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The Role of Weight Bias and Patient-Physician Communication in the Underutilization of Bariatric Surgery

David B. Sarwer, PhD^{1,2}, Hamlet Gasoyan, DMD, MPH³, Sarah Bauerle Bass, PhD, MPH², Jacqueline C. Spitzer, MSEd¹, Rohit Soans, MD^{4,5}, Daniel J. Rubin, MD, MSc, FACE^{4,6}

¹Center for Obesity Research and Education, College of Public Health, Temple University

²Department of Social and Behavioral Sciences, College of Public Health, Temple University

³Department of Health Sciences Administration and Policy, College of Public Health, Temple University

⁴Lewis Katz School of Medicine, Temple University

⁵Department of Surgery, Temple University Hospital

⁶Section of Endocrinology, Diabetes, and Metabolism, Temple University

Abstract

A growing body of evidence supports the efficacy and safety of bariatric surgery for clinically severe obesity. Despite this empirical support, bariatric surgery remains profoundly underutilized. The reasons for underutilization are likely multifactorial, including health insurance coverage and benefits design, lack of awareness about bariatric surgery by patients, and anecdotal concerns about safety. We believe there are two other factors – the occurrence of weight stigma and bias as well as suboptimal communication between patients and providers – which also serve as barriers to greater utilization. The paper reviews the existing literature related to these two factors. The paper also highlights the science of shared medical decision making (SDM) as a potential strategy to promote appropriate conversation between patients and providers, both surgical and non-surgical, about the efficacy and safety of bariatric surgery. SDM is used in other areas where complex medical decisions are required. We believe it has great potential to contribute to the increased utilization for the millions of individuals who could benefit from bariatric surgery.

Keywords

bariatric surgery; obesity; weight stigma; weight bias; shared decision making

Corresponding author: David B. Sarwer, PhD, 3223 North Broad Street, Suite 175, Philadelphia, PA 19140, (215) 707-8632 (phone)/(215) 707-6462 (fax), dsarwer@temple.edu.

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1. INTRODUCTION

Presently, 11.5% of women and 6.9% of men in the United States have class III obesity, defined by a body mass index (BMI) ≥ 40 kg/m² [1]. As of 2016, over 32 million Americans ages 18 and above had either class III obesity or class II obesity (BMI 35–39.9 kg/m²) and who would be potential candidates for bariatric surgery [2]. Clinically severe obesity impacts African- and Hispanic-Americans at higher rates than persons of European-American heritage. For example, 13.8% of non-Hispanic Black individuals in the United States have clinically severe obesity, as opposed to 9.3% of non-Hispanic white individuals [1].

According to the National Health and Nutrition Examination Survey, almost 50% of Americans have tried to lose weight in the past year [3]. Women were more likely than men (56.4% v. 41.7%) to report attempts at weight loss [3]. The most commonly reported efforts were eating less food and increasing physical activity [3]. While the majority of Americans try to lose weight by modifying these behaviors, others turn to weight loss books, commercial weight loss programs, as well as website and smart phone applications. Fewer individuals present for treatment in specialized obesity treatment programs, where they may be treated with lifestyle modification strategies (including caloric restriction, increased physical activity, and behavioral counseling) and/or pharmacotherapy [4].

The most effective of these treatments produce weight losses of 5–8% of initial body weight and, for some, lead to improvements in obesity-related comorbidities [5–6]. Unfortunately, one third of individuals regain the lost weight within 12 months and most regain all of weight within 5 years. In contrast, evidence from large observational cohort studies and randomized controlled trials indicates that bariatric surgical procedures produce weight losses much larger and far more durable than seen with lifestyle modification interventions and pharmacotherapy [7]. Surgically-induced weight loss has a profoundly positive impact on weight-related comorbidities such as type 2 diabetes (T2D) and cardiovascular disease for most patients [8].

Despite these impressive outcomes, bariatric surgery remains dramatically underutilized [2]. Even though the safety, effectiveness, and durability of bariatric surgery is well-established, only a fraction of eligible individuals in the United States undergo surgery annually [2,9]. Approximately 252,000 individuals were believed to have undergone bariatric surgery in the United States in 2018 [10]. The majority of patients were middle-aged women who typically suffered with one or more weight-related comorbidities [2]. The gap between the number of Americans who meet the minimal weight and comorbidity requirements for surgery and the number who undergo surgery each year represents not only an underutilization issue, but also a healthcare disparities issue, as those individuals from underserved groups most profoundly affected by clinically severe obesity are least likely to receive the most effective treatment.

The reasons for the underutilization of bariatric surgery are multifactorial. Health insurance coverage and benefits design is often a barrier to care [9, 11, 12]. Currently, most major third-party payers offer coverage for bariatric surgery in their policies [12]. However, the

insurance plan type, restrictions in terms of the freedom to choose doctors and hospitals, the requirement to obtain a referral from a primary care provider for specialized care, as well as patient cost-sharing, have been associated with utilization [9,11,13]. Furthermore, the preoperative assessment and evaluation process, which typically involves 8–10 visits with consultants over a 3–6 month period, is believed to be a barrier to care [14, 15]. As we have witnessed during the COVID-19 pandemic, presenting for in-person medical care is challenging for many. Not only do patients have to make time for the actual visit, but they also have to expend time and resources to arrive and leave the physician's practice. Individuals from underserved communities appear to be particularly affected by these challenges due to social determinants of health, economic disadvantages, and distrust of the health care system. As numerous medical specialties have embraced telehealth visits, anecdotal reports suggest that attendance at virtual visits is much higher than in person appointments prior to the pandemic. Nevertheless, there is also a risk that barriers to telehealth, such as limited access to digital technology and reliable internet coverage, as well as digital literacy, issues may disproportionately affect the most vulnerable populations and limit access to care for all over time [16].

Lack of awareness about the efficacy of bariatric surgery, coupled with concerns about its safety, also may impact patients' interest in the procedure [17]. For example, Kyle and colleagues, in an online survey conducted with representative samples in the United States (U.S.) and the United Kingdom (U.K.), found that only 10.2% of respondents in the U.K. and 15.9% in the U.S. believed that bariatric surgery is the most effective treatment for obesity [18]. Similarly, 8.3% of respondents in the U.K. and 11.3% in the U.S. believed that bariatric surgery was the most effective treatment for T2D among individuals with obesity [18]. Interestingly, between 39%–59% of surveyed individuals thought that self-directed diet and exercise was the most effective treatment for either obesity or obesity and T2D [18]. Furthermore, some individuals with Class II and III obesity may not believe they weigh enough for surgery; others may erroneously believe that dramatic changes in their diet and engagement in a high level of physical activity is sufficient to produce a weight loss comparable to bariatric surgery.

We believe that there are at least two other significant factors which likely are impacting the utilization of bariatric surgery. First, the experience of weight bias and stigma, which is ubiquitous among persons with obesity, is a well-established barrier to all forms of obesity treatment. Second, medical providers across specialties hold a number of inaccurate views about the safety and efficacy of bariatric surgery [9]. Such views may inhibit primary care physicians (PCP), internal medicine physicians, endocrinologists, and health care providers from other disciplines from recommending bariatric surgery to their patients. We suspect that some providers are not having appropriately detailed conversations with their patients about the pros and cons of surgical treatment. Thus, patients who are medically appropriate for surgery may leave encounters with these medical professionals largely unaware of the potential benefits of bariatric surgery to their weight, health, and quality of life.

This paper provides an overview of the research in these two areas - weight stigma and patient-provider communication. The paper also highlights the science of shared medical decision making as a potential strategy to promote appropriate conversation between persons

with clinically severe obesity and their medical providers about the safety and efficacy of bariatric surgery.

2.1. WEIGHT STIGMA AS A BARRIER TO BARIATRIC SURGERY

Stigma has been defined as a devaluation of different social identities based on the recognition of difference based on some distinguishing characteristic [19]. Stigmatization can occur at different levels—intrapersonal, interpersonal, and structural. At the intrapersonal level, individuals may self-stigmatize their thoughts and feelings about a physical or personal trait, as is the case with internalized weight bias, as discussed below. At the interpersonal level, individuals may experience unwanted attention or treatment from others. Structurally, individuals may encounter systematic, unfair treatment due to policies and practices that perpetuate stigma and discrimination. Stigmatization among persons with obesity occurs at all three levels.

Within the past decade, research on weight stigma has grown tremendously [20]. The earliest reports, dating back over 5 decades, documented the occurrence of stigmatizing experiences among persons with obesity, finding that unwanted comments and behaviors from others were a common experience [20]. Individuals expressed more negative judgments and rejection about children with obesity, compared to children with physical disabilities; those attitudes were exacerbated by attribution of personal blame for body weight, which endures today. Subsequent work found that the stigmatizing comments and behaviors came not only from members of the general public, but often from coworkers, friends, family members, as well as health care providers [20]. These stigmatizing experiences can contribute to internalized weight bias, self-directed stigmatizing attitudes persons with obesity hold about themselves based on social stereotypes about persons with obesity (e.g. “People who criticize my food choices are right. If I just ate healthier, I would lose weight. But I don’t have enough will power to do that.”) [21]. These interpersonal experiences and subsequent internalized beliefs often discourage people from seeking weight loss treatment.

The experience of weight stigma is not benign; at least one study has shown that it is associated with more severe weight-related comorbidities [22]. Individuals who have internalized the experiences of stigma, those become more emotionally upset by the experience and personalized it rather than dismissing or minimizing the experience, report less physical activity, lower levels of health-related quality of life, greater body image dissatisfaction, and more symptoms of disordered eating [21, 23]. There are unwanted physical effects as well; perceived weight discrimination is associated with increased risk for all-cause mortality. Weight stigmatization also has been associated with weight gain and increased waist circumference, elevated levels of C-reactive proteins, and poor glycemic control. Higher levels of internalized weight bias also has been associated with increased odds of having metabolic syndrome [22].

Weight stigma impacts mental health as well. In a study of over 22,000 adults with overweight and obesity, more than 50% of those who reported experiencing weight-based discrimination met criteria for at least one mood, anxiety, or substance use disorder [24].

Among youth, weight is one of the leading targets of appearance-related teasing or bullying. Unwanted comments about weight and body shape are associated with increased symptoms of depression and anxiety, increased body image dissatisfaction, substance misuse, and suicidality [25].

There appear to be individual differences with regard to weight stigma. Women report weight stigma more consistently than men, but studies of the experience and impact of weight stigma across different races and ethnicities has found mixed results [26]. While it is not clear whether different races and ethnicities experience the same degree of weight stigma, differences in the internalize weight bias have been observed. African American men and women are less likely to internalize weight stigma than white men and women; African American women were more likely to describe their body size with pride while white women appear to be more impacted by external weight stigma [27]. These conflicting views may be the result of cultural differences with respect to body image.

The structures of society also stigmatize those with obesity. Young men with obesity receive poorer grades and are less likely to attend higher education than those of average weight. Girls with obesity are less likely to attend college than their leaner counterparts. Obesity impacts employment decisions as well as treatment in the work place, including hiring practices and salaries [28]. Persons with obesity are also stigmatized in health care settings. Health care professionals have been repeatedly shown to have both explicit as well as implicit prejudice toward patients with obesity [29]. This includes professionals who provide care for persons with obesity. Likely as a result, patients with obesity often report reluctance to access preventive health services and reduced trust in their providers.

Weight stigma also appears to impact decision making with respect to decision making with respect to medical care more generally and weight loss treatment specifically. A recent nationwide study found that 39.1% of respondents believed that individuals who had weight loss surgery chose the “easy way out;” almost one in two respondents thought that people undergo weight loss surgery for cosmetic reasons [30]. Quality of life, however, has been shown to be a strong component of the decision to seek bariatric surgery. In a study of patients seeking bariatric surgery, Wee et al [31] found that weight stigma was the main reason for reduced quality of life in African American women and white men. However, in a survey of primary care patients, weight stigma was a significant contributor to reduced quality of life for white women only. When compared with the patients in primary care, these results suggest that social stigma may be an important aspect of the decision to seek bariatric surgery for African American women and white men, but not for white women [31]. In a study of African American and White women’s perceptions of their physicians’ role in weight loss counseling, both groups of women desired the same style of interaction with their physician – including a personalized plan for weight loss, empathy, and a non-judgmental approach [27].

Educating the public (and, specifically, health care providers) about multifactorial nature of the disease of obesity may reduce weight-biased attitudes by challenging the notion that weight is exclusively within an individual’s behavioral control [32]. Efforts to invoke empathy for individuals with obesity have not been particularly successful. However, for

medical students, trainings that allow students to interact with standardized patients with obesity appear to hold some promise for increasing empathy and confidence in delivering treatment [33]. Together, these observations suggest that future research should target the relationship between race, weight stigma, and patient-provider communication about obesity treatment and bariatric surgery in particular.

2.2. PATIENT-PHYSICIAN COMMUNICATION AS A BARRIER TO BARIATRIC SURGERY

Another key barrier to bariatric surgery may be the conversations that physicians (primary care physicians, endocrinologists, obstetrician/gynecologists, and other relevant specialists), other health care providers (physician assistants, nurse practitioners, mental health professionals, and dietitians) and patients have about obesity and bariatric surgery. In general, health care providers are often reluctant to discuss both the cause and treatment of obesity [34] even though the majority have positive views about bariatric surgery [35]. For example, a qualitative study examining how primary care physicians make treatment decisions about clinically severe obesity revealed that obesity treatment may be underprioritized and the risks associated with bariatric surgery may be overemphasized [34]. Among the reasons for not referring patients for surgery, the study highlighted physicians intention to “do no harm,” inadequate knowledge on bariatric surgery, trying to avoid pursuing surgical treatment too soon, questioning the long-term positive effects of the surgery, as well as uncertainty regarding the insurance coverage [34]. The objective to “do no harm” was driven by concerns about the safety of bariatric surgery, the risk of complications, as well as the potential for reoperations and poor quality of life [34]. These observations lead to questions about the nature and quality of patient-provider communication with respect to bariatric surgery and the potential role of patient-centered communication strategies to promote productive conversations about surgery.

An awareness of providers’ attitudes and behaviors with respect to obesity is important when considering patient-provider communication about treatment options for obesity. Specifically, the reluctance of providers to provide a referral for bariatric surgery may be due to their doubts about the safety and efficacy of the surgery as well as their ability to provide comprehensive postoperative care [34,36]. Physicians who in the past provided a referral for bariatric surgery appear to be more confident in referring other patients for surgery and in providing quality postoperative care. However, this does not appear to be the case for the majority of providers.

Finally, the words used during patient-provider interaction matter. For example, the use of term “obesity” has been shown to promote patients’ perceived control over the condition and self- efficacy [37]. More euphemistic words (such as “weight”) might be associated with less perceived control and harsher language (such as “fat”) with less empathy, compared to a clinical term “obesity” [37].

2.3. SHARED DECISION MAKING IN OBESITY TREATMENT

One potential strategy to improve patient-physician communication about bariatric surgery is through the application of shared decision-making strategies. Shared decision making (SDM) is often heralded as the “gold standard” of interpersonal health communication.

SDM involves the process where both parties, patient and provider, share information and work collectively to come to a treatment decision [38]. Patients must understand risks and benefits of different treatment options, what options they have, and any uncertainties involved with each in order to make a “good” decision. The Institute of Medicine has stressed the importance of patients having the education and support they require to make decisions and participate in their own care. Patients must be involved in seeking knowledge they don’t have as well as expressing values and preferences for treatment [39]. SDM thus assumes that the patient and provider are able to access information regarding a medical decision and are able to respect patient values and physician recommendations. It also assumes that both parties have adequate communication skills.

With regard to bariatric surgery, we believe that SDM likely needs to first occur between the patient with clinically severe obesity and the provider overseeing or coordinating medical care for that individual. This would require a thorough review of the patient’s weight history and history of weight loss efforts. This conversation needs to be frank, but also respectful to ensure that the patient does not feel blamed for the lack of sustained success with previous treatments. Treatments that have not been used, such as pharmacotherapy and bariatric surgery, should be discussed with a conversation about the relative benefits and drawbacks of each. At this point, encouragement to learn more about bariatric surgery and a referral to a trusted program could be made.

SDM also should be used in conversations between the patient and bariatric surgeon, and, ideally all members of the multidisciplinary team. SDM could be used to discuss the benefits and limitations of different surgical interventions and with the patient’s degree of obesity and comorbidities in mind. SDM also can be used to discuss the delivery of postoperative care by the integrated health team. Ideally, these discussions would center around the different types of postoperative care available (in person support groups, eHealth platforms to monitor relevant behaviors, supplemental dietary counseling, use of a weight loss medication, etc.) to best meet the needs of an individual patient.

This idealized vision of SDM does not explicitly recognize the personal, interpersonal, and community characteristics that affect capacity to engage in SDM. In the case of obesity treatment, and bariatric surgery in particular, this has implications for both the provider and patient. This is especially true for racial, ethnic and cultural minorities who are more likely than their counterparts to limitations with language, communication skills, and medical literacy [39]. This can result in the default to the traditional, hierarchical provider-as-expert approach to communication which can strain the relationship and, in turn, can lead to deferred or atypical care [40]. Importantly, these underserved patients – the majority of whom have obesity - are also more likely to report provider bias as a barrier to SDM.

Provider mistrust is associated with lower SDM use among minorities, and, unfortunately, there is evidence that providers hold stereotypes based on race. Biases about which patients are most likely to take an active role may impact how engaging the provider is in SDM. As trust is an important factor in SDM, patients who have lower trust in their provider will be less likely to communicate the preferences and values necessary for successful SDM. Patients’ reluctance to engage in SDM may not stem from a lack of desire to participate, but

rather a fear of being seen as a difficult patient or other negative reactions from providers [41].

SDM behaviors perceived by patients to be affected by race include being less likely to provide information to patients, less likely to listen, being domineering or talking down to patients, and being less likely to consider patient communication preferences [42]. The perceived warmth and confidence that providers display with their patients also affects the content of the communication, whereas judgmental and stereotypical communication can negatively affect the patient-provider relationship. Noncompliance to medical treatment under these conditions has been seen as a means for some patients to exert control over their decision making. In our [43] and others' work [41] among low literacy Black patients, for example, many feel they do not have access to resources and lack information about treatment options, so they "just trust their doctor." But because of inherent institutional trust issues, provider trust is a double-edged sword as it can actually detract from true SDM.

Decision support tools can address some of these barriers. They can be targeted to specific populations and have tailoring elements that allow for a patient to pick and choose issues of interest to provide strategies for talking to a provider who may be in a position to recommend bariatric surgery. In this case, because of the potential cultural biases about weight, it would be important to allow patients to explore how they feel about their weight, as well as options for treatment, in advance of a consultation with a member of their health care team well positioned to discuss obesity treatment [44].

Decision support tools can take a variety of forms, from peer-to-peer navigation to use of technology in the form of web-enabled or mobile health applications. Technology based tools can be especially important to address potential literacy issues because they have interactive multimedia features (e.g., video, voice over, graphics) that require little reading. They can also have interactive features built in that provide visual cues, feedback to users, and ease of targeting to patient populations. They can also incorporate tailoring elements that allow for a patient to pick and choose issues of interest and provide strategies for talking with a health care provider. These types of decision support tools have been shown to improve decision-making outcomes by increasing knowledge, improving accuracy of risk perceptions, enhancing values clarification, and reducing decisional conflict. They have also been used in a variety of decision-making contexts, from screening to treatment.

A decision support tool for patients considering bariatric surgery would have to address the potential cultural and stigmatizing biases about weight by allowing patients to explore how they feel about surgery. Such a tool could increase "informed decision making" as an adjunct to SDM and may be an important strategy to ensure that communication is not one-sided, allowing the patient to bring their concerns to the discussion. This not only eases the burden on the provider but allows the patient to be engaged and empowered because they have explored the decision to undergo surgery on their own.

3. CONCLUSION

The obesity epidemic in the United States and around the world continues to grow largely unchecked. With the exception of bariatric surgery, efforts at prevention and treatment at the individual level have been largely ineffective in the face of profound environmental pressures and physiological adaptation [45]. Unfortunately, bariatric surgery remains underutilized for a number of reasons. Its demonstrated efficacy in promoting weight loss and improving physical and psychosocial health for the large majority of patients who undergo surgery demands the development of strategies to increase utilization.

The barriers to greater usage of surgery are numerous. Some fall at the intersection of health care policy and health care delivery. Others are at the individual level. Without question, misinformation and fear about bariatric surgery prevent large numbers of people from considering it as a viable option. The increased understanding in the role of weight stigma in obesity and obesity treatment lead us to conclude that this form of bias, at the intrapersonal, interpersonal, and structural level, likely contributes to the underutilization of surgery as well. Unfortunately, this bias also appears to influence the interactions that patients and providers, regardless of specialty, have about obesity and all its treatments. Interventions to minimize internalized weight bias have shown some early promise [20]. As efforts continue to education medical students about the disease of obesity, as well as the importance of nutrition and physical activity in physical health and mental well-being, there is optimism that weight bias may decrease among health care providers with time.

In the past decade, a number of studies have shown that both physicians and/or auxiliary health care providers can deliver lifestyle medication interventions that lead to clinically significant weight loss [44]. Unfortunately, widespread use of this approach to treatment has not followed the evidence base. Many physicians continue to report that they do not have the training to deliver effective care; others report reluctance to provide obesity treatment without more acceptable reimbursement models [46]. Until these and other related issues are addressed, perhaps health care providers can have their greatest impact on the delivery of evidence-based obesity treatment through the use of SDM in their consultations with patients with obesity. If we are to witness even small success arresting the growth of obesity at the population level, we need to identify novel strategies to ensure that patients with clinically severe obesity and related morbidities are informed of the most appropriate treatments available to them.

Conflict of Interest Disclosure

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HIGHLIGHTS

- The underutilization of bariatric surgery is likely multifactorial.
- Weight stigma and bias, as well as suboptimal communication between patients and providers are likely barriers to greater usage.
- Shared decision making between patients and providers has potential to contribute to increased utilization of bariatric surgery.