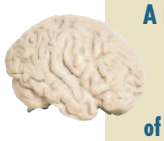

A Dartmouth study found that functional MRIs of patients with obsessive-compulsive disorder and of a control group show different patterns of brain activity during response inhibition tasks.

Patients opt for choice over coercion

The numbers are grim: Over 16 million American adults, about 1 in 17, live with severe mental illness. And studies show that 60% of them get no treatment and 35% get inadequate treatment, says DMS psychiatrist Robert Drake, M.D., Ph.D. Most of the 60% have been involved with the mental-health system but have "opted out," says Drake. "They're afraid of the coerciveness of the system, they don't find the system friendly or welcoming, they don't find that they get what they want from the system."

Goal: So Drake and his colleagues at the Dartmouth Psychiatric Research Center set a goal of making the system more patient- and family-friendly through shared decision-making—offering patients resources to help them develop their own treatment plans and take an active role in monitoring the results.

Very little research has been done on shared decision-making in the context of severe mental illness. And "with mental illness where decision impairment is part of the illness, there's a lot of skepticism that shared decision-making is even viable," says Jared Adams, Ph.D., an M.D.-Ph.D. student at Dartmouth.

So Drake, Adams, and psychologist George Wolford, Ph.D., conducted a pilot study of 30 clients of a New Hampshire community mental-health center; all had a severe mental illness—schizophrenia, bipolar disorder, or major depression.

The clients filled out questionnaires about their decision-making experiences and preferences regarding new medication, hospitalization (whether or not to be hospitalized for treatment), housing, finding and securing employment, and choosing a caregiver. Clients rated each area on a scale from "mostly my doctor's decision" (a passive role) to "mostly my decision" (a collaborative or autonomous role). They also completed a decision aid to help them articulate questions, benefits, and risks regarding their psychiatric care.

Most clients said they'd prefer greater participation in decisions about their psychiatric care. In choosing and managing new antipsychotic medications, for example, 23 clients (77%) indicated a preference for an autonomous or collaborative role, but only 11 (37%) rated their current experience as non-passive. The study participants were less likely to want a passive role in making medication decisions about their psychiatric care than their general medical care. The results were published in *Psychiatric Services*.

Rank: Adams, the paper's lead author, repeated the study with more subjects as part of his Ph.D. thesis, using computer decision aids he created to help clients rank and choose medications based on their side effects. "We need to treat people with respect and recognize that they have a right to make decisions about their own bodies, whether they're mentally ill or not," says Drake. He sees a need for "systems of care that are really patient-centered, so that people and their families can understand what their options are and what the evidence is and make reasonable choices."

Matthew C. Wiencke

JON GILBERT FOX

Drake is a national leader in psychiatric research.

Looking for a coffee break

Epidemiological studies have suggested that long-term caffeine consumption reduces the risk of developing type 2 diabetes. But a small study in *Metabolism* by Todd MacKenzie, Ph.D., and other Dartmouth investigators showed that if healthy young adults consume 200 milligrams of caffeine (about a mug of coffee) twice a day for a week, it reduces insulin sensitivity—and thus *increases* the risk for type 2 diabetes. Further research is needed "to study longer-term effects," the authors noted, "and to clarify the differences between interventional studies such as ours" and epidemiological studies.

Some skin in the game

Melanoma, which now accounts for 4% of all cancer cases, is on the rise worldwide. A team of DMS biochemists led by Constance Brinckerhoff, Ph.D., set out to explore the genetic underpinnings of metastatic melanoma, which is almost totally resistant to known therapies. In *Cancer Research*, they wrote that a gene called interstitial collagenase matrix metalloproteinase-1 (MMP-1), while not involved in primary tumor growth, "enhances tumor cell collegenase activity and tumor-induced angiogenesis," which are vital for the metastatic capability of melanoma cells. So "MMP-1 may be a therapeutic target in treating this disease."