



ARE COGNITIVE PROBLEMS A RISK FACTOR FOR DRUG, ALCOHOL ABUSE?

A new report by Ralph Tarter and colleagues reveals that girls who abuse drugs and alcohol may have subtle deficits in intelligence and language skills.

Tarter et al. tested 106 girls with a DSM diagnosis of psychoactive substance abuse disorder, and 74 girls without a history of significant drug abuse. Girls in the substance abuse group were drug-free at the time of the study.

The researchers found that the substance-abusing girls were "impaired on cognitive tests measuring verbal intelligence, attention, perceptual efficiency, language competence and educational achievement." The severity of cognitive problems was not correlated with severity of abuse, and the girls were not long-term abusers, suggesting that the cognitive deficits partially or wholly predated the drug abuse.

Impulsivity is a hallmark of drug abusers, and on several tests, the drug abusing girls scored lower due to impulsive errors. "It is noteworthy," Tarter et al. say, "that the substance abuse group exhibited decrements on six of the seven measures of language capacity." This suggests, Tarter et al. say, that **the impulsiveness of substance abusers "may stem in part from an incapacity to effectively use language as the means of cognitively regulating behavior."** In addition, they say, drug use may serve as a means of stress reduction in people unable to "talk out" their problems.

Abuse linked to learning disorders

Tarter et al. are not the first researchers to link substance abuse to cognitive and language disorders. In 1992, Patricia Hardman and Donald Morton studied 82 randomly selected individuals in a rehabilitation center, and found, astonishingly, that 80 of them (98%) were dyslexic, and 71 of these (89%) had attention deficit disorder. High rates of other learning disabilities also were seen.

While all of the 80 dyslexic individuals in their study had experienced difficulty in school, Hardman and Morton say, only six had been identified as learning disabled or placed in LD programs. Their findings, the researchers say, are "an indictment against our medical and educational systems."

In addition to learning disabilities, Hardman and Morton say, most of their subjects also had strong family histories of biochemical, metabolic, or immune disorders. In addition, 82% of the subjects suffered from allergies or immunological problems. The data clearly showed, the researchers say, that "problems relating to allergies, language, and attention deficit disorder were present from birth in a significant number and could have been utilized to predict a high risk for learning problems in school. and predict susceptibility to chemical dependency or addictions."

The researchers say their study adds to evidence that "dyslexia, ADD, and chemical dependency are not simply psychological or behavioral problems but have a physiological basis."

Hardman and Morton add that their findings have implications for professionals whose treatment programs focus on psychological goals of learning and developing awareness. Such professionals, they say, must realize that "a person, regardless of how bright, who has limited or altered ability to encode, decode or utilize information, and who may have altered perception, i.e., an unremediated dyslexic, may not have the skills to achieve these goals."

"Cognitive capacity in female adolescent substance abusers," Ralph E. Tarter, Ada C. Mezzich, Ya-Chen Hsieh, and Susan M. Parks, *Drug and Alcohol Dependence*, Vol. 39, 1995, pp. 15-21. Address: Ralph E. Tarter, Dept. of Psychiatry, University of Pittsburgh School of Medicine, Western Psychiatric Institute and Clinic, 3811 O'Hara Street, Pittsburgh, PA 15213.

--and--

"The link between developmental dyslexia, ADD and chemical dependency," Patricia K. Hardman and Donald G. Morton, *Environmental Medicine*, Vol. 8, No. 3, 1992. Address not listed.

Related Articles: [\[1997, Vol. 3\]](#) [\[2002, Vol. 8\]](#)