Screening Tool May Help Identify Alcohol Use

BY DAMIAN McNAMARA
Miami Bureau

ORLANDO — It is a good idea to routinely ask patients—particularly those who are heavy drinkers and who do not think of themselves as alcoholics. They will be completely insulted if you tell them," said Dr. Stahl of the department of psychiatry at the University of California, San Diego, and chairman of the institute.

He and Dr. Koob professor and chair of the committee on the neurobiology of addiction disorders at the Scirps Research Institute, La Jolla, Calif, recommended use of the Alcohol Use Disorders Identification Test (AUDIT). However, 84% of those attending the meeting indicated that they have never used the AUDIT screening tool, according to an electronic poll.

According to Dr. Koob, two neurologic systems reinforce alcohol dependence—both dopaminergic and serotonin pathways—and make it more difficult for people to stop drinking. Advances in neuropharmacology are offering new insights into how the brain is altered by alcohol use, dependence, and withdrawal.

"Neurobiologists have led us where there are no spectacular new targets for treatment of alcoholism," Dr. Koob said. Regarding effects of alcohol may be mediated by dopaminergic and opioidergic systems.

Researchers have long proposed that the pleasure provided through the mesolimbic dopaminergic pathways explains why people continue to drink alcohol. Dopamine is released in the front end of the brain while opioids activate the ventral tegmental area and nucleus accumbens.

"So it's a combination of the opioid and dopaminergic effects that causes a pleasurable experience." Impulsive drinking, particularly in young males, is an activation of reward mechanisms driven by initial pleasurable effects, Dr. Koob said. "As a person continues to drink, the reward system gets impaired but hyperarousal in brain is set up that only alcohol will suppress. So [drinking] becomes self medicating," he noted.

"Those people you know in recovery who could drink everyone under the table ultimately end up with a problem," Dr. Koob said. "That starts the neuroadaptive process, so they end up needing that [higher] amount of alcohol." The acute double action of alcohol is to enhance γ-amino butyric acid (GABA) and decrease glutamate, Dr. Koob said. Both these neurotransmitters may mediate alcohol dependence. The frontal cortex, amygdala, and hippocampus are the brain areas that might contribute to dependence, Dr. Koob added.

Neurobiologists have found that consumption of alcohol also may alter regulatory agents of stress, particularly increasing corticosterone releasing factor (CRF) activity and decreasing noradrenergic activity. "While you are bingeing on alcohol, you are releasing the good guys like dopamine peptides, but when you get into withdrawal, you are recapitulating the bad guys—the GABA system and the CRF stress hormone," Dr. Koob said.

"You have a double-whammy effect when you become dependent—you lose species," he said.

Regular opioid users were more likely than infrequent users to cite depression or pain management as reasons for use. They also reported more symptoms of abuse and dependence and believed that prescription medications could give them a better high than other drugs, said Ms. Brevard.

Among stimulant users, nearly 78% reported that they took the drugs to help them perform better in school, and nearly 74% said they took them to help improve performance at school or to increase alertness.

These differences could be helpful in crafting interventions, said Julie Brevard of Inflexxion Inc., a health, science, and technology research firm that is based in Newton, Mass.

Ms. Brevard, along with principal investigator Sarah Lord, Ph.D., and colleagues at Inflexxion, conducted an online survey of college students who admitted to ever using prescription opioids and stimulants regularly.

The survey was advertised on an online social networking forum for college students and at the 27 colleges nationwide with the highest usage of the networking forum Web site. The researchers received 869 responses, 512 of which passed data validity checks and were analyzed. The research was funded with a grant from the National Institutes of Health.

About 61% of the respondents reported ever having used both stimulants and opioids. Of the rest, 18% had used opioids only and 21% had used stimulants only. About 41% of respondents said they were regular stimulant users, which was defined as using the drug once a month or more. And 25% of respondents reported that they were regular opioid users.

Among opioid users, more than 70% said they used the prescription pain relievers to relax and nearly 90% said they took them to get high. A smaller percent (27%) reported taking opioids to help with depression and anxiety or for chronic pain (19%).

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Motivations of Opioid and Stimulant Abusers Differ

BY MARY ELLEN SCHNEIDER
New York Bureau

BOSTON — College students who abuse opioids do so for different reasons than students who abuse stimulants, according to research presented at the annual meeting of the American Public Health Association.

Opioid users were more likely to report that they used the drugs to relax or to get high, while stimulant users were more likely than frequent users to report that they used the drugs to help improve performance at school or to increase alertness.

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"We have a double-whammy effect when you become dependent—you lose species," he said.

Among stimulant users, nearly 78% reported that they took the drugs to help them perform better in school, and nearly 74% said they took them to help improve performance at school or to increase alertness. Nearly 24% reported that they took stimulants to lose weight or prevent weight gain.

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