

Imaging Cognitive Deficits in Drug Abuse

Thomas Lundqvist

Contents

| | | |
|-----|--|-----|
| 1 | Introduction | 249 |
| 2 | Imaging Cognitive Deficits in Cannabis Users | 250 |
| 2.1 | Summary | 250 |
| 2.2 | Imaging Cognitive Deficits in Cannabis Users | 250 |
| 3 | Imaging Cognitive Deficits in Amphetamine, Methamphetamine, MDMA, and Cocaine Users | 256 |
| 3.1 | Summary | 256 |
| 3.2 | Imaging Cognitive Deficits in Amphetamine and Methamphetamine Users | 258 |
| 3.3 | Imaging Cognitive Deficits in MDMA (3,4-Methylenedioxymethamphetamine, Ecstasy) Users | 261 |
| 3.4 | Imaging Cognitive Deficits in Cocaine Users | 262 |
| 4 | Imaging Cognitive Deficits in Heroin and Methadone use | 265 |
| 4.1 | Summary | 265 |
| 4.2 | Imaging Cognitive Deficits in Heroin and Methadone Users | 266 |
| 5 | Imaging Prenatal Conditions | 268 |
| 5.1 | Summary on Prenatal Children Exposed to Drugs | 268 |
| 5.2 | Imaging Cognitive Deficits in Children Exposed to Illicit Drugs | 269 |
| | References | 269 |

Abstract The neuropsychological network is a complex structure. To identify processes location and network capacity the brain imaging techniques together and in combination with other neuropsychological techniques and the expanding of well elaborated designs provide us with a multidimensional understanding, and contributes to the understanding of each illicit drug's character, which is of importance in designing of new treatment programs and clinical practice. Cannabis, MDMA, amphetamine, cocaine, and heroin abusers display both acute effects and chronic effects, deficits in attention, memory, and executive functioning. These deficits may last beyond the period of intoxication and cumulate with years of use.

T. Lundqvist

Drug Addiction Treatment Centre, Lund University hospital, Lund, SE-22185, Sweden

e-mail: thomas.lundqvist@skane.se