Keynote address

Presidential address—obesity discrimination: what can we do?

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The basis for bariatric surgery

Obesity is a disease associated with premature mortality and contributes to the severity of multiple obesity-related conditions, including type 2 diabetes, hypertension, hyperlipidemia, obstructive sleep apnea, musculoskeletal and quality of life impairment, cancer, and others [1,2]. A variety of bariatric surgical procedures, developed and performed throughout the past 40 years, have consistently demonstrated superior weight loss compared with nonoperative or usual care [3]. The demonstrated benefits of these bariatric surgical procedures have included, but not been limited to, improvement or remission of virtually all the associated obesity-related conditions and improved survival [3–5]. The induction of remission of type 2 diabetes by bariatric/metabolic surgery, independent of the severity of obesity (body mass index [BMI]) has generated interest throughout the medical and lay communities [6]. The quality of life is also improved [7,8]. As the result of improvement or induction of remission of obesity-related conditions, the consumption of healthcare resources is reduced throughout time, such that bariatric surgical procedures achieve a complete return on investment. Specifically, laparoscopic gastric bypass has been reported to produce a return on investment in as few as 2 years, a remarkable finding produced by few medical interventions [9,10]. Because of the lack of a centralized or national reporting system regarding the performance of specific surgical procedures, including all procedures at hospitals and outpatient surgery centers, the number of bariatric surgical procedures performed in the United States cannot be determined with certainty. Estimates of the prevalence of bariatric surgery according to the method and data source have varied from 100,000 to 200,000 cases annually [11,12]. Given the prevalence of severe obesity (BMI >40 kg/m²) in the United States, the number of bariatric surgical procedures performed on an annual basis in the United States appears to be no more than 1% of the potentially eligible population.

Thus, obesity is a life-threatening disease associated with multiple obesity-related conditions, decreased longevity, impaired quality of life, and increased use of healthcare resources, which can be improved, if not reversed, by bariatric surgery, but with bariatric surgery applied to an exceedingly small number of potentially eligible candidates. The extent of this disconnect might be unique in the US healthcare system.

The reason or reasons for the exceedingly low application of bariatric surgery to severe obesity are not known with certainty. Several possible explanations exist for this low usage of bariatric surgery (Table 1).

The limited access to surgery of the potential surgical candidates could arise as the result of insufficient provider capacity (i.e., hospitals, surgeons, surgical teams). Multiple developments pertinent to the provision of bariatric surgery make it unlikely that provider capacity plays a role in limiting patient access to bariatric surgery. These factors include, but are not limited to, establishment of multiple fellowship programs for training bariatric surgeons, a shift toward laparoscopic bariatric surgery, thereby reducing the postoperative length of stay, a reduction in complication rates further reducing the length of stay and the requirement for intensive care beds, and the use of outpatient surgical centers. It is clear that a lack of funding prevents many potential surgical patients from gaining access despite their desire to be considered bariatric surgical candidates. Approximately 50% of employed Americans have bariatric surgery coverage as a part of their healthcare benefit, with the proportion greater among larger employers [13]. Socioeconomic disparities in eligibility and access to bariatric surgery among other factors support the statement that a
lack of financial coverage for the cost of bariatric surgery is a significant contributor to bariatric surgery access [14–16].

Healthcare systems, such as health maintenance organizations, that have well-established bariatric surgical programs might perform as many as 2–3 times as many procedures per number of covered lives as occur in the general population (Karen C, PhD, personal communication, 2010).

Information gaps likely contribute substantially to the underusage of bariatric surgery on the part of patients, their families, and their employers, as well as physicians and other healthcare providers [17]. Specifically, information regarding the deleterious effects of obesity on health, both short and long term, have been increasingly recognized and publicized. However, the recent advances in the outcomes after bariatric surgery, including improved safety and short- and long-term improved health [18], are not widely known in either the lay or medical communities.

It is reasonable to assume that a fear of complications, combined with a general fear of having one’s gastrointestinal tract rearranged to the extent that occurs in gastric bypass and similar procedures, is likely the single greatest impairment to the use of bariatric surgery on the part of patients and their families, as well as physicians and other healthcare providers. The sensationalism of the complications of bariatric surgery in the media and the knowledge of anecdotal cases with poor outcomes, combined with the lack of knowledge of the improved safety that has been achieved in recent years, are definite deterrents to patients seeking bariatric surgery. Similarly, a fear of complications is a deterrent to primary care providers to refer patients for surgical evaluation.

It is my contention, however, that the root cause of the low use of bariatric surgery is an antiobesity bias. The remainder of this report will develop this theme.

**Obesity discrimination**

Obesity discrimination and other forms of discrimination follow a well-defined pattern or sequence of events. The initiating factors are stereotypes and bias. These lead to stigma, prejudice, discrimination, and, ultimately, universally adverse outcomes for emotional functioning, social well-being, and physical health (Fig. 1) [19].

![Fig. 1. Obesity discrimination.](https://example.com/fig1)

These stereotypes hold that individuals affected by obesity are lazy, weak-willed, unsuccessful, unintelligent, lack self-discipline, have poor willpower, and are noncompliant with the lifestyle changes necessary to prevent or treat obesity [19]. This stigma poses a risk to psychological and physical health, generates health disparities (discussed below), and interferes with obesity prevention. At the foundation of weight stigma are public misperceptions that individuals affected by obesity are responsible for their obesity and that obesity is strictly under personal control and, therefore, avoidable, as well as reversible [20,21], and that stigmatizing obesity is an appropriate tool to motivate individuals to lose weight (Table 2).

Multiple studies have demonstrated that body build stereotypes occur in young children and are carried forward into adulthood. Brylinsky and Moore [22] studied children from kindergarten through fourth grade. When the children were shown line drawings of thin, average, and chubby children, they were asked to score various attributes. These young children supported an unfavorable perception of the chubby body build stereotype and a favorable perception of the average body build [22]. Wardle et al. [23], in the United Kingdom also demonstrated that children demonstrated strongly negative attitudes toward obesity. The adverse out-

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<th>Table 1 Possible explanations for low use of bariatric surgery</th>
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<tbody>
<tr>
<td>Limited access</td>
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<tr>
<td>Provider capacity</td>
</tr>
<tr>
<td>Insurance coverage</td>
</tr>
<tr>
<td>Information gaps</td>
</tr>
<tr>
<td>Patients</td>
</tr>
<tr>
<td>Physicians/providers</td>
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<tr>
<td>Fear of complications</td>
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<tr>
<td>Patients</td>
</tr>
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<td>Physicians/providers</td>
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<tr>
<td>Bias directed toward persons with obesity</td>
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<th>Table 2 Obesity discrimination</th>
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<td>Fundamental misperceptions</td>
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<td>Obese individuals are responsible for their disease</td>
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<td>Obesity is under personal control</td>
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<td>Use of stigma tool to motivate works</td>
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comes associated with obesity stigma are multiple and varied, including behaviors that reinforce obesity and impair weight loss, such as increased caloric consumption [24], binge-eating behaviors [25], and avoidance of physical activity [26,27]. The prevalence of obesity discrimination increased from 7% in 1995–1996 to 12% in 2004–2006 [28].

An additional negative effect of obesity stigma is discrimination against obesity in the workplace. Individuals affected by obesity are less likely to be hired, have worse employment outcomes (duration of employment), experience increased employment discrimination, as evidenced by formal reports, and receive lower wages for the same work. This disparity increases with increasing weight [29]. The obesity cost calculator established by the Centers for Disease Control and Prevention is a well-intentioned publicly available Web site that enables users to enter the BMI class, age group, and gender. The cost calculator then estimates what the additional cost of medical expenses and work loss on an annual basis is predicted to be for the employer (Table 3) [30].

Although intended to stimulate wellness and other positive responses to the obesity epidemic, the Communicable Disease Centre cost calculator has the potential to be misused against individuals affected by obesity. Media accounts of instances of obesity discrimination by large employers, including healthcare systems, are not rare [31].

Wellness programs

In response to the demonstrated increased cost associated with obesity in the workforce, many midsized and larger employers have established wellness programs for their employees. The general characteristics of an appropriate wellness program include provision of leadership, establishment of a long-term commitment, the use of a positive, not negative, incentives (carrots, not sticks), convenience, and effective communication [32]. The components appropriately include health risk assessment and management, as well as lifestyle interventions. Examples include smoking cessation, enhanced physical activity, stress reduction, and diet instruction [32]. The demonstrated benefits of wellness programs include improved health with decreased healthcare costs and decreased workers’ compensation costs. Decreased employee attrition and increased productivity reflected by decreased absenteeism and enhanced presenteeism have all been demonstrated. The issue of appropriate incentives for behavior change/wellness, however, is complex. Financial incentives to enhance smoking cessation, for example, have been reported to have a definite positive effect [33]. Such financial incentives to stimulate weight loss, however, have not been demonstrated to have a durable positive effect [34]. These incentives might become discriminatory, even as a component of a wellness program or healthcare coverage for obesity treatment. Examples include employers that offer reductions in employee contributions to healthcare benefit cost by transferring the employer’s healthcare cost from lean to employees affected by obesity. The state of Arizona proposed a plan to charge childless adults who smoke or are affected by obesity $50 as an incentive to stop smoking or accomplish weight loss, stating that Medicaid officials believe such incentives will have a positive effect [35]. The evidence, however, regarding the use of stigma as a motivation for weight loss consistently refutes this concept. Individuals affected by obesity are already financially penalized in their employment and already have motivation to lose weight, and the penalty approaches typically offer few tools, resources, or support to help employees make the required behavioral lifestyle changes. Several decades of weight stigmatization have demonstrated unhealthy eating and less physical activity, especially among children. Supportive intervention is clearly more successful [19].

Healthcare disparities

Disparities in the delivery of healthcare because of racial or socioeconomic factors have been widely reported in a number of conditions, including prenatal care/stillbirth, cholecystitis, vascular disease, and cancer [36,37]. The factors involved in racial disparities in cancer treatment and outcome have been reviewed [38]. After risk adjustment, Morris et al. [38] reported a 10–25% reduction in 5-year survival for common cancers, including colorectal, uterine, and head/neck cancer. Multiple factors contribute to this phenomenon, including less-frequent screening, resulting in a more advanced stage of cancer at presentation among black Americans compared with white Americans. Co-morbidity status also accounts for a portion of the race effect. Provider factors, however, also contribute, including underuse of screening, surgery, and adjuvant treatment [38]. Unconscious race and social class bias has been demonstrated among medical students [39]. Given the well-established disparities in healthcare resulting from racial or socioeconomic factors, it is not surprising that obesity stigma also affects healthcare.

Obesity stigma and healthcare

Several studies have examined healthcare providers’ attitudes regarding obesity and obese patients. Foster et al.
reported that ≥50% of primary care physicians regard their patients affected by obesity as awkward, unattractive, and noncompliant. Also, 45% believe their patients affected by obesity are weak-willed, sloppy, and lazy. Primary care physicians are frustrated by obesity, and they regard the treatment of drug addiction as the only chronic condition in which their intervention is less effective [40]. Ferrante et al. [41] also reported that 66% of physicians find treating obesity to be frustrating, citing inadequate reimbursement and general pessimism regarding weight loss. They also reported that 71% of physicians believe their patients affected by obesity “want the easy way out” [41]. Jay et al. [42] reported that just 56% of physicians believe they are qualified to treat obesity and have a negative reaction to obesity. In addition, as the patients’ BMI increases, physicians report having less respect for their patients. Two common cancers, the outcomes of which are highly affected by screening, colorectal and breast cancer, occur with increased frequency among the obese [43]. Despite this increased frequency of breast and colorectal cancer among those affected by obesity and the known benefits of screening, screening is less often accomplished among patients affected by obesity, contributing to the poor outcomes [44,45]. Barriers to accomplishing this screening, including difficulty in performing breast and pelvic examinations, inadequate equipment in many primary care settings, and patient barriers, including failure to keep scheduled appointments for screening appointments [41]. Other aspects of preventative care are also less frequently accomplished in patients affected by obesity, including immunizations, tobacco and injury prevention education, and other preventative care [45]. Frequently cited barriers by obese women, in particular, include, among others, disrespectful treatment and embarrassment at being weighed [46]. The negative attitude toward individuals affected by obesity occur among other professionals, including teachers and nurses [47,48].

It is reasonable to conclude that the multiple aspects of the negative effects of obesity stigmatization and discrimination contribute substantially to the low use of bariatric surgery for the treatment of severe obesity. The fundamental problem is that severe obesity is widely regarded as a failure of self-control or regulation regarding eating and self-imposed inactivity. This underlying or root cause is manifested in multiple spheres, as described in the previous sections, leading to, among others, the attitude that the treatment of severe obesity does not justify the use of healthcare resources.

American Society for Metabolic and Bariatric Surgery response to obesity discrimination

The American Society for Metabolic and Bariatric Surgery (ASMBs) response to obesity discrimination is focused on 2 basic areas: education and outreach. The multiple components of the educational effort focused on healthcare professionals include the annual society meeting, multiple postgraduate courses throughout the year, chapter and regional meetings, the publication of position statements, the establishment of the scientific journal “Surgery of Obesity and Related Diseases” (SOARD), and multiple educational components at the Society’s Web site. An increasing effort is being made to provide educational materials to primary care providers. The importance of this effort is emphasized by a study demonstrating that physicians who possess greater knowledge regarding obesity and its treatment are more likely to effectively treat obesity and recommend surgical referral, when appropriate [49]. One component of the ASMBS response to bias directed toward individuals affected by obesity in the healthcare system is to require sensitivity training/stigma reduction at designated bariatric surgery centers.

The outreach or advocacy effort of the ASMBS includes establishment of the Obesity Care Continuum, composed of the ASMBs, Obesity Society, Obesity Action Coalition, and American Dietetic Association. This coalition has coordinated its effort to advocate for an appropriate government response to the obesity epidemic, including advocacy for improved nutrition, physical activity, identification and reduction of weight stigma and discrimination, and the need for effective treatment for those already affected by obesity and severe obesity. This effort requires constant surveillance and response. For example, the ASMBS has established a rapid response team, which provides immediately available information and assistance to bariatric surgeons when adverse coverage decisions are made. Recent examples have included termination of bariatric surgical coverage by several county and state boards, as well as private employers and insurance carriers. The widespread concept that obesity is a condition of self-responsibility is exemplified by a recent study in which a majority of both men and women indicated support for laws to prohibit weight discrimination in the workplace but only 32% of women and 27% of men indicated support for laws to ensure disability coverage for obesity-related disease [29].

Conclusion

Obesity stigma leading to widespread discrimination in multiple aspects of our society is a major ongoing problem. A continuing effort to educate healthcare providers, government leaders, and officials, as well as the public, is necessary to overcome the misconception that severe obesity is entirely a condition of personal failure that does not require and is not worthy of effective treatment or can be effectively managed with punitive incentives.

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