



Original article

When the COVID-19 pandemic collides with the obesity epidemic in the United States: a national survey

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Received 8 February 2023; accepted 27 February 2023

Abstract

Background: COVID-19 has disrupted life and put a spotlight on obesity as a risk factor for severe COVID-19 outcomes. Five years ago, we performed a survey exploring ways Americans view obesity and its treatment. We repeated the survey in the COVID-19 era to explore the impact of this once-in-a-century public health crisis on public perception and behavior surrounding obesity.

Objective: To explore if America's views on obesity have changed after more than 2 years of living through COVID-19.

Setting: The national survey was conducted by the National Opinion Research Center (NORC) from December 10 to 28, 2021.

Methods: We revisited some of the questions posed in a survey 5 years ago and added questions asking whether COVID-19 has changed views on obesity. We surveyed 1714 Americans sampled from a probability-based, nationally representative panel. Responses of Americans to questions about obesity were compared with the same or similar questions asked 5 years ago.

Results: COVID-19 has led to a change in how Americans view risks of obesity and benefits of treatment. Nearly one third (29%) of Americans became more worried about having obesity, and this is more pervasive among Black and Hispanic Americans (45%). This heightened concern led an estimated 28 million people to explore treatments not considered before the pandemic, including 6.4 million who thought about bariatric surgery or taking prescription obesity drugs.

Conclusions: COVID-19 may have heightened Americans' worry about obesity. This may present an opportunity for conversations about treatments, including metabolic surgery. (Surg Obes Relat Dis 2023;■:1–6.) © 2023 American Society for Metabolic and Bariatric Surgery. Published by Elsevier Inc. All rights reserved.

Keywords: Obesity; COVID-19; Weight loss surgery

In March 2020, the World Health Organization declared the spread of COVID-19 a pandemic, and since then, the United States has recorded more deaths from the infection than every other country in the world [1]. More than 1

million Americans have died of COVID-19 and related complications [2], and many of these deaths occurred in people with the underlying disease of obesity [3].

According to the U.S. Centers for Disease Control and Prevention (CDC), obesity affects 42.4% of Americans [4]. Studies show obesity can weaken or impair the body's immune system and cause chronic inflammation and increase the risk for cardiovascular disease, stroke, type 2 diabetes, certain cancers, and many other diseases [5].

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Recently obesity was tied to severe COVID-19, characterized by an increased need for mechanical ventilation, hospital admissions, longer length of stay, and increased mortality [6,7]. One study showed that 50.8% of emergency room or inpatient visits were with patients who had both COVID-19 and obesity [6]. At the same time, another study found an association between the substantial weight loss achieved with bariatric surgery and improved outcomes of COVID-19 [8].

A little more than 5 years ago, we (the American Society for Metabolic and Bariatric Surgery (ASMBS)) did a study that found 81% of Americans viewed obesity as an extremely or very serious health problem, equal in seriousness only to cancer and even more of a threat than heart disease and diabetes [9]. However, relatively few seemed to know the best ways to combat obesity, overestimating the safety and effectiveness of some treatments and underestimating it in others. Most people say they did not even involve their doctors in their thinking about obesity. In the current study, we revisited some of the questions posed in this survey to explore if America's views on the risks of obesity and its treatment have changed after more than 2 years of living through the COVID-19 pandemic. We hypothesized that COVID-19 heightened Americans' worry about the threat of obesity. The goal of this study is to heighten awareness of the dangers of obesity and the importance of weight loss interventions such as bariatric surgery and prescription obesity drugs, which are among the most underutilized treatments in medicine.

Methods

The 2022 American Society for Metabolic and Bariatric Surgery (ASMBS)/National Opinion Research Center (NORC) Obesity in America Survey was conducted by NORC at the University of Chicago and funded by the ASMBS and the ASMBS Foundation, a nonprofit dedicated to obesity research, education, and advocacy. Data were collected using AmeriSpeak, NORC's probability-based panel designed to be representative of the U.S. household population. During the initial recruitment phase of the panel, randomly selected U.S. households were sampled with a known, nonzero probability of selection from the NORC National Sample Frame and then contacted by U.S. mail, e-mail, telephone, and field interviewers (face-to-face). The panel provides sample coverage of approximately 97% of the U.S. household population.

Interviews were conducted from December 10 to 28, 2021, with adults aged 18 and older representing the 50 states and the District of Columbia. Panel members were randomly drawn, and 1714 completed the survey (1644 via the web and 70 via telephone). Panel members were invited by e-mail or by phone from a NORC telephone interviewer. Interviews were conducted in both English and Spanish, depending on respondent preference. Respondents

were offered a small monetary incentive (\$2) for completing the survey.

Quality assurance checks were conducted to ensure data quality. In total, 108 interviews were removed for nonresponse to at least 50% of the questions asked of them, for completing the survey in less than one third the median interview time for the full sample, or for straight-lining all grid questions asked of them. These interviews were excluded from the data file before weighting.

Once the sample has been selected and fielded, and all the study data have been collected and made final, a poststratification process was used to adjust for any survey nonresponse as well as any noncoverage or under- and oversampling resulting from the study-specific sample design. Poststratification variables included age, gender, census division, race/ethnicity, education, housing tenure, and telephone status. Weighting variables were obtained from the 2021 Current Population Survey. The weighted data reflect the U.S. population of adults aged 18 and older.

Results

The final stage completion rate was 22.9%, the weighted household panel response rate was 17.1%, and the weighted household panel retention rate was 75.6%, for a cumulative response rate of 3.0%. The overall margin of sampling error was ± 3.3 percentage points at the 95% confidence level including the design effect.

In addition, Black and Hispanic respondents were sampled at a higher rate than their proportion of the population for reasons of analysis. The overall margin of sampling error for the 471 completed interviews with Black respondents was ± 5.8 percentage points at the 95% confidence level including the design effect. The overall margin of sampling error for the 438 completed interviews with Hispanic respondents was ± 6.6 percentage points at the 95% confidence level including the design effect.

America's top health threats and new worries

Fig. 1 shows 8 in 10 adults (82%) think obesity is the biggest health threat facing the country, as big as cancer (82%), and even more significant than heart disease (77%), diabetes (76%), and COVID-19 (68%)—nearly identical to findings from our 2016 survey—long before the public came to know COVID-19. Only Black Americans thought COVID-19 posed a slightly bigger threat than cancer (87% versus 85%), cardiovascular disease (87% versus 83%), and obesity (87% versus 81%).

However, nearly 4 in 10 of all Americans view obesity as a larger health risk now than they did before the pandemic and many more are worried about it personally, particularly Black and Hispanic Americans (45% Black and Hispanic adults versus 20% White adults seen in Fig. 2).

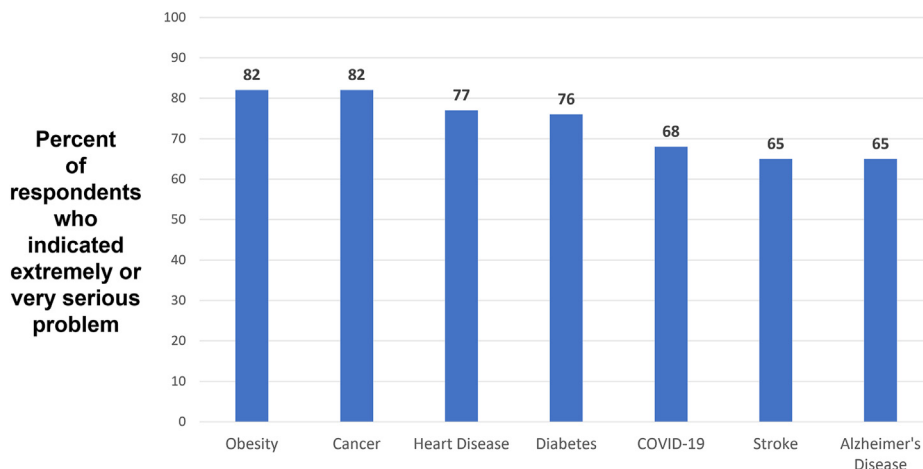


Fig. 1. Survey question: In this country, how serious a problem is each of these health issues? (Answer choices: not a problem at all; only a little serious; moderately serious; very serious; extremely serious.)

COVID-19 motivates millions to lose weight

Fig. 3 illustrates that COVID-19 was a motivating factor for 39% of Americans who had attempted weight loss in the past year, a number that grows even higher among Black (43%) and Hispanic adults (51%).

Almost 20% or 28 million Americans who had attempted weight loss at some point in the last year considered weight loss methods they had not tried before the pandemic. Fig. 4 illustrates percentages of this group who mentioned specifically which methods they considered, including diet and exercise (65%), working with a doctor (32%), taking prescription medications (14%), or having weight loss surgery (14%).

Most Americans think obesity is a more serious problem than COVID-19

After 2 years of living through the pandemic, 68% of Americans consider COVID-19 a serious problem in the

United States, and another 19% consider it moderately serious. Those with obesity view COVID-19 as an even bigger problem (73%), as do women (75%) and Black Americans (87%).

Nearly two thirds (64%) of Americans say they are paying more attention to their overall health because of COVID-19. Black Americans are more likely to pay more attention to their overall health (78%) than Hispanic (67%) or White adults (60%), who are paying the least attention since the pandemic.

Majority of Americans trying to lose weight

Weight loss remains a struggle for most Americans. Three fourths (76%) have tried to lose weight at some point in their lives, with more than half (58%) currently in the process. The number of people with obesity trying to lose weight is even higher—91% say they have tried to lose weight in the past and 70% are trying to do so now.

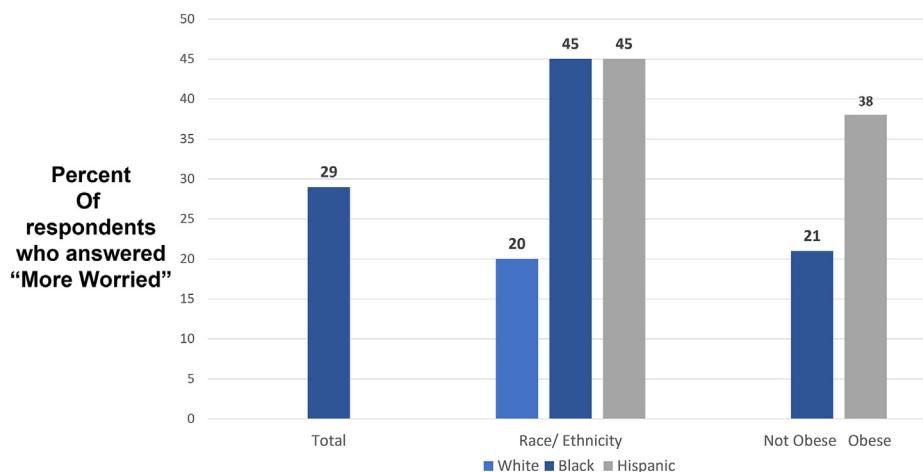


Fig. 2. Survey question: Has the COVID-19 pandemic made you more or less worried than you have ever been about having obesity? (Answer choices: more worried; less worried; neither more nor less worried.)

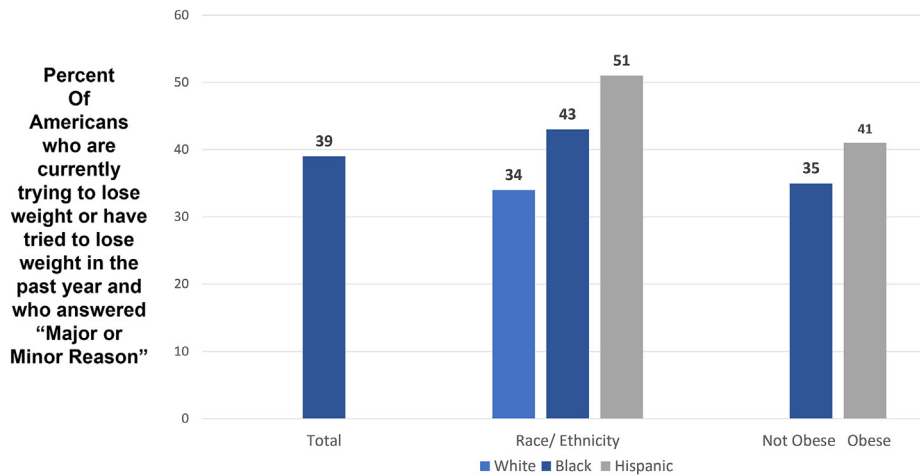


Fig. 3. Survey question: Was the COVID-19 pandemic a major reason, minor reason, or not a reason at all for trying to lose weight this year? (Answer choices: major reason; minor reason; not a reason at all.)

Perceptions of weight loss method effectiveness and safety

Fig. 5 shows that most Americans do not go beyond traditional diet and exercise alone or involve doctors in their attempts to lose weight and overestimate the effectiveness of some treatments while underestimating others.

Nearly three fourths (73%) consider dieting and exercising to be the most effective method for long-term weight loss, even more effective than involving a doctor (65%) or weight loss surgery (56%), the latter of which has been shown to produce the greatest and most durable weight loss and health benefits among people with obesity and related conditions. Only 23% deemed taking prescription

medications as effective followed by dietary supplements (18%). Those with obesity tended to consider methods such as losing weight on their own, with the help of a doctor, dietary counseling with a dietician, and formal exercise and weight loss programs as less effective than did their counterparts who did not have obesity.

Weight loss surgery is seen as safe by one third of Americans (33%). More Americans believe someone would have a greater chance of dying from complications of obesity (47%) or COVID-19 (39%) than weight loss surgery (19%). Nonetheless, more than 85% of those surgically eligible for weight loss surgery based on body mass index have not received a recommendation for it from their doctor.

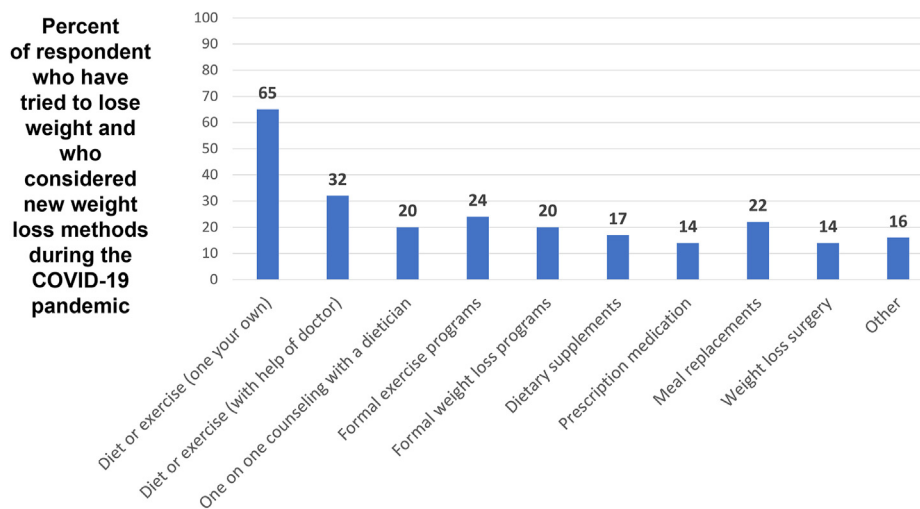


Fig. 4. Survey question: Which methods to lose weight did you consider because of the COVID-19 pandemic? (Answer choices: losing weight on your own through diet and exercise; losing weight with the help of your doctor through diet or exercise; one-on-one dietary counseling with a dietician; formal exercise programs with a personal trainer, physical therapist, or occupational therapist; formal weight loss program such as Weight Watchers, or a hospital-based program; dietary supplements such as Herbal-life, Ephedrine, or Dexatrim; prescription medication such as Saxenda, Qsymia, or Contrave; meal replacements such as Slimfast or Ensure; weight loss surgery such as gastric bypass or gastric sleeve surgery; other treatments of methods such as hypnosis, acupuncture, church programs, or in-person or online support groups.)

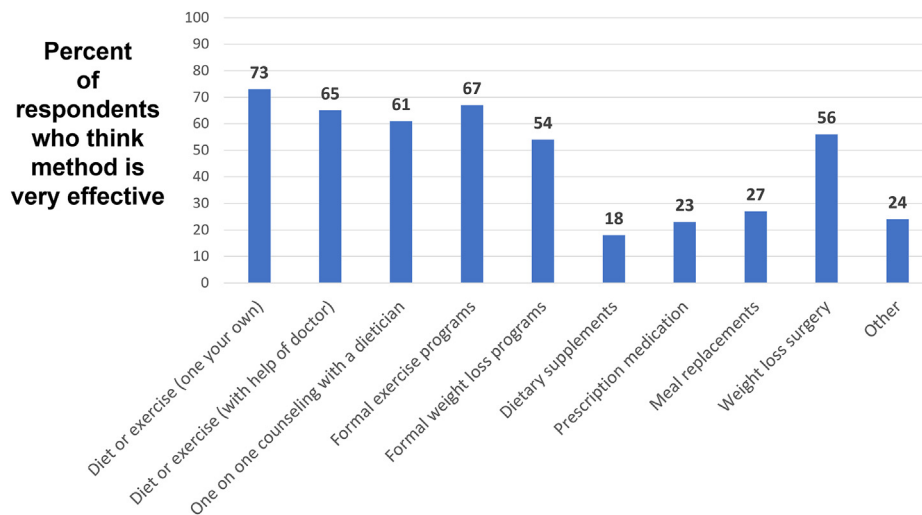


Fig. 5. Survey question: Please rate how effective you think each method is for significant, long-term weight loss? (Answer choices: very effective; effective; neither effective nor ineffective; ineffective; very ineffective.)

Reasons for obesity: lack of will power or genetic?

Americans are split as to whether obesity is the result of lifestyle choices (47%) or from genetic, environment, and social factors (53%). Men more than women tend to see obesity as a lifestyle choice resulting from a person's eating habits and lack of exercise (57% versus 38%), whereas women tend to view obesity more as resulting from different genetic, environmental, and social factors (62% versus 43% among men).

Nearly three fourths (73%) of Americans trying to lose weight cite a lack of will power as the biggest reason for obesity, despite medical consensus and scientific evidence that find genetics, environment, social, and behavioral factors combined are the primary causes of obesity. Not being able to find healthy foods easily, conveniently, or cheaply were also considered major or minor barriers to more than half (53%) of those who have tried to lose weight. One in 10 (13%) felt that they could have a better chance of losing weight if weight loss methods were covered by their insurance and considered a lack of insurance coverage a major barrier to treatment.

Medical community and consumers see it differently—is obesity a disease or a risk factor?

The survey found that the public thinks differently about obesity than the medical community. Most Americans view it as a risk factor (61%) for other diseases rather than a disease itself, and nearly three fourths (73%) of those who have tried to lose weight believe obesity is caused by a lack of willpower—percentages that haven't changed much since the 2016 ASMBS/NORC Obesity in America Survey even though the American Medical Association, the nation's largest physician group, classified obesity a disease nearly a decade ago [10].

Health professional involvement in addressing obesity

Only 41% report having spoken to their doctor about their weight, with patients much more likely to initiate discussion than their physicians (60% versus 39%). Nearly 1 in 5 (18%) said COVID-19 increased the chances that they would bring up the issue of their weight—a percentage that grew to nearly a third among Black (28%) and Hispanic (29%) Americans and individuals with obesity (27%).

Discussion

COVID-19 has changed the way millions of Americans think about obesity. Nearly one third say the pandemic has made them more worried than ever about obesity and 39% of those attempting weight loss said the risks associated with COVID-19 directly contributed to their decision to lose weight.

While Americans consider obesity as the biggest health threat facing the nation, tied only with cancer, most do not treat the disease as seriously as cancer. Most of those trying new approaches to lose weight during the pandemic turned to diet and exercise alone (65%), which have proven to be insufficient solutions for most people with obesity.

Bariatric surgery such as gastric bypass and sleeve gastrectomy have been shown to be the most effective and long-lasting treatment for severe obesity [11]. These operations often improve or resolve obesity related diseases including type 2 diabetes, heart disease, and high blood pressure and lead to significant and durable weight loss. Bariatric surgery has a safety profile comparable to some of the safest and most commonly performed surgeries in the United States, including gallbladder surgery, appendectomy, and knee replacement [12]. Nonetheless, the surgery, also known as metabolic surgery, is among the least utilized treatments in medicine [13].

The COVID-19 pandemic may have changed perceptions and behaviors. Our survey found about 14% or 6.4 million Americans considered having weight loss surgery or using anti-obesity prescription drugs amid the pandemic. This is a particularly notable finding given that each year only about 1% of eligible patients have weight loss surgery and only 1% to 3% take prescription drugs for obesity.

In 2020, the number of bariatric procedures dropped to under 200,000 for the first time since 2015, a decline that can be largely attributed to COVID-19 restrictions in place at the time on performing what was considered “elective” surgery. During the year prior, an estimated 256,000 procedures were performed, which still is a fraction of the 25 million adults in the United States with severe obesity [14].

One limitation to this study is that it does not represent a true longitudinal cohort study—2 different populations were surveyed (one 5 years ago and one in 2021). However, both were representative of the U.S. population, as certified by AmeriSpeak, and designed to be representative of American households. Furthermore, the main goal of this paper and survey was to investigate whether COVID-19 has changed the way Americans view obesity and obesity treatments, and results from our current survey answer this question.

Conclusion

Our hypothesis that the COVID-19 pandemic would heighten Americans’ worry about the threat of obesity is supported by our results, as 29% answered that COVID-19 made them worry more about having obesity. COVID-19, as devastating as it has been and continues to be, has created an unprecedented opportunity to turn consideration into action for the millions of people struggling with obesity and thinking about new strategies to address it. We may be on the cusp of a new era in obesity treatment as the increasing dangers of the disease and the lifesaving benefits of evidence-based treatments, such as bariatric surgery, become harder to ignore.

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