Should Surgeons Learn the Primary Languages of their Total Hip Arthroplasty Patient Population?

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INTRODUCTION:
When a substantial proportion of a surgeon's patient population speak a particular language, the surgeon may learn to communicate in that language. It is unclear how a common language affects patient outcomes after total hip arthroplasty (THA). We sought to investigate the impact of surgeon and patient language concordance on outcomes after THA.
METHODS:
We conducted a retrospective review of all patients who received THA at our institution from 2011 to 2021 whose preferred language was not English. We then stratified these patients into groups based upon whether their surgeon also spoke their preferred language (Language Concordant) or not (Language Discordant). Baseline demographics, length of stay, discharge disposition, readmission rate, revision rate, and patient-reported outcomes (Hip Disability and Osteoarthritis Outcome Score for Joint Replacement (HOOS, JR), Patient Reported Outcome Information System (PROMIS)) were collected and compared between groups.
RESULTS:
Overall 855 patients were identified who met inclusion criteria, 415 in the language discordant group (48.5%) and 440 in the language concordant group (51.5%). In the language concordant groups the most common languages spoken were Russian (79.5%) and Spanish (20.2%), while the most common languages spoken in the language discordant group were Russian (24.6%), Spanish (22.7%), Polish (16.4%), and Chinese (10.4%). Patients in the language concordant group were more likely to discharge home after surgery (77.5% vs. 69.9%, p=0.013). HOOS, JR scores recorded at 1-year postoperatively were significantly greater in the language concordant group (67.4 vs. 49.3, p=0.003). There was no difference in length of stay, revision rate, readmission rate, or PROMIS scores between groups.
DISCUSSION AND CONCLUSION:
Greater than half of all non-English speaking THA patients at our institution were treated by a physician who also spoke their language. This was most common for Russian and Spanish-speaking patients. Patients treated by a surgeon who speaks their language were more likely to be discharged home after surgery and had improved patient-reported outcomes compared to those whose surgeon did not speak their language. Language concordance among non-English speaking patients is an important factor to consider when managing expectations after THA.

Table 1 –Baseline Characteristics

	Language Discordant (n=415)	Language Concordant (n=440)	p-value
Sex			0.245
Female	280 (67.5%)	286 (65.0%)	
Male	135 (32.5%)	154 (35.0%)	
Age (years, SD)	67.2 (11.8)	68.1 (11.7)	0.291
Smoking Status			0.402
Never Smoker	275 (66.3%)	282 (64.1%)	
Former Smoker	106 (25.5%)	110 (25.0%)	
Current Smoker	34 (8.2%)	48 (10.9%)	
Race			<0.001
White	239 (57.6%)	339 (77.0%)	
Black or African American	5 (1.2%)	1 (0.2%)	
Asian	56 (13.5%)	2 (0.5%)	
Other	115 (27.7%)	98 (22.3%)	
Charlson Comorbidity Index (mean, SD)	4.3 (2.2)	4.3 (2.2)	0.811
BMI (kg/m², SD)	29.6 (5.8)	31.0 (5.6)	0.001
Need Interpreter	362 (87.2%)	396 (90.0%)	0.121

Table 2 – Languages Spoken

	Language Discordant (n=415)	Language Concordant (n=440)	p-value
Language			<0.001
Russian	102 (24.6%)	350 (79.5%)	
Spanish	94 (22.7%)	89 (20.2%)	
Polish	68 (16.4%)	0 (0.0%)	
Chinese	43 (10.4%)	0 (0.0%)	
Other	108 (25.9%)	1 (0.2%)	

Table 3 – Short-Term Outcomes

	Language Discordant (n=415)	Language Concordant (n=440)	p-value
Length of Stay (days, SD)	3.0 (1.8)	2.8 (2.0)	0.101
Discharge Disposition			0.013
Home	285 (69.9%)	338 (77.5%)	
Acute care	26 (6.4%)	13 (3.0%)	
Skilled nursing	97 (23.8%)	85 (19.5%)	
Readmission	32 (7.7%)	23 (5.2%)	0.090
Revision	16 (3.9%)	10 (2.3%)	0.125

Table 4 – Patient-Reported Outcomes at 1 Year

	Language Discordant	Language Concordant	p-value
HOOS JR [range]	49.3 [0.0, 85.0]	67.4 [53.0, 81.0]	0.003
PROMIS [range]			
Intensity	48.0 [30.7, 68.3]	50.1 [40.0, 58.6]	0.483
Interference	59.0 [39.1, 38.7]	59.8 [49.0, 73.7]	0.791
Physical Function	40.5 [15.0, 57.0]	39.0 [33.0, 55.0]	0.796
Mobility	39.3 [24.6, 60.2]	43.5 [31.8, 50.5]	0.379
Mental Health	47.8 [25.0, 68.0]	45.9 [36.0, 59.0]	0.510
Physical Health	40.7 [24.0, 58.0]	42.6 [32.0, 58.0]	0.454