

CE

CONTINUING EDUCATION HOW PSYCHOLOGISTS PREPARE PATIENTS FOR SURGERY

BY REBECCA A. CLAY

A patient at the Medical University of South Carolina (MUSC) needed a liver transplant. Two barriers stood in his way: his alcoholism and other substance use and his undermanaged bipolar disorder. “At his initial behavioral medicine evaluation, he had many psychosocial contraindications for a transplant,” says psychologist Wendy Balliet, PhD, an associate professor of psychiatry and behavioral sciences at MUSC.

Balliet began working with the man to help manage his bipolar disorder, teaching him skills to cope with his depressive symptoms. They also met weekly to focus on relapse prevention. “We did a lot of work on the front end to help him be a better candidate for a transplant from a mental health standpoint,” says Balliet. And because he had already connected with her, the patient was better able to weather some unanticipated

complications that arose post-surgery. Without that relationship, she says, he might have responded by not taking critical medications or by starting to drink and take drugs again. Instead, he’s doing well.

Uncovering and addressing such problems before surgery is the primary reason for presurgical psychological assessment, says Andrew Block, PhD, a clinical health psychologist at the Texas Back Institute in Plano and a pioneer in presurgical assessment.

“The point is to identify both patients’ strengths and vulnerabilities and then let the surgeon take those things into account and make the decision about whether to proceed,” says Block. “With patients with a lot of risk factors, you want to do what you can to mitigate those and build the strength factors.”

Presurgical psychological assessments began in the mid-1980s, when researchers started to analyze the factors that could predict why patients “failed” their surgeries, Block explains. Some patients might continue overeating after gastric bypass or other weight-loss surgeries, for example, or feel too depressed to participate in physical therapy or exercise regimens after spinal surgeries.

While there are still some “traditional physicians and surgeons who think that a surgical indication is all you need,” Block says, presurgical psychological assessment is increasingly common. In fact, insurers now typically require such assessments before

approving spinal cord stimulator implants, other spinal surgeries and bariatric surgeries. And while presurgical assessment has historically focused on those surgeries as well as transplantation—all surgeries where a patient’s own behavior plays a major role in affecting outcomes, for better or worse—it’s now spreading into new areas. Such assessments are now being used in more than a dozen types of surgeries around the country, says Block, including surgeries for carpal tunnel syndrome and temporomandibular disorder, deep brain stimulation for Parkinson’s disease and cosmetic surgery.

IMPROVING OUTCOMES

While presurgical psychological assessments will vary depending on the type of surgery, the patient’s characteristics and the psychologist’s own preferences, the assessments typically share some common elements.

The process begins with a clinical interview to start uncovering both risk factors and areas of resilience that may affect how well the patient will do after surgery. A battery of tests can provide additional information about such areas as mood, pain, cognitive capacity, personality traits, substance use and other psychosocial factors that can affect both medical treatment and recovery. For example, psychologists might use the Millon Behavioral Medicine Diagnostic to assess coping

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Learning objectives: After reading this article, CE candidates will be able to:

1. Describe how presurgical evaluations work.
2. Discuss the research on ways presurgical evaluations improve outcomes for patients undergoing surgery.
3. Describe efforts to improve the accuracy of surgical assessments.

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strategies and other factors that might predict how well patients will do afterward. They might use the Beck Depression Inventory to check patients' mood and the Quality of Life Inventory to look at how satisfied patients are with their health and other areas.

No matter what assessment instruments are used, the goal is the same: to improve surgical outcomes. It's not to find reasons to deny surgery, as some patients mistakenly believe.

"Unfortunately, patients and sometimes practitioners, too, think that our role is a gate-keeping one—saying thumbs-up or thumbs-down," says Leslie Heinberg, PhD, vice chair for psychology in the Cleveland Clinic's department of psychiatry and psychology, who provides presurgical assessments for patients planning bariatric surgery. "At least in our field, it's exceedingly rare that someone is not deemed to be a good surgical candidate because of psychological reasons."

Instead, Heinberg explains, the goal of assessment is to gather information to help patients prepare for surgery, make it through their hospitalization without problems and optimize their long-term outcomes. The assessment findings help Heinberg identify the factors that led to weight gain in the first place and help patients plan ways to overcome those challenges, for example. "Oftentimes, people will say they did really well with weight loss until they went through a stressful period at work or lost someone close to them or got sick and went on medication," she explains. "I help patients understand that those risk factors will still be there

after surgery and find ways to work through those challenges."

Identifying and treating any mental illness is also key, says Heinberg, noting that bariatric surgery patients have a higher prevalence of psychiatric diagnoses than the general public (Sarwer, D.B., & Heinberg, L.J., *American Psychologist*, Vol. 75, No. 2, 2020). Treating psychiatric illnesses is important for any patient about to undergo the rigors of surgery, but it is even more critical for bariatric patients, says Heinberg. Some studies suggest that patients who undergo bariatric surgery are at greater risk of self-harm and suicidality post-surgery (Castaneda, D., et al., *Obesity Surgery*, Vol. 29, 2019). An assessment may also uncover other conditions that require treatment prior to surgery, such as disordered eating and alcohol and other substance use disorders.

For spinal surgery patients, mental health issues such as depression, anxiety and malaise can keep patients from recognizing reductions in pain and improvements in functioning post-surgery, even when their surgeries are medically successful, adds Block. "Patients with malaise, for example, tend to focus more on the physical symptoms that remain rather than the reduction in symptoms," he says. Patients with mental health issues may also lack the energy they need to start exercising or participate in rehabilitation. Armed with that information, psychologists can begin treating the mental health conditions that may affect outcomes.

The information uncovered by assessments can also help

psychologists assist patients in preparing for the long list of behavioral changes needed to optimize outcomes post-surgery. For bariatric surgery patients, that includes exercising, avoiding carbonated beverages, reducing caffeine intake and taking vitamin supplements for the rest of their lives. Heinberg and colleagues have found, for example, that high scores on the behavioral/externalizing dysfunction scale of the Minnesota Multiphasic Personality Inventory-2-Restructured (MMPI-2-RF) are associated with increased risk of bariatric surgery candidates failing to use a continuous positive airway pressure (CPAP) machine to treat sleep apnea (Martin-Fernandez, K.W., et al., *Surgery for Obesity and Related Diseases*, in press). Given that information, psychologists can help patients identify psychosocial obstacles to using the machine and come up with ways to ensure their adherence even before they have surgery.

IMPROVING ASSESSMENTS

As presurgical psychological assessment is becoming more common, psychologists are looking for ways to make these assessments more accurate and less taxing for both psychologists and patients. Heinberg and colleagues, for example, are researching ways to make the assessment process less burdensome. They have found that a more streamlined approach to administering the MMPI-2-RF worked as well as full administration for bariatric patients, making assessment easier for both clinicians and patients (Tarescavage, A.M., et al., *Surgery for Obesity and Related*

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Depression and anxiety can keep spinal surgery patients from seeing improvements in functioning or pain after surgery.

Diseases, Vol. 15, No. 5, 2019).

Block is hoping to make assessments more accurate by measuring patients' protective factors as well as risk factors. He has found, for example, that patients who are actively involved in seeking information and making decisions about their own health care—a trait called “patient activation”—do better after surgery. The trait, Block and his colleagues found, helped explain why some patients don't experience poor outcomes despite having psychosocial risk factors (*Journal of Clinical Psychology in Medical Settings*, Vol. 26, 2019).

Block and co-author Ryan J. Marek, PhD, an assistant professor of health service psychology at the University of Houston—Clear Lake, used such findings to develop a five-step model of assessment that can be used before any type of surgery.

The first step of the model calls on psychologists to use a validated and standardized

instrument like the MMPI-2-RF to identify psychological risk factors. In the second step, the psychologist corroborates those findings via a chart review, clinical interview and/or other psychometric tests. For example, if the initial screening suggests the patient is demoralized, the psychologist can confirm that finding with a more specialized tool, such as the Demoralization Scale. Or if the patient seems depressed or anxious, the psychologist can turn to the Beck Depression Inventory or the Beck Anxiety Inventory for confirmation. In step three, the psychologist identifies protective factors, such as patient activation, that could help reduce the patient's risk of a bad surgical outcome. In step four, the psychologist integrates all that information and identifies the patient's overall level of risk. The final step is to develop a treatment plan that takes into account all of these factors (*Journal of Clinical Psychology in Medical*

KEY POINTS

1

Presurgical assessments seek to uncover both risk factors and areas of resilience that may affect how well a patient will do after surgery.

2

Psychologists are exploring ways to make presurgical assessments more accurate and less taxing for patients.

3

Now, presurgical assessments are being used in new areas, such as prophylactic mastectomies and pelvic exenteration for treatment of certain cancers.

Settings, Vol. 27, 2020).

“We developed this model to be generic, to be used with any medical condition where presurgical screening is being utilized,” says Block. “It isn't about specific tests that should be used or specific things to look at; it's more about the approach we need to take.”

Validating the instruments used in presurgical evaluation is another priority. “We really need to have research that demonstrates the relationship of psychological measures to the outcomes of surgery,” says Block. “In most cases, the research is not very well developed.” Instead, he says, psychologists mostly rely on existing tests that measure traits or capacities that are presumed to be related to surgical outcomes but lack research to show that the results really do predict surgical outcomes.

There are some exceptions, he says. When the MMPI-2-RF was released, for example, Block and colleagues determined that it was a reliable and valid instrument to assess patients before spinal surgery and spinal cord stimulator implantation and identify those who may be at greater risk of poor outcomes (*Journal of Personality Assessment*, Vol. 102, No. 1, 2020). “Every time a new test or instrument comes out, we have to go through a validation process to make sure it's appropriate in that setting,” says Marek, a co-author of the study.

Such validation studies are especially needed for certain types of patients. Take transplant candidates, says Balliet, noting that there is a dearth of standardized measures normed on

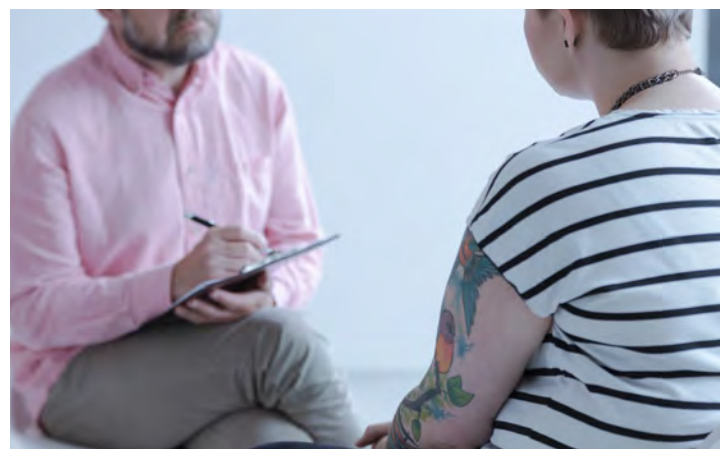
transplant populations. Given the high stakes—patients’ lives—and issues of supply and demand in organ transplantation, transplant candidates will often minimize or deny emotional distress or a history of addiction on measures because they believe that the psychological evaluation serves a gatekeeping function.

“Most transplant centers, however, use all members of a transplant team to make a decision that is in the best interest of the candidate, including planning for pre- or postoperative psychological interventions that will optimize the success of the transplanted graft and ultimately the quality of life of the transplant recipient,” says Balliet. “Like bariatric surgery, very few patients—if any—are denied solely as a result of psychological variables.”

Transplant patients have other issues, too, such as guilt. “People who have lung disease from smoking or liver disease from alcohol use often feel they’re unworthy of this gift,” Balliet says, explaining that therapy can help patients believe that change is

possible and give them the tools to follow through with cognitive and behavioral changes that will help them be well positioned for transplant surgery. “And one of the most common things I hear is, ‘Someone had to die for me to live.’” Ironically, she adds, guilt can be a protective factor because patients want to do right by their new organs. “They internalize the importance of lifelong positive health changes,” she says.

Gender transition surgery is another area where more research is needed, says psychologist lore m. dickey, PhD, a behavioral health consultant at North Country HealthCare in Bullhead City, Arizona. Although the World Professional Association for Transgender Health’s standards of care call for one letter of approval from a mental health or medical provider for chest surgery and two for genital surgery, and most surgeons and insurers require them, there are no empirically based guidelines for assessment, says dickey (Budge, S.L., & dickey, l.m., *Psychiatric Clinics*, Vol. 40,



Assessments also help psychologists prepare patients for the behavioral changes they need to make to optimize outcomes post-surgery.

FURTHER READING

A Review of the Psychosocial Aspects of Clinically Severe Obesity and Bariatric Surgery
Sarwer, D.B., & Heinberg, L.J.
American Psychologist, 2020

A Ventricular Assist Device Recipient and Suicidality: Multidisciplinary Collaboration With a Psychiatrically Distressed Patient
Balliet, W.E., et al.
Journal of Cardiovascular Nursing, 2017

Validation of a Psychological Screening Algorithm for Predicting Spine Surgery Outcomes
Marek, R.J., et al.
Assessment, 2019

No. 1, 2017).

“There’s no assessment I can give someone that says, ‘Yep, they’re trans and need surgery,’” says dickey, explaining that surgeons often worry patients will regret their surgeries. Historically, dickey says, psychologists have used the MMPI’s masculine/feminine scales to determine whether someone is transgender. “But that’s not what the MMPI was designed for,” he says. And interpreting scores can be challenging. A trans person who scores high on violent behavior, for example, may have been defending themselves against attack. And while the standards call for mental health concerns to be “reasonably well controlled” before surgery, what that means isn’t clarified, says dickey, who believes “well controlled” should be defined as the absence of clinically significant symptoms, adherence to a medication treatment regimen, ability to manage activities of daily living and ability to self-regulate emotional changes.

NEW DIRECTIONS

Now, presurgical assessments are being used in new areas. In some cases, those assessments don’t focus on whether patients need treatment for psychiatric disorders or other interventions to become good candidates for surgery because the surgery is a matter of life or death and patients don’t have time to make behavioral changes that might optimize their outcomes. In these cases, the focus of presurgical assessment is to ensure that patients understand what to expect and how to prepare.

One example is a radical surgery called pelvic exenteration. Typically used to treat more aggressive or high-grade cervical, uterine or ovarian cancers, this operation removes the reproductive organs and other organs in the pelvic cavity, such as the bladder, colon and rectum. “The purpose of the assessment is not in any way to affect the surgeon’s decision-making about whether to proceed,” explains psychologist Andrea Bradford, PhD, an assistant professor of medicine at Baylor College of Medicine in Houston.

Instead, says Bradford, the assessment focuses on ensuring that patients understand what the surgery will entail and how their lifestyle may change. “If someone has an overly ambitious plan to return to employment a month after surgery, that’s pretty unrealistic,” says Bradford. A psychologist can help a patient identify postsurgical social support and ways to manage their work and family responsibilities, for example.

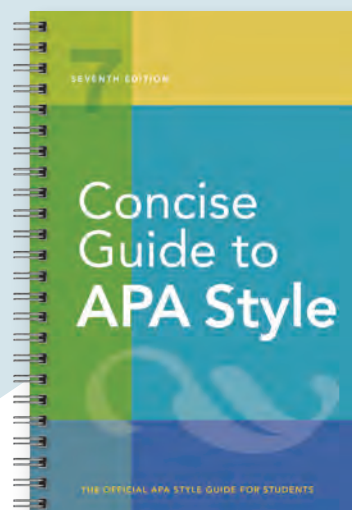
Another new area for presurgical psychological assessments is prophylactic mastectomies, an elective surgery in which healthy breasts are removed. While this surgery reduces the risk of breast cancer, it can also result in medical complications and psychological distress related to body image and sexual functioning.

Together with psychologists, surgeons and other specialists in Australia, a

research team from the University of Sydney has developed an assessment template psychologists can use before these surgeries (Braude, L., et al., *Psycho-Oncology*, Vol. 27, No. 10, 2018). The evidence-based template includes items assessing patients’ understanding of their cancer risk and the surgery, and the surgery’s potential impact on their physical and emotional well-being, informed decision-making and any previous or current psychological issues, especially those related to anxiety and body image.

Women who are considering contralateral prophylactic mastectomy—removal of a healthy breast in a patient who has or has had breast cancer in the other breast—have a lot of information to process at a time when they may already feel tremendous stress, says study lead Ilona Juraskova, PhD, an associate professor of health psychology at the University of Sydney. “Sometimes women are having surgery after their chemotherapy, and they’re tired, overwhelmed, insecure and uncertain about what to do,” she says. For women who don’t have cancer but do have a family history of disease, the decision can be even more difficult. “Open discussion with women about the extent to which breasts form a part of their femininity and sexual relationships are key to managing postsurgical expectations and reality,” says Juraskova. ■

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