Cognitive performance in early and prolonged abstinence methamphetamine users and non-drug users

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ABSTRACT

Cognitive performance is decreased by the consumption of methamphetamines, alterations in executive function in general have been revealed. The objectives of the study are to know the difference between methamphetamine abstinence time and cognitive performance in tests of executive function and working memory and to identify the relationship between consumers (CAP, CAT) and non-consumers. Comparative correlational type research in methamphetamine users, in 34 male participants aged 18-65 years, 25 are patients with methamphetamine use disorder in withdrawal from a rehabilitation center (0 to 180 days: n=17; 180 or more days n=8) who were compared with healthy non-user controls (n=9). A battery of neuropsychological tests was applied to measure executive functions and a Sternberg-type working memory task. The data was analyzed with the statistical program STATISTICA. The findings suggest significant differences in cognitive performance between abstinent methamphetamine users and nonusers, particularly in cognitive inhibitory control. In general, a similar performance was found in cognitive functioning among patients with different abstinence times. Although working memory performance was worse for the population with more than 6 months of abstinence, the consumption history of this population was correlated with cognitive alterations in working memory. Using methamphetamines has implications for cognitive performance, executive functions, and working memory in early abstinence.

Palabras Claves: Methamphetamine, Abstinence, Cognition, Consumption