Racial and ethnic minority patients report different weight-related care experiences than non-Hispanic Whites

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ARTICLE INFO

ABSTRACT

Our objective was to compare patients' health care experiences, related to their weight, across racial and ethnic groups. In Summer 2015, we distributed a written survey with telephone follow-up to a random sample of 5400 racially/ethnically and geographically diverse U.S. adult health plan members with overweight or obesity. The survey assessed members' perceptions of their weight-related healthcare experiences, including their perception of their primary care provider, and the type of weight management services they had been offered, or were interested in. We used multivariable multinomial logistic regression to examine the relationship between race/ethnicity and responses to questions about care experience. Overall, 2811 members (53%) responded to the survey and we included 2725 with complete data in the analysis. Mean age was 52.7 years (SD 15.0), with 61.7% female and 48.3% from minority racial/ethnic groups. Mean BMI was 37.1 kg/m² (SD 8.0). Most (68.2%) respondents reported having previous discussions of weight with their provider, but interest in such counseling varied by race/ethnicity. Non-Hispanic blacks were significantly less likely to frequently avoid care (for fear of discussing weight/being weighed) than whites (OR 0.49, 95% CI 0.26–0.90). Relative to whites, respondents of other race/ethnicities were more likely to want weight-related discussions with their providers. Race/ethnicity correlates with patients' perception of discussions of weight in healthcare encounters. Clinicians should capitalize on opportunities to discuss weight loss with high-risk minority patients who may desire these conversations.

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1. Introduction

People with obesity face societal biases that result in discrimination at school, work, and general everyday settings (Puhl and Heuer, 2009). These biases also exist within health care, where medical students, (Wear et al., 2006) physicians, (Foster et al., 2003; Hebl and Xu, 2001; Gudzune et al., 2011) and other care team members (Schwartz et al., 2003) may view or treat patients with obesity differently than those of healthy weight. Provider biases are described as "explicit" if the provider is aware of and able to verbalize the bias (Teachman and Brownell, 2001). For example, in a 2003 survey of US primary-care physicians (PCPs), one third of respondents viewed patients with obesity as "weak-willed, sloppy or lazy." In contrast, some bias in health care is "implicit" — unconscious patterns of thinking, which nonetheless, may impact care delivery and the patient's experience of care (Foster et al.,

2003; Teachman and Brownell, 2001; Phelan et al., 2014). Explicit and implicit biases may both negatively impact health (Phelan et al., 2015). Patients with obesity may, for example, avoid going to the doctor or miss important screenings, because of prior negative experiences in a healthcare setting (Amy et al., 2006; Wee et al., 2000; Rosen and Schneider, 2004).

Although there is growing evidence that the healthcare setting can be unwelcoming to patients with obesity, less attention has focused on the potential for heterogeneity according to other patient characteristics, such as race or ethnicity. Prior research has examined the impact of patient race/ethnicity on care delivery within pain management, (Weisse et al., 2001) cancer screening, (Mouton et al., 2010) and cardiovascular care, (Schulman et al., 1999) where explicit and implicit biases around racial/ethnic minority patients may influence the care that doctors provide (Green et al., 2007; Moskowitz et al., 2012) or patients' perception of care (Mouton et al., 2010). For racial/ethnic minorities, the experience of weight-related care may particularly differ from that of non-Hispanic whites, due to cultural differences in body image and norms around diet and physical activity, (Robinson et al., 2012; Kumanyika et al., 2012) as well as differing propensity toward weight

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misperception (Choi et al., 2015; Duncan et al., 2011; Dorsey et al., 2010).

In this study, we sought to understand whether the patient experience related to obesity differs across racial/ethnic groups. We hypothesized that patients from minority racial/ethnic groups, particularly those with cultural norms embracing heavier body weights, would report different experiences and preferences than non-Hispanic whites.

2. Methods

2.1. Data source

The Patient Outcomes Research to Advance Learning (PORTAL) network is a clinical data research network funded by the Patient Centered Outcomes Research Institute to promote collaboration across several large health systems with electronic medical records (EMR) (McGlynn et al., 2014). It includes all of the Kaiser Permanente regions, Group Health Cooperative, Health Partners, and Denver Health. Within PORTAL, a cohort of overweight and obese adults (age ≥ 18) was identified, and included adult members in a participating health plan between 1/2012 and 12/2013 2012–2013, who had a non-pregnant body mass index (BMI) ≥ 23 kg/m^2 in the EMR (to include individuals with lower BMI cutoffs for overweight, such as Asians). This "obesity cohort" includes over 5 million adults and will serve as the basis for a number of observational studies of overweight and obesity.

2.2. Survey administration and overview

Between March and July 2015, we conducted a cross-sectional survey on a subsample of the obesity cohort to better understand the health care experiences of overweight and obese patients. We randomly sampled 5400 cohort members equally distributed across three geographically diverse Kaiser Permanente regions (Southeast, Northern and Southern California, Hawaii, Colorado, and Northwest) and Denver Health sites. For the survey, we selected for English or Spanish speakers with BMI ≥ 25 kg/m^2 who had at least one outpatient visit in the prior 12 months. We oversampled patients with BMI ≥40 kg/m^2, as this group might have lower response rates due to high likelihood of prior weight stigma experiences in the healthcare setting (Puhl and Heuer, 2009; Spahlholz et al., 2016). The study was approved by the Kaiser Permanente Southern California (KPSC) Institutional Review Board, with other sites ceding review.

A written survey taking approximately 10 min to complete, consisting of 36 multiple choice and fill-in-the-blank items, was mailed to 5400 individuals deemed eligible based on EMR information. The survey was offered in English or Spanish, based on a patient's written language preference noted in the EMR. If a mailed response was not received within 4 weeks, we attempted telephone contact for verbal survey administration. From the original sample (n = 5400), 1569 individuals (29%) did not respond, 925 (17%) refused, and 114 (2%) were ineligible – making our eligible denominator 5286. Our overall response rate was 53% (2197 written; 614 phone).

2.3. Independent variable

The primary independent variable was a respondent's racial/ethnic group, categorized as: 1) non-Hispanic white (white), 2) non-Hispanic black (black), 3) Hispanic, 4) Asian, or 5) Native Hawaiian/Other Pacific Islanders/American Indian/Native Alaskan (NA/PI). We combined the NA/PI group due to very small sample sizes of individual subgroups. If a survey indicated multiple races (240, 8.5%) or no race was selected (100, 3.5%), we grouped individuals according to EMR-recorded race/ethnicity, which is not necessarily self-reported, and uses an algorithm to prioritize the least-represented group in cases where a patient is from multiple race/ethnic backgrounds. To validate the EMR-measure, we tested for agreement between survey and EMR race/ethnicity

when both were present, finding excellent agreement (92% of cases matched). Overall missingness for race/ethnicity was <1%.

2.4. Dependent variables

Dependent variables focused on patients' perceptions of the health care experience related to being overweight or obese, using 7 items based on the Rudd Center's Patient Survey of Weight-Sensitive Healthcare Practices (Rudd Center for Food Policy and Obesity, n.d.). Respondents were asked to complete the items based on services received at their usual place of care, from their PCPs. Respondents described whether and how often: (a) their providers brought up their weight during a clinic visit; (b) they avoid coming to their provider because they do not want to be weighed or have a discussion about their weight; and (c) their providers were able to appropriately address their weight-related concerns in a supportive fashion (response choices: Frequently, Sometimes, No, Don't Remember, or Not Applicable). Next, they were asked whether they think that their provider understands the physical and emotional challenges faced by individuals who are overweight or obese (response choices: Yes, No, Don't Remember, or Not applicable). Finally, they were asked a series of questions about what kind of weight management options had been discussed with them, and what they wanted more information about (i.e., dietary changes, physical activity, classes, medications, meal replacements, and bariatric surgery). Non-response rates varied by question (**Appendix A: Table A.2**), and missingness tended to be <4% (overall responses, not separated by race, are provided in **Appendix A:Table A.3**).

2.5. Covariates

We generated covariates using EMR data and survey responses. EMR-derived variables included: sex, age category (18–39, 40–59, ≥60), diabetes, hypertension, Charlson Index score (0, 1, 2, 3, 4 or higher) as an overall measure of morbidity, (Deyo et al., 1992) Medicaid enrollment, language preference, site and BMI. Survey-derived variables included: emotional well-being (PHQ-4), (Kroenke et al., 2009) perceived weight status (overweight, not overweight), and educational attainment (less than high school, high school graduate or GED, college graduate).

2.6. Statistical analysis

We excluded individuals with missing data (6 respondents missing race/ethnicity; 80 missing other covariates), leaving 2725 respondents in our final analysis (Table 1). Descriptive statistics were generated and compared across racial/ethnic groups using Kruskal-Wallis and Chi-Square testing, as appropriate.

To evaluate the association between a patient's race/ethnicity and their perceived weight management experience, we estimated odds ratios using multinomial logistic regression adjusted for the above covariates. White patients served as the reference group for the analyses. The reference answer choice for each survey question was selected through a combination of theoretical usefulness and response rate allowing for stable estimates. Analyses were conducted using R software, version 3.2.1.

3. Results

3.1. Population characteristics

Among the included 2725 respondents, mean age was 52.7 (SD 15) years, with 79.5% of respondents over 40 years (Table 1). More women than men participated – 61.7% were female. Our sample was diverse, with 21.1% of respondents identifying as black, 14.6% Hispanic, 5.8% Asian, 6.7% NA/PI, and 51.7% white. Mean BMI was 37.4 (SD 8.0) kg/m^2, 24.4% had diabetes and 43.5% had hypertension. Most respondents