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# Ethical issues in the psychosocial assessment of bariatric surgery candidates

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## Abstract

Psychosocial evaluation is recommended prior to bariatric surgery. Practice guidelines have been published on assessment methods for bariatric surgery candidates, but they have not emphasized ethical issues with this population. This review outlines ethical and professional considerations for behavioral healthcare providers who conduct pre-surgical assessments of bariatric surgery candidates by merging ethical principles for mental health professionals with current practices in pre-surgical assessments. Issues discussed include the following: (a) establishing and maintaining competence, (b) obtaining informed consent, (c) respecting confidentiality, (d) avoiding bias and discrimination, (e) avoiding and addressing dual roles, (f) selecting and using psychological tests, and (g) acknowledging limitations of psychosocial assessments.

## Keywords

bariatric surgery, behavioral healthcare provider, ethics, ethical issues, psychosocial assessment, weight loss surgery

## Introduction

Bariatric surgery (BS) includes an array of procedures that reduce or bypass the stomach or intestine in order to treat patients with severe obesity (Buchwald et al., 2004). With nearly 350,000 procedures performed globally in 2011 (Buchwald and Oien, 2013), BS represents a common weight loss treatment that can produce dramatic, lasting results (Buchwald et al., 2004; Chang et al., 2013; Pontiroli and Morabito, 2011; Sjöström et al., 2014). Preparing for, undergoing, and recovering from BS can be a stressful experience. BS patients are more likely to present with psychological distress and/or mental illness than are normal weight controls (Mauri et al., 2008; Pull, 2010) and are required to make substantial behavioral changes to prevent complications and maintain weight loss (LeMont et al., 2004). Given the appreciable psycho-behavioral component of BS, psychosocial evaluation prior to surgery is recommended in practice guidelines (e.g. Fried et al.,

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2014; Lau, 2007; LeMont et al., 2004) and is required by 86 percent of BS programs in the United States and by many health insurance providers (Bauchowitz et al., 2005).

Psychosocial assessments of BS candidates are typically performed to identify psychosocial and behavioral risk factors that inform recommendations about patients' suitability to handle the surgery and recovery process (Bauchowitz et al., 2005). The specific testing methods, contraindications for surgery, evaluator credentials, and the degree to which assessment results influence surgical decision-making vary among adult bariatric specialty clinics (Bauchowitz et al., 2005; Walfish et al., 2007; West-Smith and Sogg, 2010) and might be influenced by the local or national quality criteria to which a particular BS center adheres (e.g. British Obesity & Metabolic Surgery Society, 2014; LeMont et al., 2004; Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program, 2014). Of health professionals who conduct pre-BS assessments, 86 percent make explicit recommendations to the referral source about the patient's suitability for surgery which may include an unconditional recommendation, a recommendation that surgery be postponed until specific issues are resolved (e.g. through psychosocial and/or dietary interventions), or a recommendation against surgery (Fabricatore et al., 2006; Walfish et al., 2007).

Despite variability in the use of assessment findings in BS settings, there is general consensus about the functional domains that should be assessed using clinical interviews and psychological testing: weight history, diet behavior, current and past weight loss attempts, current and past psychiatric functioning, eating pathology, substance use, medical and social history, expectations about surgery, knowledge and understanding about the surgery and pre- and post-surgical behavior change requirements, physical activity, and social support (Greenberg et al., 2009; Grothe et al., 2006; LeMont et al., 2004; Mitchell and De Zwaan, 2012; Neff et al., 2013; Neff and Le Roux, 2013; Pull, 2010; Snyder, 2009; Wadden and Sarwer, 2006). The methods and rationale for assessing these domains have been discussed elsewhere (Snyder, 2009; Sogg and Mori, 2008). Although practice guidelines (e.g. LeMont et al., 2004) and review articles (Greenberg et al., 2009; Grothe et al., 2006; Pull, 2010; Wadden and Sarwer, 2006) have been published on assessment domains and methods, they have not emphasized ethical issues that can arise when providing psychosocial services to BS candidates.

The aims of this article were to outline ethical considerations for bariatric behavioral healthcare (BHC) providers (i.e. health professionals who conduct psychosocial assessments of prospective BS patients; West-Smith and Sogg, 2010) and explore future research directions. To facilitate these aims, we completed a literature review using a three-stage process. First, we reviewed professional codes of ethics and standards of practice for BHC providers who most commonly administer pre-BS psychosocial assessments—namely, psychologists, psychiatrists, social workers, and psychiatric nurses (Bauchowitz et al., 2005; West-Smith and Sogg, 2010)—in Canada, Australia, the United States, and the United Kingdom (e.g. American Psychological Association, 2010; Australian Association of Social Workers, 2010; Canadian Psychological Association, 2005; Ethics Committee of the British Psychological Society, 2009; Registered Psychiatric Nurses of Canada, 2010). Second, we performed a search of published materials (i.e. peer-reviewed journal articles, book chapters, practice guidelines) related to the pre-surgical assessment of adult BS candidates using the following databases: PsycINFO, Medline, Google Scholar, and PubMed. A search of keywords "bariatric surgery," "weight loss surgery," "surgery," "ethics," "psychological," "psychosocial," "evaluation," "assessment" was conducted, followed by review of reference lists within topical papers. Papers were examined for findings and/or commentary on ethical issues in the pre-surgical assessment of BS candidates that related to specific ethical guidelines or standards of practice. Third, we consulted two additional experts who specialize in pre-surgical assessment of BS candidates to ensure no major ethical or professional issues had been overlooked.

This three-stage process yielded the following ethical issues that presented as common

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themes: (a) establishing and maintaining competence, (b) obtaining informed consent, (c) respecting privacy and confidentiality, (d) avoiding bias and discrimination, (e) avoiding and addressing dual roles, (f) selecting and using psychological tests, and (g) acknowledging the limitations of psychosocial assessments. Many of the ethical issues discussed may not be specific to the BS psychosocial assessments, but were deemed likely to arise in the day-to-day practice of BHC providers. Furthermore, this discussion does not provide a comprehensive review of BHC providers' codes of ethics, but rather is designed to highlight and promote discourse about unique professional issues common in adult BS settings. Readers are encouraged to consult standards of practice available in their local jurisdiction.

It is noteworthy that a broad literature exists on ethical challenges related to BS; however, papers were excluded from this article if their content was not related to the pre-surgical psychosocial assessment per se. Topics within this broader literature include the following: the medicalization of appearance and obesity, the provision of BS to obese pediatric patients, the need for efficacy research to "keep up with" the rapid proliferation of BS demand, potential conflicts of interest among bariatric surgeons, access issues such as long wait times, and informed consent for surgery (Brandon et al., 2010; De Ville, 2010; Dixon et al., 2013; Golomb and Koperski, 2010; Hofmann, 2010; Mitka, 2003; Padwal and Sharma, 2009; Reynolds and Rosenthal, 2010; Saarni et al., 2011; Sabin et al., 2005). Therefore, ethics in this article were defined as aspirational goals to guide BHC providers toward the highest ideals of performing pre-BS psychosocial assessments (Canadian Psychological Association, 2005).

## Establishing and maintaining professional competence

Given the complex patient populations who present to BS clinics, BHC providers who expand their practice into these settings may feel the desire, need, or pressure to provide services that are outside of their areas of established competence. To render competent services in BS settings, BHC providers need to be adequately trained, collaborate with other professionals, and engage in self-care.

### *Training considerations*

There are no universal training requirements for health professionals who conduct pre-BS evaluations, a limitation that has recently prompted consideration of a credentialing system for bariatric BHC providers (LeMont et al., 2004; West-Smith and Sogg, 2010). The American Society for Metabolic and Bariatric Surgery (ASMBS) recommends that a multi-disciplinary team include a mental health specialist (psychiatrist, psychologist, or other licensed mental health professional) with experience evaluating patients and families for BS (Michalsky et al., 2012). This presumes an apprenticeship model where a licensed mental health professional obtains competence through reading BS-specific content and training under a more experienced mental health specialist.

The nature of training in psychosocial assessment varies among BHC providers from different disciplines, such that members of the BHC team will each bring their own unique and profession-specific perspectives to the BS assessment. For example, given that 82.7 percent of bariatric BHC providers are psychologists (Bauchowitz et al., 2005), recommendations for health psychologists might serve as a foundational training requirement. It has been recommended that clinical health psychologists be familiar with biopsychosocial bases of health, health policy, health assessment, consultation, intervention, health research methods, ethical and legal issues, and interdisciplinary collaboration (McDaniel et al., 2002; Papas et al., 2004). Competence for psychologists should also include specialized training in selecting, administering, and interpreting psychological tests; understanding and evaluating psychometric properties of test instruments; and incorporating test findings with broader assessment

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findings from the bariatric BHC team (Groth-Marnat, 2009).

For BHC providers more broadly, a recent survey of healthcare professionals working in BS settings recommended that specialized areas of knowledge should include background knowledge of BS, obesity, obesity treatment, psychopathology, and psychosocial assessment and treatment (West-Smith and Sogg, 2010). Regardless of their specific profession, it is also incumbent for bariatric BHC providers to keep up-to-date on the evolving literature about the psychosocial factors that predict surgical outcome (Ashton et al., 2008; Livhits et al., 2012; Sockalingam et al., 2011). Knowledge in these areas will facilitate the BHC provider's ability to understand medical information in patient charts, communicate effectively with patients and the surgical team, operate efficiently in the hospital environment, and be able to meaningfully synthesize the information gathered during the assessment process (Sogg, 2012).

Competence can be attained by reading relevant research literature, seeking peer consultation, accessing continuing education, and adhering to relevant standards if and when a credentialing system is implemented for bariatric BHC providers. For example, there are a variety of ways BHC providers might obtain obesity-related knowledge. The International Association for the Study of Obesity offers an internationally recognized certification in obesity management called the Specialist Certification of Obesity Professional Education (SCOPE; http://www.worldobesity.org/scope/). Furthermore, many hospitals and academic medical centers have developed internal criteria for privileging health professionals to administer pre-BS psycho-social assessments. For example, one local program within Alberta Health Services (AHS) has developed an interdisciplinary 40-hour training module for bariatric BHC providers; competency following completion of this module is operationalized as a score of ≥80 percent on a knowledge-based test. Given the rate at which knowledge in BS progresses, it is also important for BHC providers to maintain competence through continued education which is often achieved through consultation or participation in professional networks of bariatric BHC providers. In one such example, the Alberta provincial team has developed a community of practice for mental health professionals who meet regularly to present and review cases and literature that may inform practice.

## *Multi-disciplinary collaboration and consultation*

When providing services to BS patients, BHC providers do well when capitalizing on their expertise in human behavior while collaborating with the surgical team (Papas et al., 2004). Multi-disciplinary collaboration and consultation can be particularly helpful when a BHC provider questions his/her scope of practice. For example, patient education about technical details of the BS procedure might be best delivered by the surgical team.

Despite a BHC provider's best intentions to collaborate with the surgical team, interpersonal conflicts may arise, relating to power differentials, uncoordinated communication about patient care, overlapping professional roles, managed care and reimbursement, and differences in professional values (Papas et al., 2004). In BS clinics, there may be disagreement among healthcare professionals about whether a patient is sufficiently motivated to adhere to pre- and post-surgical behavioral regimens, whether a patient's mental health issues are severe enough to interfere with his or her ability to handle surgery, or whether a patient should be approved for surgery. BHC providers are in a unique position to overcome interpersonal conflicts by capitalizing on their skills in communication and conflict resolution and are encouraged to improve their competence in interpersonal communication through involvement in research and education in this area. Failure to resolve professional conflicts in BS settings could lead to faulty or inefficient decision-making and unnecessary delays in granting surgery access, therefore violating ethical principles of minimizing harm and maximizing benefit.

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### *Self-care*

Bariatric BHC providers may be prone to unique workplace stressors such as observing patients' debilitating physical and emotional health conditions, managing patients' disappointment about surgical decisions or outcomes, managing their own ambivalent emotions and reactions about the advisability of surgery, and occasionally dealing with patient mortality. The work can also be isolating because of limited contact with colleagues and an inability to communicate about stressors due to limits of confidentiality (Barnett and Cooper, 2009). Although BHC providers may be hesitant to acknowledge their distress due to feelings of invulnerability to mental health problems or concerns about their professional reputation (Barnett and Cooper, 2009), failure to cope with these stressors may harm the provider (e.g. by giving rise to burnout) and compromise his or her professional competence.

Consequently, ethical guidelines for the majority of bariatric BHC professionals contain standards related to the maintenance of self-care in order to ensure that the provider has the mental and physical resources to provide sound care without inadvertently harming patients. BHC providers who fail to attend to their self-care may be more likely to violate other ethical standards due to burnout, irritation with patients, and difficulties being objective (Barnett and Cooper, 2009). A consideration that is particularly relevant to BHC providers in BS settings is the effect of modeling maladaptive health behaviors on patient care, given the emphasis on motivating health behavior change in prospective BS patients. For instance, patients may be hesitant to adhere to recommendations about calorie reduction and eating behaviors if espoused by a BHC provider with apparently maladaptive health behaviors. As noted above, the development of communities of bariatric BHC practitioners (e.g. through participation in events hosted by BS-related organizations such as the International Association for the Study of Obesity and the Obesity Society) can promote self-care by increasing contact and support while facilitating the sharing of ideas regarding ethical issues, decision-making about BS candidates, and conflict resolution within interdisciplinary teams.

## Obtaining informed consent

BHC providers who administer assessments to BS candidates must be involved in obtaining informed consent for the psychosocial assessment and are typically involved in the consent process for the surgical procedure itself. Both consent processes should be thoroughly documented in the patient's file. It is acknowledged that obesity centers routinely obtain consent for surgery; however, the emphasis below is on the *process* of ensuring the patient is *fully informed* about not only the surgery itself but also the pre-surgical assessment. This process should be ongoing, as new procedures or re-assessments are required.

### *Informed consent for the psychosocial assessment*

Prior to taking part in a psychosocial assessment, BS candidates need to be provided with and understand all information a reasonable person should want to know to consent to the assessment including limits of confidentiality, a clear identification of who is the "client" (e.g. patient, referring surgeon), and any potential risks and benefits associated with the assessment. It is important to anticipate risk issues that may arise, such that some patients may experience psychological distress associated with discussing difficult life experiences during the assessment. These circumstances may necessitate follow-up mental health services and/or emergency care in cases of imminent risk of self-harm. With respect to limits of confidentiality, BHC providers are encouraged to discuss the regulations within their jurisdiction and/or procedures within the BS center related to breaking confidentiality in order to address risk of harm to patient or others. Furthermore, an explicit discussion about the circumstances under which information is shared with the

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surgical team after the formal psychosocial assessment is complete will help prevent ethical issues related to dual roles, described below.

Patients referred for psychosocial services in healthcare settings can be unaware of the referral reason (Papas et al., 2004); for example, patients in BS settings may be uncertain about the role of psychosocial assessment in informing clearance for surgery. Therefore, BHC providers should carefully explain the purpose, nature, and method of the pre-surgical evaluation as well as how findings will be used by the surgical team. For example, assessment results may inform interventions (e.g. support groups, psychotherapy) that facilitate surgery preparation and recovery (Bauchowitz et al., 2005; Dziurowicz-Kozlowska et al., 2006). Patients should be informed about who requested and who will be paying for the assessment; the time required for the assessment; and how, when, and to whom assessment results will be communicated (e.g. members of the BS team, referring physician). Furthermore, patients should be informed about their right to withdraw from or refuse participation in the assessment and the consequences of these decisions. The BHC provider should be frank about patients' potential exclusion from surgery based on assessment results (Olbrisch, 1996). Informed consent should also extend to any third party informants involved in the pre-surgical assessment, such as partners who may be asked to report about the patients' social support or adherence to behavior change recommendations; in these circumstances, consent is required from both the patient and informant.

In many programs, the goal of pre-BS assessment is to help optimize surgery outcomes and is often appreciated by patients as an important form of support. Understandably, however, patients may be worried that assessment results will prevent surgery access or that withholding consent would be perceived as an attempt to conceal damaging information (Olbrisch, 1996). Even though the assessment is not meant to be adversarial, it is essential to ensure consent to the assessment is free from coercion and it should be ascertained whether excessive influence has been exerted upon the patient by family members, friends, or the surgical team. To prevent response distortions, BHC providers should emphasize that the psychosocial evaluation may facilitate favorable surgery outcomes and is a standard part of surgery preparation (Olbrisch, 1996). Using statements such as "we want to help you decide if BS is the right choice for you" may ease patients' concerns about the assessment and foster honest responding (Wadden and Sarwer, 2006). In BS programs where the psychosocial assessment serves a gatekeeping function, ethical dilemmas may arise if the assessment itself is perceived by patients as a form of coercion. Given that 82.7 percent of programs require pre-BS psychosocial assessments (Bauchowitz et al., 2005) and there is not yet sufficient evidence for psychosocial predictors of BS outcome (Livhits et al., 2012), one might wonder whether pre-BS psychosocial assessments might be better suited to helping patients prepare for surgery and adhere to behavioral recommendations, rather than serving as a key determinant of surgery access.

## *Informed consent for the surgical procedure*

Informed consent for BS involves disclosure of risks associated with obesity, alternative treatments, potential complications and methods for reducing their risk, common adjustment and interpersonal issues after BS, financial aspects of the surgery, and behavioral requirements (Caniano, 2009; Nieves-Khouw et al., 2009; Raper and Sarwer, 2008; Sabin et al., 2005; Wee et al., 2009). Consent for surgery can be feasibly enhanced by group-based education sessions (Mitchell and De Zwaan, 2012). Along with other members of the BS team, BHC providers are encouraged to discuss some of these content areas with BS patients and play a role in ensuring patients' decisions to pursue surgery are fully informed.

The complexity of information provided during informed consent for BS can be overwhelming for some patients. In one study, only one-third of patients tested on information

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about BS that had been provided during preoperative informed consent could correctly answer all questions 1 year post-surgery (Madan and Tichansky, 2005). Although no studies have examined the extent to which surgery-related information is retained prior to BS, an assessment of learning is essential to informed consent (Sabin et al., 2005). In fact, insufficient surgery knowledge is considered a "definite contraindication" in 35 to 78 percent of BS programs (Bauchowitz et al., 2005; Fabricatore et al., 2006).

As part of the process of informed consent for surgery, patients' understanding of the BS procedure and associated lifestyle changes can be assessed by testing patients on relevant information using oral and written tools (Padwal et al., 2011). Test content will depend on the procedure of interest, so BHC providers should be familiar with methods, success rates, and complications associated with various surgical weight loss techniques. Standardized interviews have been developed to assist with this process, such as the Boston Interview for Bariatric Surgery (BIBS; Sogg and Mori, 2008). If a patient incorrectly answers a question, the BIBS protocol contains information the healthcare provider can disseminate, such as the prevalence of side effects and the typical length of time to return to daily activities. This tool is best used with flexibility, given that information about BS changes as new surgical technologies become available. If a patient does not demonstrate adequate knowledge, the BHC provider should collaborate with other BS team members to further educate the patient about BS using simple language in multiple formats, encourage the patient to ask questions, and determine reasons for the lack of understanding (Wee et al., 2009) to help ensure the patient is truly informed about the prospective surgical procedure.

One aspect of the informed consent process for surgery that is often seen as part of the presurgical psychosocial assessment is the evaluation of patient expectations about and motivations for seeking surgery (Wadden and Sarwer, 2006). Expectations may be guided by spurious sources such as the Internet, television, and personal communications (Raper and Sarwer, 2008), so patients often overestimate the amount of weight loss expected after surgery and underestimate the intensity of the recovery process (Wee et al., 2006). Although patients may be reluctant to learn that BS will not produce the results they anticipated, clarifying misconceptions about surgery is crucial because patients with unrealistic expectations may be dissatisfied with outcomes they achieve (Wee et al., 2006, 2013).

## Respecting privacy and confidentiality

In BS settings, patients disclose a great deal of personal information during psychosocial and medical examinations. Safeguarding patients' privacy and confidentiality is essential (Bejciy-Spring, 2008), but may be challenging in BS settings due to the tendency for patient charts to be available to all hospital staff and the common use of shared electronic medical files. BHC providers should discuss patient care only with appropriate consent except as required by law and should share patient information only with colleagues who need the information to provide quality care (Bejciy-Spring, 2008). Whereas it might be relevant to share assessment results as they relate to potential postoperative outcomes, for example, it might not be relevant to share details of the patient's sexual history that were disclosed during the assessment. Although psychosocial assessment results are often kept in patients' hospital charts, it is important for test security to be maintained and for raw data and test protocols to be kept in separate files.

## Avoiding bias and discrimination

Prejudice against individuals with weight problems has been documented in various medical professionals, including those specializing in obesity management (Petrich, 2000; Puhl and Brownell, 2001; Schwartz et al., 2003). Given

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that BS clinics target individuals with weight problems, BHC providers practicing in these settings are encouraged to examine how their own experiences may influence their decision-making and patient care. For example, a BHC provider who inadvertently expresses disgust toward a severely obese patient might cause psychological harm. Non-discriminatory practice can be facilitated by acknowledging the complex etiology of obesity and by accommodating assessment settings to patients' mobility and physical size (Bejciy-Spring, 2008). BS patients are best treated with dignity and respect, and practitioners might avoid potentially offensive terms, such as "fatness," "obesity," "excess fat," and "large size," and instead use terms such as "weight problems" and "body mass index" when discussing weight management with BS candidates (Wadden and Didie, 2003). Similarly, use of objective language, direct quotes, and assessment data in report-writing might serve to reduce the potential for bias or unsupported claims.

Though not a universal phenomenon, research in the United States has demonstrated a gap between the demographic profile of BS patients and that of obese individuals in the general population. Older adults and individuals who are male, Black, low income, uneducated, or publicly insured are underrepresented in BS clinics (Flum et al., 2007; Santry et al., 2007). Sources of this disparity are multifaceted, but patient selection biases may play a role. Age and health biases were demonstrated in a sample of 371 clinical health psychologists who responded to fictional client vignettes (James and Haley, 1995); older clients were rated as less appropriate for psychological services and as having less positive prognoses and clients with poor health status were rated as having negative interpersonal characteristics. Decisions about health service allocation (i.e. the extent to which candidates "deserve" BS access given the limited supply of this service) are in the domain of public policy (Olbrisch, 1996), not that of individual BHC providers or surgery programs.

## Avoiding and addressing dual roles

Dual roles occur when a BHC provider undertakes two or more roles (e.g. assessor and therapist) with a single patient and can inadvertently produce conflicts of interest. For example, BS patients may request continuation of a therapeutic relationship after the pre-surgical assessment is complete. Psychotherapy is frequently recommended to BS patients (Bauchowitz et al., 2005), but ethical guidelines for psychologists suggest dual roles should only be undertaken if therapeutic services are scarce and if decisions have been made about the patient's qualification for surgery. Otherwise, new information could be uncovered during therapy that affects surgery eligibility. If the surgical team requests further opinion about a patient's suitability for surgery after a therapeutic role is initiated, the BHC provider's opinion might be biased by information obtained during therapy or by a sense of advocacy for the client, highlighting the importance of an *ongoing* process of informed consent (discussed earlier) that includes informing the patient when the BHC providers' professional role has changed. Issues might also arise relating to whether therapy- and assessment-related documentation should be stored together.

In practice, it may not be feasible for the BHC provider to avoid dual roles with a BS candidate. In these cases, conflicts of interest can be mitigated by outlining limits to confidentiality prior to conducting the assessment and prior to taking on the new role. Doing so might prevent the patient from having unrealistic expectations (e.g. that the BHC provider will inevitably put forth a favorable recommendation for surgery) and from being upset if referred elsewhere for psychotherapy. If a conflict of interest arises, the BHC provider should obtain ongoing supervision, involve a third party in the consent process, and inform all stakeholders (e.g. the patient, members of the bariatric healthcare team). Although BHC providers are encouraged to avoid delivery of both

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pre-surgical psychosocial assessment and formal psychological treatment, this does not preclude the provision of warmth, empathy, and support to the prospective BS patient as it is plausible that these therapeutic elements could improve surgical outcomes and adherence. Potential pitfalls of dual roles will also depend on the extent to which the BHC providers' pre-surgical assessment determines patients' eligibility for surgery such that dual roles might carry less risk when the assessment serves less of a gatekeeping function.

## Selecting and using psychological tests

Psychological tests represent one component of the psychosocial assessment process and are used in pre-surgical psychosocial assessments by nearly half of BS programs (Bauchowitz et al., 2005). Psychological tests aim to quantify various aspects of functioning using structured and standardized instruments (e.g. questionnaires, test record forms, and structured behavior samples; Groth-Marnat, 2009). They are generally administered by psychologists due to legal standards and ethical codes regarding the use and control of psychological tests, protocols, and materials (e.g. College of Alberta Psychologists, 2005). In BS settings, psychological tests might be used to (a) detect and manage mental health concerns (e.g. using cut-off scores on questionnaires), (b) track changes in psychosocial functioning across time (e.g. changes in depression symptom scores from pre- to post-surgery), and (c) attempt to predict surgery outcomes using psychosocial indices.

Despite the frequency of psychological test use in BS settings, there is little guidance available to psychologists on which tests should be used to assess patient suitability for surgery, with approximately 70 percent of BS programs surveyed in the United States indicating that "informal guidelines" are used to select psychosocial assessment techniques (Bauchowitz et al., 2005). This is concerning, given the unique challenges associated with selecting and using tests with this population. For instance, most psychological tests have not been normed with BS candidates (LeMont et al., 2004) and obesity may mimic symptoms of common mental health concerns (e.g. low energy, changes in appetite). Consequently, the psychologist is encouraged to use discretion when interpreting test results to ensure scores accurately reflect patients' functioning. For instance, the Beck Depression Inventory (BDI; Beck et al., 1961) is the most commonly used symptom inventory in BS candidates (Bauchowitz et al., 2005) and the BDI-II has demonstrated satisfactory internal consistency and adequate convergent validity in this population (Hall et al., 2013). However, this measure might yield artificially elevated scores among BS patients because endorsement of somatic complaints can represent medical ailments rather than depressive symptoms (Munoz et al., 2007). Thus, it is best to consider specific symptom endorsements and clarify somatic items in a clinical interview (Munoz et al., 2007). To date, there is equivocal evidence that brief screening measures for depression and anxiety predict weight loss following BS (see Livhits et al. (2012) for a review).

As a supplement to brief inventories of depressive symptomatology, the psychologist might consider comprehensive measures of psychiatric functioning. One such measure is the Millon Behavioral Medicine Diagnostic (Millon et al., 2006), which was designed to evaluate psychosocial factors that interfere with medical treatment and has normative data from 711 BS candidates and validity indicators to detect defensive responding. Some concerns about the use of this measure of bariatric surgical candidates have been noted (Walfish et al., 2008). Another such measure is the Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-2-RF; Ben-Porath et al., 2008), which assesses psychiatric and personality traits and has been found reliable and valid for use with BS populations (Marek et al., 2013; Tarescavage et al., 2013).

The Symptom Checklist-90-Revised (SCL-90-R) has also been validated with BS patients and was found to have good internal reliability,

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and preliminary validity was promising (Ransom et al., 2010). The Hostility Scale of the SCL-90-R was predictive of adherence to treatment plans (Friedman et al., 2007). In addition, normative data and profile scale elevations for BS patients have been developed for the Personality Assessment Inventory (Corsica et al., 2010). The Cleveland Clinic Behavioral Rating System is completed by a BHC provider following an interview with the surgical candidate (Heinberg et al., 2010). Ratings are made on factors deemed to be related to surgical outcome, including expectations, social support, mental health, substance abuse, eating behaviors, adherence, and coping. The measure was found to be predictive of some aspects of post-surgery recovery.

Given the nuances associated with selecting and interpreting psychological tests in BS assessments, test use should be commensurate with the psychologist's level of competence. Formal guidelines on psychological testing in BS candidates published by the American Society for Bariatric Surgery (LeMont et al., 2004) suggest that decisions about test selection need to be guided by whether the test (a) has appropriate norms, (b) has validity scales that indicate response distortions, (c) addresses issues relevant to the particular patient and referral question, and (d) is practical. The impact of extraneous variables on assessment results (Papas et al., 2004), such as comorbid conditions (e.g. fatigue and chronic pain) and distractions within assessment setting, also require consideration. Inappropriate use of psychological tests may adversely impact patient care, with the potential for misdiagnosis, use of inappropriate norms, or faulty claims about the clinical utility of test findings.

## Acknowledging the limitations of psychosocial assessments

Psychosocial evaluations of BS candidates are imperfect in their ability to identify which patients will benefit from surgery. Even the most skilled BHC provider may overlook important areas or have difficulty understanding patients' motivations. Patients may conceal information or minimize the extent of their psychosocial problems. Perhaps the most contentious issue, however, is that research on the predictive value of psychosocial factors on weight loss and mental health after BS has yielded inconclusive results and has been limited by small and biased samples, short follow-up periods, and reliance on expert opinion rather than empirical evidence (Greenberg et al., 2009; Grothe et al., 2006; Pull, 2010; Sarwer et al., 2005).

One recent meta-analysis of 115 articles reported that the association between most psychosocial variables and post-BS weight loss was inconclusive (Livhits et al., 2012). For example, among 20 studies identified ($n = 2{,}661$), 3 reported that pre-operative binge eating was associated with greater weight loss, 13 reported no association, and 4 reported less weight loss. Similarly, the review by Livhits et al. (2012) reported mixed findings on the association between post-surgery weight loss and pre-surgery depressed mood, sexual abuse, and alcohol use. However, there is consistent evidence for some psychosocial predictors of weight loss following BS. For example, a systematic review of 10 studies ($n = 735$) on the association between pre-operative social support and post-surgical outcomes reported a positive association in all 10 studies (Livhits et al., 2011). Furthermore, there is evidence that patients with psychiatric disorders have worse outcomes following BS than those without (Kinzl et al., 2006), particularly among patients with two or more psychiatric disorders (Karmali et al., 2013).

It is noteworthy that weight loss following BS is multi-factorial and depends on the type of surgery performed (Garb et al., 2009; Padwal et al., 2011; Tice et al., 2008) as well as the duration since surgery. Furthermore, much of the available information on the associations between psychosocial predictors and outcomes following BS have been collected using samples where uncontrolled psychiatric disorders have been applied as an exclusion criterion. Potential associations between psychosocial factors and BS outcomes are further obscured

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by the fact many BS specialty clinics provide ongoing support and therapy to manage mental health concerns of prospective patients.

To date, there are no evidence-based psychosocial contraindications for BS, which has led to ethical concerns about whether recommendations about BS suitability can be made in the absence of empirically supported predictors of surgery outcome (Fabricatore et al., 2006). To address this ethical issue, the BHC provider should acknowledge to all stakeholders the limitations of psychosocial assessments in predicting surgery outcomes, consider alternative explanations for assessment findings, and weigh the risks associated with the patient undergoing versus *not* undergoing surgery (LeMont et al., 2004). Exaggerated claims about the utility of pre-surgical psychosocial assessments may lead to public distrust, negative reactions from patients, and a tarnished reputation. Although the pre-BS psychosocial assessment might help identify the psychosocial and/or educational needs of individuals prior to surgery, there is currently no consistent evidence to support its use for predicting surgery outcomes. The results of the pre-BS psychosocial assessment should be combined with other findings from the multidisciplinary team to reach pragmatic decisions about patient care based on consensus (Breznikar and Dinevski, 2009).

## Conclusion

BHC providers practicing in BS settings are faced with the difficult task of integrating ethical principles from multiple behavioral health professions and adapting these principles to complex, evolving healthcare environments. A core ethical issue that remains unresolved is whether there is sufficient evidence to make recommendations about surgery suitability on the basis of pre-BS psychosocial assessment and, accordingly, what role psychosocial assessment should play in preparing patients for surgery. To help address this issue, it is recommended that future research continue to examine factors that predict medical and psychosocial outcomes after BS, develop norms for measures that tap constructs relevant to the BS population (e.g. Battery for Health Improvement—2; Bruns and Disorbio, 2003), develop psychological tests suitable for use with BS patients, and investigate tools for improving patients' understanding of BS procedures. Doing so will help enhance the utility of psychosocial assessments and the ethical practice of BHC providers in BS settings.

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### References

American Psychological Association (2010) *Ethical Principles of Psychologists and Code of Conduct*. Washington, DC. Available at: http://www.apa.org/ethics/code/principles.pdf (accessed 25 August 2014).

Ashton D, Favretti F and Segato G (2008) Preoperative psychological testing—Another form of prejudice. *Obesity Surgery* 18(10): 1330–1337.

Australian Association of Social Workers (2010) *AASW Code of Ethics*. Canberra, ACT, Australia. Available at: http://www.aasw.asn.au/document/item/1201 (accessed 25 August 2014).

Barnett JE and Cooper N (2009) Creating a culture of self-care. *Clinical Psychology: Science and Practice* 16(1): 16–20.

Bauchowitz AU, Gonder-Frederick LA, Olbrisch ME, et al. (2005) Psychosocial evaluation of bariatric surgery candidates: A survey of present practices. *Psychosomatic Medicine* 67(5): 825–832.

Beck AT, Ward CH, Mendelson M, et al. (1961) An inventory for measuring depression. *Archives of General Psychiatry* 4(6): 561–571.

Bejciy-Spring SM (2008) RESPECT: A model for the sensitive treatment of the bariatric patient. *Bariatric Nursing and Surgical Patient Care* 3(1): 47–56.

Downloaded from hpq.sagepub.com at Karolinska Institutets Universitetsbibliotek on November 15, 2015

Ben-Porath YS, Tellegen A and Pearson N (2008) *MMPI-2-RF: Manual for Administration, Scoring and Interpretation*. Minneapolis, MN: University of Minnesota Press.

Brandon AR, Puzziferri N and Sadler JZ (2010) Stuck in the middle: What should a good society do? *The American Journal of Bioethics* 10(12): 18–20.

Breznikar B and Dinevski D (2009) Bariatric surgery for morbid obesity: Pre-operative assessment, surgical techniques and post-operative monitoring. *Journal of International Medical Research* 37(5): 1632–1645.

British Obesity & Metabolic Surgery Society (2014) *Commissioning Guide: Weight Assessment and Management Clinics (Tier 3)*. London: The Royal College of Surgeons of England. Available at: http://www.bomss.org.uk/wp-content/uploads/2014/04/Commissioning-guide-weight-assessment-and-management-clinics-published.pdf (accessed 25 August 2014).

Bruns D and Disorbio J (2003) *Battery for Health Improvement 2 Manual*. Minneapolis, MN: Pearson.

Buchwald H and Oien DM (2013) Metabolic/bariatric surgery worldwide 2011. *Obesity Surgery* 23(4): 427–436.

Buchwald H, Avidor Y, Braunwald E, et al. (2004) Bariatric surgery: A systematic review and meta-analysis. *Journal of the American Medical Association* 292(14): 1724–1737.

Canadian Psychological Association (2005) Canadian code of ethics for psychologists (3rd edn). Available at: http://www.cpa.ca/cpasite/UserFiles/Documents/Canadian%20Code%20of%20Ethics%20for%20Psycho.pdf (accessed 11 March 2014).

Caniano DA (2009) Ethical issues in pediatric bariatric surgery (Abstract). *Seminars in Pediatric Surgery* 18(3): 186–192.

Chang SH, Stoll CR, Song J, et al. (2013) The effectiveness and risks of bariatric surgery: An updated systematic review and meta-analysis, 2003–2012. *JAMA Surgery*. Epub ahead of print 18 December 2013. DOI:10.1001/jamasurg.2013.3654.

College of Alberta Psychologists (2005) The control and use of tests by psychologists, Alberta, Canada.

Corsica JA, Azarbad L, McGill K, et al. (2010) The Personality Assessment Inventory: Clinical utility, psychometric properties, and normative data for bariatric surgery candidates. *Obesity Surgery* 20(6): 722–731.

De Ville K (2010) Bariatric surgery, ethical obligation, and the life cycle of medical innovation. *The American Journal of Bioethics* 10(12): 22–24.

Dixon JB, Logue J and Komesaroff PA (2013) Promises and ethical pitfalls of surgical innovation: The case of bariatric surgery. *Obesity Surgery* 23: 1698–1702.

Dziurowicz-Kozlowska AH, Wierzbicki Z, Lisik W, et al. (2006) The objective of psychological evaluation in the process of qualifying candidates for bariatric surgery. *Obesity Surgery* 16(2): 196–202.

Ethics Committee of the British Psychological Society (2009) *Code of Ethics and Conduct: Guidance Published by the Ethics Committee of the British Psychological Society*. Leicester: The British Psychological Society. Available at: http://www.bps.org.uk/system/files/documents/code_of_ethics_and_conduct.pdf (accessed 25 August 2014).

Fabricatore AN, Crerand CE, Wadden TA, et al. (2006) How do mental health professionals evaluate candidates for bariatric surgery? Survey results. *Obesity Surgery* 16(5): 567–573.

Flum DR, Khan TV and Dellinger EP (2007) Toward the rational and equitable use of bariatric surgery. *Journal of the American Medical Association* 298(12): 1442–1444.

Fried M, Yumuk V, Oppert JM, et al. (2014) Interdisciplinary European guidelines on metabolic and bariatric surgery. *Obesity Surgery* 24(1): 42–55.

Friedman KE, Applegate KL and Grant J (2007) Who is adherent with preoperative psychological treatment recommendations among weight loss surgery candidates? *Surgery for Obesity and Related Diseases* 3(3): 376–382.

Garb J, Welch G, Zagarins S, et al. (2009) Bariatric surgery for the treatment of morbid obesity: A meta-analysis of weight loss outcomes for laparoscopic adjustable gastric banding and laparoscopic gastric bypass. *Obesity Surgery* 19(10): 1447–1455.

Golomb BA and Koperski S (2010) Pondering the ponderous: Are the "moral challenges" of bariatric surgery morally challenged? *The American Journal of Bioethics* 10(12): 24–26.

Greenberg I, Sogg S and Perna FM (2009) Behavioral and psychological care in weight loss surgery: Best practice update. *Obesity* 17(5): 880–884.

Downloaded from hpq.sagepub.com at Karolinska Institutets Universitetsbibliotek on November 15, 2015

Grothe KB, Dubbert PM and O'jile JR (2006) Psychological assessment and management of the weight loss surgery patient. *American Journal of the Medical Sciences* 331(4): 201–206.

Groth-Marnat G (2009) *Handbook of Psychological Assessment*. Hoboken, NJ: John Wiley & Sons.

Hall BJ, Hood MM, Nackers LM, et al. (2013) Confirmatory factor analysis of the Beck Depression Inventory-II in bariatric surgery candidates. *Psychological Assessment* 25(1): 294–299.

Heinberg LJ, Ashton K and Windover A (2010) Moving beyond dichotomous psychological evaluation: The Cleveland Clinic Behavioral Rating System for weight loss surgery. *Surgery for Obesity and Related Diseases* 6(2): 185–190.

Hofmann B (2010) The encompassing ethics of bariatric surgery. *The American Journal of Bioethics* 10(12): W1–W2.

James JW and Haley WE (1995) Age and health bias in practicing clinical psychologists. *Psychology and Aging* 10(4): 610–616.

Karmali S, Brar B, Shi X, et al. (2013) Weight recidivism post-bariatric surgery: A systematic review. *Obesity Surgery* 23(11): 1922–1933.

Kinzl JF, Schrattenecker M, Traweger C, et al. (2006) Psychosocial predictors of weight loss after bariatric surgery. *Obesity Surgery* 16(12): 1609–1614.

Lau DC (2007) Synopsis of the 2006 Canadian clinical practice guidelines on the management and prevention of obesity in adults and children. *Canadian Medical Association Journal* 176(8): 1103–1106.

LeMont D, Moorehead M, Parish M, et al. (2004) Suggestions for the pre-surgical psychological assessment of bariatric surgery candidates. Available at: http://s3.amazonaws.com/publicASMBS/GuidelinesStatements/Guidelines/PsychPreSurgicalAssessment.pdf (accessed 11 March 2014).

Livhits M, Mercado C, Yermilov I, et al. (2011) Is social support associated with greater weight loss after bariatric surgery? A systematic review. *Obesity Reviews* 12(2): 142–148.

Livhits M, Mercado C, Yermilov I, et al. (2012) Preoperative predictors of weight loss following bariatric surgery: Systematic review. *Obesity Surgery* 22(1): 70–89.

McDaniel SH, Belar CD, Schroeder C, et al. (2002) A training curriculum for professional psychologists in primary care. *Professional Psychology: Research and Practice* 33(1): 65–72.

Madan AK and Tichansky DS (2005) Patients postoperatively forget aspects of preoperative patient education. *Obesity Surgery* 15(7): 1066–1069.

Marek RJ, Ben-Porath YS, Windover A, et al. (2013) Assessing psychosocial functioning of bariatric surgery candidates with the Minnesota Multiphasic Personality Inventory-2 Restructured Form (MMPI-2-RF). *Obesity Surgery* 23(11): 1864–1873.

Mauri M, Rucci P, Calderone A, et al. (2008) Axis I and II disorders and quality of life in bariatric surgery candidates. *The Journal of Clinical Psychiatry* 69(2): 295–301.

Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (2014) *Resources for Optimal Care of the Metabolic and Bariatric Surgery Patient 2014*. Chicago, IL: American College of Surgeons (ACS) and the American Society for Metabolic and Bariatric Surgery (ASMBS). Available at: https://www.facs.org/quality-programs/mbsaqip/stan-dards (accessed 25 August 2014).

Michalsky M, Reichard K, Inge T, et al. (2012) ASMBS pediatric committee best practice guidelines. *Surgery for Obesity and Related Diseases* 8(1): 1–7.

Millon T, Antoni MH, Millon C, et al. (2006) *Millon Behavioral Medicine Diagnostic (MBMD) Manual* (2nd edn). Minneapolis, MN: Pearson Assessments.

Mitchell JE and De Zwaan M (2012) *Psychosocial Assessment and Treatment of Bariatric Surgery Patients*. New York: Routledge.

Mitka M (2003) Surgery for obesity: Demand soars amid scientific, ethical questions. *Journal of the American Medical Association* 289(14): 1761–1762.

Munoz DJ, Chen E, Fischer S, et al. (2007) Considerations for the use of the Beck Depression Inventory in the assessment of weight-loss surgery seeking patients. *Obesity Surgery* 17(8): 1097–1101.

Neff K and Le Roux C (2013) Bariatric surgery: A best practice article. *Journal of Clinical Pathology* 66(2): 90–98.

Neff K, Olbers T and Le Roux C (2013) Bariatric surgery: The challenges with candidate selection, individualizing treatment and clinical outcomes. *BMC Medicine* 11(1): 8.

Downloaded from hpq.sagepub.com at Karolinska Institutets Universitetsbibliotek on November 15, 2015

Nieves-Khouw F, Welton R and Muchow N (2009) Bariatric surgery: Beyond informed consent. *Bariatric Nursing and Surgical Patient Care* 4(3): 191–202.

Olbrisch ME (1996) Ethical issues in psychological evaluation of patients for organ transplant surgery. *Rehabilitation Psychology* 41(1): 53–71.

Padwal R, Klarenbach S, Wiebe N, et al. (2011) Bariatric surgery: A systematic review and network meta-analysis of randomized trials. *Obesity Reviews* 12(8): 602–621.

Padwal RS and Sharma AM (2009) Treating severe obesity: Morbid weights and morbid waits. *Canadian Medical Association Journal* 181(11): 777–778.

Papas RK, Belar CD and Rozensky RH (2004) The practice of clinical health psychology: Professional issues. In: Boll TJ, Frank RG, Baum A, et al. (eds) *Handbook of Clinical Health Psychology: Models and Perspectives in Health Psychology*, vol. 3. Washington, DC: American Psychological Association, pp. 293–319.

Petrich BE (2000) Medical and nursing student's perceptions of obesity. *Journal of Addictions Nursing* 12(1): 3–16.

Pontiroli AE and Morabito A (2011) Long-term prevention of mortality in morbid obesity through bariatric surgery. A systematic review and meta-analysis of trials performed with gastric banding and gastric bypass. *Annals of Surgery* 253(3): 484–487.

Puhl R and Brownell KD (2001) Bias, discrimination, and obesity. *Obesity Research* 9(12): 788–805.

Pull CB (2010) Current psychological assessment practices in obesity surgery programs: What to assess and why. *Current Opinion in Psychiatry* 23(1): 30–36.

Ransom D, Ashton K, Windover A, et al. (2010) Internal consistency and validity assessment of SCL-90-R for bariatric surgery candidates. *Surgery for Obesity and Related Diseases* 6(6): 622–627.

Raper SE and Sarwer DB (2008) Informed consent issues in the conduct of bariatric surgery. *Surgery for Obesity and Related Diseases* 4(1): 60–68.

Registered Psychiatric Nurses of Canada (2010) *Code of Ethics and Standards of Psychiatric Nursing Practice*. Edmonton, AB, Canada. Available at: http://www.crpnbc.ca/wp-content/uploads/2011/02/2010_Code_Standards.pdf (accessed 25 August 2014).

Reynolds LR and Rosenthal MS (2010) Are we providing ethical care for the severely obese? *Southern Medical Journal* 103(6): 498–499.

Saarni SI, Anttila H, Saarni SE, et al. (2011) Ethical issues of obesity surgery—A health technology assessment. *Obesity Surgery* 21(9): 1469–1476.

Sabin J, Fanelli R, Flaherty H, et al. (2005) Best practice guidelines on informed consent for weight loss surgery patients. *Obesity Research* 13(2): 250–253.

Santry HP, Lauderdale DS, Cagney KA, et al. (2007) Predictors of patient selection in bariatric surgery. *Annals of Surgery* 245(1): 59–67.

Sarwer DB, Wadden TA and Fabricatore AN (2005) Psychosocial and behavioral aspects of bariatric surgery. *Obesity Research* 13(4): 639–648.

Schwartz MB, Chambliss HON, Brownell KD, et al. (2003) Weight bias among health professionals specializing in obesity. *Obesity Research* 11(9): 1033–1039.

Sjöström L, Peltonen M, Jacobson P, et al. (2014) Association of bariatric surgery with long-term remission of type 2 diabetes and with micro-vascular and macrovascular complica-tions. *Journal of the American Medical Association* 311(22): 2297–2304.

Snyder AG (2009) Psychological assessment of the patient undergoing bariatric surgery. *The Oschner Journal* 9(3): 144–148.

Sockalingam S, Hawa R, Wnuk S, et al. (2011) Weight loss following Roux-en-Y gastric bypass surgery: A systematic review of psychosocial predictors. *Current Psychiatry Reviews* 7(3): 226–233.

Sogg S (2012) Assessment of bariatric surgery candidates: The clinical interview. In: Mitchell JE and de Zwaan M (eds) *Psychosocial Assessment and Treatment of Bariatric Surgery Patients*. New York: Routledge, pp. 15–36.

Sogg S and Mori DL (2008) Revising the Boston Interview: Incorporating new knowledge and experience. *Surgery for Obesity and Related Diseases* 4(3): 455–463.

Tarescavage AM, Wygant DB, Boutacoff LI, et al. (2013) Reliability, validity, and utility of the Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-2-RF) in assessments of bariatric surgery candidates. *Psychological Assessment* 25(4): 1179–1194.

Downloaded from hpq.sagepub.com at Karolinska Institutets Universitetsbibliotek on November 15, 2015

Tice JA, Karliner L, Walsh J, et al. (2008) Gastric banding or bypass? A systematic review comparing the two most popular bariatric procedures. *American Journal of Medicine* 121(10): 885–893.

Wadden TA and Didie E (2003) What's in a name? Patients' preferred terms for describing obesity. *Obesity Research* 11(9): 1140–1146.

Wadden TA and Sarwer DB (2006) Behavioral assessment of candidates for bariatric surgery: A patient-oriented approach. *Obesity* 14(S3): 53S–62S.

Walfish S, Vance D and Fabricatore AN (2007) Psychological evaluation of bariatric surgery applicants: Procedures and reasons for delay or denial of surgery. *Obesity Surgery* 17(12): 1578–1583.

Walfish S, Wise EA and Streiner DL (2008) Limitations of the Millon Behavioral Medicine Diagnostic (MBMD) with bariatric surgical candidates. *Obesity Surgery* 18(10): 1318–1322.

Wee CC, Hamel MB, Apovian CM, et al. (2013) Expectations for weight loss and willingness to accept risk among patients seeking weight loss surgery. *JAMA Surgery* 148(3): 264–271.

Wee CC, Jones DB, Davis RB, et al. (2006) Understanding patients' value of weight loss and expectations for bariatric surgery. *Obesity Surgery* 16(4): 496–500.

Wee CC, Pratt JS, Fanelli R, et al. (2009) Best practice updates for informed consent and patient education in weight loss surgery. *Obesity* 17(5): 885–888.

West-Smith L and Sogg S (2010) Creating a credential for bariatric behavioral health professionals: Potential benefits, pitfalls, and provider opinion. *Surgery for Obesity and Related Diseases* 6(6): 695–701.

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