

Preoperative Evaluation for Bariatric Surgery: Practice Patterns of U.S. Army Surgeons and Psychologists

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Providing psychological evaluations to patients interested in bariatric surgery is a common practice—but one for which clear guidelines are unavailable. These investigators surveyed a group of U.S. Army surgeons and psychologists about what they want from such evaluations and how they use them.

Obesity is an epidemic problem in the United States. Results from the 2003–2004 National Health and Nutrition Examination Survey (NHANES), conducted by the CDC, showed that 66.3% of U.S. adults (aged 20 or older) had a body mass index (BMI) of 25 or higher, making them overweight or obese.¹ Furthermore, 32.2% met the criteria for obesity (BMI of 30 or higher), and 4.8% met the criteria for extreme obesity (BMI of 40 or higher).¹

Increased BMI brings a greater risk of medical problems, including type 2 diabetes mellitus, cardiovascular disease, certain forms of cancer, sleep apnea, gallbladder disease, and the exacerbation of osteoarthritis.² Largely due to the associations with diabetes, cardiovascular disease, and cancer, 2000 mortality data showed

that poor diet and physical inactivity—the chief contributors to overweight and obesity—had become the second leading preventable cause of death in the United States, following tobacco use.³ One recent estimate projected the direct and indirect costs of overweight and obesity to be as high as \$79 billion.⁴ Aside from the societal costs, overweight and obesity have very personal costs for individuals. In addition to health problems, overweight and obese people face such social challenges as discrimination and prejudice, and they are at increased risk for depression and other emotional disorders.⁵ These issues are particularly severe for extremely obese individuals—who not only are at greatest risk for obesity-related medical problems⁶ but also experience the most difficulty achieving sustained weight loss through noninvasive strategies.⁷

For almost 50 years, bariatric surgery has been an important treatment option for extreme obesity. Although the safety, efficacy, and durability of these procedures has improved tremendously over the years,^{6,7} the in-

vasive nature of the surgery carries inherent risks. Furthermore, both the effectiveness and safety of bariatric surgery depend upon the patient's ability to make and sustain lifestyle changes, including dietary restrictions. Because of these demanding postoperative requirements, as well as the potential for psychological complications (such as depression), it has become a common practice to incorporate some type of psychological assessment into the preoperative evaluation process.

Nevertheless, there remains, to date, a lack of data regarding the use of such assessments. The recently issued VA/DoD clinical practice guidelines on managing overweight and obesity state that, while facilities often require preoperative assessment by a mental health provider prior to bariatric surgery, there is no evidence supporting routine use of this type of assessment.⁸ Similarly, the 1991 National Institutes of Health Consensus Development Conference Statement on Gastrointestinal Surgery for Severe Obesity recommended that candidates for bariatric surgery should

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be well informed, motivated people who can participate in extended treatment and follow-up and who have access to “psychiatric expertise,” but the statement provided no specific psychosocial criteria or contraindications nor did it recommend any particular psychological assessments.⁹

Despite conducting several literature reviews, we have been unable to find empirically derived guidelines for preoperative psychological testing. Some studies have detailed specific screening tools used for a population of surgical patients, but they typically have been limited to a single site. In one of the earliest studies on psychological risk factors in bariatric surgery patients, Valley and colleagues reported that prior inpatient psychiatric treatment and low social support predicted psychological complications postoperatively. They found no psychological factor, however, to be predictive of weight loss.¹⁰

To help fill in this knowledge gap, we surveyed a sample of U.S. Army surgeons and psychologists about their involvement in preoperative psychological screenings for patients interested in bariatric surgery. We asked participants what assessment tools they used and what factors they viewed as most important during such screenings. In addition, we asked about the role that psychologists play in the evaluation process and how psychologists communicate their findings to surgeons.

STUDY DESIGN

Our study was approved by the Human Use Committee at Dwight D. Eisenhower Army Medical Center in Augusta, GA. The investigators adhered to policies for protection of human subjects as prescribed in Title 45 of the Code of Federal Regulations (CFR), part 46.

For the study, we developed two surveys for health care professionals practicing bariatrics in U.S. Army medical facilities: one for surgeons and one for psychologists. Each survey had questions about presurgical evaluation techniques that were individualized for the specialty. In addition, there were several overlapping questions related to the amount of experience in presurgical evaluations and interdisciplinary interaction with the other specialty. Both specialties also were asked about patient characteristics and symptoms that relay important information in the presurgical evaluation and about contraindications for surgery.

At the time of the survey, there were nine U.S. Army medical facilities conducting bariatric surgery. At these nine facilities, we identified a sample of 21 surgeons and eight psychologists involved in bariatric surgery. The surveys were sent to these 29 providers by e-mail, initially, followed by a mailed printed survey if there was no response to the e-mail.

We compiled the results of the survey and compared the surgeons' responses with those of the psychologists through paired *t*-testing. A *P* value of less than .05 was considered statistically significant.

PRACTICE PATTERNS AMONG RESPONDENTS

Surgeons

Of the 21 surgeons who received the survey, 13 (62%) returned responses. These 13 respondents represented each of the nine facilities conducting bariatric surgery, and four of the respondents identified themselves as a facility's primary bariatric surgeon. Years of experience with bariatric surgery ranged from one to 12 years.

Of the responding surgeons, 11 (85%) said they use preoperative psy-

chological evaluations. Both of the surgeons who reported that they do not use such evaluations, along with one surgeon who does use them, said that the evaluations provide no useful information for the patient selection process. The remaining 10 surgeons (77%) said that they receive useful information from the evaluations.

Three (27%) of the surgeons who use psychological evaluations indicated that they allow the evaluating psychologist to ultimately determine whether or not a patient can undergo bariatric surgery. The surgeons estimated that they deny bariatric surgery to an average of 4.5% of patients (range, 1% to 20%) based on the psychological evaluations.

Psychologists

All eight psychologists (100%) responded to the survey. Six (75%) said they are integrated members of their institution's bariatric surgery team. When asked how they communicate the results of their evaluations to bariatric surgeons, six of the psychologists said they use a written consult reply, and the other two said they discuss the results in person as part of a team meeting.

Psychologists estimated that they recommend against bariatric surgery for an average of 3.7% of the patients they evaluate—a denial rate that is generally consistent with that reported by the surgeons (4.5%). They further indicated that, on average, 8.7% of the patients they evaluate are subsequently referred for psychological treatment. Notably, they estimated that an average of 20.4% of patients who receive bariatric surgery are referred postoperatively for psychological treatment.

All of the psychologists use an individual patient interview as part of their evaluations, and none require the presence of a family member.

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Table 1. Top three contraindications for bariatric surgery as ranked by surgeons and psychologists responding to the survey

Rank	Contraindication	
	Surgeons (n = 13)	Psychologists (n = 8)
1	Unrealistic expectations after surgery	Uncontrolled psychopathology
2	Lack of informed consent	Substance abuse
3	Inappropriate motivation for surgery	Lack of informed consent

Table 2. Top four most important patient characteristics or symptoms in the preoperative evaluation as ranked by surgeons and psychologists responding to the survey

Rank	Patient characteristic/symptom	
	Surgeons (n = 13)	Psychologists (n = 8)
1	Psychopathology	Current physical health
2	Motivation for surgery	Adherence to medical regimens
3	Adherence to medical regimens	Informed consent
4	Goals after surgery	Motivation for surgery

Only one site reported using no standardized instrument for psychological assessment. Among those that reported employing standardized instruments, there was little consensus on which should be used. In total, 11 different instruments were listed as part of usual practice—the most popular of which were the Minnesota Multi-phasic Personality Inventory-2 (MMPI-2), which is used at four sites, and the Millon Behavioral Medicine Diagnostic, which is used at three sites. (The Millon Behavioral Medicine Diagnostic is a measure for which normal values were established using populations of medical patients rather than behavioral health patients.) The average number of tests used per patient was 2.6, with two

sites using four or more and the rest using two or less.

VIEWS ON PATIENT SELECTION: SURGEONS VS. PSYCHOLOGISTS

The surgeons and psychologists both were asked to rank 16 contraindications for surgery. One contraindication appeared among the top three identified by both surgeons and psychologists: lack of informed consent, which was number two for surgeons and number three for psychologists (Table 1).

Respondents also were asked to rank 16 patient characteristics or symptoms from most important to least important in providing useful information in the preoperative evaluation. There was agreement between

surgeons and psychologists on two of the top four most important aspects of the preoperative assessment: motivation for surgery (which was number two for surgeons and number four for psychologists) and adherence to medical regimens (which was number three for surgeons and number two for psychologists) (Table 2).

Statistical analysis showed significant differences between surgeons' and psychologists' ranking of adherence to medical regimens, current physical health, and informed consent (Table 3). The difference between rankings for marital discord trended toward but did not reach statistical significance ($P = .051$).

THE IMPORTANCE OF DIALOGUE

Our results suggest that, in U.S. Army facilities that offer bariatric surgery, preoperative psychological assessment of candidates for bariatric surgery is a common practice and one that most surgeons find useful. They also demonstrate, however, the current lack of standardized methods for such assessments among U.S. Army providers. While surgeons and psychologists who responded to our survey showed some agreement regarding the importance of patients' prior adherence to medical regimens and their motivation for surgery, their opinions differed substantially with regard to other types of information in the preoperative evaluation. Interestingly, each group included the other's area of specialty as one of the most important factors to consider: Psychologists cited physical health as the top factor, while the surgeons identified psychopathology as most important.

One positive interpretation of the variation between surgeons and psychologists in this regard is that, between the two groups, a broad range of factors are being assessed carefully.

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Table 3. Patient characteristics or symptoms for which difference between surgeons' and psychologists' mean rankings were most different

Characteristic/symptom	Surgeons' mean ranking (n = 13)	Psychologists' mean ranking (n = 8)	P value ^a
Adherence to medical regimens	6.66	2.66	.008
Current physical health	6.91	2.60	.026
Informed consent	8.92	3.60	.037
Marital discord	8.27	10.75	.051

^aP < .05 was considered statistically significant.

On the other hand, it seems to indicate a need for increased dialogue between bariatric surgeons and psychologists. Some differences between the two types of providers are bound to exist, given their disparate bodies of knowledge. Outside the setting of bariatric surgery, there are very few circumstances in which the surgeons and psychiatrists would likely interact in an ongoing, coordinated manner. By asking more questions about what the other specialty expects in the preoperative process, members of each group may be able to enhance the consistency and effectiveness of the preoperative evaluation and, in so doing, improve patient outcomes.

MORE INVESTIGATION NEEDED

The benefits of bariatric surgery for extremely obese patients have been well established. Due to the risks and potential complications of these procedures, however, the American Society of Bariatric Surgery has identified as one of its goals the ethical selection of appropriate surgical candidates. In order to achieve this goal, providers need as much information about factors that could influence or predict a patient's outcome as possible. Thus, it would seem logical that preoperative psychological assessments might play an important role in this process.

Our study provides some insight into the current practice patterns of

U.S. Army surgeons and psychologists involved in assessing candidates for bariatric surgery. Its findings are limited, however, by several important factors, such as the small sample surveyed and the specific population surveyed. It's possible that civilian bariatric surgery providers and those in other military branches may have more uniform practice patterns.

Clearly, more research is needed to enhance our understanding of psychological assessment in the setting of preoperative evaluations for bariatric surgery. Larger studies investigating the types of information surgeons value most in screening patients would be helpful. In addition, it will be important to examine which psychological characteristics or variables are correlated with positive, long-term outcomes following bariatric surgery. ●

Author disclosures

The authors report no actual or potential conflicts of interest with regard to this article.

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