

Midwestern division, national supermarket-community pharmacy chain, where study procedures were conducted. Dr. Snyder reports personal fees from Westat, Inc., outside the submitted work.

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Preoperative Goal-setting by Patients is Correlated with Baseline and Not 6-week Outcomes following Total Knee Arthroplasty (TKA)

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OBJECTIVES/GOALS: Patient beliefs and goals can facilitate discussion of recovery expectations, patient-provider collaboration and maximization of goal achievement. In this study, we sought to address an evidence gap and examine the association of preoperative self-assessment of goals with preoperative and 6-week knee function and gait speed among total knee arthroplasty (TKA) patients. **METHODS/STUDY POPULATION:** We conducted a secondary analysis of data from the VERITAS randomized, controlled trial conducted from 11/2016-03/2018 that included adults age ≥ 18 years with scheduled and completed unilateral TKA followed by post-surgical physical therapy. Patients rated their ability to perform various activities of daily living goals scaled from 0 (unable to perform) to 10 (full performance). Patients were categorized by pre-surgical (baseline) goal rating: low = 0-2, intermediate = 3-4, and high = 5-10. Outcomes including gait speed and the KOOS were assessed within 10 days prior to surgery and 6-weeks post-surgery. Descriptive statistics and outcomes were compared for patients by preoperative goal rating using Chi-square or Fisher's exact tests and ANOVA or Kruskal-Wallis tests as appropriate. **RESULTS/ANTICIPATED RESULTS:** Of 288 patients (mean age 65 \pm 8; 62.5% women; 82% white), 102 had a low goal rating (GR), 86 intermediate, and 99 high. Patients with low GR preoperatively generally had lower baseline mean scores than intermediate and high GR patients, respectively, on the KOOS (33.9/35.6/39.8; $p < 0.001$) and lower gait speed (m/s) compared to intermediate and high GR patients at baseline (0.9/1.1/1.0; $p = 0.009$). The low, intermediate, and high GR groups, respectively, showed no difference across mean KOOS scores (61.0/61.2/61.9; $p = 0.63$) or gait speed (m/s) (1.0/1.0/1.0, $p = 0.33$) at 6 weeks postoperative. **DISCUSSION/SIGNIFICANCE OF IMPACT:** In this study, adults who perceived greater difficulty with a pre-selected activity goal, exhibited lower function prior to TKA but showed no differences in function 6-weeks after surgery. Follow-up studies will describe the association between goal-setting preoperatively and patient goal attainment and satisfaction following surgery.

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Racial/ethnic difference in the relationship between periodontitis and cardiovascular disease among adult populations

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OBJECTIVES/GOALS: Several lines of studies have supported the existence of periodontitis (inflammation of the gums) as a risk factor for cardiovascular disease (CVD). The goal of this study is to evaluate the relationship between periodontitis and CVD among Hispanic, African American, and Caucasian populations. **METHODS/**

STUDY POPULATION: We analyzed data from the National Health and Nutrition Examination Survey, 1999-2004 (NHANES). The population was all adults with a periodontal exam. Periodontal Disease was defined as mild, moderate, and severe (2 loss of attachments of at least 3mm, 2 sites with probing depth of at least 4mm, or one site with probing depth of at least 5mm). Cardiovascular disease was defined by a questionnaire regarding prevalence of any of 5 diagnosis (congestive heart failure [CHF], coronary artery disease [CAD], angina, heart attack or stroke). Data were analyzed using multinomial regression in SAS version 9.3 taking into consideration the design and weight. **RESULTS/ANTICIPATED RESULTS:** The study included 3375 adults; 13% were Hispanic and 10% were Blacks, 58% had > high school education, 81% were insured, 11% were heavy alcohol drinkers, 27% were smokers, 13% were physically inactive, 14% had periodontitis, 62% visited dentist last year, 2% had CHD, and 1.5% had CHF or stroke. In the multiple multinomial regression, overall, people with periodontitis were more likely to have both CHD (AOR = 2.0, 95% CI = 1.1-3.8, $p < 0.05$) and CHF or stroke (AOR = 1.8, 95% CI = 1.01, 3.0, $p < 0.05$) than to have no heart condition. There was a racial/ethnic difference in the relationship between periodontitis and cardiovascular disease but it was not statistically significant ($p > 0.05$). **DISCUSSION/SIGNIFICANCE OF IMPACT:** Overall, people with periodontitis were more likely to have CHD, CHF or stroke than to have no heart condition, but with no significant effect of racial/ethnic group. This study provides a foundation to future studies on the connection of periodontitis and CVD in relation to ethnic/racial groups.

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Racial/ethnic variation in the relation between diabetes control and healthy eating, food security, exercise, and access to health care

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OBJECTIVES/GOALS: Diabetes mellitus is a common metabolic disease. Uncontrolled diabetes can lead to complications. The objective of this study is to examine the racial/ethnic variation in the relation between diabetes control and healthy eating, food security, exercise, and access to health care. **METHODS/STUDY POPULATION:** We analyzed data related to diabetes control, demographics, insurance, healthy eating, food security and physical activity for 949 diabetics from the National Health and Nutrition Examination Survey (NHANES). The population examined was adults with diabetes mellitus. Diabetes control was classified as fair control [HbA1c 7- $<$ 8 and fasting glucose $<$ 126 mg/dL], good control [HbA1c $<$ 7 and fasting glucose $<$ 110 mg/dL] or uncontrolled [HbA1c 8 and fasting glucose $<$ 110 mg/dL]. We used multinomial logistic regression controlling for confounders to analyze the data overall and for each racial/ethnic group and report adjusted odds ratios (AOR) and 95% confidence limits (CL). **RESULTS/ANTICIPATED RESULTS:** Of the 949 diabetics, 14.7% were Blacks, 15.9% were Hispanics, 11.0% had fair control, 61.0% had good control, 14.2% were uninsured, 18.1% had low/very low food security, and 39.7% were inactive. Overall, uninsured subjects had a lower chance of fair diabetes control (AOR = 0.2, 95% CL = 0.1-0.9, $p = 0.04$), but this relationship was significant only for Hispanics and Blacks ($p < 0.05$). Whites with low/very low food security were less likely to have fair control (AOR = 0.2, 95% CI = 0.001-