Investigating Differences in 5-Year Weight Loss by Race and Insurance Payer Type in Patients who Undergo Bariatric Surgery

CO229

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BACKGROUND

- Bariatric surgery is the most effective weight loss method compared to non-surgical strategies[1]
- Nonetheless, post-surgery weight regain is common[2,3]
- It is commonly observed that racial minorities lose less weight than non-Hispanic white patients following bariatric surgery[4]
- Current literature lacks robust prospective, long-term studies exploring the effects of race on bariatric surgery outcomes to better identify factors leading to this discrepancy

OBJECTIVES

- This study aimed to assess sustained weight loss over a five-year follow-up period across race, insurance payer type, and exposure to nutrition counseling

METHODS

- This study was conducted using patient records extracted from Cerner Real World Data (CRWD), a de-identified, US electronic health record database
- Using ICD-9 and ICD-10 codes, we selected patients >18 years who received bariatric surgery between January 2011 and December 2016, had at least one postoperative nutrition consultation, and at least one BMI recording each year over a five-year follow-up period
- Patients with any gastric cancer diagnosis were excluded
- Change in BMI was observed across racial and insurance payer groups

RESULTS

- A total of 657 patients met study criteria **(Table 1)**
- When compared to baseline BMI measurements, white patients lost more weight within the first year (25% [Avg] ± 12% [SD] BMI loss) and experienced least weight regain at five years (23% ± 15% BMI loss) **(Figure 1)**
- Black patients lost an average 19% (±16%) BMI at year 1 and 15% (±13%) by year 5 **(Figure 1)**
- Self-pay patients showed the greatest change from baseline BMI in the first year (31% [Avg] ± 11% [SD]), though the loss diminished to 27% (±12%) by year 5 **(Figure 2)**
- Medicaid subscribers were the only payer group that did not experience overall weight regain (21% [Avg] ± 21% [SD] BMI loss at year 1 and 23% ± 15% at year 5) **(Figure 2)**
- Patients attended a mean of 2.9 ± 3 nutrition visits during five-year follow up. Number of nutrition counseling visits was not suggestive of differences in sustained weight loss

CONCLUSIONS

- Our results suggest that further research is needed to determine if patient characteristics such as race, payer, and access to nutrition consultations affect long-term sustained weight loss post-bariatric surgery
- A limitation of this study was a skew in the patient population toward white females and those commercially insured
- Future studies should assess the long-term weight loss success of racial minorities, as racial minorities are more frequently impacted by obesity and its deleterious health consequences

TABLE 1. Patient Demographics (N=657)

Characteristic	n	%
Age		
Mean ± SD	48.3 ±12.6	-
Sex		
Male	102	15.5%
Female	553	84.2%
Other/Unknown	2	0.3%
Race		
White	570	86.8%
Black	44	6.7%
Other	41	6.2%
Not Specified	2	0.3%
Insurance Payer		
Medicaid	66	10.0%
Medicare	141	21.5%
Commercial	397	60.4%
Government/Military	3	0.5%
Self-pay	24	3.7%
Other	5	0.8%
Not Specified	21	3.2%

FIGURE 1. Change in BMI by Racial Group

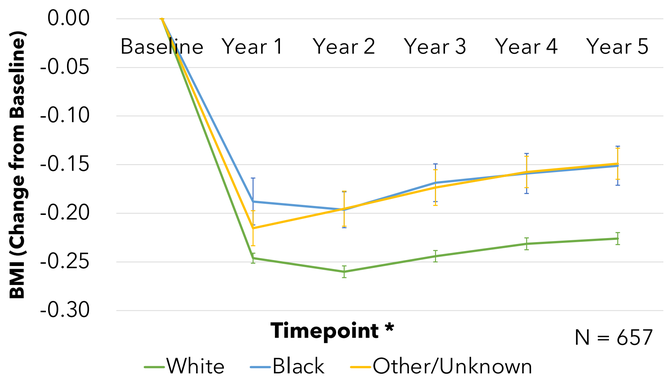
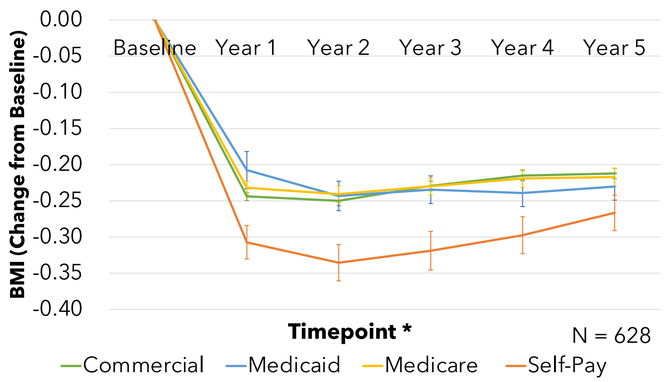


FIGURE 2. Change in BMI by Insurance Payer Type



** Baseline timepoint taken as the closest measurement to date of bariatric surgery within 6 months prior to surgery; Yearly BMI measurement taken as most recent measurement within year of interest; Error bars represent the standard error of the mean (SEM).*

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