Paul Brethen: I found the article very clear and understandable, even for someone with little background in neurology. I think many counselors will find it useful.

Kelly Washam: Information about how the brain works in drug abuse is a powerful therapeutic tool when it’s presented so that counselors can understand and translate it to patients. This article certainly meets that standard.

Sam Minsky: This sort of information helps the therapist bond with the patient and achieve treatment engagement. Clients come in feeling chaotic. They don’t understand their own behavior, and wonder if they are psychotic or maybe just bad. They’re relieved when someone can put what they’ve been experiencing in a rational framework, based on science and research. They start to think, “Maybe this guy and this therapy can really help me.”

Washam: The time to start talking about the brain is day one. When I do an intake assessment, I approach that moment as if it may be the only one I will have with that client. I want clients to walk away with some bit of information they may find helpful to normalize their situation. Then, throughout therapy, I repeat or elaborate the information when I think it will help the client, as a sort of continuing guide to the process of recovery and where they are in it.

Minsky: The basic message I give patients is that research indicates that chronic abuse of cocaine builds up chemicals in your brain that cause addiction and craving. The best way to get those levels back down is to stay away from the drug.

Washam: We keep our explanations simple, especially in early treatment phases. We don’t necessarily use technical terms like the limbic system or the amygdala, because clients might have a hard time following. Instead, we might talk about, for example, the upper brain and the lower, more primitive part. We like to have patients repeat the points back to us, in the vein of motivational interviewing.

Brethen: Visual aids help patients understand and retain the information. Sam and I both use a PowerPoint presentation that includes MRI and PET scans showing what happens in the brain when cravings are triggered by high-risk situations. People walk away feeling like they really know what’s going on.

Keeping the message positive
Minsky: It’s very important to couch the information in a way that preserves optimism and hope. If we don’t do that, we will lose patients.

Brethen: Sometimes when I talk about addiction as a brain disease, the changes and damage due to drug use, I sense people are thinking, “Oh my god, I really have fried my brain! Is there no hope?”

To counter this, I say research shows that with abstinence, some brain chemicals will return to their pre-cocaine levels. Maybe everything won’t go back to the way it was, but the brain can adapt. I use the analogy of exercising the brain as you would a muscle. New activities like playing an instrument, taking up a new sport, or learning to dance can help heal the brain. Drugs may have changed some areas, but practicing relapse prevention can build new neuropathways to compensate for those that were lost. For example, certain associations may always trigger cravings, but strengthening other parts of your brain will enable you to resist those cravings.

Minsky: When a patient sees that there is an actual physical condition in his brain causing him to crave drugs, he understands why his attempts to quit using willpower alone have failed, and why other strategies can succeed. We use the example of people who’ve had brain injury from accidents or strokes. There is
actual physical damage to parts of the brain, but other parts develop to take over those functions.

Brethen: I also make sure to give a lot of examples of people I have known who have been clean and sober and doing fine for many, many years.

Minsky: Dr. Nestler talks about ΔFosB, which is a genetic change related to cocaine. “Genetic” is a word we need to use very carefully with clients and families. Sometimes people ask, “Well, if addiction is a disease, if it is genetic and inherited, then are you saying that the person has no responsibility?”

No. Quite the contrary. When someone has a genetic predisposition to a disease, they have a responsibility to manage it as best they can. If they’re prone to heart disease, they need to avoid the behaviors that could lead to a heart attack. If it’s addiction, they need to avoid cues and triggers and take certain action when they do feel triggers.

Brethen: Dr. Nestler writes that ΔFosB remains elevated for around 2 months after last use. Forty to 60 days coincides with the time when people often hit what we call a “wall” phase clinically. They feel agitated and depressed and experience intense cravings. I think it’s interesting to speculate that there might be a connection, although of course we don’t have any evidence to that effect.

Washam: The information on ΔFosB is new to me. As I read the article, I thought about when in the course of therapy would be the best time to present it to patients. One good time might be when people have gone through acute withdrawal, but are still having symptoms. At that stage, the information would reinforce the need to stay the course in treatment.

Minsky: I would really welcome research to match brain changes to the stages and severity of addictive symptoms. Not only would that help us with patients, it could also help us with payers. For example, right now many do not support residential treatment for stimulant abusers because withdrawal from these drugs typically doesn’t cause physical illness requiring medical intervention. With the research I’m suggesting, we might be able to show that some patients have addictive brain changes severe enough to justify pulling them completely out of their environments for a while, until their neurons can begin to normalize.