Can Gender Influence Pain Levels in Patients with Knee Osteoarthritis?
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Introduction: Many treatment regimens used for knee osteoarthritis (OA) do not discriminate between males and females. Anatomical and hormonal differences may explain the discrepancy in severity of OA and pain levels between both genders. Objective: To determine (1) how gender and age influence severity of diagnosis, pain levels, and satisfaction with the physician and (2) the relationship between actual severity of diagnosis and patient reported pain level.

Methods: Patients were recruited as part of a prospective observational study at an outpatient orthopedic clinic that presented with knee osteoarthritis symptoms. Data was gathered regarding socioeconomic information, x-ray grades, feedback surveys, and health-status instrument surveys. X-ray grades were scored using the Kellen-Lawrence Grading Scale (KL) and Ahlback Radiographic Grading Scale (AR). The feedback survey assessed for physician-patient interaction time, pain levels, satisfaction, and understanding. The health-status instrument surveys included the OKS, WOMAC, KOOS, and SF-12 Health Survey.

Results: (1) Males reported an average pain score of 5.3, while females reported an average pain score of 6.6 on a scale of 1-10 (p<0.05). The average KL x-ray score for males and females respectively was 2.47 and 2.36, on a scale of 0-4 (p>0.05). (2) Age was not found to be significantly correlated with diagnosis severity and pain levels. (3) More severe diagnosis was also significantly correlated with an increase in pain (p<0.05).

Conclusion: The findings of this study indicate that gender can have a significant influence on pain levels. The data shows that there was no significant difference in severity of knee OA between both genders. This calls into question why females report higher pain levels compared to males. It puts importance on implementing more objective forms of evaluating knee osteoarthritis such as x-ray scores and physical exam findings to find a proper treatment regimen for both genders.