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Amirreza Fatehi
Department of Surgery and Perioperative Care, Dell Medical School – The University of Texas at Austin

Amanda Gonzalez MD
Department of Surgery and Perioperative Care, Dell Medical School – The University of Texas at Austin

David Bandell
Department of Surgery and Perioperative care, Dell Medical School, University of Texas at Austin

Joost Kortlever
Department of Surgery and Perioperative care, Dell Medical School, University of Texas at Austin

Léon Rijk
Department of Surgery and Perioperative Care, Dell Medical School – The University of Texas at Austin

See next page for additional authors

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Authors

Amirreza Fatehi, Amanda Gonzalez MD, David Bandell, Joost Kortlever, Léon Rijk, and David Ring

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Research

Factors associated with patient rating of physician communication effectiveness and satisfaction in musculoskeletal care

Amirreza Fatehi, *Dell Medical School, The University of Texas at Austin, amir_fatehi@yahoo.com*
Amanda Gonzalez, MD, *Dell Medical School, The University of Texas at Austin, amandainezgonzalez@gmail.com*
David Bandell, *Dell Medical School, The University of Texas at Austin, d.bandell@gmail.com*
Joost Kortlever, *Dell Medical School, The University of Texas at Austin, joost.kortlever@austin.utexas.edu*
Léon Rijk, *Dell Medical School, The University of Texas at Austin, rijk.leon@gmail.com*
David Ring, *Dell Medical School, The University of Texas at Austin, david.ring@austin.utexas.edu*

Abstract
Effective communication is associated with adherence to healthy habits. This study sought factors associated with communication effectiveness and satisfaction with musculoskeletal specialty care in order to inform efforts to improve communication effectiveness using measurement, feedback, and coaching. After a new or return upper extremity specialist visit, 146 adult patients completed a survey recording demographics, measures of catastrophic thinking in response to nociception, symptoms of depression, and symptoms of anxiety, and they rated communication effectiveness (5 questions answered on a 4-point Likert scale) and satisfaction with the visit (slider with anchors of 0 and 100). Patients also provided text answers to 4 questions addressing strengths and opportunities for improved communication. We assessed the association of experience measures (communication and overall satisfaction) with patient characteristics. Ratings of "clinician listens carefully" were higher in older patients. Higher rating of "clinician explains in an understandable way" was associated with fewer symptoms of depression. Higher rating of "clinician showed respect" was associated with fewer symptoms of depression and less catastrophic thinking. Higher rating of "clinician used models" was associated with older age. Men had higher overall satisfaction scores. In Factor analysis, the scree plot of eigenvalues showed that the 5 communication questions and the single satisfaction question load onto a single factor. The finding that age and psychological factors are associated with patient experience – which seems to reduce statistically to a single underlying construct – emphasizes a potential to attend to mental health in efforts to improve patient experience.

Keywords
Patient satisfaction, patient experience, patient-physician communication, healthcare, psychosocial, communication satisfaction, mental health, upper extremity

Introduction

Effective relationships with patients and effective communication strategies are associated with better adherence to recommended care, greater agency and self-efficacy regarding one's health, and better health.[1,2] Attempts to optimize value in care (improved health for resources used) can lead to difficult discussions about test and treatment options that may be a challenge for all clinicians, even those with highly effective communication strategies.[3] For instance, not prescribing antibiotics for a virus or not ordering an MRI for low back pain. Routine measurement and feedback-tailored strategizing and training could improve communication effectiveness, optimizing both value and patient experience.[4]

Prior studies found that more highly rated communication correlates with greater satisfaction, fewer symptoms of anxiety, and a less negative affect.[5–8] The aim of this study was to identify factors associated with communication effectiveness and satisfaction with musculoskeletal care in order to inform routine measurement of these factors for quality improvement initiatives. Our primary null hypothesis is that there are no factors independently associated with "clinician listens carefully" in musculoskeletal care. The secondary null hypotheses are: There are no factors independently associated with patient rating of "clinician use of models, drawings or information on a computer or handheld device," "clinician explains things in an understandable way," "clinician showed respect of what patient had to say" and "clinician spent enough time with patient," and satisfaction with the visit. We also collected text advice regarding: what the clinician did well in terms of communication; clinician communication in comparison to patient expectations; opportunities to improve clinician patient communication;

and things we can do to improve their satisfaction with care. As a tertiary (unplanned) inquiry we used factor analysis to determine if these five communication questions and the single satisfaction question load onto a single factor.

Method and Materials

This study was approved by our Institutional Review Board (IRB). We invited 161 adult patients visiting 6 upper extremity speciality offices in an urban US city for a new or return outpatient visit to participate by answering questions on a web-based HIPAA compatible survey using REDCap (Research Electronic Data Capture). A research assistant invited patients to participate in the study at the end of their visit. The inclusion criteria were: 1) Age 18 years or greater; and 2) English or Spanish fluency and literacy. Exclusion criteria was cognitive deficiencies.

After reading a research letter, completing the questionnaires constituted informed consent. One hundred and forty-six patients (91%) participated and 15 declined (9%). After the visit, patients completed questionnaires on an electronic tablet provided by a research assistant. Subjects completed a demographic questionnaire including age, gender, race, education level, work status, marital status, insurance status, visit type and way of referral.

Subjects also completed several questionnaires. The PCS-4 (Pain Catastrophizing Scale) is a 4-item measure of worst-case thinking in response to nociception (the pathophysiology of actual or potential tissue damage). Every question is scored on a 5-point Likert scale and the total scores range from 0 to 16 with zero (no catastrophic thinking) and 16 (maximum catastrophic thinking). The PHQ-2 (Patient Health Questionnaire) is a 2-item measure of symptoms of depression over the past two weeks with a range of 0 to 6. The GAD-2 (General Anxiety Disorder) is a 2-item measure of symptoms of anxiety in the past 2 weeks. The total score ranges from 0 to 6.

As our dependent variables, we used the 5 questions addressing communication effectiveness from the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG CAHPS) questionnaire, a standardized tool to measure patient perceptions of care in an office setting. The following five questions were rated on the following scale: A. Never, B. Sometimes, C. Usually, or D. Always and as a convention to include the top two scores in experience measures,[10–12] all of which have high ceiling effects, when the measure is dichotomized, we put always and usually together versus never/sometimes.

1. How often does the clinician listen carefully?
2. How often does the clinician explain things in an understandable way?
3. How often did the clinician showed respect for what the patient had to say?
4. How often did the clinician spend enough time with the patient?
5. How often does the clinician use of models, drawings, or information on a computer or handheld device?

As our other dependent variable, we asked patients to rate their satisfaction with the visit on a slider with anchors of 0 (completely unsatisfied) to 100 (completely satisfied). We also asked patients four questions and recorded their text responses:

1. What did the clinician do well in terms of communication?
2. How did the clinician's communication compare to your expectations?
3. What opportunities for improved communication did you identify?
4. In terms of Satisfaction, is there anything we can do to improve your satisfaction with care?

Statistical Analysis

An a priori power analyses indicated that a sample of 135 subjects would provide 80% statistical power, with alpha set at 0.05, for a regression with three predictors if one of the factors would account for 5% or more of the variability in "clinician listens carefully", and our complete model would account for 15% of the overall variability. In order to account for 5% incomplete responses, we enrolled 146 patients (Table 1).

Demographics, education, work status, insurance type, method of referral, new or return visit, PCS-4, PHQ-2, and GAD-2 were our independent variables, and the five communication questions and satisfaction scale were dependent variables. First, a descriptive analysis of the demographics, PCS-4, PHQ-2, GAD-2, overall satisfaction and their mean, range and percentages was performed. Answers for the five communication effectiveness questions were dichotomized into sometimes/usually group versus always group and the "use of models" answers were dichotomized into "yes" versus no" due to strong ceiling effects. Nobody chose the option "never."

Associations between nominal with dichotomous variables were tested using Chi-square and Fisher Exact Tests. The association between nominal variables and satisfaction (non-normal continuous) variable was tested by Kruskal-Wallis test.

We used Mann-Whitney tests to measure the association between continuous non-normal variables and dichotomous variables. Spearman ranked correlation coefficient was used to test correlation between non-

Table 1. Patient and clinical characteristics

Variables	**N = 146**
Age in years	52 ± 16 (18-86)
Woman	56% (81)
Race/Ethnicity	
White	73% (106)
Non White	27% (40)
Marital status	
Married	60% (87)
Single	24% (35)
Divorced/Separated/Widowed	16% (24)
Level of education	
High school or less	23% (34)
2-year college	23% (34)
4-year college	25% (37)
Post-college degree	28% (41)
Work status	
Employed	63% (92)
Other (student, retired, homemaker, unable to work)	37% (54)
Insurance	
Private insurance/ military	67% (98)
Medicare	21% (30)
Medicaid/No health insurance/Other	12% (18)
Patient	
New	36% (53)
Return	64% (93)
Way of referral	
General Practitioner	40% (58)
Own initiative	39% (57)
Other specialist	21% (31)
PHQ-2 total	0 (0-2)
GAD-2 total	0 (0-1)
PCS4-total	3 (1-7)
What did the clinician do well in terms of communication?	
Excellent explanation	58% (85)
Excellent communication	25% (36)
Other	17% (25)
How did the clinician's communication compare to your expectations?	
Bad	0.7% (1)
Good	20% (28)
Very good	15% (20)
Excellent	64% (87)
What opportunities for improved communication did you identify?	
None	87% (127)
Longer visit duration	4% (6)
More explanation	5% (8)
Other	4% (5)
Is there anything we can do to improve your satisfaction with care?	
None	87% (127)
Shorter waiting time	4% (5)
Longer visit time	3% (4)
Other	6% (10)
CQ1 (clinician listens carefully)	
Sometimes/usually	10% (15)
Always	90% (131)
CQ 2 (clinician explains in an understandable way)	
Sometimes/usually	9% (13)
Always	91% (133)
CQ 3 (clinician showed respect)	
Usually	8% (11)
Always	92% (135)
CQ 4 (clinician spent enough time)	
Sometimes/usually	12% (18)
Always	88% (128)
CQ 5 (providers use of models was helpful)	
Yes definitely / somewhat	56% (83)
No/ doctor didn't use models	44% (63)
CQ 6 (rate of satisfaction 0-100)	96 (88-100)

Continuous variables as mean ± standard deviation (range) or median (interquartile range [IQR]); Discrete variables as percentage (number). PHQ-2= Patient Health Questionnaire; GAD-2=Generalized Anxiety Disorder; PCS-4=Pain Catastrophizing Scale.

normal continuous variables. An alpha level of 0.05 was used to determine a statistical significance. Variables with $p < 0.1$ were included in a multiple logistic regression for binary dependent variables and linear regression for continuous variables. We performed a factor analysis to see if the construct of communication effectiveness and satisfaction load on a single factor.

Results

In bivariate analysis, ratings of "clinician listens carefully" were higher with older age, people referred by a general practitioner, fewer symptoms of depression, and less catastrophic thinking, and lower among people referred by another specialist (Table Appendix A.1). Accounting for potential confounders older age (p=0.02, OR=1.05, SE=0.02) and referral by another specialist (p=0.048, OR=0.17 SE=0.15) were retained in the final multivariable model (Table 2). Because symptoms of depression and catastrophic thinking were strongly correlated (Spearman Rho = 0.5, p-value<0.001), we performed a sensitivity analysis by running the model once with only depression and again with only pain catastrophizing score and neither of them were significant. Their influence appears to be relatively limited.

Higher rating of "clinician explains in an understandable way" correlates with fewer symptoms of depression in both bivariate (p value=0.007) and multivariable regression (p=0.01, OR=0.6 SE=0.19) (Tables Appendix A.2 and 2).

Higher rating of "clinician showed respect" correlates with fewer symptoms of depression (p=0.007) and lower PCS-4 score (0.009) in bivariate analysis, but in logistic regression neither factor was significant) (Tables Appendix A.3 and 2).

There were no factors associated with higher rating of "clinician spent enough time" (Table Appendix A.4).

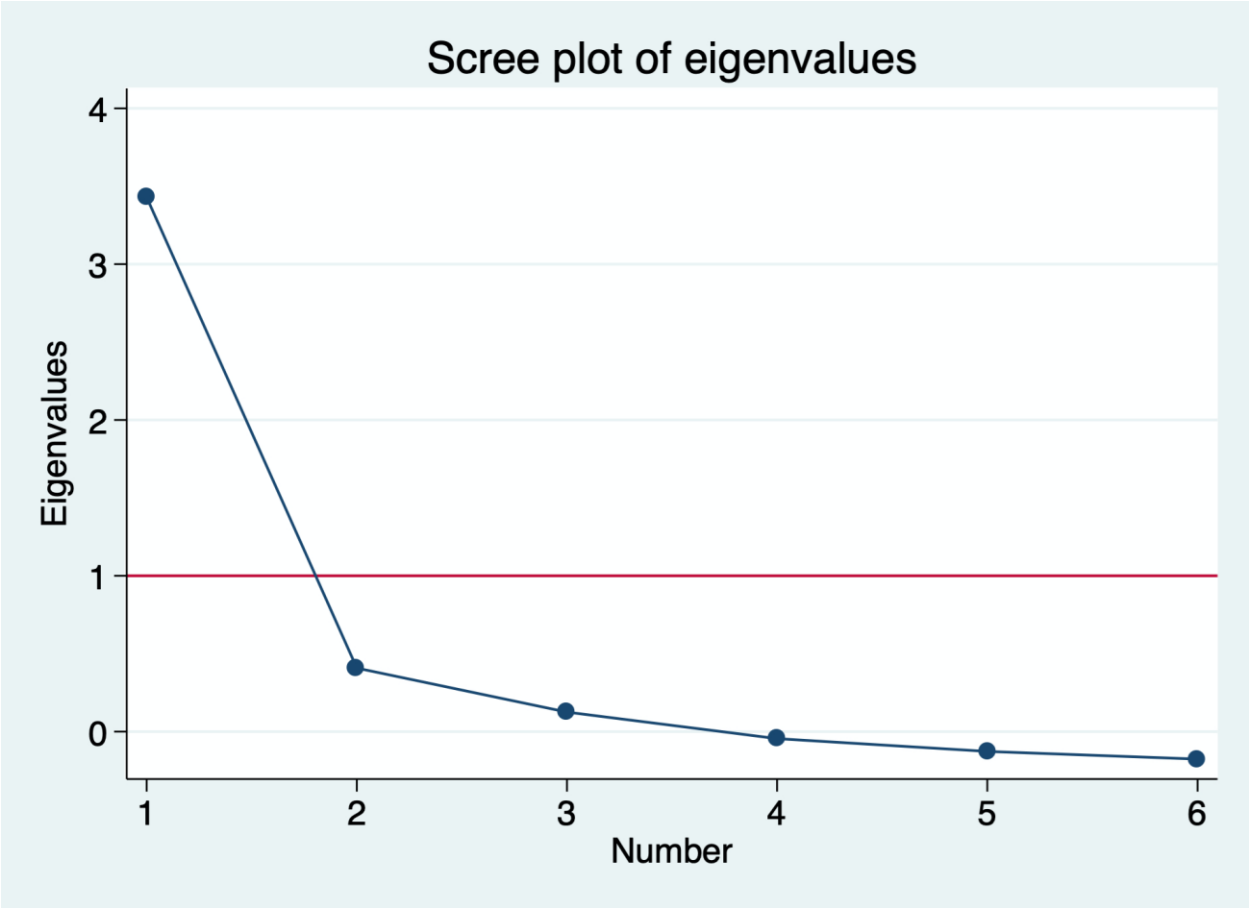
Higher rating of "clinician used models" was associated with older age (p=0.026) in bivariate and also multivariable regression (p=0.04, odds ratio=1.024 SE=0.01) (Tables Appendix A.5 and 2).

Higher satisfaction was associated with men in bivariate (p=0.001) and multivariable analysis (p=0.004, SE=1.37, beta-regression coefficient=4.1) (Table Appendix A.6 and 2).

Table 2. Multivariable logistic and linear regression analysis of factors associated with the dependent variables

Dependent variable	Retained variable	Odds ratio (OR) (95% Confident interval)	Standard error	P value
Q 1 (clinician listen carefully)	**Age in years**	1.05 (1.0 to 1.1)	0.02	**0.02**
	Way of referral			
	General Practitioner	Reference value		
	Own initiative	0.37 (0.07 to 2.0)	0.3	0.26
	Other specialist	0.17 (0.03 to 0.98)	0.15	**0.048**
Q 2 (clinician explains in an understandable way)	**PHQ-2 total**	0.6 (0.4 to 0.9)	0.19	**0.01**
	Insurance status			
	Private insurance/ military	Reference value		
	Medicare	>1000	>1000	0.99
	Medicaid/No health insurance/Other	0.8 (0.2 to 3.4)	0.76	0.72
Q 3 (showed respect)	**Age in years**	1.0 (1.0 to 1.1)	0.02	0.13
	PHQ-2 total	0.8 (0.5 to 1.2)	0.24	0.23
	PCS4-total	0.9 (0.8 to 1.1)	0.09	0.17
Q 5 (use of models was helpful)	**Age in years**	1.01 (1.0 to 1.1)	0.01	**0.04**
	PHQ-2 total	0.8 (0.6 to 1.1)	0.13	0.11

Figure 1: The scree plot of eigenvalues for the 5 communication questions and the satisfaction question



In Factor analysis, the scree plot of eigenvalues shows that the 5 communication questions and satisfaction question form one single factor (Figure 1).

Verbatim responses to the question about what the clinician did well included "good explanation" (54%), "listened" (9.6%), "clear" (6.8%), and "made me feel comfortable" (6.2%). Regarding met expectations, opportunities for improvement, and "how can we improve", there were just a few comments such as "slow down", "less rushed", and "written instructions". One clearly dissatisfied patient answered all questions indicating they just wanted a specific test ordered (Table1).

Discussion

Effective communication strategies are associated with satisfaction, adherence to care and outcomes in prior studies. A better understanding of the key aspects of communication that contribute to patient experience could inform efforts to improve. This study attempted to discern the personal and illness factors associated with patient experience of effective communication measured by the CG-CAHPS questionnaire.

This study can be considered in the context of its limitations. The small number of people that declined participation might be part of the small and important group with less satisfaction, which might influence the results. The external validity for this study is limited because we enrolled English-speaking patients with musculoskeletal illness, visiting male, white orthopedic surgeons. In our opinion, the findings may generalize to other types of specialty care. There is evidence that clinician gender, ethnicity, and specialty and patient language and race affect satisfaction.[13,14] One might expect communication effectiveness to increase with return visits because the patient-clinician relationship is better established, but we didn't find such a relationship. Another limitation was that the order of questionnaire completion was not randomized. In addition, the total length of questionnaires, and the similarities of some of the questions might contribute to survey fatigue that might have affected the results. There is also a potential for inflated correlations since all the data was gathered using

REDCap surveys on a tablet (common method variance). We design our studies to limit this and given the length of our survey (approximately 7-10 minutes), we think there was limited fatigue. Prior studies showed no difference between paper and web-based tablet for most of the questionnaires we use.[15,16] Given the evidence that people answer mental health questions differently on tablet-based surveys,[17,18] we anticipate limited influence of it. As a survey study, common source bias is possible, but we have tried to decrease its impact by collecting responses anonymously.

The observation that age, referral source, symptoms of depression, and catastrophic thinking correlated with "clinician listens carefully" in bivariate analysis is consistent with prior evidence that experience measures are determined in part by personal factors.[19–23] The observation that only age and referral by another specialist were included in the logistic regression analyses is difficult to interpret. These results are similar to other reports that show that age correlates with patient ratings of the extent to which the doctor listened to them.[21] Older age correlates with higher satisfaction in some[21,24] but not all studies.[25] The observation that patients referred by other specialists rated clinicians lower in listening might be due the complexity of their problem or perhaps due to frustration with persistent troubling symptoms which motivated them to see another specialist.

The observation that fewer symptoms of depression were correlated with higher ratings of "clinician explains in an understandable way" might reflect the relationship of concentration and mood. There is also evidence that greater symptoms of depression are associated with less alignment of patient and clinician understanding of the illness, which can make an explanation feel less understandable. These findings are similar to other studies that found that symptoms of depression correlated with "clinician listens carefully"[26] and more satisfaction in patients with better subjective health[21,27,28] and better functional status.[24]

The observation that symptoms of depression and catastrophic thinking correlated with "clinician showed respect" in bivariate analysis is consistent with prior studies finding a link between cognitive error (misconception) and feeling less respect.[21,23,26] Neither factor was retained the logistic regression analyses which is consistent with prior studies that had difficulty identifying factors independently and notably correlated with experience measures.[19,20] Experience measures correlate highly with one another, but not as strongly with illness and personal factors.

The observation that age was correlated with "provider use of models was helpful" suggests that older patients appreciate the use of models and other educational measures more than younger patients. In another study, using models didn't show any association with perceived empathy. The duration of the visit was longer when using a model.[29]

The observation that male sex correlated with higher overall satisfaction seems spurious. The results across studies are inconsistent and a meta-analysis[22] found no link between gender and patient experience.

The themes identified in the text responses (good explanation, listened, clear, and made me feel comfortable, less rushed, written instructions) reflect a healthy relationship and effective communication. In the verbatim questions good explanation was the most significant satisfactory aspect of communication for patients which was similar to another cross-sectional study of 1100 patients with diabetes using a qualitative analysis of 180 verbatim comments about doctor-patient interactions which showed that patients feel that doctors don't explain in details had a significant association with satisfaction.[30]

The observation that in factor analysis communication questions and satisfaction scale formed a single factor suggests that they may be measuring a single underlying construct. Future studies should plan for the high intercorrelation of experience measures. One experience measure should not be used to account for variation in another. A conceptual distinction between distinct patients reported experience measures (PREMs) such as communication effectiveness, perceived empathy, and satisfaction may prove unhelpful.[31] Instead, it may be possible to ask just one or two questions that assess the quality of the patient-clinician relationship that can direct the improvement efforts of care units to establish better relationships and improve patient experience.

Conclusion

The observation that symptoms of depression have some correlation with lower patient ratings of their care experience directs us to develop strategies to anticipate and ameliorate this. Training of clinicians to anticipate and train for the interaction of mental health and physical symptoms in speciality care has the potential to improve patient experience. The observation that communication effectiveness and satisfaction measures load onto a single factor suggests that they measure a single underlying construct that—based on other similar studies—we feel can be conceptualized as "relationship," reaffirming that building trust and taking a genuine interesting people are key aspects of the patient experience.

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:11.

Appendix

Table A.1. Bivariate analysis of communication satisfaction question 1

Clinician	Q1 (listens carefully)		
	Sometimes/ usually	Always	p value
Age in years	41 ± 12	53 ± 16	**<0.01**
Sex			
Woman	9	56	
Man	6	75	0.27
Race/Ethnicity			
White	10	96	
Non White	5	35	0.55
Marital status			
Married	7	80	
Single	5	30	
Divorced/Separated/Widowed	3	21	0.44
Level of education			
High school or less	1	33	
2-year college	2	32	
4-year college	5	32	
Post-college degree	7	34	0.15
Work status			
Employed	10	82	
Other (student, retired, homemaker, unable to work)	5	49	0.76
Insurance			
Private insurance/ military	11	87	
Medicare	1	29	0.26
Medicaid/No health insurance/Other	3	15	
Patient			
New	6	47	0.75
Return	9	84	
Referral			
General practitioner	2	56	
Own initiative	7	50	**0.03**
Other specialist	6	25	
PHQ-2 total	2 (0-3)	0 (0-1)	**0.03**
GAD-2 total	0 (0-2)	0 (0-1)	0.65
PCS4-total	5 (3-11)	3 (0-7)	**0.04**

PHQ-2=Patient Health Questionnaire, GAD-2=Generalized Anxiety Disorder; PCS-4=Pain Catastrophizing Scale.

Appendix (cont'd.)

Table A.2. Bivariate analysis of communication satisfaction question 2

Clinician	Q2 (explains in an understandable way)		
	Sometimes/ usually	Always	p value
Age in years	45 ± 14	52 ± 16	0.12
Sex			
Woman	6	59	
Man	7	74	0.90
Race/Ethnicity			
White	9	97	
Non White	4	36	0.75
Marital status			
Married	7	80	
Single	3	32	
Divorced/Separated/Widowed	3	21	0.72
Level of education			
High school or less	1	33	
2-year college	2	32	
4-year college	3	34	
Post-college degree	7	34	0.20
Work status			
Employed	9	83	
Other (student, retired, homemaker, unable to work)	4	50	0.77
Insurance			
Private insurance/ military	10	88	
Medicare	0	30	0.07
Medicaid/No health insurance/Other	3	15	
Patient			
New	5	48	
Return	8	85	0.86
Referral			
General practitioner	5	53	
Own initiative	3	54	0.23
Other specialist	5	26	
PHQ-2 total	2 (0-3)	0 (0-1)	**<0.01**
GAD-2 total	0 (0-2)	0 (0-1)	0.42
PCS4-total	4 (2-10)	3 (0-7)	0.27

PHQ-2= Patient Health Questionnaire; GAD-2=Generalized Anxiety Disorder; PCS-4=Pain Catastrophizing Scale.

Appendix A (cont'd.)

Table A.3. Bivariate analysis of communication satisfaction question 3

Clinician	Q 3 (showed respect)		
	Usually	Always	p value
Age in years	44 ± 13	52 ± 16	0.08
Sex			
Woman	6	59	
Man	5	76	0.54
Race/Ethnicity			
White	9	97	
Non White	2	38	0.73
Marital status			
Married	6	81	
Single	3	32	
Divorced/Separated/Widowed	2	22	0.83
Level of education			
High school or less	1	33	
2-year college	2	32	
4-year college	3	34	
Post-college degree	5	36	0.56
Work status			
Employed	7	85	
Other (student, retired, homemaker, unable to work)	4	50	0.96
Insurance			
Private insurance/ military	7	91	
Medicare	1	29	0.23
Medicaid/No health insurance/Other	3	15	
Patient			
New	5	48	
Return	6	87	0.53
Referral			
General practitioner	2	56	
Own initiative	4	53	0.10
Other specialist	5	26	
PHQ-2 total	2 (0-3)	0 (0-1)	**<0.01**
GAD-2 total	1 (0-2)	0 (0-1)	0.16
PCS4-total	5 (3-11)	3 (0-7)	**<0.01**

PHQ-2= Patient Health Questionnaire; GAD-2=Generalized Anxiety Disorder; PCS-4=Pain Catastrophizing Scale.

Appendix (cont'd.)

Table A.4. Bivariate analysis of communication satisfaction question 4

Clinician	Q 4 (spent enough time)		
	Sometimes/ usually	Always	p value
Age in years	48 ± 15	52 ± 16	0.37
Sex			
Woman	10	55	
Man	8	73	0.32
Race/Ethnicity			
White	11	95	
Non White	7	33	0.26
Marital status			
Married	11	76	
Single	5	30	
Divorced/Separated/Widowed	2	22	0.83
Level of education			
High school or less	2	32	
2-year college	2	32	
4-year college	5	32	
Post-college degree	9	32	0.13
Work status			
Employed	12	80	
Other (student, retired, homemaker, unable to work)	6	48	0.80
Insurance			
Private insurance/ military	12	86	
Medicare	3	27	0.86
Medicaid/No health insurance/Other	3	15	
Patient			
New	8	45	
Return	10	83	0.44
Referral			
General practitioner	5	53	
Own initiative	8	49	0.47
Other specialist	5	26	
PHQ-2 total	1 (0-3)	0 (0-2)	0.14
GAD-2 total	0 (0-1)	0 (0-1)	0.51
PCS4-total	4 (3-9)	3 (0-7)	0.23

PHQ-2= Patient Health Questionnaire; GAD-2=Generalized Anxiety Disorder; PCS-4=Pain Catastrophizing Scale.

Appendix (cont'd.)

Table A.5. Bivariate analysis of communication satisfaction question 5

Clinician	Q 5 (use of models was helpful)		
	Yes definitely/ somewhat	No/ doctor didn't use models	p value
Age in years	49 ± 16	55 ± 14	**0.02**
Sex			
Woman	38	27	
Man	45	36	0.74
Race/Ethnicity			
White	63	43	
Non White	20	20	0.35
Marital status			
Married	46	41	
Single	21	14	
Divorced/Separated/Widowed	16	8	0.44
Level of education			
High school or less	20	14	
2-year college	20	14	
4-year college	19	18	
Post-college degree	24	17	0.89
Work status			
Employed	54	38	
Other (student, retired, homemaker, unable to work)	29	25	0.61
Insurance			
Private insurance/ military	58	40	
Medicare	13	17	
Medicaid/No health insurance/Other	12	6	0.21
Patient			
New	31	22	
Return	55	38	0.93
Referral			
General practitioner	32	26	
Own initiative	32	25	
Other specialist	19	12	0.85
PHQ-2 total	0 (0-2)	0 (0-1)	0.06
GAD-2 total	0 (0-1)	0 (0-1)	0.58
PCS4-total	4 (3-9)	3 (0-7)	0.38

PHQ-2= Patient Health Questionnaire; GAD-2=Generalized Anxiety Disorder; PCS-4=Pain Catastrophizing Scale.

Appendix ((cont'd.)

Table A.6. Bivariate analysis of factors associated with satisfaction scale

Clinician	Q 6 (rate satisfaction 0-100)	
		p value
Age in years	r= 0.08	0.37
Sex		
Woman	93 (87-97)	
Man	97 (93-100)	**0.001**
Race/Ethnicity		
White	96 (90-100)	
Non White	95 (86-100)	0.38
Marital status		
Married	96 (89-100)	
Single	96 (87-100)	0.44
Divorced/Separated/Widowed	94 (90-97)	
Level of education		
High school or less	96 (90-100)	
2-year college	96 (92-100)	
4-year college	95 (88-100)	
Post-college degree	95 (88-100)	0.89
Work status		
Employed	96 (87-100)	
Other (student, retired, homemaker, unable to work)	96 (92-100)	0.45
Insurance		
Private insurance/ military	95 (87-100)	
Medicare	96 (92-100)	0.33
Medicaid/No health insurance/Other	97 (92-100)	
Patient		
New	95 (85-100)	
Return	96 (92-100)	0.14
Referral		
General practitioner	96 (90-100)	
Own initiative	96 (88-100)	0.74
Other specialist	94 (85-100)	
PHQ-2 total	r= 0.02	0.85
GAD-2 total	r=0.02	0.80
PCS4-total	r= 0.02	0.79
CQ1 (listens carefully)	r= 0.53	**<0.01**
CQ 2 (explains in an understandable way)	r= 0.41	**<0.01**
CQ 3 (showed respect)	r= 0.53	**<0.01**
CQ 4 (spent enough time)	r= 0.50	**<0.01**
CQ 5 (use of models was helpful)	r= -0.13	0.10