

RESEARCH ARTICLE

Assessment of Decisional Conflict about the Treatment of Trigger Finger, Comparing Patients and Physicians

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Abstract

Background: As an early step in the development of a decision aid for idiopathic trigger finger (TF) we were interested in the level of decisional conflict experienced by patients and hand surgeons. This study tested the null hypothesis that there is no difference in decisional conflict between patients with one or more idiopathic trigger fingers and hand surgeons. Secondary analyses address the differences between patients and surgeons regarding the influence of the DCS-subcategories on the level of decisional conflict, as well as the influence of patient and physician demographics, the level of self-efficacy, and satisfaction with care on decisional conflict.

Methods: One hundred and five hand surgeon-members of the Science of Variation Group (SOVG) and 84 patients with idiopathic TF completed the survey regarding the Decisional Conflict Scale. Patients also filled out the Pain Self-efficacy Questionnaire (PSEQ) and the Patient Doctor Relationship Questionnaire (PDRQ-9).

Results: On average, patients had decisional conflict comparable to physicians, but by specific category patients felt less informed and supported than physicians. The only factors associated with greater decisional conflict was the relationship between the patient and doctor.

Conclusions: There is a low, but measurable level of decisional conflict among patients and surgeons regarding idiopathic trigger finger. Studies testing the ability of decision aids to reduce decisional conflict and improve patient empowerment and satisfaction with care are merited.

Keywords: Assessment of Needs, Decisional Conflict Scale, Shared decision making, Trigger Finger

Introduction

Shared decision making is the process of caregivers and patients deliberating about diagnostic and treatment options. Physicians inform patients about the advantages and disadvantages of diagnostic and treatment options. Decisional conflict—uneasiness about the decision one faces—can arise from uncertainty about or dissatisfaction with the various options. Decisional conflict can affect patient empowerment, compliance, and treatment outcome (1-3).

Effective transmission of information about diagnostic and treatment options from caregiver to patient decreases decisional conflict and increases confidence in and satisfaction with choices (4-8). Decision aids are pamphlets, videos, websites or other material intended

to provide patients balanced, complete, understandable information about their options in order to help them determine their preferences according to their values. Identification of factors that affect decisional conflict is felt to be an important step in the development of decision aids (9-11). Decisional conflict is accurately and reliably measured using the Decisional Conflict Scale (DCS) (6, 11).

This study tested the null hypothesis that there is no difference in decisional conflict between patients with one or more idiopathic trigger fingers and hand surgeons. Secondary analyses addressed the differences between patients and surgeons regarding the influence of the DCS-subcategories on the level of decisional conflict, as well as the influence of patient and physician

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demographics, the level of self-efficacy, and satisfaction with care on decisional conflict.

Materials and Methods

Study design

Between July 2012 and August 2013 new patients diagnosed with one or more idiopathic trigger fingers were invited to participate in this institutional review board approved, prospective cohort study. Pregnant women, patients younger than 18 years, patients unable to speak English, and patients unable to give informed consent were excluded. Informed consent was obtained from each subject.

Among 95 patients that fulfilled our eligibility criteria and were invited to enroll, 11 patients declined participation because of time constraints or lack of interest. This resulted in a final sample of 84 patients. In total, 34 (40%) men and 50 women completed all questionnaires. The mean age was 61 years (SD 13; range 31-92 years) [Table 1a].

One hundred and five hand surgeon-members of the Science of Variation Group (SOVG) also completed the survey [Table 1b]. Incentives, other

than acknowledgement as part of the SOVG, were not provided.

Outcome measures

After providing demographic information, both patients and physicians were asked to complete an online survey including the Decisional Conflict Scale (DCS). Patients also completed the Pain Self-Efficacy Questionnaire (PSEQ) and the Patient Doctor Relationship Questionnaire (PDRQ).

The DCS is a measurement tool that assesses: a) uncertainty in the face of options; b) modifiable factors contributing to uncertainty such as feeling uninformed, unclear about personal values, or unsupported in decision making; and c) effective decision making such as feeling the choice is informed, values-based, likely to be implemented, and expressing satisfaction with the choice. It consists of 16 questions divided in five subcategories: "Uncertainty", "Informed", "Values clarity", "Support" and "Effective decision". The total score ranges from 0 to 100, where lower scores reflect a lower level of decisional conflict (11, 12). As a result of unpublished data of O'Connor et al., Stacey and colleagues state that a score higher than 38 is associated with delay in the decision-making process (5).

The PSEQ is a 10-item patient-reported outcome measure that assesses a patient's confidence in their

Table 1a. Demographic information of the patients n = 84

Parameter	Mean	SD	Range
Age (y)	61	13	31 - 92
Education (y of School, n=84)	15	3.1	8-22
	Number	%	
Sex			
Man	34	40	
Woman	50	60	
Marital status			
Single	25	30	
Living with partner	1	1.2	
Married	43	51	
Separated/Divorced	11	13	
Widowed	4	4.8	
Work status (n=81)			
Working full time	39	46	
Working part time	9	11	
Homemaker	4	4.8	
Retired	25	30	
Unemployed, able to work	4	4.8	
Unemployed, unable to work	3	4	
Physician			
Surgeon 01	11	12	
Surgeon 02	30	36	
Surgeon 03	40	48	
Other	3	3.6	

Table 1b. Demographic information of the surgeons n=105

Parameters	n	(%)
Sex		
Man	95	90
Woman	10	9.5
Location of practice		
Asia	1	1.0
Canada	1	1.0
Europe	6	5.7
United Kingdom	2	1.9
United States of America	88	84
Other	7	6.7
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
Other	3	2.9

Table 2. Comparison of Decisional Conflict Scale between patients and physicians

Parameter	Patients		Physicians		P-value
	Mean	(±SD)	Mean	(±SD)	
Decisional conflict scale (total)					
Total score	9.0	12	7.7	11	0.16
Subscale					
Uncertainty	8.4	16	12	16	0.052
Informed	12	17	6.8	13	0.012
Values clarity	6.9	14	7.6	12	0.20
Support	14	20	5.9	13	<0.001
Effective decision	4.9	10	6.7	12	0.35
PSEQ	51	11			
PDRQ	4.4	0.67			

Uncertainty: Score range from 0 (feels extremely certain about best choice) to 100 (feels extremely uncertain about best choice)

Informed: Scores range from 0 (feels extremely certain about best choice) to 100 (feels extremely uncertain about best choice)

Values clarity: Scores range 0 (feels extremely clear about personal values for benefits & risks/side effect to 100 (feels extremely unclear about personal values)

Support: Scores range from 0 (feels extremely supported in decision making) to 100 (feels extremely unsupported in decision making)

Effective: Score range from 0 (good decision) to 100 (bad decision)

ability to achieve their goals in spite of pain (13, 14). The questions are scored on a 7-point Likert scale ranging from 0 ("Not at all confident") to 6 ("Completely confident"). The total score ranges from 0 to 70, with a higher score indicating greater self-efficacy.

The PDRQ-9 is a 9-item questionnaire utilized to assess the patient's perception of their physician as an effective and helpful health professional. The statements of the questionnaire are rated using a 5-point scale reaching from 1 ("Not at all") to 5 ("Totally"). Higher scores express higher satisfaction of the patient with the patient-doctor relationship (15).

The online survey and questionnaire application Research Electronic Data Capture (REDCap) was utilized to collect and manage all the required data and information from eligible patients (16, 17). All questionnaires were completed online, on a tablet, laptop or computer.

Statistical analysis

An a priori power analysis for our primary study question determined that a minimum sample size of 84 trigger finger patients and 84 surgeons was needed to detect a 0.30 standard deviation (minimal) difference in average the Decisional Conflict Scale to provide 80% power, setting alpha level at 0.05 (probability of type I error).

The response variable was the Decisional Conflict Scale. The distribution of the explanatory variables were tested by using the Shapiro-Wilk test. Continuous data were presented as the mean when normally distributed. Depending on the normality of the distribution, T-tests or Mann-Whitney-U tests were used to test the association between response variables and dichotomous explanatory variables, and one-way ANOVA or Kruskal-

Wallis tests were used for categorical variables. Explanatory variables with $P=0.10$ in bivariate analysis were inserted into backward, stepwise, multivariable linear regression analyses.

Results

Patients (mean=9.0; SD=12) and surgeons (mean = 7.7; SD = 11; $P=0.16$) had similar levels of decisional conflict regarding the management of trigger finger [Table 2].

Patients experienced less support ($P<0.001$) and felt less informed (0.012) than physicians did [Table 2].

Bivariate analyses showed that a greater sense that the doctor was helpful (higher PDRQ-9 score; $r=-0.31$; $P=0.0049$) was the only factor correlating with less decisional conflict among patients.

There were no factors associated with the physicians' degree of decisional conflict [Tables 3].

Discussion

We measured factors associated with greater patient and surgeon decisional conflict regarding the management of trigger finger with particular interest in the differences between patients and physicians. This is part of our development of a decision aid to help patient's participate in the management of their trigger finger. We found that patients and physicians had comparable decisional conflict, but that patients felt less informed and supported than physicians.

This study should be considered in light of its shortcoming. Physicians participating in this study were informed about the objectives and hypothesis of this study. The awareness that we were measuring decisional conflict may have influenced surgeon consultation style and affected patient decisional conflict.

The decision conflict associated with trigger finger is

Table 3. Bivariable analysis, comparing Decisional Conflict Scale

Parameter	Patients		
Sex	Mean	(±SD)	
Man	9.0	1.8	0.66
Woman	9.1	1.8	
Marital status			
Single	9.3	11	0.28
Living with partner	16	.	
Married	6.9	12	
Separated/Divorced	12	10	
Widowed	21	14	
Work status (n=81)			
Working full time	10	11	0.39
Working part time	5.2	7.0	
Homemaker	8.6	5.3	
Retired	10	15	
Unemployed, able to work	1.9	3.9	
Unemployed, unable to work	8.3	14	
Physician			
Surgeon 01	13	20	0.93
Surgeon 02	7.6	9.0	
Surgeon 03	9.2	11	
Other	7.3	1.8	
Health outcomes	Correlation		P
Age (y)	0.033		0.77
Education (y of School, n=84)	0.043		0.70
PSEQ	-0.042		0.70
PDRQ-9	-0.31		0.0049
	Physicians		
	Mean	(±SD)	P
Sex			
Man	7.6	11	0.60
Woman	8.0	14	
Location of practice			
Asia	23	.	0.077
Canada	1.6	.	
Europe	12	11	
United Kingdom	3.1	4.4	
United States of America	7.0	11	
Other	12.0	4.9	

Table 3. Continue

Years In practice		
0-5	9.5	12
6-10	11.0	14
11-20	5.3	7.6
21-30	5.1	9
Supervise		
Yes	7.4	10
No	8.5	15.0
Specialization		
Hand and wrist	7.9	11
Other	0.0	0.0

lower than for other conditions (8, 18). Trigger fingers are relatively straightforward to diagnose, are relatively minor nuisance, and have a few straightforward treatment options.

The lack of correlation between self-efficacy and decisional conflict is inconsistent with previous studies (3, 19). In previous studies self-efficacy correlated with symptom intensity and magnitude of disability (20-23). Self-efficacy also correlates with patient activation and preference for shared decision-making (24). It is thought that coaching and training patients in effective coping strategies such as self-efficacy is an ancillary method for reducing decisional conflict. The lack of correlation between decisional conflict and self-efficacy in this study may be due to the relatively low degree and variance of decisional conflict.

It's no surprise that decisional conflict is associated with decreased satisfaction with the treating physician. If a patient feels less supported and understood the patient may feel less confident whether the decision is made in the right context. Future studies should address the ability of instruments, such as decision aids, to reduce decisional conflict and improve patient empowerment and satisfaction with care.

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