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Medical Decision-Making Preferences among Older Adults who Underwent Recent Cataract Surgery

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INTRODUCTION

Over the next 15 years, it is estimated that the number of persons with cataract in the U.S. will double^{1,2} and that the demand for cataract surgery will increase concomitantly.³ With growing recognition of the importance of patient-centered care,⁴ it is critical to understand the varied preferences patients have as they navigate complex medical decisions, for example, choosing to undergo cataract surgery. A 2004 study from Austria that evaluated patient preferences for decision-making in cataract surgery found that a majority (61%) preferred a physician-dominated process.⁵ However, that study, conducted in a different sociocultural context over a decade ago, may not reflect current American preferences; moreover, that study did not assess preferences for family involvement in the decision-making process. In our study, using national survey data from the U.S., we evaluated medical decision-making preferences among older adults who had recently undergone cataract surgery and assessed whether preferences varied by sociodemographics. A nuanced understanding of the preferred modes of decision-making may help cataract surgeons to further empower and engage patients in the health care process.

PARTICIPANTS AND METHODS

The National Health and Aging Trends Study (NHATS) is a population-based study of U.S. Medicare beneficiaries age 65 and older. In 2012, NHATS included an Engagement in Healthcare (EH) Module in which respondents were asked, “thinking about your [doctor/family and close friends], do you prefer to make decisions: without much advice from them, get their advice and then make decisions, make decisions together, or leave decisions up to them?”

Our study included respondents who participated in the EH module, reported having cataract surgery in the prior 24 months, and were able to complete the survey without help from a proxy. We used the Fisher exact test to examine differences in decision-making preferences by sociodemographic and economic characteristics. Data were analyzed using STATA/MP version 15. The University of Michigan institutional review board deemed this study exempt because it consisted of secondary analyses of publicly available data.

RESULTS

The study included 213 respondents, a majority of whom were white (71.4%), female (65.7%), and between 75-84 years old (50.2%) (Table 1). Most respondents from all sociodemographic groups preferred shared decision-making with doctors and family, citing a preference for “considering advice and then making decisions” or “making decisions together” (Table 2).

Level of education ($p=.009$) and marital status ($p=.04$) were significantly associated with differences in medical decision-making preferences. A greater proportion of respondents who did not complete high-school preferred to “leave decisions up to [the doctor]” compared to those with education beyond high-school (30.0% vs 11.5%). Respondents with education beyond high-school more frequently preferred to “get [doctors’] advice and then make decisions” or “make decisions without much advice from [doctors]” compared to those who did not complete high-school (58.3% vs 40.0%). Unmarried respondents preferred to “make decisions without much advice from [family]” more frequently than those who were married (47.3% vs 32.0%), whereas a greater proportion of married respondents preferred to “make decisions together with their [families]” (33.0% vs 20.9%). There were no differences by sex, race/ethnicity, or income.

DISCUSSION

This study of older adults who underwent recent cataract surgery suggests a preference toward shared decision-making with patients, doctors, and family. In a study from 2004, Kiss et al. reported that 44% preferred the physician alone to make decisions about cataract surgery, whereas in our study only 15% noted this preference. The discrepancy between studies may reflect a difference in patient populations and study designs, as well as a shift from physician-centered to patient-centered care over time.⁶ It is also important to note that we found considerable variation in older adults’ preferences, which underscores the importance of understanding the expectations and needs of individual patients.

Our study is limited because it relied on survey data, which is susceptible to recall and desirability biases. Also, the survey did not specifically ask about decision-making related to cataract surgery, though all included participants reported having cataract surgery in the prior 24 months. This study makes an important contribution to our understanding of medical decision-making preferences among older adults in the U.S. who chose to have cataract surgery and may help to promote patient satisfaction and the delivery of patient-centered eye care to an aging population.

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REFERENCES

1. Gollogly HE, Hodge DO, St Sauver JL, Erie JC. Increasing incidence of cataract surgery: population-based study. *Journal of cataract and refractive surgery*. 2013;39(9):1383–1389. [PubMed: 23820302]
2. The Future of Vision: Forecasting the Prevalence And Costs of Vision Problems. *Prevent Blindness*; 2014.
3. Micieli JA, Arshinoff SA. Cataract surgery. *CMAJ : Canadian Medical Association Journal*. 2011;183(14):1621–1621. [PubMed: 21825045]
4. Fiscal Year 2017 Annual Report. Patient-Centered Outcomes Research Institute;2017.
5. Kiss CG, Richter-Mueksch S, Stifter E, Diendorfer-Radner G, Velikay-Parel M, Radner W. Informed consent and decision making by cataract patients. *Archives of ophthalmology (Chicago, Ill : 1960)*. 2004;122(1):94–98.
6. Dawn AG, Lee PP. Patient expectations for medical and surgical care: a review of the literature and applications to ophthalmology. *Survey of ophthalmology*. 2004;49(5):513–524. [PubMed: 15325196]

Table 1.

Characteristics of Study Sample

	N (%) (N=213)
Total	213 (100%)
Age, years	
65–74	66 (31.0%)
75–84	107 (50.2%)
85+	40 (18.8%)
Sex	
Male	73 (34.3%)
Female	140 (65.7%)
Marital Status	
Married	103 (48.4%)
Unmarried	110 (51.6%)
Race/Ethnicity	
White	152 (71.4%)
Black	47 (22.1%)
Hispanic	8 (3.7%)
Other	6 (2.8%)
Education	
<High School Degree	50 (23.5%)
High School Degree	67 (31.4%)
>High School Degree	96 (45.1%)
Income	
1 st tercile	73 (34.3%)
2 nd tercile	68 (31.9%)
3 rd tercile	72 (33.8%)

Summary Statistics of Study Sample

Table 2.

	Doctor's Role in Healthcare Decision Making					Family's Role in Healthcare Decision Making					P-value
	Make Decisions without Much Advice	Get Their Advice and then Decide	Make Decisions Together	Leave Decisions Up to Them	Total	Make Decisions without Much Advice	Get Their Advice and then Decide	Make Decisions Together	Leave Decisions Up to Them	Total	
Total, N (%)	24 (11.3%)	88 (41.3%)	70 (32.9%)	31 (14.6%)	213	85 (39.9%)	66 (31.0%)	57 (26.8%)	5 (2.4%)	213	
Age, years, N (%)											
65-74	5 (7.6%)	29 (43.9%)	27 (40.9%)	5 (7.6%)	66	27 (40.9%)	21 (31.8%)	16 (24.2%)	2 (3.0%)	66	0.993
75-84	12 (11.2%)	44 (41.1%)	35 (32.7%)	16 (15.0%)	107	43 (40.2%)	32 (29.9%)	30 (28.0%)	2 (1.9%)	107	
85+	7 (17.5%)	15 (37.5%)	8 (20.0%)	10 (25.0%)	40	15 (37.5%)	13 (32.5%)	11 (27.5%)	5 (2.4%)	40	
Sex, N (%)											
Male	5 (6.9%)	27 (37.0%)	28 (38.4%)	13 (17.8%)	73	29 (39.7%)	23 (31.5%)	18 (24.7%)	3 (4.1%)	73	0.646
Female	19 (13.6%)	61 (43.6%)	42 (30.0%)	18 (12.9%)	140	56 (40.0%)	43 (30.7%)	37 (27.9%)	2 (1.4%)	140	
Marital Status, N (%)											
Married	9 (8.7%)	50 (48.5%)	31 (30.1%)	13 (2.6%)	103	33 (32.0%)	32 (31.1%)	34 (33.0%)	4 (3.9%)	103	0.042 *
Unmarried	15 (13.6%)	38 (34.6%)	39 (35.5%)	18 (16.4%)	110	52 (47.3%)	34 (30.9%)	23 (20.9%)	1 (0.9%)	110	
Race/Ethnicity, N (%)											
White	17 (11.2%)	66 (43.4%)	49 (32.2%)	20 (13.2%)	152	61 (40.1%)	49 (32.2%)	39 (25.7%)	3 (2.0%)	152	0.519
Black	3 (6.4%)	17 (36.2%)	19 (40.4%)	8 (17.0%)	47	18 (38.3%)	14 (29.8%)	14 (29.8%)	1 (2.1%)	47	
Hispanic	3 (37.5%)	3 (37.5%)	1 (12.5%)	1 (12.5%)	8	2 (25.0%)	3 (37.5%)	2 (25.0%)	1 (12.5%)	8	
Other	1 (16.7%)	2 (33.3%)	1 (16.7%)	2 (33.3%)	6	4 (66.7%)	0 (0.0%)	2 (33.3%)	0 (0.0%)	6	
Education, N (%)											
<High School Degree	7 (14.0%)	13 (26.0%)	15 (30.0%)	15 (30.0%)	50	18 (36.0%)	14 (28.0%)	15 (30.0%)	3 (6.0%)	50	0.619
High School Degree	9 (13.4%)	27 (40.3%)	26 (38.8%)	5 (7.5%)	67	29 (43.3%)	19 (28.4%)	18 (26.9%)	1 (1.5%)	67	
>High School Degree	8 (8.3%)	48 (50.0%)	29 (30.2%)	11 (11.5%)	96	38 (39.6%)	33 (34.4%)	24 (25.0%)	1 (1.0%)	96	
Income, N (%)											
1 st quartile	12 (16.4%)	24 (32.9%)	25 (34.3%)	12 (16.4%)	73	34 (46.6%)	20 (27.4%)	18 (24.7%)	1 (1.4%)	73	0.617
2 nd quartile	6 (8.8%)	30 (44.1%)	21 (30.9%)	11 (16.2%)	68	22 (32.4%)	25 (36.8%)	20 (29.4%)	1 (1.5%)	68	

	Doctor's Role in Healthcare Decision Making					Family's Role in Healthcare Decision Making						
	Make Decisions without Much Advice	Get Their Advice and then Decide	Make Decisions Together	Leave Decisions Up to Them	Total	<i>P-value</i>	Make Decisions without Much Advice	Get Their Advice and then Decide	Make Decisions Together	Leave Decisions Up to Them	Total	<i>P-value</i>
3 rd quartile	6 (8.3%)	34 (47.2%)	24 (33.3%)	8 (11.1%)	72		29 (40.3%)	21 (29.2%)	19 (26.4%)	3 (4.2%)	72	

* statistically significant