joint OA more common in men. These phenotypic differences should be considered in studies of genetics of OA.

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DETERMINANTS OF QUALITY OF LIFE IN A CROSS-SECTIONAL POPULATION BASED SAMPLE WITH RADIOGRAPHIC KNEE OSTEOARTHRITIS

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Purpose: Knee osteoarthritis (OA) is a highly prevalent and disabling disease in the United States. Patients with radiographic OA may experience pain and functional impairment, which can diminish their health-related quality of life (QoL). Our objective was to determine factors associated with QoL in a cross-sectional population-based sample with radiographic OA.
Methods: We performed an analysis using cross-sectional data from the Third National Health and Nutrition Examination Survey (NHANES III). Our sample was comprised of all NHANES III subjects who underwent a knee radiograph and were found to have radiographic OA (defined as a Kellgren-Lawrence (KL) grade of two or higher). Participants with KL grade three and four were categorized in the same group due to a small sample of participants with KL grade four. We excluded participants whose race was identified as "Other." We derived QoL by transforming the general health status question (participants rated their general health from poor to excellent) to standard utilities (0-1; worst to best possible health) using the power transformation suggested by Torrance and colleagues. Participants who noted being in pain on most days for at least six weeks were classified as having knee pain. Participants were defined as obese if they had a body mass index that was greater than or equal to 30. We calculated a comorbidity score from selected questions in the household adult questionnaire. We calculated adjusted mean estimates of QoL from a multiple linear regression model that assessed the factors that affect QoL.
Results: Forty-two percent (N=1009) of those with a knee radiograph met our inclusion criteria for this analysis. The multivariate analysis was performed on 848 (84%) of the eligible participants. Results of the multivariate analysis showed that after adjusting for obesity, the factors associated with QoL were KL grade stratified by whether subjects had knee pain (p=0.0002), comorbidities (p<0.0001), race (p<0.0001), gender (p=0.0069), and income (p<0.0001). A lower QoL was associated with having knee pain and more comorbidities, while KL grade does not strongly affect QoL (see Figure 1). Participants who were minorities, male, and had a lower income also were more likely to have a lower QoL.

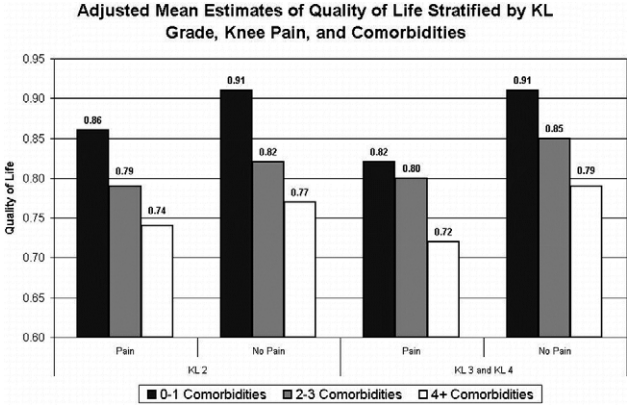

Figure 1

Age had no affect on QoL. The variables in the model accounted for 22% of the variation in QoL.
Conclusions: We found that knee pain, more comorbidities, non-white race, male gender and, lower income were associated with lower QoL after adjusting for obesity. Severity of radiographic OA had little effect on QoL in this sample. Because NHANES III used a non-weight bearing radiographic technique, there may be misclassification in the severity of radiographic OA, so these findings should be confirmed in another population. Since this was a cross-sectional analysis, we could not observe how QoL changes as comorbidities, pain, and KL grade change over time. These data will be helpful in identifying opportunities to improve QoL for patients with OA.

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DOMAIN SPECIFIC SELF-EFFICACY MEDIATES THE IMPACT OF PAIN CATASTROPHIZING ON PAIN AND DISABILITY IN OVERWEIGHT AND OBESE OSTEOARTHRITIS PATIENTS

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Purpose: Pain and disability can be particularly problematic for osteoarthritis (OA) patients who are overweight or obese. With increased body mass comes greater stress on affected joints and more pain. Self-efficacy theory provides a model for understanding variations in abilities to cope with OA. Self-efficacy is the belief that one can successfully perform a behavior to achieve a particular outcome. Studies in pain patients show that higher self-efficacy is associated with less pain and disability. In contrast, pain catastrophizing is the tendency to focus on pain, magnify pain's threat value, and negatively evaluate one's ability to manage pain. Pain catastrophizing is a consistent predictor of pain and disability in persons with persistent pain. Understanding the relationships among these variables may enable clinicians to more effectively intervene with overweight and obese OA patients. This study examined whether self-efficacy mediates the relationship between catastrophizing and pain and disability.
Methods: Patients (N=176) with OA of the knee and a BMI from 25-42 completed the Arthritis Self-Efficacy Scale (efficacy for pain control, physical function, and psychological symptoms), Arthritis Impact Measurement Scales (pain, physical disability, and psychological disability), and Coping Strategies Questionnaire Catastrophizing scale. Path model analysis examined whether self-efficacy mediated the relationship between catastrophizing and pain and disability. Each model included catastrophizing, self-efficacy for pain control, physical function, and psychological symptoms, and demographic/medical control variables. Separate models examined each outcome. Sobel tests were also conducted.
Results: The sample was18% men and 82% women. Participants' were an average of 52 years (*SD*=10) of age. The sample was 62% white, 36% African American and 2% other. Path analyses revealed that higher catastrophizing was associated with lower efficacy for pain control, physical function, and psychological symptoms (*p*s<.01). The relationship between higher catastrophizing and poorer outcomes (pain and disability) was fully mediated by lower self-efficacy. Importantly, the impact of self-efficacy was domain specific. The impact of catastrophizing on pain was mediated by self-efficacy for pain control (*z*= -2.36, *p*=0.02); efficacy for physical function and psychological symptoms were not associated with pain (*p*s>0.12). The impact of catastrophizing and physical disability was mediated by self-