity in multiple domains up to age 50 in cohort 1. Several subgroups of offenders could be identified in adolescence and again in adulthood in cohort 1, and considerable continuity in offending was shown among several subgroups. Individuals with high levels of violent and non-violent offending in adulthood also demonstrated high levels of substance-related crimes. Multiple long-term offending trajectories were identified in cohort 2 and in the matched sample. Cohort 2 showed less desistance in offending than the matched sample, and trajectories with the highest offending rates displayed the highest rates of concurrent problems. Both sex differences and similarities were demonstrated in all studies; larger differences in outcomes were found between women in cohort 1 and women in the matched sample, than between their male counterparts. In cohort 1, males demonstrated higher offending levels and more offending diversity, and specific subgroups and trajectories were identified among the males that were not replicated among the females. Conversely, adolescent antisocial behaviour was associated with adult adversity equally in females and males in cohort 1, and no sex differences were found in the continuity of offending, or in the relationship between substance-related crimes and other crimes in the same cohort. Both genders also demonstrated similarities in the associations between concurrent problems and offending trajectories in cohort 2.

Conclusions: An increased risk of both homotypic and heterotypic continuity of problems through 30 years of adult life was demonstrated among individuals treated for substance misuse as adolescents. This highlights the importance of assessing and treating the multiplicity of problems to prevent continuation of current problems, and the emergence of new ones. Treatment should also acknowledge heterogeneity and aim to target specific needs, instead of accommodating a wide range of problems with the same intervention strategy. The findings further suggest that intervention is equally needed among girls who present antisocial behaviour in adolescence, as this is predictive of adult adversity. Altogether, the findings point to the importance of early and effective interventions to prevent further antisocial behaviour, and the problems associated with it.