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What do patients undergoing Mohs micrographic surgery want? Results of a patient values survey based on the Outpatient and Ambulatory Surgery Consumer Assessments of Healthcare Providers and Systems

To the Editor: The shift toward the evaluation of health care providers in terms of quality predates the Affordable Care Act and will continue irrespective of the act's political future.[1] Surveys of patient experience are a component of efforts to link provider payments with quality measures and value of care.[2] Relevant efforts to assess patient experience in Mohs micrographic surgery (MMS) have focused on examining specific operative and perioperative interventions associated with satisfaction,[3] as well as on patient characteristics predictive of satisfaction.[4] However, investigators have not asked what matters most to patients when undergoing MMS.

To answer this question, we utilized a validated national patient experience survey, the Outpatient and Ambulatory Surgery Consumer Assessments of Healthcare Providers and Systems (OAS-CAHPS).[5] The OAS-CAHPS survey asks patients to retrospectively evaluate aspects of care in a specific outpatient surgery experience. To instead determine which aspects of care patients value most, we converted 22 retrospective questions on the OAS-CAHPS that are directly relevant to MMS to statements and asked patients to rate the statements on a Likert scale from strongly agree to strongly disagree according to the importance of that statement in an MMS experience.

A total of 101 patients completed the survey (69 males, 31 females, and 1 for whom information on sex was missing) at their first postoperative visit following MMS. Of the 101 patients, 16 were younger than 55 years, 30 were between 55 and 64 years old, 44 were between 65 and 74 years old, and 10 were older than 75 years. Responses to most questions consisted of strongly agree, agree, or undecided as summarized in the Likert plot in Fig 1. To allow statistical comparison, questions were categorized into 4 groups by topic (communication, complications, facility, and courtesy). We determined the Cronbach α to assess internal consistency within groups; the validity of the groupings was shown by correlation coefficients of 0.7 or higher. In the assigned categories, communication and courtesy had the lowest (most important) average scores, with medians of 1.38 (interquartile range [IQR] 1.13-1.75) and 1.4 (IQR 1.0-1.8), respectively. Statements regarding the occurrence of complications comprised the 3 statements with the fewest patients rating strongly agree in the survey; and median Likert scores of 1.8 demonstrated the least importance for the complications group (IQR 1.5−2.3). The median communication score was significantly lower than that of the categories complications ($P < .01$) and facility ($P = .01$). Table I shows demographic comparisons for the groups. Patients were also asked to rank the OAS-CAHPS statements in order of importance. These rankings confirmed the Likert analysis showing communication to be most important.

The importance of communication and bedside manner in patient satisfaction has been demonstrated across a number of medical specialties,[6] including MMS,[4] and our work confirms its primacy to patients when they are asked directly what they value. Our findings also suggest some tolerance for pain, bleeding, and nausea/vomiting that may result from the MMS procedure. This signals an understanding that removal of skin cancer by MMS will involve some

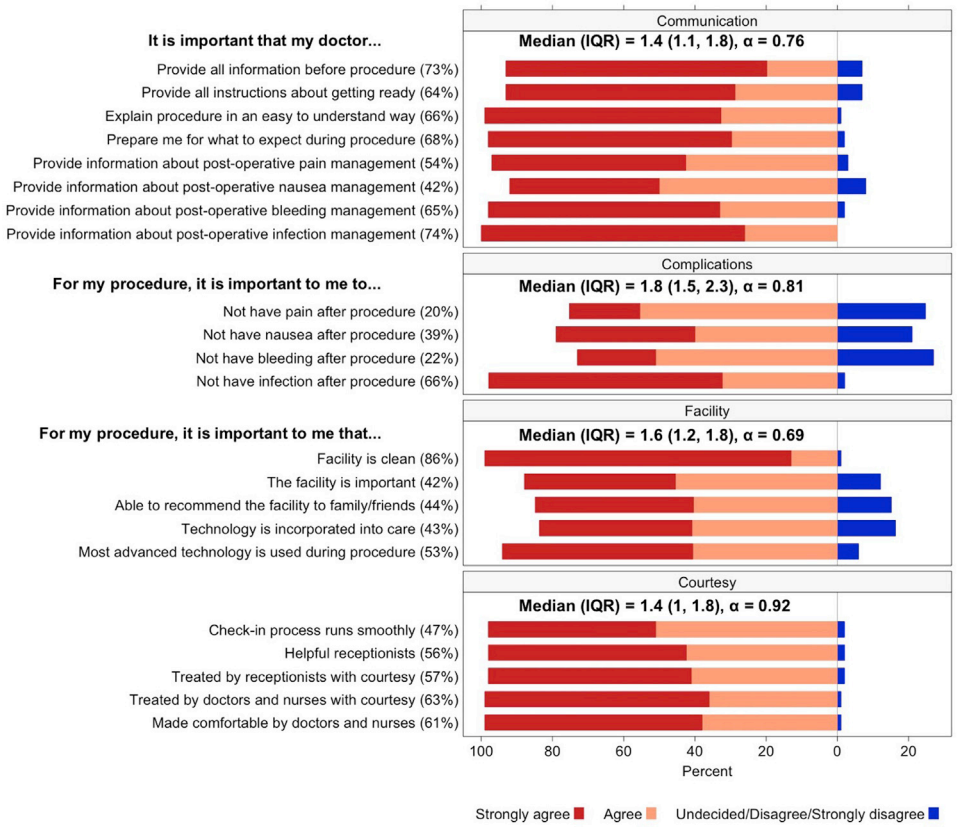

Fig 1. Likert plots with responses to all statements. The responses for individual questions in the Mohs micrographic surgery survey are presented. Each question utilized a Likert scale for responses from strongly agree to strongly disagree, with each assigned a value from 1 to 5, respectively. Because most answers were strongly agree or agree, the remaining 3 answers were grouped and the plot was centered between agree and the remaining answers. Survey questions were grouped according to topic. The arithmetic mean of individual items within each group was taken to measure a patient's perception on the relative importance of communication, complications, facility, and courtesy, with a lower numeric score indicating greater importance. The median (interquartile range [IQR]) score for each group was calculated and presented. The Cronbach α correlation coefficients, which were computed to determine the validity of the question grouping, are shown. Percentage values following value statements represent the percentage of respondents answering strongly agree.

discomfort and, possibly, surgical complications. Thus, the presence of surgical complications in MMS does not necessarily portend a negative patient experience as long as expectations are communicated and the complication is recognized and managed. Surgeons performing MMS may consider supplementing preoperative and postoperative visits with written or electronic information to enhance communication regarding the MMS procedure, with an emphasis on surgical complications and what to do should they occur.

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Table I. Demographic comparisons across study domains

Study domains, Likert scale	Median (IQR)		Median (IQR)	*P* value*	Adjusted difference in median	*P* value†
Communication						
Less education‡	1.4 (1.0-1.8)	More education§	1.4 (1.1-1.8)	.41	0.13	.39
Age ≤65 y	1.4 (1.0-1.8)	Age >65 y	1.4 (1.1-1.8)	.64	−0.13	.36
Women	1.1 (1.0-1.5)	Men	1.4 (1.1-1.8)	.09	0.25	.08
Excellent/very good‖	1.2 (1.0-1.5)	Good/fair/poor‖	1.6 (1.1-1.9)	.01	0.25	.08
Complications						
Less education	1.8 (1.3-2.0)	More education	2.0 (1.5-2.2)	.19	0.25	.10
Age ≤65 y	2.0 (1.5-2.5)	Age >65 y	1.8 (1.5-2.0)	**.03**	−0.38	**.01**
Women	1.8 (1.5-2.2)	Men	1.8 (1.5-2.2)	.99	0.13	.40
Excellent/very good	1.8 (1.5-2.2)	Good/fair/poor	1.8 (1.5-2.4)	.71	0.13	.39
Facility						
Less education	1.4 (1.0-1.8)	More education	1.6 (1.4-2.0)	.30	0.2	.07
Age ≤65 y	1.6 (1.4-1.8)	Age >65 y	1.4 (1.0-1.8)	.20	−0.2	.052
Women	1.6 (1.2-1.8)	Men	1.6 (1.2-1.8)	.99	0	.99
Excellent/very good	1.4 (1.2-1.6)	Good/fair/poor	1.8 (1.4-2.0)	**.01**	0.4	<**.01**
Courtesy						
Less education	1.2 (1.0-1.8)	More education	1.4 (1.0-2.0)	.32	0	.99
Age ≤65 y	1.6 (1.2-1.8)	Age >65 y	1.2 (1.0-1.8)	.04	−0.4	**.01**
Women	1.2 (1.0-1.6)	Men	1.6 (1.0-1.8)	.26	0.2	.18
Excellent/very good	1.2 (1.0-1.8)	Good/fair/poor	1.6 (1.2-2.0)	.05	0.2	.17

IQR, Interquartile range.
*Wilcoxon rank sum tests were used to compare median IQR.
†Quantile regression models were used to obtain the adjusted differences in median scores comparing more education with less education, older patients with younger patients, men with women, and good/fair/poor overall health with excellent/very good overall health. Significant *P* values confirmed in the adjusted analysis are shown in bold.
‡Less education (high school, some college, or a 2-year degree).
§More education (a 4-year graduate degree or more than 4 years).
‖Refers to self-reported assessment of overall health.

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Morphea and systemic sclerosis are associated with an increased risk for melanoma and nonmelanoma skin cancer

To the Editor: It is well-known that systemic autoimmune diseases confer an increased risk for cancer.[1] In recent years, studies have described an increased risk for epithelial malignancies in patients with systemic sclerosis—most commonly lung carcinoma.[2-4] There are no current studies in the literature evaluating the prevalence of epithelial skin cancers in patients with the localized form of scleroderma, morphea. Using the Slicer Dicer feature of the electronic medical record system EPIC, we retrospectively collected anonymous, aggregate-level data on patients ≥18 years of age seen at Johns Hopkins Hospital (JHH) over a 6-year period (March 9, 2012-March 9, 2018). The prevalences of melanoma, squamous cell carcinoma of