

Language in the Teaching OR: Expressing Confidence versus Community

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Introduction

Spoken language can be categorized as agentic (espousing traits of leadership and independence) or communal (kindness and support). Previous work has analyzed residency letters of recommendation for agentic and communal language, but this has not been applied to spoken language. Our objective was to analyze intraoperative spoken language by attending and resident surgeons for use of agentic and communal language.

Methods

We completed a LIWC (Linguistic Inquiry and Word Count) analysis on 8 operating room transcripts (total time 308 minutes) between attendings and resident surgeons for categories associated with agentic and communal speech. Five surgical specialties were included, with 3 out of 8 cases from General Surgery. Mann-Whitney U tests were used to compare attending versus resident speech patterns for word count; clout, power, and “I” (agentic categories); and “we”, authentic, social (communal categories). A secondary analysis compared male versus female speech patterns.

Results

Among the 8 transcripts, there were an equal number of male (5 attendings, 3 residents) and female (3 attendings, 5 residents) surgeons. Attending surgeons overall used more words than residents, were less likely to use “I,” and spoke more language of clout. (Table) There were no gender differences in any category.

	Attending (n=8)	Resident (n=8)	P-Value	Male (n=8)	Female (n=8)	P-Value
Word Count*	1787 (1032-2031)	552 (265-967)	0.008	1169 (531-1684)	781 (426-1881)	0.958
Agentic						
“I” **	3.35 (2.83-4.66)	6.36 (4.65-6.95)	0.023	3.66 (2.98-5.60)	5.83 (3.94-6.73)	0.270
Clout †	76.97 (64.06-79.94)	57.22 (44.00-79.31)	0.039	76.23 (55.75-79.08)	65.52 (51.75-80.91)	0.793
Power **	2.26 (1.59-2.81)	2.98 (2.47-3.92)	0.055	2.76 (1.87-3.55)	2.55 (2.18-2.89)	0.875
Communal						
“We” **	1.80 (1.51-2.60)	1.78 (0.39-2.49)	0.070	1.72 (1.07-2.25)	1.93 (1.15-2.76)	0.713
Authentic †	44.76 (35.82-54.49)	58.14 (37.44-63.06)	0.461	42.09 (35.82-55.76)	56.87 (40.1-63.06)	0.372
Social **	9.06 (8.02-10.62)	8.10 (6.94-9.55)	0.641	8.90 (8.02-11.37)	8.10 (6.94-9.55)	0.318

Note: Medians (interquartile ranges): *raw count of words; **percentage of total words; † LIWC proprietary algorithm

Discussion

In the operating room, attending surgeons were more likely to use agentic language compared to resident surgeons based on LIWC analysis. These differences did not depend on gender and likely relate to surgeon experience and confidence, learning versus teaching, and power dynamics.