

NewsScan

NIDA ADDICTION RESEARCH NEWS

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RESEARCH ADVANCES

Gender Differences May Affect Substance Abuse Treatment Retention

A team of researchers affiliated with Kaiser Permanente Medical Care Program in Oakland, California, has identified some gender-based differences in retention rates between men and women in outpatient programs treating alcohol and drug abuse. The researchers followed 317 women and 599 men who were admitted to the HMO program during a 2-year period. Among the findings:

- Men are more likely to complete treatment for drug or alcohol abuse if they are
 - over age 40,
 - in treatment at the suggestion of an employer, rather than a family member, or
 - striving for abstinence.
- Women are more likely to complete treatment if they are
 - in the \$20,000-or-higher income bracket,
 - part of an ethnic category other than black,
 - unemployed, or
 - married.
- **WHAT IT MEANS:** Factors that influence patients' decisions to drop out of substance abuse treatment differ for men and women. Recognizing these differences may help clinicians identify those at risk for dropping out and help them tailor programs to improve retention and treatment outcome.

This study was published in the October issue of *Alcoholism: Clinical and Experimental Research*.

RESEARCH NEWS

Craving for Cocaine Involves Same Brain Sites as Other Cravings

Craving for cocaine—an often irresistible urge that can be triggered by environmental cues linked to past drug use (being with certain people or in a certain location)—is associated with the same brain circuits that are involved in response to other, nondrug stimuli.

Scientists at the Medical College of Wisconsin in Milwaukee showed 4-minute films depicting drug use, nature scenes, or explicit sexual activity to cocaine users and to participants with no history of cocaine use.

In particular, both users and non-users reported similar levels of arousal while watching the sex film, and functional magnetic resonance imaging (fMRI) revealed similar patterns of regional brain activation in both groups. Most regions identified as cocaine craving sites were similarly activated by sexual stimuli, indicating that common circuits are involved in drug and nondrug responses.

Lead investigator Dr. Elliot Stein notes that in response to the sex film, drug users showed less activation in these sites than did the non-users. This suggests that cocaine craving not only acts on the brain's reward circuits, it actually co-opts them, changing the user's normal emotionally driven preferences. According to Dr. Stein, this may have serious consequences for decisionmaking by cocaine users.

There were no differences between users and non-users when they viewed the nature film.

- **WHAT IT MEANS:** The brain sites involved in cocaine craving are associated with emotional response, information processing, and working memory. What is already known about normal learning, memory, and emotions may be applied to cue-induced craving and the development of appropriate pharmacological, behavioral, and cognitive therapies.

Dr. Stein and his colleagues describe their research in the November issue of the *American Journal of Psychiatry*.

NIDA Funds Innovative Research Facility To Enhance Social Workers' Involvement in Substance Abuse Treatment Research

NIDA has awarded a 5-year, \$1.9 million grant to the George Warren Brown School of Social Work at Washington University in St. Louis, Missouri, to fund the first drug abuse research infrastructure program. This effort will lead to the development of social work-led multidiscipline studies targeting the problem of the dually diagnosed, addiction and mental health and/or HIV/AIDS-afflicted underserved populations.

Arlene R. Stiffman, Ph.D., professor of social work, will head the school's Comorbidity and Addiction, Prevention, Intervention and Treatment Research Program (CAP-IT). She says, "The NIDA-sponsored infrastructure development program provides an unprecedented opportunity to conduct cutting-edge research that will enable social workers and other allied health professionals to make a quantifiable difference in helping people with substance abuse problems. The majority of substance abuse services are in sectors where social workers are in the trenches, putting social workers in a unique position to address the complexity of addiction and HIV risk problems."

The five inaugural pilot projects of this grant will focus on research that looks at:

- The cost and the role of nontraditional services for adolescent American Indians with addiction problems;
- An intervention treatment program for homeless people with both mental health and substance abuse problems;
- Solvent abuse and dependence among St. Louis-area drug-using populations;
- Substance abuse, comorbid mental health problems and HIV risk behaviors among gay, lesbian, and bisexual adolescents; and
- Substance abuse and resiliency among battered women.

For more information about any item mentioned in this *NewsScan*, please call NIDA's Press Office at 301-443-6245.

The National Institute on Drug Abuse is a component of the National Institutes of Health, U.S. Department of Health and Human Services. NIDA supports more than 85 percent of the world's research on the health aspects of drug abuse and addiction. The Institute carries out a large variety of programs to ensure the rapid dissemination of research information and its implementation in policy and practice. Fact sheets on the health effects of drugs of abuse and other topics can be ordered free of charge in English and Spanish by calling *NIDA Infobox* at 1-888-NIH-NIDA (644-6432) or 1-888-TTY-NIDA (889-6432) for the deaf. These fact sheets and further information on NIDA research and other activities can be found on the NIDA home page at <http://www.drugabuse.gov>.

