

# Educational intervention improves rate of knee replacement among black patients

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A decision aid that consisted of a video that describes the risks and benefits of total knee replacement surgery significantly increased the rate of this surgery among black patients, according to a study published online by *JAMA Surgery*.

Osteoarthritis (OA) is a leading cause of limitations in activity and work in the United States; these limitations as well as the burden of severe pain disproportionately affect black patients. Total [knee](#) replacement (TKR) is the most effective and cost-effective surgical option for moderate to severe OA of the knee. However, a significant racial variation in the use of TKR exists, with black patients less likely to undergo TKR compared with white patients. Black candidates for joint replacement differ in their preferences for treatment, which are primarily shaped by differences in understanding of treatment risks and benefits.

Said A. Ibrahim, M.D., M.P.H., M.B.A., of the University of Pennsylvania Perelman School of Medicine, Philadelphia, and colleagues randomly assigned 336 study participants (self-identified as black, 50 years or older with chronic and frequent knee pain, and radiographic evidence of OA) to access to a decision aid for OA of the knee (a 40-minute video that describes the risks and benefits of TKR [surgery](#)) or control (receipt of an educational booklet).

Among the patients (70 percent women; average age, 59 years), 13 of 168 controls (7.7 percent) and 25 of 168 intervention patients (14.9

percent) underwent TKR within 12 months. These changes represent a 70 percent increase in the TKR rate, which increased by 86 percent (7.1 percent vs 15.3 percent) in the per-protocol sample. The decision aid also increased by about 30 percent the receipt of a recommendation from an orthopedic surgeon within 6 months of the intervention, although this association did not achieve statistical significance. In addition, the intervention was more likely to lead to surgery among those who at baseline were willing compared with those who were unwilling, for women compared with men, and for patients ages 50 to 55 years compared with older patients.

"A patient-centered counseling and educational intervention may help to address racial variations in the use of TKR for the management of end-stage OA of the knee," the authors write.

The researchers add that future research may be needed to "explain the mechanism by which the decision aid actually leads to greater uptake of surgery among [black patients](#) and whether this method could be used to address other treatment disparities."

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