Chemical Dissociation May Serve as Coping Tool

Survivors of childhood abuse may self-medicate with opioids to attenuate traumatic stress.

BY SHARON WORCESTER Tallahassee Bureau

NEW ORLEANS — The chemically induced dissociation that can occur with opioid use may affect the development of substance use disorder among victims of childhood abuse and interfere with recovery from the disorder, Eli Somer, Ph.D., said at the annual conference of the International Society for the Study of Dissociation.

Evidence from the literature and a qualitative study of 100 patients recovering from a drug use disorder provides preliminary support for this theory, said Dr. Somer of the Israel Institute for Treatment and Study of Stress, Haifa.

A chemical dissociation serving a purpose similar to nonchemical dissociation, and inducing the same powerful tranquilizing and numbing effects, appears to occur in many individuals with opiate disorder. It may be a tool for coping with intolerable experiences when psychological coping—such as dissociation—fails, he explained, adding that, in some cases, dissociative symptoms themselves are distressing enough to lead to "self-medication" with heroin.

The literature shows that a childhood

trauma history is present in a substantial proportion of opioid users. In fact, several studies show that the odds of a comorbid substance abuse disorder are three times greater in those with posttraumatic stress disorder versus those without PTSD, he said.

In one study, PTSD occurred first in up to 65% of men and 84% of women with comorbid PTSD and substance use disorders, which suggests that substance use among survivors of childhood abuse develops out of attempts to self-medicate.

"Indeed, the most prominent consequence of childhood abuse turns out to be adult substance use disorder," Dr. Somer noted.

This has been demonstrated in at least three major studies, and data consistently show higher traumatization history scores—typically reflecting childhood abuse or neglect—among patients recovering from opiate use disorder, compared with the scores of nonusing patients presenting to outpatient stress clinics, he said.

An apparent neurobiologic basis for the heroin-induced dissociation theory also exists. Areas of the brain most responsible for emotions and stress—such as the hippocampus and amygdala—share a high density of both norepinephrine and opioid receptors, and when a person is in danger these areas produce high levels of natural opioids, which can temporarily mask pain.

"Scientists have found that people with PTSD continue to produce these higher levels even when the danger has passed, so this may be associated with the blunted emotions" that occur in the condition, he said.

Other studies show that serious physical threat can induce analgesia, and anesthesia and analgesia in these studies were the symptoms that best predicted cases of posttraumatic dissociative disorders. Traumatized individuals appear capable of producing elevated levels of natural opioids that can temporarily mask emotional and physical pain, Dr. Somer explained.

"Therefore, it is conceivable that traumatized individuals would find the effects of exogenous opioids to be a gratifying shield between posttraumatic torment and conscious awareness," he added, explaining that abuse survivors might selfmedicate with opioids to mimic the chemically endogenous release to attenuate traumatic stress.

In a study of 100 recovering heroin addicts, Dr. Somer found that patients who were more traumatized were more likely to experience dissociative experiences when they had been under the influence of the drug. "We found preliminary evidence that recovering heroin users experiencing dissociation phenomena live through heroin intoxication differently than heroin users who are low 'dissociators,' " he said, noting also that abstinence periods were shorter for those experiencing dissociation.

Qualitative interviews with the patients about their experiences with heroin revealed four common uses for the drug. The first was induction of chemical amnesia. As one patient described, the drug temporarily erased the horrors of his childhood.

The second use—suppression of posttraumatic arousal symptoms—was defined by one patient as elimination of her many fears. The third use was chemical numbing or depersonalization and derealization. For one patient, this meant pain relief; for another it meant diminished self-hatred.

And the fourth use, induction of soothing and gratifying pleasure, meant warmth for a patient who said she always felt cold from the inside out except for when she was using heroin.

"These results render credible, preliminary support for the idea that some survivors of abuse or neglect use heroin as a dissociative agent," said Dr. Somer, adding that some recovering addicts assigned benevolent, nurturing, human qualities to the drug.

"This was, to our minds, a sad testimonial to the emotional emaciation of these individuals," he said.

Delayed Smoking Cessation Improved Alcohol Treatment

BY DAMIAN MCNAMARA Miami Bureau

SAN JUAN, P.R. — People in intensive alcohol treatment programs are more abstinent if smoking cessation efforts are delayed by 6 months, according to a study.

Smoking is common among people with alcohol dependence, with an estimated 60%-90% prevalence. And because smoking causes a lot of morbidity and mortality in such patients, it is a "compelling issue to work on in recovery," Anne Joseph, M.D., said at the annual meeting of the American Academy of Addiction Psychiatry.

Although the results of nonrandomized studies suggest that smoking cessation efforts during intensive alcohol treatment are better than doing nothing, these trials included small numbers of participants and demonstrated only a modest benefit to nicotine replacement in this population.

For a more definitive answer, Dr. Joseph and her colleagues performed a large, 18month, randomized trial. They hypothesized that concurrent treatment would improve both smoking and alcohol abstinence outcomes (J. Stud. Alcohol 2004;65:681-91).

"Here comes the surprising, but unfortunate, news," said Dr. Joseph of the department of medicine at the University of Minnesota, Minneapolis. Alcohol abstinence was better when the smoking intervention was delayed by 6 months, compared with addressing both concerns simultaneously.

There were significant differences in outcomes at 6, 12, and 18 months. At 6 months, 64% of the delayed intervention group achieved 30-day alcohol abstinence, compared with 51% of the concurrent group; at 12 months, success rates were 53% and 46%, and at 18 months the rates were 60% and 48%.

The researchers also assessed alcohol abstinence 6 months after initiation of the smoking intervention in each group. Fiftysix percent of the delayed group were abstinent for alcohol for 6 months, compared with 41% of the concurrent group. At 12 months, 6-month abstinence was 42% versus 33%, and at 18 months, the rates were 48% and 41%.

Based on these findings, "delayed smoking cessation should be offered," Dr. Joseph said.

Why the delayed intervention group fared better is unknown. It may be that there is an interaction between smoking and alcohol interventions, confounded by a specific biologic or behavioral factor. It could also be that adding anything to alcohol treatment worsens outcome, said Dr. Joseph, also of Minneapolis Veterans Affairs Medical Center.

The investigators randomized 251 participants to concurrent alcohol and nicotine treatment and 248 to initial alcohol treatment followed by delayed smoking cessation treatment. The Timing of Alcohol and Smoking Cessation (TASC) trial included people from three residential, day, and outpatient rehabilitation programs in Minnesota offering 3-5 weeks of intensive intervention with aftercare.

The concurrent group completed the smoking intervention at 12 months and the delayed group completed it at 18 months. Participants were 21-75 years old, about two-thirds were male, and one-third had a high school education or less. They smoked at least five cigarettes per day, but most had significant nicotine dependence, indicated by an average score of 6 on the Fagerstrom Test for Nicotine Dependence. There were an average of three previous smoking quit attempts. About half reported alcohol abuse alone, the remainder had one, two, or three other substance abuse issues.

The smoking cessation intervention included behavioral treatment and nicotine replacement therapy (to avoid withdrawal effects). One hour of behavioral treatment at baseline was followed by three follow-up sessions either in person or via telephone.

