

# Attention Deficit Hyperactivity Disorder (ADHD) - frontline experience from Sweden

By Lena Lundholm, PhD, Clinical Psychologist

When the first article that studied prevalence of ADHD in a correctional setting was published in Sweden in the late 1990s the diagnosis was still considered a childhood condition. But not only did the writers identify a high, 25%, prevalence of ADHD in the group of adult offenders but also high comorbidity with substance use disorder and personality disorders. Further, they recognized that more symptoms of hyperactivity were related to more severe criminality with a debut at an early age. These findings are still relevant and the prevalence figure is confirmed in a recent meta-analysis of the prevalence of attention deficit hyperactivity disorder in incarcerated populations.

For the prison and probation staff, clients with difficulties to manage impulsivity and hyperactivity as well as to maintain attention and concentration was nothing new, but they had received a variety of explanations for their clients' problems.

The overall research field and knowledge concerning ADHD have for the past two decades grown immensely. Also the understanding how ADHD is related to the risk for criminal behavior has been developed. Longitudinal studies, treatment studies and register based studies have contributed with information how ADHD is related to a higher risk of criminal behavior and how treatment may reduce the risk for recidivism.

The Swedish Prison and Probation Service was the setting for two pioneer studies using randomized controlled design to evaluate the effect of pharmacological treatment (methylphenidate) for clients with ADHD. The two studies included long-term sentenced male and males with ADHD and comorbid amphetamine dependence respectively. The results revealed that it was possible to assess, diagnose and treat ADHD in prison and probation and that treatment reduced symptoms of ADHD, improved psychosocial functioning and reduced relapse in drug use after release from prison.

These results and more recent register based studies that have shown effect of medication on recidivism after release from prison, combined with a better understanding of how ADHD is associated with a range of negative outcomes - for example substance abuse and the possibility to complete studies or keep a job -the Swedish Prison and Probation Service has prioritised assessment and treatment of ADHD within the services.

The current challenge is to find a cost-effective organisation that can provide evidence based assessment and treatment for this large group of clients, and further provide a continuum -of-care to other care givers. Different organisational solutions have been evaluated in project format but are not yet implemented. On basis of the research results and experiences from staff and clients there is no doubt that treating ADHD is an important part of reducing the risk of reoffending.

## References:

Dalteg, A., Gustafsson, P., & Levander, S. (1998). Hyperaktivitetssyndrom vanligt bland interner. ADHD inte bara en barnpsykiatrisk diagnos *LÄKARTIDNINGEN*.

Chang, Z., Lichtenstein, P., Långström, N., Larsson, H., & Fazel, S. (2016). Association Between Prescription of Major Psychotropic Medications and Violent Reoffending After Prison Release. *JAMA*.

Ginsberg, Y., Hirvikoski, T., Grann, M., & Lindfors, N. (2012). Long-term functional outcome in adult prison inmates with ADHD receiving OROS-methylphenidate. *European Archives of Psychiatry and Clinical Neuroscience*.

Konstenius, M., Jayaram-Lindstrom, N., Guterstam, J., Beck, O., Philips, B., & Franck, J. (2013). Methylphenidate for ADHD and Drug Relapse in Criminal Offenders with Substance Dependence: A 24-week Randomized Placebo-controlled Trial. *Addiction*.

Konstenius, M, Larsson, H, Lundholm, L, Phillips, B. (2015). An epidemiological study of ADHD, substance use, and comorbid problems in incarcerated women in Sweden. *Journal of Attention Disorders*.

Lichtenstein, P., Halldner, L., Zetterqvist, J., Sjölander, A., Serlachius, E., Fazel, S., Långström, N., and Larsson, N (2012). Medication for Attention Deficit–Hyperactivity Disorder and Criminality. *New England Journal of Medicine*.

Young S. et al (2015). A metaanalysis of the prevalence of attention deficit hyperactivity disorder in incarcerated populations. *Psychological Medicine*.

Young S. et al (2015). Co-morbid psychiatric disorder among incarcerated ADHD populations: a metaanalysis. *Psychological Medicine*.