

ADVANCES IN PSYCHIATRY

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NewYork-Presbyterian Hospital is ranked 5th in the nation in Psychiatry.

Advancing Psychiatric Care Through Research and Evidence-Based Approaches

The psychiatric programs at NewYork-Presbyterian Hospital offer innovative patient care by incorporating the latest evidence-based approaches for a variety of conditions. An example is the Hospital's Center for Eating Disorders, a collaborative program among clinicians from NewYork-Presbyterian/Weill Cornell Medical Center, NewYork-Presbyterian/Columbia University Medical Center, and the New York State Psychiatric Institute.

The faculty at NewYork-Presbyterian Hospital has conducted novel research into the biochemical mechanisms behind eating disorders and has implemented comprehensive treatment programs for more than 30 years. In describing the need for and importance of this work, Evelyn Attia, MD, Director of the Center for Eating Disorders, a program centered at both NewYork-Presbyterian/Weill Cornell, NewYork-Presbyterian/Columbia, and the Hospital's Westchester Division, noted that mortality rates from anorexia nervosa (AN) are equal to or higher than those caused by any other mental illness. Back when she first began practicing psychiatry, however, eating disorders were scarcely researched and scantily understood.

"The field has been a few steps behind some of the other specialty areas in psychiatry. These studies are difficult to perform—some individuals with eating disorders are reluctant to seek treatment or participate in clinical trials," said Dr. Attia, who also served on the Workgroup for Eating Disorders of the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders*, due for publication in May.

To better understand the mechanisms behind eating disorders, Dr. Attia researched the psychobiology of these conditions. In a highly publicized 2005 study, Dr. Attia and her colleagues revealed that individuals with AN and low body weight have compromised serotonin function.¹ Levels of plasma tryptophan, serotonin's essential precursor, were significantly lower in underweight patients with AN compared with healthy control subjects. Plasma tryptophan levels in patients normalized only with complete refeeding, suggesting that the nutritional



The Outlook waiting room.

deficiencies identified in this clinical population may contribute to the differences in brain chemistry that have been reported. These findings emphasized the importance of nutritional rehabilitation for underweight patients with AN.

Another obstacle in the care of patients with eating disorders is the absence of empirically proven pharmacotherapy options. Currently, Dr. Attia is the principal investigator for a large, multisite, randomized, double-blind, placebo-controlled trial on the use of olanzapine to treat individuals with AN (ClinicalTrials.gov Identifier: NCT01170117). The 5-site study, led by NewYork-Presbyterian/Columbia and NewYork-Presbyterian/Weill Cornell, includes locations at Johns Hopkins University, University of Toronto, and University of Pittsburgh.

"We're interested in olanzapine because of its potential for psychologic improvement and because it is a medication that has been associated with weight increase. Whether the weight improvement is due to psychologic improvements or just a separate side effect from the medication itself, we're wondering if olanzapine could be helpful for individuals who are severely underweight when they present for care," said Dr. Attia.

The primary study aims are comparison of weight gain between those receiving olanzapine and those receiving placebo, as well as an examination of psychologic improvement, as measured by the Yale-Brown Obsessive Compulsive Scale. Study

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*Medicine Today: The State of the Art:***Robotic Applications and Operating Room Technology Are Transforming the Post-Op Surgical Experience**

Building on the concept of minimally invasive procedures, robotic surgical approaches performed at NewYork-Presbyterian Hospital are vastly improving the patient experience. Real-time imaging in the operating suite combined with continually advancing robotic systems offer the potential for greater precision with less trauma, less scarring, less blood loss, and quicker healing. Surgeons are driving the advances, and there are programs at both NewYork-Presbyterian/Columbia University Medical Center and NewYork-Presbyterian/Weill Cornell Medical Center that create an environment that encourages their rapid implementation.

“Our surgeons are the ones driving robotic applications. My goal is simply to ensure we are setting up our operating rooms [ORs] to facilitate these innovations,” said John C. Evanko, MD, MBA, who is Medical Director of Perioperative Services at NewYork-Presbyterian/Columbia and a gynecologic surgeon. Dr. Evanko—whose expertise with the da Vinci Surgical System includes a minimally invasive approach to treat uterine



NewYork-Presbyterian Hospital is improving their patient care by implementing new, advanced robotic systems that help to improve the patient experience.

fibroids, as well as other gynecologic surgeries—reported that real-time imaging has been fundamental to creating the modern OR, which is capable of offering minimally invasive endovascular procedures, as well as radiologic-guided interventional, cardiothoracic hybrid, and robotic procedures.

“ORs for minimally invasive endovascular procedures provided a head start because they were set up for real-time imaging and had the structure and size to accommodate the equipment and connectivity that we need for robotic procedures,” explained Dr. Evanko, who works to assist OR innovation at NewYork-Presbyterian/Columbia. “Minimally invasive surgery overall and robotics in particular are now being used effectively across specialties, including gynecology, urology, otolaryngology, and thoracic and general surgery.”

Oncology

“A major focus for us at Weill Cornell Cancer Center is working to improve the quality of our patients’ lives, leaving them with less morbidity from our treatments so they go on to live fruitful lives without any long-standing detriment. I think in that regard, robotics plays a major role,” said Kevin Holcomb, MD, Director of Minimally Invasive Surgery of the Department of Obstetrics and Gynecology, NewYork-Presbyterian/Weill Cornell. He added that his team is studying robotic-assisted surgery, which involves the use of the da Vinci Surgical System, in gynecologic cancers other than those for which it has already demonstrated benefit, such as in endometrial cancer.

“We’ve been performing many robotic surgeries for recurrent ovarian cancer, and really pioneering this,” said Dr. Holcomb, who instructs other surgeons on the technology. “Recently I was able to debulk a patient’s ovarian cancer robotically. She was rendered in complete

clinical remission with a surgery that lasted about 2 hours and she didn’t have to stay in the hospital overnight. I think that is a huge benefit and it isn’t being offered in many places.”

Additionally, patients contraindicated for a minimally invasive surgical approach, such as the morbidly obese and patients with severe comorbidities, also have shown positive outcomes when robotics were employed for surgery. “We’re routinely approaching these patients and doing complete staging with robotic assistance,” Dr. Holcomb said. “Obviously, performing primary abdominal surgery in the instance of big, bulky abdominal disease is problematic, but we are finding that there is a role for robotic-assisted surgery. There is the patient who has an isolated recurrence after 3 years of being disease-free, for example, or the patient who has undergone chemotherapy and whose tumor shrank appreciably—very often, I elect to go back and handle these types of cases robotically. They’re not necessarily getting a survival benefit from it, but there is a huge benefit for quality of life.”

Orthopedic, Gastrointestinal, Neurologic

At NewYork-Presbyterian/Columbia, robotic-assisted surgery is now being employed for some common orthopedic diseases, for resections of a vast array of malignancies, and for gastrointestinal diseases, including resections of the bowel. The precision of robotic-assisted surgery has long made it attractive for neurologic applications, but the expansion to such a broad array of organ systems is attributed primarily to its role in taking minimally invasive surgery to the next step. Although the laparoscope brought momentum to minimally invasive surgery, modern imaging systems allow visualization without a scope. It is

a new approach that demands ORs with different capabilities.

“Imaging was once a preoperative device to plan surgery,” Dr. Evanko said. “Increasingly, imaging such as CT [computed tomography] scanning is an intraoperative tool to guide the procedure. The modern OR has to be large enough to accommodate the imaging systems, the

displays, the robotic devices, as well as the monitoring equipment that would be found in a conventional OR. This requires planning and the infrastructure that allows the OR to function efficiently.” Simply running the wires to an increasingly complex and sophisticated array of devices limits the degree to which the OR can be retrofitted as needs evolve.

“We have been deeply involved in attempting to anticipate these changes and to approach the development of a modern OR with a prospective approach. This has allowed us to stay at the front of the curve in expanding robotic-assisted surgery where it has advantages for the patient,” Dr. Evanko said. ■

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patients receive weekly medical and psychological assessments during the 16-week treatment period and 2-month follow-up. The study, expected to be completed in June 2015, is the largest medication trial for AN ever funded by the National Institute of Mental Health.

The Center is also conducting an outpatient psychotherapy study for individuals with AN that uses an adaptation of cognitive behavioral therapy (CBT) focused on exercise and physical activity. The research is being conducted in collaboration with colleagues in Australia and the United Kingdom. “Overall, we have a vibrant clinical research operation [at NewYork-Presbyterian Hospital] that is trying to further our understanding and treatment of these challenging disorders,” Dr. Attia said.

A New Outlook

NewYork-Presbyterian Hospital also offers a 17-bed inpatient unit dedicated to the study and treatment of eating disorders for individuals aged 13 years and older, named The Outlook. The unit is located on the bucolic NewYork-Presbyterian/Westchester campus in White Plains. It is the only inpatient unit dedicated to the treatment of eating disorders in New York state.

The Outlook has separate living spaces and treatment programs for its adult and adolescent patients. Multidisciplinary treatment teams include psychiatrists, social workers, nutritionists, and therapeutic activity coordinators for activities such as yoga or art therapy. Family members are included in the treatment alliance to ensure a smooth transition into home life and to nurture lasting results.

The Adolescent Partial Hospitalization Program

For adolescents with acute psychiatric conditions that substantially impair their functioning and require an intensive assessment and treatment experience, the Division of Child and Adolescent Psychiatry at NewYork-Presbyterian/Weill Cornell now offers an Adolescent Partial Hospitalization Program. Launched in August 2012, this program is the first and only one of its kind in Manhattan to offer an intensive level of care for individuals aged 13 to 18 years in need of daily psychiatric monitoring but who are capable of living at home. The program can serve both as a step down from inpatient care as well as a diversion from inpatient care.

“Our strengths are in the evaluation, diagnosis, and treatment of acute psychiatric disorders in teenagers that may impact their functioning on a daily basis,” said Rebecca Rendleman, MD, Director of Clinical Services, Division of Child and Adolescent Psychiatry at NewYork-Presbyterian/Weill Cornell.

The Partial Hospitalization Program offers a structured daily schedule with

4 group-based therapeutic activities and 2 school periods. The New York City Board of Education provides standard curricula to ensure that patients are progressing along with their peers outside the Program. The daily treatment program is tailored to include individual psychotherapy, medication management, and family treatment. Teenagers generally attend from 2 to 4 weeks, with some participating for up to 6 weeks.

A multidisciplinary team of physicians, social workers, nurses, teachers, and occupational and creative arts therapists works to help patients so they can return to school and function positively within their daily lives. Therapeutic programming includes cognitive and dialectical behavioral therapies, stress management and coping skills, healthy living classes ranging from nutrition to substance abuse, and a rich variety of creative arts therapies. “They’re all tailored around giving kids different ways to improve functioning and manage their emotions and behavior,” said Dr. Rendleman.

“Our patients may have eating disorders and co-occurring mental illnesses such as anxiety disorders or psychotic episodes. We’ve really become a specialty unit for these most seriously affected individuals,” said Dr. Attia.

The Outlook provides unique, personalized treatment plans for each patient. For example, caregivers work closely with local school districts to make sure that adolescent patients do not fall behind on schoolwork during their stay. Certified teachers instruct patients every weekday and also assign homework. All patients receive CBT to modify their specific eating habits and to develop healthy, lasting attitudes toward food. Patients participate

in sessions where they prepare meals and receive instruction from therapists and nutritionists.

“Dieting itself does not cause an eating disorder. For a very small subset of individuals it unmasks vulnerability, and eating disorder behaviors wind up taking on a life of their own. Our job as specialists is to help interrupt those cycles and change those behaviors,” said Dr. Attia.

Anxiety Programs: CUCARD and POCAT

The Child and Adolescent Psychiatry Programs at NewYork-Presbyterian Hospital also pride themselves on

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ADVANCES IN PSYCHIATRY

Important news from NewYork-Presbyterian Psychiatry.

Current research projects, clinical trials, and advances in the diagnosis and treatment of patients with psychiatric disorders

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implementing the latest evidence-based approaches for young patients. Two programs in particular are at the forefront of care: the Columbia University Clinic for Anxiety and Related Disorders (CUCARD) and the Weill Cornell Pediatric Obsessive Compulsive Anxiety and TIC Disorders (POCAT) clinic.

“At every moment, we translate scientific findings into current care standards. We’re trying to push the envelope in terms of the kinds of services, the quality of services, and the content of these services,” said John Walkup, MD, Director of the Division of Child and Adolescent Psychiatry, NewYork-Presbyterian/Weill Cornell. Moira Rynn, MD, is Interim Director, Division of Child and Adolescent Psychiatry at NewYork-Presbyterian/Columbia.

Dr. Walkup and colleagues published the largest clinical trial ever conducted for the treatment of anxious children and adolescents in late 2008.² The study investigated the use of CBT either alone or in combination with sertraline for the management of anxiety disorders in 488 children. The results showed that compared with placebo, combination therapy led to an 80.7% improvement on the Clinician Global Impression-Improvement Scale ($P < 0.001$); improvement rates for

monotherapy with CBT or sertraline were 59.7% and 54.9%, respectively ($P < 0.001$). Anne Marie Albano, PhD, Clinic Director of CUCARD, was a co-author of this study.

Dr. Walkup noted that his department emphasizes a family component in all aspects of care. “Anxiety disorders require parents to be fully involved. You can have a substantial change in a youngster by focusing the treatment on the family,” he said. CUCARD also emphasizes the importance of parents in the therapeutic alliance by offering parent-child interaction therapy for anxiety.

POCAT offers a summer program for children who struggle with the basic principles of therapy when they only attend a 1- or 2-hour session each week. The summer program provides a setting for children in need of more frequent care or who may not have mental health resources in their community, and POCAT has worked with children from as far away as Florida. Therapy includes group settings as well as a family component.

Anxiety disorders tend to manifest before puberty with seemingly innocent symptoms, often flying under the radar of parents. Although the symptoms may seem innocuous, dealing with anxiety-provoking situations through avoidance can become quite disabling over time. Teens and young

adults who cope with anxiety by avoidance often have difficulty taking on the necessary challenges of increasing autonomy and independent functioning as they age, and POCAT has been working with a number of teens and young adults with anxiety who are struggling to gain independence as well as transition to college.

“We really want to help these youths before they fall behind in school but, sadly, we sometimes are not involved soon enough and some anxious teens have major academic problems; some actually leave college precipitously,” said Dr. Walkup. “We’re also trying to get colleges to be much more aware of anxious individuals who are struggling academically and to work with them to prevent a student from leaving school.” The good news, he added, is that anxiety disorders in children are relatively straightforward to identify and treat. If they get help early, many of these problems can be prevented.

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