

Correlation between Surgeon-Dependent and Surgeon-Independent Online Ratings

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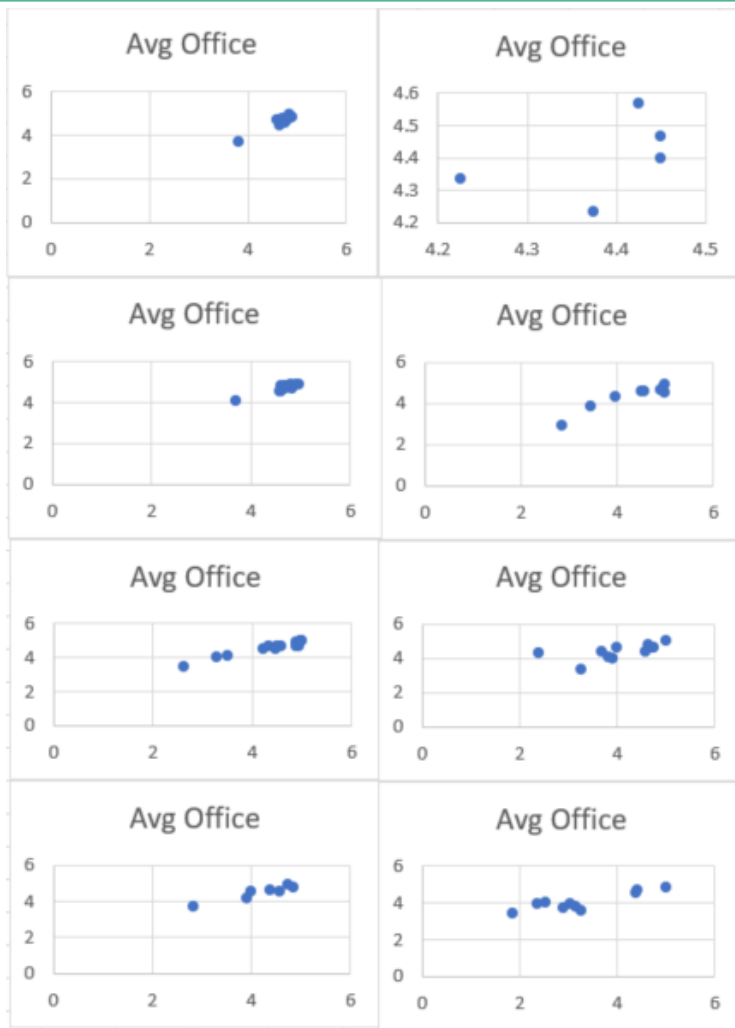
Background: The prevalence and importance of online physician ratings to patients is widely recognized. Prior studies specifically examining the influence of surgeon-dependent and surgeon-independent factors on online ratings concluded that the majority of negative reviews are influenced by office and staff characteristics that are out of the surgeon's control. However, we observed that in many cases office-environment ratings are quite variable, even among surgeons practicing in the same office setting. Our hypothesis is that surgeon-dependent factors heavily influence patient perception of the surgeon-independent factors.

Methods: We analyzed the surgeon-dependent and surgeon-independent components of HealthGrades.com reviews for US hand surgeons who belonged to a group with at least 5 hand surgeons who work in the same office environment. We excluded surgeons who had less than 10 HealthGrades reviews. Correlations were analyzed between surgeon-dependent and surgeon-independent factors within the same practice using the Pearson coefficient. We then report on the mean correlation among all practices and the overall Pearson coefficient and significance.

Results: A total of 78 surgeons in 8 practices were analyzed. We found a moderate to high correlation for all practices, ranging from 0.49-0.98 (Table 1). Average office scores were narrowly distributed among all practices allowing for a combined correlation value for all surgeons to be calculated at 0.87 (R^2) with a level of significant <0.001 . This is shown graphically and a best fit line was performed (Figure 1).

Summary Points: In contrast to existing literature, we have shown a very high degree of correlation between surgeon-dependent and surgeon-independent online ratings within the same practice. Because non-surgeon factors are consistent within a practice (staff, environment, location, etc.), these findings imply that surgeon-dependent factors account for 87% of online reviews. We believe this insight can help surgeons with poor online ratings improve their scores.

Practice	# Surgeons	Avg Surgeon	Avg Office	Correlation
Philadelphia Hand	14	4.37	4.55	0.98
TriHealth Hand Surgery	9	4.65	4.60	0.95
Indiana Hand	8	4.28	4.30	0.94
HSS	7	4.19	4.46	0.94
Rothman	14	4.67	4.72	0.93
Kleinert Kutz	10	3.30	4.04	0.81
Curtis	11	4.07	4.38	0.62
Wash U. St. Louis	5	4.39	4.40	0.49
Combined	78	4.24	4.43	0.87



**Surgeon vs. Office Score
Correlation - $R^2 = 0.87$**

