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Memory Functions in Cannabis Users

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Key words:
Cannabis – Cognitive functions – Memory – WMS-III

Abstract:
Background: In the paper, the authors deal with memory functions in cannabis users, which were examined using the Wechsler Memory Scales – Third Edition (WMS-III), as part of a project implemented by the Department of Psychology at the Philosophical Faculty of Palacky University in Olomouc in partnership with the Institute of Psychology of the Czech Academy of Science and the National Focal Point for Drugs and Drug Addiction (Grant Agency of the Czech Republic, Grant No. 406/02/1449A). The objective of the study is to describe, using WMS-III, the memory functions of a sample of cannabis users.

Sample: The sample comprises a total of 141 respondents (109 men and 27 women) who were subjected to a memory test using WMS-III. For the purposes of this analysis, a total of 52 respondents had to be excluded on the grounds of their historical data being as yet incomplete. Thus, the final sample for this analysis comprises 89 respondents (73 men and 16 women). The respondents' age range was from 16 to 37. The men's average age is 22.2 and the women's average age is 21.2. A total of 80.7% of respondents are short-term cannabis users, 59.7% are moderate users, and 40.3% are heavy cannabis users. The average period of cannabis use in this group is 5.2 years. A total of 19.3% of respondents may be included in the category of long-term cannabis users, of whom 37.5% rank in the category of moderate users and 62.5% in that of heavy users. The average period of use for the long-term user group was 11.4 years. At the time of testing, all the respondents were using these drugs at least once a week (3.4%). Weekend use, 2–3 times a week, may be ascribed to 16.8% of respondents. 32.6% of respondents use cannabis more frequently, 4–5 times a week. Daily use is reported by 43.8% of respondents. Apart from cannabis, the respondents also use alcohol (94.4%) and cigarettes (75.3%). In addition, the respondents report having experience with magic mushrooms (30.3%), ecstasy (13.5%), LSD (6.7%), and heroin (6.7%).

Methods: An initial interview, designed to collect basic history data and information on the previous and present use, was conducted with the respondents. In addition, the respondents were assessed using the WMS-III memory test and the results were processed using the SPSS program, version 11.5.

Results: No statistically significant increase in the incidence of memory disorders in cannabis users in comparison to standard levels has been demonstrated. Only the immediate visual index is significantly worse. Similarly, we could not prove any correlation between the period and frequency of cannabis use. The results are likely to be affected most by the relatively small number of observations. Therefore, it is essential that the sample be enlarged and reassessed and the outcomes gathered subjected to more detailed analysis.