Multisensory education enhances patient understanding of orthopaedic conditions

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Patient education involving the use of multiple senses (sight, hearing and touch) during a physician-patient conversation about treatment, also known as "informed consent," improves understanding of anticipated care and possible outcomes, according to a new study appearing in today's issue of the *Journal of Bone and Joint Surgery (JBJS)*.

"The field of orthopaedics is primed to take a leadership role in improving physician-patient communication during the process of informed consent," said lead study author and principal investigator Nkemakolam Egekeze, MD. "Our study is the first randomized controlled trial to evaluate patient comprehension of a multisensory informed consent discussion."

In the study, 67 people with a new diagnosis of knee arthritis agreed to a corticosteroid injection. Researchers evaluated three informed consent discussion methods to determine which approach enhanced patient comprehension and satisfaction.

The patients were placed randomly into one of three groups: verbal, where the patient listened to a discussion script explaining their treatment; verbal and video, where the patient listened to a discussion script while watching a silent animated knee anatomy video; and, verbal and model, where patients listened to the discussion script while touching and showing the treatment areas on a three dimensional model of the knee.
Each discussion script was performed by the same physician and based on content from OrthoInfo.org, the American Academy of Orthopaedic Surgeons' patient education website. Each patient was then given "The Nkem Test," which measures understanding of a topic. Patient satisfaction and the patients' preferred method of informed consent discussion were then measured using a survey.

There was a significant difference between understanding in the three groups.

- The verbal and model group had an 84 percent comprehension score;
- The verbal and video group, 74 percent;
- And, the verbal only group, 71 percent.

Over 95 percent of all study participants expressed "high satisfaction" with the content of the discussion from OrthoInfo.org. No matter which group they were assigned, the majority of participants preferred the informed consent discussion incorporating an anatomic model, according to study authors.

"Research has shown that improving patient comprehension of an informed consent discussion may enhance patient engagement and patient compliance with surgeon recommendations," said Dr. Egekeze "We believe that our findings may play a role in improving patient-centered outcomes and physician-patient communication in the field of orthopaedic surgery."

Provided by American Academy of Orthopaedic Surgeons

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