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Predictors of Sustained Walking among Diabetes Patients in Managed Care: The Translating Research into Action for Diabetes (TRIAD) Study

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**RESULTS:** We recruited 139 patients to be in the study. Of these, 110 completed the study. The sample was 57% female, 85% Caucasian, and 90% insured (40% Medicare, 4% Medicaid). Patients spent a median of 21.0 hours from beginning the bowel preparation until arriving at home (or other destination) after the procedure, including 16.7 hours in preparation, 1.1 hours traveling, 1.4 hours waiting, 12 minutes for sedation, 20 minutes having the colonoscopy, and 47 minutes recovering at the endoscopy center. Median time from the completion of the colonoscopy procedure until returning to routine activities was 17.7 hours (range 0.7 to 100.7). From beginning the bowel preparation until arriving at home, patient time requirements were sensitive to having a history of depression (22.0 hours for those with vs. 20.8 for those without;  $p=0.003$ ), being disabled (24.0 for disabled patients vs. 21.0 for employed, 19.3 for housewives/husbands, and 20.3 for retired;  $p=0.010$ ), type of person accompanying the patient (20.8 for patients accompanied by their spouse/significant other vs. 23.8 for those accompanied by a different relative;  $p=0.037$ ), and income (24.1 for patients with annual household incomes under \$15,000 vs. 20.0 to 22.3 for those with higher incomes;  $p=0.011$ ).

**CONCLUSIONS:** Screening colonoscopy requires a substantial commitment of time. A small portion of that time is spent at the endoscopy center or having the colonoscopy. The majority of that time is spent in preparation and recovery. There is substantial variability in individuals' recovery experiences (in terms of how long it takes for them to return to their routine activities) after colonoscopy. Patients reporting a history of depression, being disabled, or lower annual household incomes had longer time requirements.

**PHYSICAL ACTIVITY AS AN AID TO SMOKING CESSATION: A RANDOMIZED CONTROLLED TRIAL OF SEDENTARY ADULT SMOKERS.** J. Cornuz<sup>1</sup>; C. Willi<sup>1</sup>; A. Chiolerio<sup>2</sup>; S. Payot<sup>3</sup>; R. Stoianov<sup>2</sup>; R. Bize<sup>4</sup>. <sup>1</sup>Department of Community Medicine and Public Health, University Outpatient Clinic & Institute of Social and Preventive Medicine, Lausanne University, Lausanne.; <sup>2</sup>Institute of Social and Preventive Medicine, Lausanne University, Lausanne.; <sup>3</sup>Department of Community Medicine and Public Health, University Outpatient Clinic, Lausanne University, Lausanne.; <sup>4</sup>Departement of Community Medicine and Public Health, University Outpatient Clinic & Institute of Social and Preventive Medicine, Lausanne University, Lausanne. (Tracking ID # 172958)

**BACKGROUND:** Observational studies showed that exercise might reduce nicotine craving and enhances mood when quitting smoking. Furthermore, increasing exercise might help to prevent or minimize weight gain through energy expenditures. We aimed to test the following hypothesis through a randomized controlled trial of sedentary adult smokers: including a moderate-intensity physical activity intervention in a smoking cessation program increases the chances of quitting and reduces nicotine withdrawal symptoms, negative mood, stress, desire to smoke and weight gain in smokers recruited from the community.

**METHODS:** The participants in both groups attended a 9-week program with a weekly 15-minute session composed of a individual standard smoking cessation program combining counseling and prescription of nicotine replacement therapy. On the top, once a week, the subjects enrolled in the intervention group attended a 60-minute exercise intervention based on a nationwide implemented moderate-intensity physical activity program led by a physical activity facilitator, whereas the subjects in the control group attended 60-minute health education program including sessions on osteoporosis, hypertension, diet, stress management, alcohol consumption (but excluding session on exercise) to ensure equal contact conditions. A visit was scheduled at 10th week, at 6- and 12-month follow-up. We used a conservative approach by considering participants lost during the follow-up period as smokers and confirmed continuous smoking abstinence by a level of CO < 10 ppm from 5th to 52nd week.

**RESULTS:** We enrolled 481 participants. There were no differences between the two groups regarding age (mean 42 years), socio-demographic data, clinical variables and smoking habits (mean daily cigarette consumption 27, mean years of smoking 17). The continuous smoking abstinence rates were similar in both groups at 10th, 26th and 52nd week: 45% and 44%, 33% and 34%, and 26% and 28%, for exercise and control groups, respectively. Scores of the Wisconsin withdrawal scale, the Desire to smoke scale, Perceived Stress Scale and Beck depression inventory were all reduced in a significant way at the end of the program in the exercised group, whereas such beneficial effect were only noted in the control group for the Desire to smoke scale and Perceived Stress Scale. The mean weight gain from baseline to week 52nd was 3.1 kg and 3.7 kg for exercise and control groups, respectively ( $p=0.4$ ). The evolution of mean integrated physical activity index over time (MET x min/week) showed during the intervention (at the 6th week), as expected, a clear difference between groups (2082 vs 1477 in vs exercised control group,  $p<0.001$ ), then a trend for a significant difference at 10th week (1786 vs 1486,  $p=0.054$ ), and no differences at 52nd week (1735 vs 1653). Indeed, 46% of the participants enrolled in the control group reported practising exercises during the 9-week program.

**CONCLUSIONS:** Adding a moderate-intensity physical activity for 9 weeks on the top of a comprehensive smoking cessation program is not sufficient to help smokers quit. The marginal effect of such an intervention might be not large enough to ensure a difference between groups regarding tobacco abstinence. This lack of difference might also be due to the fact that many smokers in the control group actually practiced exercise for themselves, which may contribute towards the null hypothesis. However, we observed a high percentages of smoking abstinence in both group.

**PREDICTORS OF IMPAIRED FASTING GLUCOSE IN THE U.S. POPULATION: OPPORTUNITIES FOR SCREENING.** C.E. McLaughlin-Gavin<sup>1</sup>; A.K. Jha<sup>1</sup>. <sup>1</sup>MAVERIC, VA Boston Healthcare System, Boston, MA. (Tracking ID # 172727)

**BACKGROUND:** Although impaired fasting glucose (IFG) can herald the development of type 2 diabetes (DM), weight reduction and increased physical activity among those with IFG can delay or even prevent the onset of type 2 diabetes. Whom to screen for IFG is still largely unknown. Therefore, we sought to determine which easily attainable clinical and demographic factors predict IFG in the U.S. population.

**METHODS:** We examined the 1999–2004 National Health and Nutrition Examination Survey (NHANES) data on 5690 adults without a history of diabetes for whom fasting glucose values were available. We chose easily identifiable clinical and demographic factors that might be associated with IFG and used both bivariate and multivariate models, accounting for the complex survey sampling design, to determine which factors were associated with incident IFG. All factors found to be significant on bivariate testing and two confounders, insurance status and family history of diabetes, were included in the multivariate model.

**RESULTS:** The prevalence of IFG (glucose > 100) was 30% in this U.S. population of Americans without a known history of diabetes. Factors significantly associated with a greater likelihood of having IFG on bivariate analyses included older age, male sex, white or Mexican race/ethnicity, being a non-smoker, having a higher body mass index, lower income, or lower educational attainment. In the multivariate model, characteristics associated with having IFG included age (odds ratio [OR] 1.22, 95% confidence interval [CI] 1.22, 1.28, for each 5 year increase in age) and male sex (OR 2.37, 95% CI 2.12, 2.65). Whites (OR 1.50, 95% CI 1.13, 1.98) and Mexican Americans (OR 1.64, 95% CI 1.21, 2.21) were more likely to have IFG than non-Hispanic blacks. Other predictors of IFG included being overweight (BMI 25–29), obese (BMI 30–34) or extremely obese (BMI > 35) (OR 2.11, 2.67, 4.43, respectively,  $p<0.001$  for each), being uninsured (OR 1.33, 95% CI 1.01, 1.74), low educational attainment (less than high school compared to more than high school OR 1.40, 95% CI 1.13, 1.74) and having a family history of diabetes (OR 1.31, 95% CI 1.11, 1.56). Although smoking and income level were included in the model, they were not significant predictors of IFG.

**CONCLUSIONS:** Age, sex, racial/ethnic background, low educational attainment, being uninsured, having a family history, and BMI each is associated with an increased risk of having IFG. Given that these clinical and demographic factors are readily available to practicing clinicians, targeting those at higher risk for screening could help identify those with IFG and possibly prevent or delay the onset of type 2 diabetes.

**PREDICTORS OF SUSTAINED WALKING AMONG MULTI-ETHNIC DIABETES PATIENTS IN MANAGED CARE: THE TRANSLATING RESEARCH INTO ACTION FOR DIABETES (TRIAD) STUDY.** O.K. Duru<sup>1</sup>; R. Gerzoff<sup>2</sup>; C.M. Mangione<sup>1</sup>. <sup>1</sup>University of California, Los Angeles, Los Angeles, CA; <sup>2</sup>Centers for Disease Control and Prevention (CDC), Atlanta, GA. (Tracking ID # 172428)

**BACKGROUND:** Although observational analyses show that patients with diabetes derive a mortality benefit from continued, regular physical activity over years, many stop exercising. Few studies have examined predictors of sustained walking among individuals with diabetes. We examined demographic, clinical, and neighborhood factors potentially associated with sustained walking among managed care patients with diabetes.

**METHODS:** Data are from patients with diabetes enrolled in 10 managed care plans and 68 provider groups included in the Translating Research into Action for Diabetes (TRIAD) study, a multicenter longitudinal cohort study of diabetes care in managed care. The initial TRIAD survey was fielded in 2000–01, but we used data from 2 subsequent timepoints as baseline and follow-up for this analysis. TRIAD participants were asked the number of minutes they walked each day, in 2002–03 (baseline) and 2004–05 (follow-up). We included in our analytic sample only patients who reported walking at least 20 minutes/day at baseline. We used a multivariate hierarchical regression to estimate the relationship between demographic, clinical, and neighborhood factors, and the likelihood of sustained walking at follow-up. We expressed the results as predicted percentages. We used multiple imputation techniques for all missing variables.

**RESULTS:** There were 8,796 participants in the 2002–03 TRIAD survey. Slightly more than two-thirds (5,935, or 67.5%) walked for at least 20 minutes/day at baseline. Pain symptoms were associated with a lower likelihood of sustained walking, as 63% of patients who developed new pain over time, 68% of patients with ongoing chronic pain, and 70% who never reported pain were still walking at follow-up ( $p=0.03$ ). Only 65% of obese patients (BMI > 30) sustained walking compared with 71% of overweight and 70% of normal weight patients ( $p=0.03$ ). Patients 65 years and older (63%) were less likely to sustain walking than patients between 45 and 64 years (70%) or 18 and 44 years (73%,  $p=0.04$ ). Development of a new comorbidity, including myocardial infarction, cerebrovascular accident, amputation, or initiation of renal dialysis, was a significant correlate of stopping walking, as only 62% of these individuals sustained walking, compared with 68% of those who did not have one of these serious events ( $p=0.048$ ). We found no association between neighborhood variables and sustained walking behavior. A replication of these analyses limited to patients with complete data showed a similar pattern of results.

**CONCLUSIONS:** A number of treatable or preventable clinical conditions emerged as significant predictors of stopping regular walking among persons with diabetes. These findings underscore the importance of treating pain and obesity, as well as preventing microvascular and macrovascular complications among persons with diabetes, in order to help this population remain physically active over time and accrue the associated health benefits.

**PREFERENCES FOR HPV TESTING AMONG ETHNICALLY-DIVERSE OLDER WOMEN.** A.J. Huang<sup>1</sup>; Y. Iwaoka-Scott<sup>2</sup>; S.E. Kim<sup>2</sup>; S.T. Wong<sup>3</sup>; E.J. Perez-Stable<sup>2</sup>; E. Washington<sup>2</sup>; G.F. Sawaya<sup>2</sup>. <sup>1</sup>San Francisco Veterans Affairs Medical Center, San Francisco, CA; <sup>2</sup>University of California, San Francisco, San Francisco, CA; <sup>3</sup>University of British Columbia, Vancouver, British Columbia. (Tracking ID # 172449)