

# Shared Decision-Making to Improve Patient Engagement in Minimally Invasive Hysterectomy

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## ABSTRACT

**S**hared decision-making (SDM) between the patient and physician is receiving increased attention as a way to improve patient satisfaction and value of care. Having a readily implemented tool available to inform conversation may enable SDM at a high-volume gynecologic surgery practice. Our objective was to evaluate the impact of an SDM tool on patients' decision to have minimally invasive gynecology surgery. We conducted a feasibility study using the SDM tool plus a follow-up survey for 100 patients recommended to undergo minimally invasive hysterectomy. Nearly all patients (97%) indicated that they were satisfied with their decision to undergo a minimally invasive procedure, including laparoscopic total and supracervical hysterectomy with or without the aid of the robotic platform. Anecdotally, patients expressed appreciation for the provided materials and the presentation of care options. For the care provider, use of the SDM tool did not add substantial time to the visit. Knowing that comprehensive information was provided to all patients was reassuring. Implementing a shared decision-making model in a gynecological practice is feasible and increases awareness and engagement, as well as satisfaction, among patients electing to have a hysterectomy.

**INTRODUCTION**

Value-based healthcare and patient-centered care are gaining recognition among payers and practitioners for the potential to deliver superior outcomes at a reduced cost.<sup>1,2</sup> For many health issues, multiple treatment approaches exist, and shared decision-making (SDM) between the patient and physician has been emphasized to increase patient satisfaction and potentially reduce costs compared to usual care.<sup>3</sup> A recent literature review found limited evidence on the use of SDM or decision aids in hysterectomy in the US.<sup>4</sup> Implementation of an SDM

tool outside the setting of clinical trials has not been well studied. We sought to understand the potential contribution of SDM to improve the quality and value of healthcare delivery for individual patients in a typical practice setting in the southeastern US. Prior to this effort, patient education materials available for use in our practice (Krames brochures, American College of Obstetrics and Gynecology [ACOG] brochure) were segmented by procedure or problem rather than showing all options and emphasizing decision-making. The purpose of the current study was to evaluate the feasibility of implementing a new tool for SDM at a gynecologic surgical practice and to mea-

sure the impact of the tool on patient experience.

**MATERIALS AND METHODS**

We implemented an SDM model consisting of a structured patient-provider conversation and tailored patient education materials at a hospital-based gynecology practice operating at two locations in Florida. The practice provides general GYN medical and surgical care including gynecological surgery with a focus on minimally invasive surgery (MIS) hysterectomy procedures. The SDM model was implemented for 100 patients who were candidates for minimally invasive hysterectomy between February 2016 and August 2017. Women over 20 who had elected to have a hysterectomy were included. The study was conceived as a feasibility study and evaluation of practice change; no comparison group was planned. The study was considered a practice quality improvement initiative and was, therefore, exempt from institutional review board (IRB) approval.

**ANALYSES**

Descriptive statistics were planned in keeping with the study objective. Means, medians, and standard deviations (SD) of the mean were computed for continuous variables. Percentages of patients were computed on an intention-to-treat basis (for all 100 patients treated using the SDM model) and for those completing the relevant survey question. All analyses were performed using Microsoft Excel® (Microsoft Corporation, Redmond, Washington).

**Surgical procedure**

Minimally invasive options included laparoscopic total and supracervical hysterectomy with or without the aid of the robotic platform. Surgical and non-surgical options were given in line with standard of care reflective of each patient's diagnosis. All surgeries were performed by the same surgeon provider.

**Shared decision-making tool**

The SDM intervention was implemented in February 2016. Patient



Figure 1. Example of the SDM tool.

selection for the SDM model was based on new or returning appointments, patient eligibility for MIS, and availability of the SDM materials (convenience sample). The SDM tool was developed by Ethicon Endo-Surgery (Cincinnati, Ohio), in conjunction with the Maine Business & Health Coalition, as part of an initiative to educate patients and providers on the benefits of MIS approaches in hysterectomy. The materials contain a checklist of discussion points for physicians and a patient section with background information on the procedure and links to additional resources (Fig. 1). The SDM tool has been endorsed by the American Association of Gynecological Laparoscopists and the American Institute of Minimally Invasive Surgery.

Patients were given the SDM tool, along with the practice's existing pre-surgical educational packet, which includes the Krames Laparoscopic Hysterectomy patient education brochure and the practice's preparation for surgery guide. During the preoperative procedure visit, the physician discussed the materials and the concept of SDM and gave the patient an opportunity for further reading and reflection at home. All patients were instructed to call with further questions or concerns. The surgery appointment was scheduled and performed after this consultation with the patient. At the two-week post-surgery appointment, a follow-up questionnaire was administered during the patient's office visit while waiting for the surgeon.

The questionnaire was a simple survey instrument designed by the Ethicon Health Economics and Market Access field team to accompany the SDM materials. It contained eight "yes" or "no" questions and a 1–5 rating scale for ease of understanding of the patient educational materials, with an open-ended question soliciting feedback on additional information that would improve the tool. In addition to the SDM survey, Press Ganey Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) patient satisfaction scores were captured for the time period of SDM implementation and the preceding year (2015), for purposes of comparison. The Press Ganey scores are based on standardized surveys and are applicable to all patients visiting the practice, not only those exposed to the SDM implementation.

<b>Table I SDM results</b>	
Survey question	% Yes (of 100 surveyed)
Did your healthcare provider give you shared decision-making material?	95
Did you and your healthcare provider discuss the material?	91
Did you and your healthcare provider discuss different treatment options?	88
Did you read the shared decision-making material that your provider gave you?	92
After reading the shared decision-making material do you feel that you have a better understanding of all your treatment options?	91
Did the material help you make your decision about your treatment options?	85
Did you move forward with the treatment option you discussed with your healthcare provider?	94
Are you happy with your decision? If not, why not?	95
Did you find the shared decision-making material easy to understand? (% answering 4 or 5 on scale of 1–5)	89

**RESULTS**

Of 339 patients undergoing surgery from February 2016 to August 2017 at the two practice locations, 100 women who were being evaluated for an MIS gynecologic procedure were given the SDM materials and questionnaire. No patients refused to take the questionnaire, and none called with questions or concerns after distribution of the SDM materials (despite being invited to do so). All but three patients completed some portion of the questionnaire.

SDM was well received with 97% of patients (100% of those responding to the question) agreeing that they were satisfied with their decision (Table I). No patients expressed decisional regret or opted not to undergo a surgical procedure. All of the patients chose MIS, including minimally invasive laparoscopic total and supracervical hysterectomy with or without the aid of the robotic platform. Large majorities of patients indicated that they had read the SDM tool (92%) and that the SDM

materials gave them a better understanding of treatment options (91%). Somewhat lower percentages of patients (88% and 85% of all 100 surveyed) agreed with statements that different treatment options were presented during discussion with the physician, and that the materials helped them make a decision. Patient comments on the open-ended question provide context for these responses: two patients remarked that they already knew what procedure they wanted, so this question's lower response rate may reflect that patients were not interested in, or were not seriously considering, other options.

From the care provider's perspective, the SDM discussion did not add significant time to the patient's appointment. However, the qualitative responses from patients showed mixed reactions regarding the length of the SDM tool. While many patients replied that the information was very helpful, four patients indicated the tool was too lengthy. Several patients asked for additional information regarding post-surgery recovery

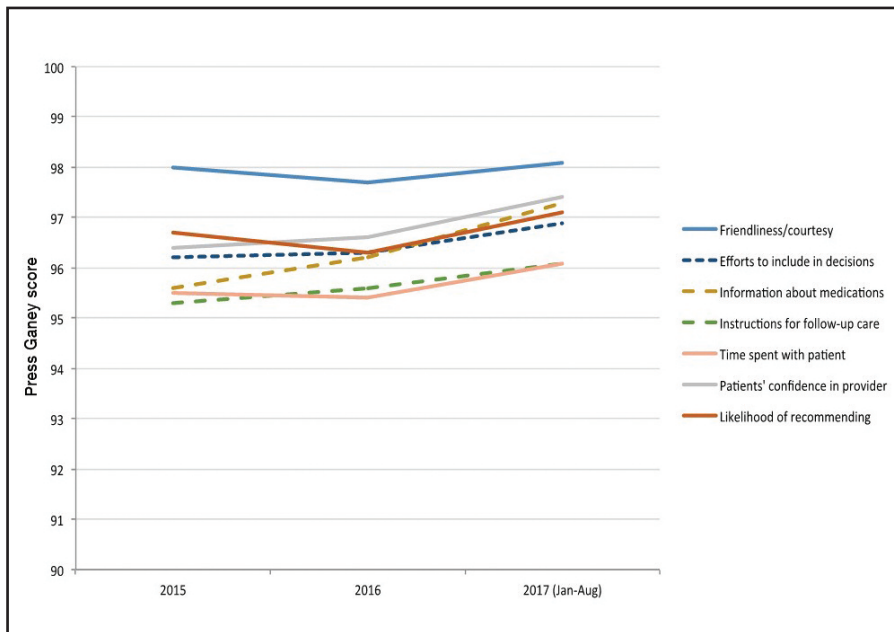


Figure 2. Press Ganey scores.

options, including hormone replacement guidance.

In addition to the SDM-specific survey, we assessed practice-wide measures. In 2015, the year prior to SDM deployment, the provider's Press Ganey total score was 95 and the section score that looks specifically at the evaluation of the care provider was 96.4 (Fig. 2). In 2016 and 2017, after SDM deployment, total scores were 95 and 95.6, respectively, with care provider scores of 96.3 and 96.7. Patient demographics were not collected, and we were unable to assess the impact of SDM for different groups who may be under-represented in MIS procedures.<sup>5</sup>

## CONCLUSION

This study demonstrates the feasibility of an SDM process in a single surgeon, high-volume hospital-based practice. Women planning to undergo hysterectomy were satisfied with the decision process, provider communication, and results of the procedure. The surgeon felt that the SDM tool improved his relationships with patients and furthered their education. Overall ratings of patient satisfaction with the provider, which were already high, were not negatively impacted by the implementation of SDM and may have been incrementally improved.

Less tangible benefits were also

observed. Having a "handout" for patients to take home provided reinforcement of the decision process. The merger of patient and physician information in the same document contributed to building trust. Strengthening communication with patients is critical for quality care in the post-surgical period, and the provider felt that time spent discussing the SDM tool was warranted for patient engagement. In addition, incorporating SDM in the practice was seen as valuable to the provider's referral network of primary care providers and gynecologists.

This feasibility study has implications for future research as well as clinical practice. Patient comments captured in the survey will be incorporated into Ethicon's revision process to further refine the SDM materials. In future studies, SDM could be implemented further "upstream" in the care pathway, such as at the initial conversation of surgical versus non-surgical treatment. Our practice receives frequent referrals for hysterectomy, and referral selection bias, as well as previous provider conversations, likely increased the willingness of patients to undergo surgery and, specifically, MIS. Controlled studies in this setting are needed to provide a benchmark for patient satisfaction and outcomes with the SDM model compared to standard care.

Strengths of this study include broad patient selection criteria, high response rate to the follow-up survey, and the

routine care (rather than interventional trial) setting. A single physician guided all of the SDM conversations, which increased standardization of the intervention, but may mean that results are not directly transferrable to settings with multiple providers. Limitations of the study include the lack of a formal control group and the small sample size. Patient demographics were not collected, leaving us unable to assess the impact of SDM for different groups who may be under-represented in MIS procedures. Overall, patient satisfaction scores were already high, which limited our ability to discern an impact of SDM on further improvement; implementation in a wider variety of practice settings is warranted. In addition, training on the SDM process and materials may be more time-consuming in a larger practice with many providers. **STI**

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## AUTHORS' DISCLOSURES

Dr. McCarus is a consultant for Ethicon US, LLC. Dr. Heidrich is an employee of Ethicon US, LLC, a Johnson & Johnson Medical Devices company.

All other authors have no conflicts of interest to disclose.

## REFERENCES

- Hibbard JH, Greene J. What the evidence shows about patient activation: better health outcomes and care experiences; fewer data on costs. *Health Aff* 2013;32(2):207-14.
- Chee TT, Ryan AM, Wasfy JH, et al. Current state of value-based purchasing programs. *Circulation* 2016;133(22):2197-205.
- Boss EF, Mehta N, Nagarajan N, et al. Shared decision making and choice for elective surgical care: A systematic review. *Otolaryngol Head Neck Surg* 2016;154(3):405-20.
- Stacey D, Légaré F, Col NF, et al. Decision aids for people facing health treatment or screening decisions. *Cochrane Database Syst Rev* 2017; CD001431.
- Patel PR, Lee J, Rodriguez AM, et al. Disparities in use of laparoscopic hysterectomies: a nationwide analysis. *J Minim Invasive Gynecol.* 2014;21:223-7.