

Cognitive Deficits Addressed in Addiction Therapy

BY BRUCE JANCIN

ISTANBUL, TURKEY — Remediation of the cognitive deficits often present in chronic substance abusers offers an exciting new opportunity to treat addictive disorders.

Two approaches are under investigation: computer-assisted cognitive rehabilitation using structured exercises to improve cognitive flexibility and, more recently, pharmacologic manipulation of various neurotransmitter systems involved in the cognitive impairment, Frank Vocci, Ph.D., said



at the annual congress of the European College of Neuropsychopharmacology.

Numerous studies have established that although vocabulary and verbal skills are preserved in substance abusers, deficits in many other areas of cognition are common.

"The deficits have a high prevalence and are oftentimes as severe as those seen in traumatic brain injury. They evolve over an extended period of time. They usually go unrecognized by providers.

You can't tell who's cognitively impaired based upon a clinical interview; you have to run neuropsychologic batteries. And the patient behaviors are often attributed to personality and character, not cognitive impairment," explained Dr. Vocci, corporate president of the Friends Research Institute, Baltimore.

This misinterpretation of cognitive dysfunction as a fixed characterologic issue often sets up a poor therapeutic alliance and patient/therapist mismatch. The therapist views the substance abuse patient as unmotivated to participate fully in the learning experience, which cognitive-behavioral therapy or its variants is supposed to be.

Cognitive impairment has been shown to be adversely related to treatment engagement, which in turn is related to length of stay in a treatment program, which in turn is strongly related to treatment outcome, he continued.

The cognitive impairment will gradually improve spontaneously during the first 6 months or so of sobriety. But treatment programs in the United States

are becoming shorter, which means that patients may not be in treatment long enough to achieve significant cognitive improvement.

"Spontaneous recovery may be too little, too late to be of any real consequence," according to Dr. Vocci. "We end up with a terrible mismatch: The greatest amount of therapy may be given at a time when a person is cognitively impaired and has the least ability to learn from it."

This is the impetus for accelerating cognitive recovery. The initial success came with computer-assisted cognitive rehabilitation (CACR). William Fals-Stewart, Ph.D., and his colleagues at the State University of New York, Buffalo, Research Institute on Addictions showed in the late 1990s and early part of this decade that CACR designed to address attention, memory, executive function, and problem-solving skills led to improvement in multiple cognitive domains in participants in a 6-month residential recovery program.

In a 120-patient study, patients randomized to three 50-minute CACG sessions per week for 2 months plus standard treatment stayed in the treatment program for an average of 200 days, significantly longer than the 128 and 132 days in two control groups. And CACG made a real difference in treatment outcomes: The CACG group had more than

twice the program graduation rate, fewer subsequent problems in employment, better family and social functioning, and less medical problems, all of which were fully mediated by the differences in length of stay in the treatment program.

But most of the work with CACG has been done in residential treatment settings, which are becoming increasingly rare. Much research remains to be done before it is known how well CACG will translate to the outpatient setting.

Turning to pharmacologic strategies for accelerating cognitive remediation in substance abusers, Dr. Vocci said the big news is that a large, double-blind, placebo-controlled, National Institute on Drug Abuse-sponsored, multicenter randomized trial of modafinil (Provigil) at 200-400 mg/day in methamphetamine abusers has just been completed. The data are now being analyzed in preparation for presentation of the results in 2010.

Beyond modafinil, numerous other pharmacologic agents are under study in pharmacology laboratories as selective modulators of a multiplicity of neurotransmitter systems believed to play key roles in the cognitive deficits characteristic of substance abusers.

Dr. Vocci disclosed serving as a paid consultant to multiple pharmaceutical companies. ■

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DR. VOCCI

Tool Screens for Impulse-Control Disorders in Parkinson's

BY BRUCE JANCIN

ISTANBUL, TURKEY — The first-ever brief screening questionnaire for impulse-control disorders in patients with Parkinson's disease is now available.

The self-administered Questionnaire for Impulsive-Compulsive Disorders in Parkinson's Disease (QUIP) takes but several minutes for patients to complete. QUIP is the product of a collaboration between many of the leading investigators in the field of impulse-control disorders (ICDs) in Parkinson's disease, who recognized that it's impractical for busy office-based practitioners to find time to conduct lengthy diagnostic interviews with all of their patients who have Parkinson's, Dr. Daniel Weintraub explained at the annual congress of the European College of Neuropsychopharmacology.

The need for a brief screening instrument was highlighted in a landmark cross-sectional study led by Dr. Weintraub, which demonstrated that ICDs are relatively common in the setting of Parkinson's disease, being present in one in six patients.

Fourteen percent of the 3,090 Parkinson's disease patients under age 75 surveyed at 46 U.S.

and Canadian movement disorder centers had at least one of the four major ICDs, involving pathological gambling, compulsive buying, binge-eating behaviors, and compulsive sexual behavior. Comorbidity was common: Among patients with an ICD, 36% had more than one, added Dr. Weintraub, a psychiatrist at the University of Pennsylvania, Philadelphia.

Although ICD is the generally accepted term for these behaviors, they have also been referred to as appetitive behaviors or behavioral addictions. These are not life-long behaviors in affected individuals; rather, they are changes that emerge during the course of Parkinson's disease and cause significant and often enduring distress or impairment.

"These ICDs are not pleasurable activities anymore, but something they feel they need to do," Dr. Weintraub explained.

Pathological gambling was the first ICD to be described in those with Parkinson's disease when the association was initially recognized half a dozen years ago, but in fact all four ICDs

were roughly equally prevalent in the North American survey.

In a multivariate analysis, by far the strongest correlate or risk factor for ICDs was being on dopamine-agonist therapy, which carried a 2.7-fold increased risk. Indeed, the population-attributable risk of dopamine-agonist treatment was 49%, meaning nearly half of all ICDs could be attributed



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DR. WEINTRAUB

to the drug therapy. The ICD risk was not affected by the specific agent prescribed, nor was it dose-dependent.

Other independent correlates with ICDs included current smoking, age 65 or younger, levodopa therapy, being unmarried, and living in the United States. Specifically, Americans had higher rates of compulsive buying and gambling, which Dr. Weintraub attributes to the prevailing social/cultural milieu.

A family history of gambling

problems was associated with increased rates of all of the ICDs except sexual behaviors. There was no gender difference in the overall rate of ICDs; however, compulsive sexual behaviors were vastly more common among men, and binge-eating behaviors and compulsive buying were significantly more common in women.

Physicians can gain access to the QUIP screening tool via its recently published validation study (Mov. Disord. 2009;24:1461-7), which showed that a shortened version—the QUIP-S—containing 13 yes/no questions had a 94% sensitivity for detection of ICDs, nearly equal to that of the full 30-question version.

As a screening tool the emphasis in QUIP is on maximizing sensitivity at the expense of specificity. A positive result warrants a follow-up clinical interview to confirm the patient actually has an ICD, Dr. Weintraub stressed.

Physicians have an obligation to make their patients with Parkinson's disease aware that ICDs are a potential side effect of dopamine agonist therapy, and to monitor them for the emergence of these complications as part of routine clinical care. The same goes for psychi-

atrists who are exploring the use of these drugs for treatment of depression. The QUIP is intended to assist in that routine monitoring, he said.

He added that QUIP also might end up having a role in screening patients with disorders other than Parkinson's disease who are exposed to dopaminergic therapy. Dopamine agonists are now first-line therapy for restless legs syndrome, and although the doses used are generally considerably lower than in Parkinson's, some emerging evidence suggests that treated RLS patients may also have an increased prevalence of ICDs (Parkinsonism Relat. Disord. 2008;14:28-32).

Dopamine agonists are also seeing increasing use in patients with fibromyalgia.

The four major ICDs are listed under different diagnostic categories in DSM-IV. As a psychiatrist, it's fascinating to consider that the dopaminergic system links such diverse behaviors, Dr. Weintraub observed.

The North American survey of Parkinson's disease patients was funded by Boehringer Ingelheim, which supplied Dr. Weintraub with grant support and consulting fees. ■