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Provider communication quality: Influence of patients' weight and race

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ABSTRACT

Objective: To examine the relationship between patient weight and provider communication quality and determine whether patient race/ethnicity modifies this association.
Methods: We conducted a cross-sectional analysis with 2009–2010 medical expenditures panel survey–household component (N = 25,971). Our dependent variables were patient report of providers explaining well, listening, showing respect, and spending time. Our independent variables were patient weight status and patient weight-race/ethnicity groups. Using survey weights, we performed multivariate logistic regression to examine the adjusted association between patient weight and patient–provider communication measures, and whether patient race/ethnicity modifies this relationship.
Results: Compared to healthy weight whites, obese blacks were less likely to report that their providers explained things well (OR 0.78; p = 0.02) or spent enough time with them (OR 0.81; p = 0.04), and overweight blacks were also less likely to report that providers spent enough time with them (OR 0.78; p = 0.02). Healthy weight Hispanics were also less likely to report adequate provider explanations (OR 0.74; p = 0.04).
Conclusion: Our study provides preliminary evidence that overweight/obese black and healthy weight Hispanic patients experience disparities in provider communication quality.
Practice Implication: Curricula on weight bias and cultural competency might improve communication between providers and their overweight/obese black and healthy weight Hispanic patients.

1. Introduction

High quality patient–provider communication has generally been associated with increased patient satisfaction and perceived health care quality [1,2]. It is also positively associated with patient recall, adherence to medications and self-management, behavior change, and health outcomes for some chronic conditions [3–6]. For example, better patient–provider communication among patients with diabetes mellitus has been linked to increased adherence to medication, diet and exercise recommendations, as well as foot care self-management [5].

Patient body weight may influence the quality of communication between patients and their providers. Physicians have less respect for patients with obesity [7] and believe that they lack motivation [8], which may affect how physicians communicate with these patients [9]. Studies among primary care physicians suggest that they demonstrate less emotional rapport building (e.g., empathy, concern, reassurance, and partnership) with obese patients compared to normal weight patients [10]. Impaired communication between obese patients and their health care providers may be a consequence of provider weight bias, which has been well documented among physicians and nurses [11–13].

The body of research examining provider communication, patient–provider relationship quality and patient satisfaction with care among obese patients is mixed. With respect to weight bias, some evidence suggests that obese patients identify physicians as one of the most frequent sources of stigmatization [14]. Nurses, although to a lesser extent than physicians, were also identified as a source of sigma [14]. Other research has found that older obese patients report greater satisfaction with their provider as compared to healthy-weight counterparts [15]. The literature related to patient–provider communication and patient satisfaction has documented few differences between obese and healthy weight individuals in how they rate relationship quality with their

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providers [16] or their satisfaction with ambulatory care [17]. These null findings may result from failure to account for important patient-level confounders – such as co-morbid conditions, health status, language preference, U.S. acculturation, and smoking status – which may affect patient–provider relationships [18–25].

Patient–provider communication may also be influenced by providers' biases related to patient race/ethnicity. Prior research has shown that some providers have implicit biases against black patients, associating these patients with being less cooperative, more contentious, and less adherent [26–28]. As a result, black patients may experience less patient-centered communication [29] and report lower levels of trust in providers [30]. Among Hispanic patients, research has found that Spanish-speaking and foreign-born Hispanics are less satisfied with provider communication quality as compared to white, black, English-speaking Hispanics and U.S.-born Hispanics [18,25]. Patient acculturation, patient–provider language barriers, and perceived lack of provider cultural competency may contribute to this disparity [18,25,31]. Given the documented disparities in patient–provider communication among minority and overweight groups [7,10,18,25,29], individuals included in both groups (e.g., obese and black) might experience poorer patient–provider communication than individuals who belong to only one group (e.g., obese or black). We are unaware of prior studies that have considered differences in patient–provider communication by such weight-race/ethnicity groups.

Our primary aim was to examine the association between patient weight and satisfaction with provider communication quality. We hypothesized that overweight and obese patients would report poorer provider communication within four domains (explained things so patients understood, listened carefully, showed respect, and spent enough time). In addition, we examined whether patient race/ethnicity modified the association between patient weight and provider communication quality. We hypothesized that minority patients with overweight and obesity would report poorer provider communication than healthy weight-white patients.

2. Methods

2.1. Data source

This cross-sectional analysis pooled 2009 and 2010 data from Medical Expenditure Panel Survey's (MEPS) Household Component (MEPS-HC) and supplemental Adult Self-Administered Questionnaire (SAQ) files. The MEPS, which is conducted by the Agency for Healthcare Research and Quality (AHRQ), collects data from a nationally representative sample of U.S. non-institutionalized and non-military families and individuals [32]. The SAQ is administered to all MEPS-HC respondents 18 years and older [33]. Additional details about MEPS methodology and sampling can be found through the MEPS website [32]. The study population consisted of MEPS participants $\geq$18 years who had an appointment at a doctor's office or clinic within the previous 12 months (n = 25,971). Pregnant women and underweight individuals (BMI $<$18.5 kg/m^2) were excluded from the analysis (n = 1855). We excluded underweight individuals due to the small sample size (n = 272), and pregnant women as weight gain during pregnancy could affect weight status classification.

2.2. Measure

Our four dependent variables were previously validated measures of patient satisfaction with provider communication quality. These measures were obtained from four questions incorporated into the MEPS from the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey [34,35]. These questions asked, within the past 12 months how frequently patients thought that their health care providers (a) explained things so that they understood, (b) listened carefully to them, (c) showed respect for them, and (d) spent enough time with them during visits. Individuals could answer: never, sometimes, usually, and always. Each of the four domains have been shown to improve patient–provider communication. For example, thorough provider explanations provided patients with sufficient information to make well-informed decisions [36] and improves treatment adherence [37,38]. Another example is that spending more time with patients allowed for more information to be exchanged with patients, including detailed patient medical histories and lifestyle counseling [39]. We chose to dichotomize these responses based upon the cut-points in the data, as few participants ($<$3%) responded "never." We defined "low quality" if participants responded never or sometimes, and "high quality" if they responded usually or always.

Our primary independent variable was patient weight status based on self-reported body mass index (BMI), which we classified according to standard NIH categories of healthy weight, overweight, and obese [40]. For the second aim, the independent variable was an interaction of patient weight status and patient race/ethnicity. Race/ethnicity was categorized as non-Hispanic white, non-Hispanic black, and Hispanic. We excluded the non-Hispanic other category from this analysis as the group was highly heterogeneous, and thus would be difficult to draw conclusions about the effects of race/ethnicity and obesity on communication quality.

Covariates of interest included patient demographics, health status, and access to care. Demographic variables included age, gender, race/ethnicity, U.S. geographic region, country of birth (U.S. vs. foreign-born), and language most frequently spoken at home. Health status variables included self-rated health status, number of obesity-related comorbidities (hypertension, heart disease, stroke, high cholesterol, and diabetes mellitus), and smoking status. Access to care variables included insurance status and having a usual source of care.

2.3. Statistical analysis

We conducted all analyses in Stata IC 12.0 (College Park, TX). We used descriptive statistics to characterize the study sample. For the primary aim, we performed multivariate logistic regression to examine the association between patient weight and the quality of each of the four aspects of the provider communication. We adjusted for all the demographic variables, health status variables, and access to care variables described above, given prior evidence suggesting them as potential confounders [15–24]. For the secondary aim, we conducted multivariate logistic regression that included the interaction term between patient weight and race/ethnicity (weight-race/ethnicity groups), and adjusted for patient demographics, health status, and access to care. We used healthy weight whites as the reference group for our analyses. MEPS employs a complex survey design that includes stratification, clustering, multiple states of selection, and oversampling of low-income and minority groups. The analyses accounted for MEPS' complex survey design by using Stata's suite of survey commands ("svy" commands), which ensure that the standard errors are not inappropriately small. To obtain estimates that representative of the 2009–2010 U.S. non-institutionalized civilian population, we adjusted all models using the sampling weights (SAQ sampling weights as recommended by MEPS methodology [41]), which accounts for the stratified and clustered design of the MEPS survey.