



Budget Model

The Unintended Consequences of Linking Patient Satisfaction Scores to Physician Pay

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Summary: Study finds that patient satisfaction scores are related to factors other than health. Linking these scores to physician pay could lead to lower compensation for young female doctors and incentivize doctors to prescribe controlled substances at higher rates.

Current regulations from the Centers for Medicare and Medicaid Services (CMS) induce health care systems to meet a number of “quality metrics” which may include patient satisfaction scores for health care providers. Health care systems conduct surveys of a provider’s patients and link compensation with metrics of patient satisfaction from these surveys. Since some studies have shown a positive correlation between patient health outcomes and patient satisfaction, the policy of incentivizing providers toward higher patient satisfaction seeks to generate better health outcomes under the hypothesis that this correlation is causative. Many doctors and researchers have questioned the desirability and efficacy of this policy.¹

A recent [PWBM Working Paper](#) by Efraim Berkovich and Dr. Alison Leff studies the statistical relationships between patient satisfaction scores and physician demographics, the treatments physicians provide, and some screening compliance measures. This study is conducted on out-patient practices within a mid-size health care system in suburban Philadelphia. While the dataset sample size restricts drawing broad conclusions, the analysis finds that:

1. younger, female physicians tend to receive lower scores; in particular, early-career female physicians score on average 10.2 percentage points lower than early-career male physicians on a commonly used patient satisfaction metric;
2. higher rates of prescriptions of narcotics, benzodiazepines, and stimulants are correlated with higher scores; for example, a one percentage point increase in the prescription rate of stimulants is correlated with a 0.66 percentage point increase in the patient satisfaction metric; and
3. patient compliance with screenings (colonoscopies and mammograms) is correlated with higher patient satisfaction scores; an increase of one percentage point in the percentage of a physician’s patients who are up-to-date with their colonoscopy screenings is correlated with a 0.2 percentage point increase in the patient satisfaction metric.

While the study cautions that these results are statistical correlations and do not necessarily imply causation, the statistical significance of these effects is high, so further investigation into these relationships appears warranted.

These findings are consistent with other studies,² which indicate that “quality metrics” may be influenced by a variety of factors unrelated to actual health outcomes, thereby potentially undermining effective pay-for-performance incentives. In long-run relationships such as at out-patient practices, higher patient satisfaction with providers are likely a result of a matching process where patients search for doctors who match their preferences. While this matching process is occurring, however, patients may give lower scores to doctors with whom they may not ultimately match, such as young, female physicians as found in the study.

Another consideration is the effect of patient satisfaction score incentives on the provision of certain types of medical care. Patients might feel more satisfied with their care if they receive tangible treatment such as prescription drugs or diagnostic tests regardless of whether these treatments are medically necessary. Patients with drug addiction might seek out and feel more “satisfied” with physicians who continue to prescribe these medications. The working paper’s analysis finds a significant correlation between the rates at which physicians prescribe controlled substances and the physicians’ patient satisfaction scores. In addition, the study finds a positive relationship between rates of antibiotics prescriptions and satisfaction scores, though the statistical significance of that relationship is lower.

Lastly, the study finds a positive relationship between patient satisfaction scores and compliance metrics such as regular colonoscopy and mammogram screenings for eligible patients. While this result appears to support the policy goal of improved health outcomes, the causal relationship needs further study. It may be the case that patients who are less compliant and less well-matched to the doctor have left the doctor’s practice, creating a selection bias in the measured relationship and overstating the causal relationship between patient satisfaction and health outcomes.

As policymakers try to address the growth of healthcare costs, they create incentive structures on healthcare providers with the goal of inducing providers to lower costs and improve health outcomes. The difficulty of defining such structures effectively is illustrated by the results in the working paper on patient satisfaction scores. Using patient satisfaction as an input into compensation, however, may also lead to lower pay for younger female doctors based on factors unrelated to actual outcomes. Additional study is required to determine causality.

1. For a humorous take on patient satisfaction scores see a practicing hospital physician’s skit at <https://www.youtube.com/watch?v=jjCu4nxOHIQ>. ↩

2. For instance, a study linking opioid use and patient satisfaction: <http://www.annfamned.org/content/16/1/6.full>. ↩