Does Health Insurance Type Impact Pain and Function in Patients with Knee Osteoarthritis?
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Background: As of 2012, the Center for Disease Control (CDC) reported that 61.2% of the United States population had private health insurance coverage, 23.4% had public insurance, and 14.7% were uninsured.

Objective: To investigate how different types of insurance affect severity of diagnosis, pain levels, satisfaction, and understanding in patients.

Methods: Patients were recruited as part of a prospective observational study at an outpatient orthopaedic clinic in New Orleans, LA. All patients were seen by one physician throughout the study. Patient population included new patients who presented with knee osteoarthritis symptoms. Data was gathered regarding age, gender, insurance type, 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 Oxford Knee Score (OKS), Western Ontario and McMaster University Osteoarthritis Index (WOMAC), Knee Injury and Osteoarthritis Outcome Score (KOOS), and SF-12 Health Survey. SF-12 measures functional health and well-being from the patient's point of view.

Results: The average pain levels for private insurance, Medicaid, and Medicare were respectively 6.09, 6.46, and 6.22 on a scale from 1-10 (p>0.05 between each other). The average KL score were respectively 2.62, 2.19, and 2.28 on a scale from 0-4 (p>0.05 between each other). The average SF-12 Physical Component Score were respectively 34.44, 29.98, and 28.25 (p=0.05 between private insurance and Medicare). Insurance type was not found to be significantly correlated with satisfaction or understanding.

Discussion: This study shows an association between private insurance and Medicare patients, where patients with Medicare reported worse functional health from their perspective. Although there was no such significant association between private insurance and Medicaid, there was still a discrepancy, and Medicaid patients had similar scores to Medicare patients. This is important because it shows patients with public insurance feel as if they have decreased functional health compared to patients with private insurance. This study did not show a significant difference in pain levels between the 3 insurance groups, however private insurance patients reported the lowest pain scores. This may be due to a limitation from having a small patient population that will need to be researched further. Due to changes in insurance coverage resulting from the Affordable Care Act, it is expected that there will be more patients with public insurance compared to private insurance within the next decade. This major shift may influence how individuals manage their health, perhaps affecting how frequently they seek care. It is important to continue to investigate how insurance coverage could affect patient health care for the future.