

When Has a Knee or Hip Replacement Failed? A Patient Perspective

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It's my pleasure to summarize this study that we performed at the hospital for Special Surgery in New York.

We performed a qualitative study of patients who had undergone either a knee or hip total joint replacement. Patients were invited based on consecutive listing for 3 of the surgeons who participated in the study, and those who are interested in the study was then invited for in-person nominal group technique discussions.

Patients answered a question: "When would you consider a knee or hip replacement to be a failure?"

We had 8 nominal groups with 42 participants who had undergone either a unilateral total hip or total knee replacement surgery between 2016 and 2018.

Of these, 48% were male, 17% were African American, 79% had an education at college or above, and 78% had osteoarthritis as the underlying condition.

Patients discussed and nominated a variety of responses with what constituted a knee or hip replacement failure. These were in order: persistence of pain in the joint that was operated upon which got the highest vote. Following this was the concept of postoperative adverse events that followed the time period right after the surgery. The next 3 groups that got votes were inability to resume normal activities, little or no improvement in quality of life, and the occurrence of revision surgery that was earlier than the anticipated 1-2 decades later.

Some other concepts also got a few votes of what constituted a failure, but they were far lower including expectation of a mismatch, and nurse or physician negligence, or death.

So, what this study showed us was that there are a variety of things that patients considered to be equivalent to a failure of a total knee or total hip joint, which is usually an elective surgery. Here in this group, which constitutes patient sample which is representative of usual total hip and total knee replacement surgery, patients not only picked the surgical teams of postoperative adverse events, revision surgery, or death, which constituted about 35% of the vote, but they also picked things like pain, inability to resume normal activities, and no improvement in quality of life, which actually constituted 61% of all the votes that they casted for this particular question, which tells us that patients do value the nonsurgical outcome of this elective surgery almost twice as much or much higher than the surgical outcome itself for things related to surgery.

The takeaway points from this particular study are that this study can inform surgeons who are having discussions with patients with regards to what patients value. A very detailed discussion about a particular patient's pain, function, and quality of life outcome might actually help patients make a more informed decision and have an expectation outcome match rather than mismatch. One other thing I think this study does is the study is one of the first ones to provide patient perspective of what they consider as a failed knee or hip replacement.

I think that from a policy perspective, knee and hip replacements constitute close to a million procedures in the US and are only second to cataract surgery as an elective procedure. There are significant implications, even if the failure rate of these surgeries is very low. Understanding a patient's perspective can allow us to better utilize this treatment option for people with arthritis.

We must also consider the study limitations while we interpret the findings and the takeaway messages. The study was done at a high-volume specialized surgery center in New York. It is possible that the outcomes at this center are better than an average arthroplasty center that's not a large volume or high-volume center.

Our patients had an educational level that was little higher than the usual arthroplasty cohort. We did not choose patients based on whether they had a good outcome or poor outcomes, so we think it's representative of a mix of people who had optimal and suboptimal outcomes.

However, it is a single-center study, so these results need to be reproduced in other samples for us to have more confidence in this finding.

Thank you.

