

Trends that are transforming the field...new information is altering many old assumptions about treatment.

Addiction Professional 2009 July-August; 7(4):18-24

by Gary A. Enos and David Rath

In *Addiction Professional* we have written about everything from treatment's tried-and-true approaches to compelling ideas advanced by little more than one intriguing mouthpiece. We decided it might inspire some dialogue if we reported on some of the trends we see as having a transformative effect on addiction services.

The eight developments analyzed below, listed in no particular order, are among the subjects that are informing treatment or challenging treatment orthodoxy. What are your thoughts on the trends that will alter the way services are delivered in the future? Share your ideas with us by sending a message to us at genos@vendomegrp.com.

Science fiction may be close to fact.

The addiction community has come a long way since the days when eggs in a frying pan passed as an accurate visual representation of the disease. But even though it has been 15 to 20 years since the initial publication of brain research that has uncovered many structural and functional clues to addiction, many believe there is much, much more to come.

"The beauty, and our dilemma, is that the brain is the most complex organ system," says Joe Frascella, PhD, director of the National Institute on Drug Abuse's (NIDA's) Division of Clinical Neuroscience and Behavioral Research. "We're understanding some of the pathways, but are we close to understanding it all? We're in the infancy stage, I'd say."

These days, the old messages about "your brain on drugs" have been replaced with, well, an actual brain. The image of two flat-screen computer monitors flanking the office desk of NIDA director Nora D. Volkow, MD, depicting images of healthy and drug-affected brains, has become part of the treatment community's collective psyche, with promise of more effective treatments to be generated from the various discoveries in the lab.

The two technological drivers of new discovery have been positron emission tomography (PET) scans, broadening the understanding of the structural changes brought on by specific drugs, and functional magnetic resonance imaging (fMRI), which came along later to allow researchers to monitor in real time how behaviors bring about functional changes in the brain. Treatment providers are paying attention. "Substance abuse is now being correlated with regional effects on the brain so that, for instance, the amygdala might be more excited and the prefrontal cortex is under-activated and lower-functioning with resultant problems," says Kevin Wadalavage, who oversees outpatient clinics for the Outreach Project agency in New York City.

"I am hoping that this research leads to several things, including the empowerment of patients with addiction to see why they are addicted and what they can do about it, just as with other disorders that have neurological implications," Wadalavage adds.

Frascella says there is much reason to believe that technology for exploring brain structure and function will continue to advance, with possible combinations of various technologies' optimal capacities perhaps being the next frontier in research. He says it is critically important for field professionals not to interpret the findings as indicating that medications alone will be the interventions that emerge from the new science.

"We're trying to encourage initiatives that use brain imaging to look at behavioral treatments," Frascella says. As the field learns more, for instance, about what areas of the brain are associated with craving, it could be nearing a point where individuals could be trained in ways to "turn on and off" parts of their brain during the precarious early stages of recovery.

"This sounds like science fiction, but there are studies out there that are getting interesting

results,” Frascella says.

Physicians become a significant influence.

As more has been learned about addiction as a brain disease, the mainstream treatment community continues to ask whether physicians want to assume a significant role in treatment or would rather look away from a complicated problem whose sufferers are thought to lack motivation to get well. A physician leader who has been instrumental in major initiatives to involve doctors directly in substance use treatment insists physicians are ready to assume the challenge.

“The medical profession is rising from a prolonged slumber, and is increasingly recognizing that physicians must be adequately trained to prevent, recognize and treat substance use disorders,” says Larry M. Gentilello, MD, professor of surgery at the University of Texas Southwestern Medical Center in Dallas.

With a greater understanding of the extent to which individuals with at least a problem level of drinking or drug use could be assisted in everyday general medical settings, the numbers are becoming too compelling for physicians to ignore. “Nearly one out of four patients seen in health care settings for routine medical problems would screen positive if evaluated for addictive or harmful alcohol use, illicit drug use, or use of prescription drugs for non-medical reasons,” Gentilello says.

Gentilello has been involved in integrating screening and brief intervention (SBI) strategies into emergency medical care settings, where so many of the presenting problems are ultimately found to have a link with substance use. He was also a leading voice in the successful push to develop billing codes for SBI that have ushered in Medicare, Medicaid and private insurance reimbursement for these services.

Also at present, 10 medical residency programs have been funded to provide comprehensive training on substance use issues, indicating that addiction is taking its place in the education of the next generation of doctors.

Gentilello now serves as a director for the American Board of Addiction Medicine, an effort fueled by the American Society of Addiction Medicine (ASAM) to establish standards and procedures for certifying qualified physicians as addiction specialists (see related article in this issue).

“As health care reform moves forward, it is becoming increasingly clear that reducing the unsustainable costs of our current approach to health care will require a proactive approach that includes early detection, screening and interventions,” Gentilello says. “Physicians have a key role to play in this effort.”

Wider implementation of electronic health records.

The American Reinvestment and Recovery Act of 2009 has been called the most significant development ever for health information technology. ARRA's technology provisions promise to spend close to \$20 billion to make electronic health records (EHRs) ubiquitous.

But will that spending reach addiction treatment facilities, which continue to lag behind both mental health and general health facilities in technology adoption? Most of the stimulus legislation's funding comes from increased Medicare and Medicaid reimbursements for organizations already using EHRs rather than grant funding to help with purchases and implementation.

David T. Smith, assistant executive director and treatment director at New Beginnings in Waverly, Minnesota, says there are several reasons why treatment centers have

been slow to adopt EHRs up to this point. First, small facilities don't have IT teams to manage them, and staff members and clinicians often don't have technology training. And for many, the expense is too great.

"For an organization with 100 employees and 30 PCs, the software isn't really affordable," says Smith, who is also an assistant professor in the Department of Educational Leadership and Community Psychology at St. Cloud State University.

Yet despite the obstacles, Smith is convinced automation is "among the most important strategic decisions organizations such as ours have to make," and New Beginnings is studying its options. "We have to consider the clinical side, the design of response forms for regulatory compliance, and the business and billing side," he says. He is studying hosted solutions and software as a service.

The national focus on electronic patient records has started to resonate with addiction professionals, says Bill Connors, president and CEO of Sequest Technologies, a Lisle, Illinois-based vendor of software designed for treatment settings. "They realize that it is not if, but when they are going to do it." Addiction treatment facilities have become the biggest growth sector for Sequest, which now has about 45 such facilities as customers.

Usually the push for automation comes from the leadership of an organization that has a vision or a need to look at aggregate data to manage the operation. "On the clinical side," Connors adds, "you are not going to meet people more dedicated to their patients. They are looking at automation if it helps them provide better care or gives them one more hour a day with patients. That is their return on investment."

Competencies in multiple services.

Both the stand-alone addiction treatment organization and the mental health only agency appear to be moving toward extinction. With expectations of multiple needs among clients, and with resource shortages convincing agencies to chase after funds wherever they can be located, the field looks destined to be populated with organizations offering access to the full spectrum of human services.

"There's absolutely no question that providers who aren't able to address multi-service needs are not going to be in service much longer," says Linda Grove-Paul, MSW, director of addiction and forensic services at Centerstone of Indiana.

As director of addiction services in a community behavioral health agency, Grove-Paul says it is her responsibility to ensure that every clinician who interacts with a client is consistently assessing for addiction issues. "And if you have a bias about a person with a chemical dependency disorder, you might not be able to convince that person that treatment would be beneficial," she says.

Grove-Paul is careful to describe her agency as a community mental health and addiction services provider, as the field in general is still in a place where leaving the reference to addiction out suggests that it is being ignored or subsumed. Centerstone's Indiana operation (the organization also administers services in Tennessee) generally manages its own direct addiction treatment services, including a residential treatment center in Bloomington, although it also does some referral.

Grove-Paul sees several factors driving the move toward the field being dominated by multi-service agencies, from research findings on comorbid illnesses to agencies trying to tap into multiple sources of funding. But she is quick to emphasize the impact of a criminal justice system that is starting to see a deinstitutionalization of sorts for its mul-

tiple-need clients, and will need community agencies to be ready with comprehensive services.

“In talking with judges, the biggest problems they're facing are with many of our clients—people who have no insurance, no resources, and are in and out of hospitals and jails,” Grove-Paul says. “Agencies need to be positioned to provide as many services as they can,” especially now that judges as a group finally are beginning to understand the value of addiction treatment.

Tobacco becoming an enemy of recovery.

More research might be required before public health officials definitively state that people in treatment for alcohol and drug addiction have better outcomes if they quit tobacco use at the same time. But with some studies showing that more than 50 percent of the deaths in substance abuse treatment populations result from tobacco-related disease, the momentum in the field has clearly shifted toward a concept of wellness that includes treating tobacco addiction.

As state governments from New Jersey to Colorado commit funding and pass legislation regarding smoking cessation in addiction treatment facilities, all eyes remain on ongoing progress in the state of New York, which last year launched the most ambitious initiative to date. The state Office of Alcoholism and Substance Abuse Services (OASAS) issued a directive stating that all 1,550 treatment facilities in the state had to go completely smoke-free.

“When only 18 percent of the general population are smokers, but 92 percent of those in chemical dependency treatment are, we knew we had to change the policy,” says Karen M. Carpenter-Palumbo, OASAS commissioner.

In the first year of implementation OASAS has achieved 74 percent compliance, Carpenter-Palumbo says. Residential and adolescent treatment programs have proved the most difficult to convert, but while there have been rumblings about some clients postponing treatment or looking for facilities where they can continue to smoke, state officials believe they are making great progress.

“We are hearing stories from treatment professionals who were against this change but who now say it is improving recovery for patients long-term,” says Carpenter-Palumbo. Indeed, getting cooperation from addiction treatment staff members constitutes one of the greatest challenges in implementing these policies, says Jonathan Foulds, a professor in the School of Public Health at the University of Medicine and Dentistry of New Jersey (UMDNJ). “Many people who work in addiction treatment are in recovery themselves and are giving back,” he says. “They may still be smoking and this challenges their self-image.”

When surveyed, drug treatment workers tend to report either that they are smokers themselves or lack knowledge on how to treat nicotine dependence, notes Joseph Guydish, adjunct professor of medicine and core faculty at the University of California at San Francisco's Institute for Health Policy Studies. In New York, OASAS spent \$4 million on staff training sessions and webinars, and made nicotine replacement therapy available in all settings.

Foulds says taking a broad systems approach to combating smoking, involving all types of service agencies including mental health, is crucial. “If people are allowed or encouraged to puff away in a halfway house or in mental health treatment,” he says, “it may see good work undone.”

Taking treatment services online.

The statistics are discouragingly familiar: Of the nearly 20 million Americans in need of addiction treatment at any given time, only 25 percent have access to treatment. And of that group, half drop out, according to the Substance Abuse and Mental Health Services Administration (SAMHSA). A growing number of researchers and entrepreneurs are seeing promise in Internet-based and mobile phone technologies to engage patients.

Online tools and telehealth consultations might ease access to treatment professionals for people in rural locations, and some people seem to prefer the relative anonymity, says Bret Shaw, assistant professor in the Department of Life Sciences Communication at the University of Wisconsin. Shaw adds that virtual environments such as Second Life could allow people to engage with others in ways they find hard to do face-to-face. "They also may be able to test their willpower and coping skills in a safer, virtual way," Shaw says.

With a five-year grant from the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the University of Wisconsin has launched the Innovations for Recovery Model (<http://www.innovationforrecovery.com>) project to study the impact of online and mobile phone tools. This fall patients just leaving residential treatment programs in Peoria, Illinois and Boston will begin using a system that offers many features, including an opt-in GPS tracking feature that monitors their movements and triggers a peer call when they go near marked liquor stores, for example. On work trips, these individuals will be able to use their cell phones to get information about the closest meeting. They also can take part in online support groups.

The eGetgoing Internet-based counseling division of Cupertino, Calif.-based CRC Health Group is probably the best-known example of online treatment in the field, and a recent study published in the Journal of Substance Abuse Treatment found that live Internet-based chemical dependency treatment fared well compared to traditional face-to-face counseling. Speaking at an April press conference announcing the research results, CRC chief executive Barry Karlin stated his belief that online access can help overcome common barriers to treatment and at lower cost than traditional treatment (\$1,200 for 24 sessions in eGetgoing's case).

Other groups are applying to the recovery community the social networking concepts made familiar by MySpace and Facebook. The Second Road (<http://www.thesecondroad.org>), based in Charlottesville, Va., is a new online community for people recovering from addiction. Members create their own profile pages, and the site also includes blogs, chat groups and videos.

Of course, even those most encouraged by the potential of online recovery tools stress that they should be deployed as just one aspect of a continuum of care tailored to each patient. And as Shaw points out, reimbursement schemes have to change for online tools to enjoy a wider application. "Studies such as ours can help validate the business model, but this is a five-year study," he says. "I hope things move faster than that."

Watching diet and exercise.

The days when addiction treatment programs would ignore clients' other health habits as long as they weren't drinking or using seem to be numbered. Treatment centers are experiencing a nutrition and fitness boom, with many hiring executive chefs who have been more experienced in four-star hotels than in 30-day residential programs.

The fully equipped gym available to residential and outpatient clients at Bayside Marin in San Rafael, California, complete with advanced workout equipment, meets standards of professional athletes. "These are state-of-the-art facilities that are used at all different hours of the day," says Tim Sinnott, Bayside Marin's executive director.

In Pueblo, Colorado, a recovering methamphetamine addict renewed his commitment to fitness during his recovery and eventually established Addicts to Athletes, a program that offers people in recovery a new kind of weekly meeting. Thirty minutes of discussion are followed by exercise at a local track, with intensity levels based on each individual's capabilities. In the colder weather months the group will engage in mixed martial arts training-but no sparring.

"When I was in recovery, I went from 180 pounds to 250 in three months, and some people said to me that I looked better when I was using," says Rob Archuleta, 36. "The problem is that families are so happy to have you back that mealtime becomes quality time, and eating becomes like a subliminal addiction."

Archuleta is a prevention coordinator at the Crossroads addiction services agency in Pueblo, and many of the youths served in the agency's prevention program have begun accompanying the adults in recovery at their weekly gatherings.

Anne S. Hatcher, EdD, co-director of the Center for Addiction Studies at Metropolitan State College of Denver, says she integrates nutritional information into the pharmacology course she teaches, and an RN at the college combines the two topics as well. She believes that a daily supplement to the diet is supported by research and can assist in individuals' recovery, but she also warns against taking one's interest too far in this area.

"An agency in town is selling supplements to clients, a practice I do not like, and another tells them what to buy," she says. She also is skeptical about some programs' interest in giving their clients intravenous amino acid supplements, especially since lab tests for amino acid levels are not available everywhere.

"I have known of agencies that routinely use the IV amino acids and report that clients respond well," Hatcher says. "A person who is dehydrated will respond well to an IV saline solution."

Embracing blended treatment approaches.

The lines continue to blur among the various "schools of thought" on what constitutes effective treatment. Research is dispelling the notion that there is a stark difference between "science" and "spirituality" in treatment, and programs are responding by offering approaches that blend 12-Step traditions with newer change-based approaches.

In this magazine's May/June 2006 issue, Massachusetts counseling professional Brian Duffy pointed out that the 12 Steps and cognitive-behavioral therapy (CBT) have a lot more in common than people tend to assume. Guiding phrases in AA, such as "one day at a time", offer an example of cognitive restructuring, in that living in the present is a learned behavior. His concluding statement: "So let's not compare AA with CBT. AA is CBT."

Research also is demonstrating an evidence basis behind 12-Step treatment that many assumed would always be lacking. In the May/June 2009 issue of Addiction Professional, Valerie Slaymaker, PhD, of Hazelden's Butler Center for Research reported on a variety of studies indicating a relationship between spirituality practices/levels and improved recovery outcomes.

Slaymaker wrote in her article that “a greater understanding of the nature and impact of spirituality in recovery could influence how spirituality is incorporated into a variety of programs with diverse theoretical approaches.”

At the highest levels of government, experts are urging the treatment field to understand how the various levels of severity in substance-related illness should convince professionals and provider agencies to have multiple treatment approaches at their disposal.

“Since no one behavioral approach has better overall outcomes than others, clients should have a choice of available, effective treatments,” Mark L. Willenbring, director of the Treatment and Recovery Research Division at the National Institute on Alcohol Abuse and Alcoholism (NIAAA), wrote last year in the September/October issue.

David Rath is a freelance writer based in Pennsylvania.