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CORR Insights®: A High Proportion of Patients Have Unfulfilled Sexual Expectations After TKA: A Prospective Study

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Where Are We Now?

Using data from a prospective, multicenter study in the Netherlands, Harmsen and colleagues [4] evaluated anticipation and subsequent fulfillment of sexual activity among 866 patients after TKA. Preoperatively, 54% (n = 467) of patients anticipated fulfillment of sexual activity after recovery from surgery. Of those 467 patients surveyed 1 year after TKA, just 58% (n = 270) reported actually realized postoperative fulfillment of anticipated sexual activity. In situations when preoperative anticipation positively matched actual postoperative fulfillment (compared to those who did not), Harmsen and colleagues [4] found that those individuals had better functional recovery and better preoperative health status. The known discrepancy between patient expectations of TKA surgery and realized postoperative overall physical function described in a not-to-be-neglected proportion of TKA patients, appears to also apply to sexual function.

From the healthcare system perspective, TKA is generally cited as a successful and cost-effective procedure. However, from the patient perspective, studies have found a prevalence of 10% to > 20% of patients being dissatisfied after TKA surgery [6], a higher proportion than found among patients who undergo THA. Various associated factors have been identified, including sociodemographic factors, poorer preoperative mental/physical function or general health, and various factors related to the clinical episode such as more-severe postoperative pain or experiencing a complication [3]. However, there is a strong link between preoperative patient expectations and postoperative patient (dis) satisfaction [3]. In this context, sexual function—as an aspect of patient expectations and subsequent (dis) satisfaction—after TKA surgery has received less attention in orthopaedic research than have other aspects of physical function. Moreover, while most studies on this topic have focused on THA, studies have indeed demonstrated that sexual function is important to patients undergoing lower extremity joint replacement [5]. Thus, the focus on sexual function for TKA recipients by Harmsen and colleagues [4] provides a welcome addition to what we know.

The high proportion of patients experiencing unfulfilled expectations of sexual activity after TKA (approximately 40%, according to the current study [4]) is much higher than previously noted [11]. Moreover, given the transition towards ever-younger patients undergoing lower extremity joint replacement, I expect the importance of preoperative discussions on sexual function is to increase.

Where Do We Need To Go?

Ideally, patient expectations of functional outcome, including sexual function, after

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lower extremity joint replacement should match realized physical function. Here, accurate and validated measurement of patient expectations and subsequent (dis)satisfaction is essential. Additionally, interventions such as adequately targeted preoperative patient education classes [1] can help set realistic expectations of physical function after TKA. Further, while sexual function and limitations in the setting of THA have been described extensively [5], more data is needed on mechanisms underlying continuation of sexual activity after TKA. Finally, the practical question arising from these recommendations is: How do we incorporate this in daily orthopaedic practice?

Although a wide variety of (nonvalidated) tools has been used, few validated measures exist that capture patient (dis)satisfaction after orthopaedic surgery [10]. The Hospital for Special Surgery Expectation Survey [8], a translation of which was used in the current study [4], is the most comprehensive and among the most commonly used (validated) measures of preoperative expectations. For TKA, it includes 19 separate expectations, including sexual function, for patient-reported outcomes after surgery, each rated on a 5-point Likert scale. Similar to preoperative expectations, measurement of patient (dis)satisfaction after TKA varies wildly across the orthopaedic literature, from a single (simple) question to measurement of various domains of satisfaction including pain, function and overall outcome [6]. The most commonly used validated method of measuring (dis)satisfaction after TKA is the 2011 Knee Society Knee Scoring System, a comprehensive patient- and surgeon-reported outcome measure including both expectations and satisfaction assessed across multiple domains [6, 9]. Given the multi-dimensional nature of both preoperative expectations and postoperative (dis)satisfaction, comprehensive and accurate measurement of both is crucial.

Subsequent analysis may provide detailed insights into the relative importance of each expectation in the context of postoperative (dis)satisfaction. Indeed, one study [2] found that preoperative expectations regarding specifically kneeling ability, leg straightening, and participation in recreation and sports were associated with various dissatisfaction domains such as dissatisfaction related to either household activities, recreational activities, or quality of life. Interestingly, sexual function was not identified as an important driver of overall (dis)satisfaction 2 years after TKA [2].

Information from validated measurements of preoperative expectations and how various aspects relate to postoperative (dis)satisfaction may specifically inform preoperative joint education classes [1] targeted to reduce the prevalence of dissatisfaction after TKA. However, currently lacking are (1) a general assessment of minimally required content to minimize dissatisfaction, and (2) studies evaluating inter-hospital differences in content of such classes. Moreover, it is not known as to what extent preoperative patient education classes include information on sexual function. More research will benefit targeted education on realistic expectations regarding sexual function after TKA. For example, one study [7] found that (sexually active) TKA patients returned to sexual activities around 2 months after surgery. Moreover, compared to preoperative sexual function, fewer patients indicated the need to adjust their sexual positions after surgery, either by avoiding positions involving the affected knee or by switching to the non-affected side during intercourse [7]. As most patients considering TKA are sexually active, accurate information from studies on recovery timelines and feasible sexual activities after TKA surgery is therefore likely to meet a potentially overlooked demand.

How Do We Get There?

Developments like the current transition from a volume- to a value-based payment structure in US health care, and specifically lower extremity joint replacement surgery, greatly incentivize a focus on patient-centered measures of success of surgery. Increasing demand for lower extremity joint replacement surgery, and with that, an increase in numbers of potentially dissatisfied patients, will further strengthen these incentives. Research that will facilitate a successful adaptation to such developments should focus on practical applications of patient-centered measures in daily orthopaedic practice. For example, (1) models of accurate assessment of preoperative expectations, including sexual function, in daily practice, (2) utilizing this information to adapt or develop content for preoperative education modules either through in-person classes or other modalities such as videos or leaflets, and (3) continuous monitoring of patient (dis)satisfaction and associated factors that may provide a feedback loop to expectation measurement and management. Viable models should include the use of validated questionnaires and approaches that minimally disrupt clinical workflows through e.g. routine capture of patient-reported data embedded in the electronic medical record.

While ambitious, these applications fall in line with specific (financial) incentives created by the Centers for

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Medicare & Medicaid Services to incorporate routine capture of patient-reported outcomes in orthopaedic practice in hospitals selected to participate in bundled payment programs such as the Comprehensive Care for Joint Replacement program. Continuing such incentives will greatly facilitate the structural changes needed to routinely capture patient-reported data. Overall, an increased focus on measures of success of surgery from the patient perspective will likely result in a better understanding of patient expectations which may eventually lead to improved satisfaction after orthopaedic surgery across all domains.

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