

Trigger Finger: Assessment of Surgeon and Patient Preferences and Priorities for Decision Making

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Purpose To test the null hypothesis that there are no differences in the priorities and preferences of patients with idiopathic trigger finger (TF) and hand surgeons.

Methods One hundred five hand surgeons of the Science of Variation Group and 84 patients with TF completed a survey about their priorities and preferences in decision making regarding the management of TF. The questionnaire was structured according the Ottawa Decision Support Framework for the development of a decision aid.

Results Patients desired orthotics more and surgery less than physicians. Patients and physicians disagreed on the main advantage of several treatment options for TFs and on disadvantages of the treatment options. Patients preferred to decide for themselves after receiving advice, whereas physicians preferred a shared decision. Patients preferred booklets, and physicians opted for Internet and video decision aids.

Conclusions Comparing patients and hand surgeons, there were some differences in treatment preferences and perceived advantages and disadvantages regarding idiopathic TF—differences that might be addressed by a decision aid.

Clinical relevance Information that helps inform patients of their options based on current best evidence might help them understand their own preferences and values, reduce decisional conflict, limit surgeon-to-surgeon variations, and improve health. (*J Hand Surg Am.* 2014;39(11):2208–2213. Copyright © 2014 by the American Society for Surgery of the Hand. All rights reserved.)

Key words Shared decision making, assessment of needs, trigger finger, decision aids.



DECISION AIDS ARE TOOLS THAT HELP patients understand their own values and preferences regarding diagnosis and treatment options. Decision aids are particularly useful when there are multiple treatment options and the evidence is inconclusive.^{1–4} Decisional conflict can influence satisfaction with decisions, illness behavior, outcomes, emotions, and resource utilization.^{1,5,6} According to the

International Patient Decision Aid Standards and the Ottawa Decision Support Framework, it is an important step in the development of decision aids to clarify the need for support from patients and physicians and to identify factors that affect decisional conflict.

Considering the inconclusive evidence regarding diagnostic and treatment options, choosing treatment can be difficult for both patients and physicians. With

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regard to idiopathic trigger finger (TF), spontaneous recovery can occur,⁷ corticosteroid injections are disease-modifying in over 50% of patients, and surgery is highly successful with a low rate of adverse events.^{8,9} Given that there is no single best choice, patient preference should be a major factor in decision making.

This study assessed whether there was a difference in preferences and needs regarding decision support, comparing patients and hand surgeons facing decisions about the treatment of idiopathic TF. We tested the null hypothesis that there are no differences in priorities and preferences of patients with TF and hand surgeons.

MATERIALS AND METHODS

Study subjects

Between July 2012 and August 2013, new patients diagnosed with one or more idiopathic TFs at a tertiary referral hospital were invited to participate in this institutional review board–approved, prospective cohort study. Patients previously treated for a TF, pregnant women, patients younger than 18 years, and patients unable to speak English or who were not able to give informed consent were excluded from this study. Informed consent was obtained from each subject.

In total, 95 consecutive patients fulfilled our eligibility criteria of which 11 patients declined participation because of time constraints or lack of interest. This resulted in a final sample of 84 patients, who were enrolled after the encounter with the treating physician. In total, 34 (40%) men and 50 (60%) women completed all questionnaires. The mean age was 61 years (SD, 13 y; range, 31–92 y) (Appendix A, available on the *Journal's* Web site at www.jhandsurg.org).

One hundred five hand surgeon-members of the Science of Variation Group completed the survey. This group is an international collaboration of hand surgeons whose characteristics are reported in Appendix B (available on the *Journal's* Web site at www.jhandsurg.org). Incentives, other than acknowledgment as part of the group, were not provided.

Outcome measures

After providing demographic information, both patients and physicians were asked to complete an online survey based on the Ottawa Decision Support Framework and the Control Preferences Scale.¹⁰ Nine aspects of the available treatment options were assessed. These were desirability; advantages

and disadvantages; probability of choosing; preferred way to arrive at a final decision; who, if anyone, is usually involved in the decision-making process; what would help to arrive at a final decision; ways to facilitate the decision-making process; the type of information desired; and who should provide the information. The available treatment options were time (see if it will go away on its own), nonsteroidal anti-inflammatory drugs (NSAIDs), orthosis fabrication, corticosteroid injection, and surgery. Both parties were also asked to choose their main advantage and main disadvantage of all of the mentioned treatment options.

The Control Preference Scale measures the patients' approach concerning a decision-making process, especially the grade of authority that an individual desires in this process. The scale attempts to determine whether patients prefer an active or a passive role in the decision-making process. The scale has been tested in various patient groups and has proven to be clinically relevant, accessible, and highly predictable for favored roles in the decision-making process concerning the choice of treatment.¹¹ Components of this scale were used to assess the preferences of patients in a decision-making process about treatment for TF in our study. For example, patients were asked to rank the desirability for all 5 treatment options, "1" being the most desirable of all treatment options and "5" the least desirable. In addition, they were asked to rate the likeliness of choosing each of the available treatment options and to point out their thoughts about advantages and disadvantages of these options. Afterward, they were asked to rate the desired approach in the decision-making process and favored options for decision aids that could facilitate the process. Surgeons were asked to identify the options that they expected patients would consider to be high value.

The online survey and questionnaire application Research Electronic Data Capture was used to collect and manage all the required data and information from eligible patients.^{12,13} All questionnaires were completed online or on a tablet, laptop, or personal computer.

Statistical analysis

A post hoc analysis showed that 105 surgeons and 84 patients with TF with the observed effect size of 0.61 would provide 80% power to detect a significant difference using a 2-tailed Student *t* test, setting alpha level at 0.05. Continuous data were presented as the mean when normally distributed. The Student *t* test and chi-square test were used to assess the association

TABLE 1. Comparison of the Desirability of the Different Treatment Opportunities Between Patients and Physicians

Variable	Patients		Physician		P
	Mean	SD	Mean	SD	
Time	3.1	1.5	3.3	1.5	.34
NSAID	3.5	1.2	3.4	1.2	.49
Orthotics	3.2	1.3	3.9	1.0	< .001
Corticosteroid injection	2.1	1.3	1.7	1.1	.06
Surgery	3.1	1.6	2.6	1.2	.03

Desirability range: 1 being the most desirable of all treatment options and 5 the least desirable.

TABLE 2. Comparison of the Likelihood of the Different Treatment Opportunities Between Patients and Physicians

Variable	Patients		Physician		P
	Mean	SD	Mean	SD	
Time	2.8	1.6	2.7	1.3	.46
NSAID	2.7	1.4	2.5	1.3	.43
Orthotics	2.8	1.5	2.4	1.1	.03
Corticosteroid injection	3.9	1.3	4.6	0.8	< .001
Surgery	3.6	1.4	4.3	0.9	< .001

Likelihood range: 1 being the least likely treatment opportunity and 5 the most likely.

between continuous or categorical preferences and independent variables, such as patient and surgeons.

RESULTS

Patients desired orthotics more and surgery less than surgeons. Patients and surgeons considered corticosteroid injections the most desirable treatment option followed by surgery (Table 1). The doctors were more likely than patients to choose corticosteroid injection, but overall both cohorts preferred invasive treatment more than noninvasive (Table 2).

Patients and physicians disagreed on the main advantage of several treatment options for TFs (ie, time, orthotics, and open TF release) and on disadvantages of the treatment options (ie, time, corticosteroid injections, and open TF release). For example, regarding the latter option, surgeons considered postoperative finger stiffness as the greatest disadvantage, whereas patients found the risk of digital

TABLE 3. What Is the Best Way to Arrive at a Final Decision Regarding the Treatment Plan?

	Patient		Physician		P
	n	%	n	%	
The health provider decides for the patient	8	10	2	2	< .001
The health provider advises and the patient and provider make a shared decision	32	40	75	78	
The health provider advises and the patient decides	41	51	19	20	

TABLE 4. Who, if Anyone, Is Usually Involved in the Decision-Making Process?

	Patient		Provider		P
	n	%	n	%	
Spouse	22	33	31	36	.02
Family	14	21	24	28	
Friend	2	3	11	13	
Primary care physician	29	43	19	22	

nerve injury more important ($P < .001$) (Appendix C, available on the *Journal's* Web site at www.jhandsurg.org). Patients were more likely to choose orthotics and were less likely than surgeons to choose corticosteroid injection and surgery (Table 2).

Physicians preferred a shared decision-making process, whereas patients preferred to decide for themselves after receiving the health provider's advice (Table 3). Patients valued the advice of their primary care physician, whereas surgeons assumed that a patient's spouse would be the most important advisor ($P = .015$) (Table 4).

According to patients, "recommendation of their health provider" was the most significant contributing factor in the decision-making process that led to a final decision regarding their choice of treatment. The most important factor for physicians was "information about the various treatment options" and "incidence of specific benefits and risks" (Table 5).

Patients and physicians disagreed on the most preferable decision aid that could facilitate the decision-making process. Patients preferred booklets,

TABLE 5. Which of the Following Would Help to Arrive at a Final Decision on One Treatment Option?

	Patient		Physician		<i>P</i>
	n	%	n	%	
The health provider's recommendation	24	30	16	21	.03
Information on the various treatment options	15	19	22	29	
Information on the incidence of specific benefits and risks	19	24	24	31	
Personal preferences	13	16	12	16	
Information on how others go about deciding	3	4	3	4	
Support from others	5	6	0	0	

TABLE 6. Ways to Facilitate the Decision-Making Process

	Patient		Physician		<i>P</i>
	n	%	n	%	
Booklet	18	46	17	18	< .001
Web	11	28	38	41	
Video	10	26	37	40	

TABLE 7. Ways to Support the Decision-Making Process

	Patient		Physician		<i>P</i>
	n	%	n	%	
Second opinion	26	36	8	8	< .001
Discussion groups	5	7	11	11	
Information materials	42	58	77	80	

and physicians opted for the Internet and videos (Table 6). Both parties agreed on their choice that "information materials" was the best option to facilitate the decision-making process, compared with a second opinion or participation in a discussion group ($P < .001$) (Table 7). Opinions varied between patients and physicians regarding the content of the desired information, but both parties considered "risk of treatment," "probabilities," "personal implications," and "guidance in deliberation" as most

TABLE 8. What Information Should the Information Material Contain?

	Patient		Physician		<i>P</i>
	n	%	n	%	
Basic Treatment opportunities	3	7	0	0	.003
Benefits of treatment	4	10	2	2	
Risks of treatment	1	2	1	1	
Probabilities	8	19	6	6	
Personal implications	9	21	38	40	
Support in deliberation	5	12	14	15	
	12	29	35	36	

TABLE 9. Who Should Prepare Information Material?

	Patient		Physician		<i>P</i>
	n	%	n	%	
Pharmaceutical company	2	5	0	0	.001
Expert	24	57	62	73	
Society	4	10	0	0	
Government	0	0	2	2	
Insurance company	1	2	0	0	
Companies selling drugs	1	2	0	0	
Consumer association	2	5	4	5	
For-profit organization	6	14	17	20	
Nonprofit organization	2	5	0	0	

important content (Table 8). Patients and physicians agreed strongly on that the expert should provide the content (Table 9).

DISCUSSION

This study addressed useful content of a decision aid by polling patients with idiopathic TF and hand surgeons. We found that there is a significant difference in treatment preferences and perceived advantages and disadvantages among patients with idiopathic TF and hand surgeons.

The results from the patients are from a single center, whereas the preferences of the hand surgeons are from multiple centers. Another potential shortcoming is that patients treated by different hand surgeons may have received different information about the diagnostic and treatment options and advantages and disadvantages, and therefore, they might have developed different needs with respect to information. Another shortcoming is that the questions about the disadvantages of the treatment options were not written in everyday language. For example, the questions included *fat atrophy* and *postoperative stiffness*. Although a research assistant answered questions if needed, the terminology may have influenced the frequency with which some disadvantages were selected.

Our finding that the interests and preferences of patients and physicians were somewhat different is consistent with a prior study of patients with carpal tunnel syndrome.¹⁴ Prior studies about communication and decision-making in seriously ill patients found that physicians were often unaware of patient preferences and how distinct they may have been from their own preferences.^{15,16} The preference of the patient may be influenced by the encounter with the treating physician. Conversely, patients cannot form an opinion until they have a diagnosis and some knowledge of the options. Another concern is that patients might show more preference for the treatment they selected, but we would argue that their preferences determine their choices, not the other way around.

Whereas physicians preferred to share decision making with the patient, patients preferred to make decisions on their own after considering the physician's advice—advice that patients cited as the most important in decision making. This is in line with growing evidence that patients, including elderly patients, increasingly desire to play an active role in the decision-making process.^{17,18} Systematic reviews and a study of patients with cancer noted that patients of all ages, education levels, and health literacy wanted to be more involved in decision making.^{19–21}

That physicians and patients did not agree on the most important advantages and disadvantages of the treatment options supports the need for a source of understandable, balanced, dispassionate, comprehensive information in a format that allows for study and reflection, such as decision aids. Prior studies have shown that decision aids can normalize and depersonalize conflicts between patient and caregiver, empower patients, and decrease decisional conflict.^{2,3,22}

Consistent with prior studies, we found that patients and physicians agreed that physicians and experts should provide the content of the decision aid.²³ The International Patient Decision Aids Standards Collaboration recommends involvement of patients, health practitioners, policy makers, and decision aid developers.²³

Understanding the patients and physician choices will support the effort to develop decision aids. Future studies should address the capability of decision aids to reduce decisional conflicts, anxiety, symptoms, and disability and support the interest of patients to participate in the decision-making process.

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APPENDIX A. Demographic Information About the Patients (n = 84)

Parameter	Mean	SD	Range
Age (y)	61	13	31–92
Education (y of school, n = 84)	15	3	8–22
	Number	%	
Sex			
Men	34	40	
Women	50	60	
Marital Status			
Single	25	30	
Living with partner	1	1	
Married	43	51	
Separated/divorced	11	13	
Widowed	4	5	
Work Status (n = 81)			
Working full time	39	46	
Working part time	9	11	
Homemaker	4	5	
Retired	25	30	
Unemployed, able to work	4	5	
Unemployed, unable to work	3	4	
Physician			
Surgeon 01	11	12	
Surgeon 02	30	36	
Surgeon 03	40	48	
Other	3	4	

APPENDIX B. Demographic Information About the Surgeons (n = 105)

Parameters	n	%
Sex		
Men	95	90
Women	10	10
Location of Practice		
Asia	1	1
Canada	1	1
Europe	6	6
United Kingdom	2	2
United States	88	84
Other	7	7
Years In Practice		
0–5	30	29
6–10	22	21
11–20	37	35
21–30	16	15
Supervise		
Yes	81	77
No	24	23
Specialization		
Hand surgeons	102	97
Upper extremity surgeons	3	3

APPENDIX C. Advantages and Disadvantages of Treatment Options

Advantages of Treatment Options	Patient		Physician		<i>P</i>
	<i>n</i>	%	<i>n</i>	%	
Time (See if It Goes Away on Its Own)					
Free/no cost	12	17	31	32	.003
Does not involve surgery	20	29	12	13	
No major risk or side effects	30	43	51	53	
Other	8	11	2	2	
NSAID					
Does not involve surgery	41	53	66	69	.11
Ability to stop the treatment at any time	25	32	22	23	
Other	11	14	8	8	
Orthosis					
Does not involve surgery	37	47	34	43	.02
No major risks or side effects	24	30	38	48	
Ability to stop the treatment at any time	13	16	7	9	
Other	5	6	0	0	
Corticosteroid Injection					
Does not involve surgery	53	66	70	73	.57
No major risks or side effects	20	25	18	19	
Other	7	9	8	8	
Open TF Release					
Highest success rate compared with other treatment options	62	78	71	74	
Lowest recurrence rate compared with other treatment options	6	8	23	24	< .001
Other	11	14	2	2	
<hr/>					
	Patient		Physician		<i>P</i>
	<i>n</i>	%	<i>n</i>	%	
Disadvantages of Treatment Options					
Time					
Must live with disability until the condition resolves, if it at all	25	31	53	55	.002
Condition may resolve	55	69	43	45	
NSAID					
NSAID has side effects (eg, stomach irritation, possible kidney damage)	25	31	43	45	.09
Condition may resolve	55	69	53	55	
Orthosis					
Wearing the orthosis can be uncomfortable or inconvenient	30	38	30	31	.43
Persistent symptoms despite orthosis	50	63	66	69	
Corticosteroid Injection					
The injection can be painful	32	44	68	71	.003
Risk of skin depigmentation	0	0	1	1	
Risk of fat atrophy leading to local changes in the contour of the skin	6	8	5	5	
Risk of tendon rupture	20	27	15	16	
Risk of infection	15	21	7	7	
Open TF Release					
Incisional scar	8	11	14	15	< .001
Pain and scar sensitivity	9	12	32	33	
Risk of digital nerve injury	30	39	7	7	
Risk of infection	12	16	9	9	
Risk of postoperative finger stiffness	17	22	34	35	