Women's Health Issues xxx-xx (2018) 1–5

ELSEVIER

WOMEN'S HEALTH ISSUES

www.whijournal.com

Original article

Physician Gender Is Associated with Press Ganey Patient Satisfaction Scores in Outpatient Gynecology

Lisa J. Rogo-Gupta, MD [a,*], Carolyn Haunschild, MD [a], Jonathan Altamirano, MS [b], Yvonne A. Maldonado, PhD [b], Magali Fassiotto, PhD [b]

[a] *Department of Obstetrics and Gynecology, Stanford University School of Medicine, Stanford, California*
[b] *Office of Faculty Development and Diversity, Stanford University School of Medicine, Stanford, California*

Article history: Received 11 August 2017; Received in revised form 27 December 2017; Accepted 5 January 2018

A B S T R A C T

Background: Patient satisfaction is gaining increasing attention as a quality measure in health care, but the methods used to assess it may negatively impact women physicians.
Objective: Our objective was to examine the relationship between physician gender and patient satisfaction with outpatient gynecology care as measured by the Press Ganey patient satisfaction survey.
Study Design: This cross-sectional study analyzed 909 Press Ganey patient satisfaction surveys linked to outpatient gynecology visits at a single academic institution (March 2013–August 2014), including self-reported demographics and satisfaction. Surveys are delivered in a standardized fashion electronically and by mail. Surveys were completed by 821 unique patients and 13,780 gynecology visits occurred during the study period. The primary outcome variable was likelihood to recommend (LTR) a physician. We used χ^2 tests of independence to assess the effect of demographic concordance on LTR and two generalized estimating equations models were run clustered by physician, with topbox physician LTR as the outcome variable. Analysis was performed in SAS Enterprise Guide 7.1 (SAS, Inc., Cary, NC).
Results: Nine hundred nine surveys with complete demographic data were completed by women during the study period (mean age, 49.3 years). Age- and race-concordant patient–physician pairs received significantly higher proportions of top LTR score than discordant pairs ($p = .014$ and $p < .0001$, respectively). In contrast, gender-concordant pairs received a significantly lower proportion of top scores than discordant pairs ($p = .027$). In the generalized estimating equations model adjusting for health care environment, only gender remained statistically significant. Women physicians had significantly lower odds (47%) of receiving a top score (odds ratio, 0.53; 95% CI, 0.37–0.78; $p = .001$).
Conclusions: Women gynecologists are 47% less likely to receive top patient satisfaction scores compared with their male counterparts owing to their gender alone, suggesting that gender bias may impact the results of patient satisfaction questionnaires. Therefore, the results of this and similar questionnaires should be interpreted with great caution until the impact on women physicians is better understood.

Patient satisfaction is gaining increasing attention as a quality measure in health care. Although reimbursement for services previously relied on easily quantifiable objective measures of health care delivery, the focus has shifted toward measures of health care quality, which is inherently more difficult to assess. The Patient Protection and Affordable Care Act of 2010 declared patient experience and satisfaction as essential components of health care quality assessments (Crossing the Quality Chasm, 2001) and the Centers for Medicare and Medicaid Services announced that future payments will be heavily impacted by assessment of health care quality and value. Patient experience and satisfaction data are, therefore, being widely explored to assess health care quality and increase reimbursements.

There are demonstrated limitations of patient-reported data. Patient-reported impressions of quality of care are often discrepant from medical personnel's impressions of the same

Presented at the American College of Obstetricians and Gynecologists (ACOG) Annual Scientific Meeting, May 6–9 2017, San Diego, CA, USA

Conflicts of interest: The authors report none to disclose.

* Correspondence to: Lisa J. Rogo-Gupta, MD, Division of Urogynecology, Pelvic Medicine and Reconstruction, Department of Obstetrics and Gynecology, Stanford University School of Medicine, 300 Pasteur Drive, Suite HG300, Stanford, California 94305. Phone: (650) 725-5986; fax: (650) 723-7737.

E-mail address: lrgupta@stanford.edu (L.J. Rogo-Gupta).

1049-3867/$ - see front matter © 2018 Jacobs Institute of Women's Health. Published by Elsevier Inc.
https://doi.org/10.1016/j.whi.2018.01.001

encounters (Resnick et al., 2008) and may be influenced by gender-related factors. Patient-centered communication styles have been linked to patient interactions with women physicians in particular (Roter, Hall, & Aoki, 2002) and have become expected from women physicians, while, in contrast, being recognized as a marker of clinical competence for male physicians (Hall, Gulbrandsen, & Dahl, 2014; Hall, Roter, Blanch-Hartigan, Mast, & Pitegoff, 2015). Similarly troubling is the fact that women are expected to exude warmth, which may come at the expense of perceived competence (Bernzweig, Takayama, Phibbs, Lewis, & Pantell, 1997; Cuddy, 2004).

We sought in this study to examine the relationship between physician gender and patient satisfaction with outpatient gynecology care. The relationship between physician gender and patient satisfaction is an issue inherent to the field of gynecology. A certain level of intimacy is involved in discussing reproductive organs and sexual behavior, and in performing pelvic examinations, all of which are generally considered sensitive issues across cultures. This may explain why the majority of U.S. obstetrics/gynecology trainees are women (Gerber & Lo Sasso, 2006). We hypothesized that physician gender impacts patient evaluation of outpatient gynecology care as measured by patient satisfaction surveys—specifically, that women physicians receive higher patient satisfaction scores than their male counterparts.

Materials and Methods

The Press Ganey (PG) patient satisfaction survey (Long et al., 2016; Press, Ganey–first year, 1986) data linked to all outpatient physician visits to the gynecology clinic at Stanford Hospital and Clinics was collected from March 2013 to August 2014. These encounters include general and subspecialty care for all benign gynecologic conditions, excluding prenatal obstetrics care after the first trimester, which is conducted at the affiliated Lucile Packard Children's Hospital. A total of 13,780 visits attended by 24 faculty physicians were completed at this clinic during the study period. All physicians are English speaking and translation services are offered in more than 200 languages by Stanford translation services. PG surveys are administered in a standard fashion across our institution: 1) five unique patients per physician per month are randomly selected to receive the PG survey by mail, and 2) all patients enrolled in the online patient portal receive the PG survey for all visits. Survey administration is coordinated to ensure that a single patient cannot receive multiple surveys for the same visit or for the same provider within 21 days. Only visits with faculty physicians are eligible; visits with resident physicians are excluded. The response rate for the PG survey is 25% at our institution and the average response time is 2 weeks. For comparison, the response rate for patient surveys after emergency department visits at an academic center has been reported as 10% (Guss, Gray, & Castillo, 2014) and the response rate after primary care visit across a large health maintenance organization has been reported as 71% (Schmittdiel, Grumbach, Selby, & Quesenberry, 2000).

A total of 1,097 surveys were completed from gynecology outpatient visits during the study period and those missing demographic data were excluded, including one patient who self-identified as male, for a final count of 909 surveys completed by 821 unique patients included in the analysis. This study was approved by the Stanford University Institutional Review Board (IRB#4947).

Patient race was self-reported and not adjudicated. With regard to race, patients who responded "White" were categorized as White, those who responded "Asian" were categorized as Asian, and those who responded "Native Hawaiian or other Pacific Islander," "American Indian or Alaska Native," "Black," or "Hispanic/Latino," were categorized as "Under-Represented Minority." Patient and physician age were transformed into binary variables, and categorized as either 1) less than 40 years old, or 2) 40 years or older. The main variable of interest was the "likelihood to recommend care provider," (LTR) which was reported on a Likert scale from 1 to 5, with 5 being the best possible score, and converted into a binary variable using topbox scoring. Topbox scoring is performed by comparing a maximum score (5) with all other possible scores (1–4), and is in line with current practice of score reporting (Siddiqui, Zuccarelli, Durkin, Wu, & Brotman, 2015). Thus, LTR could take the value of 1 (receiving a score of 5) or 0 (receiving a score of 1–4).

We included other patient satisfaction data in the analysis to characterize other factors that patients would consider when evaluating the overall LTR physician assessment. We grouped these patient satisfaction questions into three categories: 1) office assessment questions ($\alpha = 0.92$), 2) access assessment questions ($\alpha = 0.92$), and 3) physician assessment questions ($\alpha = 0.87$; Appendix Table 1). The categories were confirmed using factor analysis, and only the four most correlated questions in each category were kept in the final analysis (Appendix Table 1). Topbox scores were summed across each of the four questions in each assessment variable. Thus, each assessment score could range in value from 0 to 4.

History of the patient–physician relationship was assessed in standard fashion by the PG survey by the categories less than 6 months, between 6 months and 3 years, and greater than 3 years. Physician demographic data was merged with PG data.

We used χ^2 tests of independence to assess the effect of demographic concordance on physician assessment. Two generalized estimating equation models were run clustered by physician, with topbox physician assessment as the outcome variable. One model contained only demographic information, and the other additionally controlled for health care environment using the office, access, and physician assessments. A p value of .05 or less was considered statistically significant for all tests and 95% confidence intervals (CI) were reported. Analysis was performed in SAS Enterprise Guide 7.1 (SAS, Inc, Cary, NC).

Results

Patient demographics, physician demographics, and health care environment variables are described in Tables 1 and 2. A higher proportion of visits were attended by physicians over 40 years old when compared with the proportion of patients in the same age group. However, both groups had similar mean ages. Both patients and physicians were predominantly White, although patients showed a greater variety in race/ethnicity. Eighteen percent of patients were underrepresented minorities, whereas only 2.9% of visits were attended by underrepresented minority physicians. Finally, although the majority of visits were attended by women physicians, 37% were attended by male physicians.

All χ^2 tests revealed significant differences in proportion of top LTR score based on demographic concordance (Figure 1). Age-concordant and race-concordant patient–physician pairs received significantly higher proportions of top LTR score than age-discordant and race-discordant patient–physician pairs ($p = .014$ and $p < .0001$, respectively). In contrast, gender-concordant patient–physician pairs received a significantly

Table 1
Patient and Physician Demographics

Characteristic	*n* (%)
Patient	
Age (y)	
<40	353 (38.8)
≥40	556 (61.2)
Mean ± SD	49.3 ± 16.8
Race	
White	552 (60.7)
Asian	191 (21.0)
Underrepresented minority	166 (18.3)
Marital status	
Single/divorced/widowed	277 (30.5)
Married	632 (69.5)
Patient insurance	
Private insurance/self-pay	713 (78.4)
Medicare	196 (21.6)
Language	
English	862 (94.8)
Non-English	47 (5.2)
History with physician	
<6 mo	472 (51.9)
6 mo–3 y	284 (31.2)
>3 y	153 (16.9)
Physician	
Gender	
Male	336 (37.0)
Female	573 (63.0)
Age (y)	
<40	127 (14.0)
≥40	782 ± 86.0
Mean ± SD	49.4 (9.4)
Race	
White	731 (80.4)
Asian	152 (16.7)
Underrepresented minority	26 (2.9)

lower proportion of top LTR score than gender-discordant pairs ($p = .027$).

In the generalized estimating equation model accounting only for demographics, physician gender, race concordance, patient language, and patient–physician history all had significant effects on the odds of receiving a top LTR score (Table 3). The odds of receiving a top score were 37% lower for women physicians when compared with male physicians (95% CI, 0.48–0.83; $p = .001$). Race concordance was associated with an 85% increase in odds of receiving a top score when compared with race discordant patient–physician pairs (95% CI, 1.27–2.69; $p = .001$). The odds of receiving a top score more than doubled if the patient was proficient in English, compared with visits evaluated by patients who had limited English proficiency (odds ratio [OR], 2.19; 95% CI, 1.11–4.33; $p = .024$). Finally, extensive patient–physician history also doubled the odds of receiving a top score (OR, 2.25; 95% CI, 1.33–3.81; $p = .002$).

In the generalized estimating equation model adjusting for office, access, and physician assessments, physician gender was the only factor from the initial model that remained significant (Table 3). Women physicians still had significantly lower odds

Table 2
Assessment of Health Care Environment

Health Care Environment (out of 4)	Mean ± SD
Physician assessment	3.14 ± 1.46
Office assessment	3.09 ± 1.50
Access assessment	2.07 ± 1.68

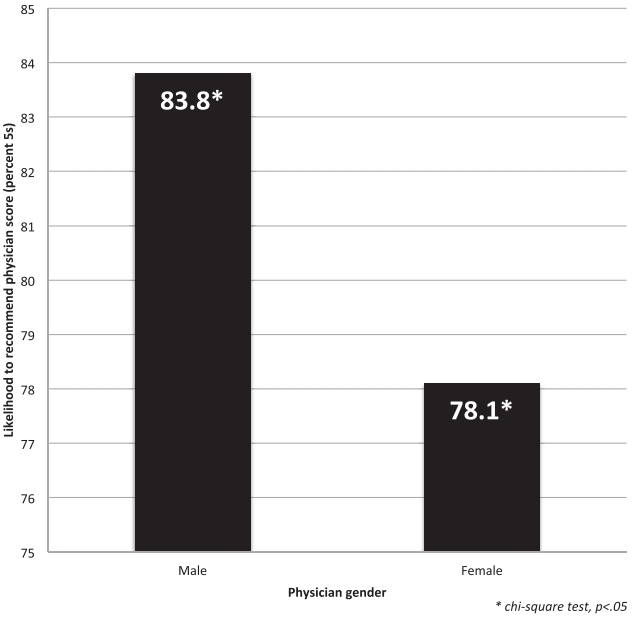

Figure 1. Physician gender and likelihood to recommend physician.

(47%) of receiving a top LTR score (OR, 0.53; 95% CI, 0.37–0.78; $p = .001$). Each point increase in office assessment significantly increased the odds of a top score (OR, 1.51; 95% CI, 1.24–1.84; $p < .0001$). Physician assessment and LTR are closely correlated ($r = 0.94$ using polychoric correlation). Even with this shared

Table 3
Generalized Estimating Equation Models of Likelihood to Recommend Physician (Percent 5s)

Variable	Odds Ratio (95% CI)	*p* Value
Without assessments		
Patient characteristics		
Married	0.73 (0.53–1.01)	.06
Medicare	1.49 (0.90–2.48)	.12
English	2.19 (1.11–4.33)	**.02**
History with physician		
<6 mo	Referent	Referent
6 mo–3 y	1.12 (0.73–1.71)	.61
≥3 y	2.25 (1.33–3.81)	**.002**
Concordance		
Age concordant	1.22 (0.82–1.79)	.32
Race concordant	1.85 (1.27–2.69)	**.001**
Gender concordant (female physician)	0.63 (0.48–0.83)	**.001**
With assessments		
Patient characteristics		
Married	0.61 (0.27–1.36)	.22
Medicare	0.86 (0.49–1.53)	.62
English	1.34 (0.69–2.61)	.39
History with physician		
<6 mo	Referent	Referent
6 mo–3 y	1.00 (0.59–1.70)	.99
≥ 3 y	1.78 (0.67–4.76)	.25
Concordance		
Age concordant	0.77 (0.47–1.27)	.31
Race concordant	1.38 (0.79–2.40)	.25
Gender concordant (female physician)	0.53 (0.37–0.78)	**.001**
Health care environment		
Access assessment	1.09 (0.87–1.36)	.47
Office assessment	1.51 (1.24–1.84)	**<.001**
Physician assessment	3.94 (3.13–4.95)	**<.001**

$p < .05$ is indicated in bold.

variance, physician assessment also significantly increased the odds of a top score for each point increase (OR, 3.94; 95% CI, 3.13–4.95; $p < .0001$).

The effects of race concordance, patient language, moderate and extensive patient–physician relationship, and access assessment were positive but not significant. Age concordance, Medicare as a primary insurance, and patient marital status had negative but nonsignificant effects.

Discussion

Our analysis of outpatient patient-completed surveys demonstrates that women gynecologists had a 47% lower odds of receiving a top score compared with their male counterparts. This result contradicts our hypothesis that women gynecologists receive higher patient satisfaction scores than their male counterparts and is surprising given 20%–55% of women state they prefer a woman gynecologist (Janssen & Lagro-Janssen, 2012). However, this result is consistent with published findings in primary care. In a publication of more than 10,000 patient satisfaction surveys from a California health maintenance organization, women patients who chose women physicians were the least satisfied of all patient–physician gender pairs (Schmittdiel et al., 2000).

We are not the first to suggest women physicians are at a disadvantage compared with men. A meta-analysis by Hall, Blanch-Hartigan, and Roter (2011) revealed that women physicians receive lower patient satisfaction scores. Women physicians are also less likely to obtain leadership positions or academic advancement compared with their male counterparts (Hofler, Hacker, Dodge, & Ricciotti, 2015; Jena, Khullar, Ho, Olenski, & Blumenthal, 2015). Additionally, women physicians earn $20,000 less annually compared with men, with gynecologists having one of the greatest absolute differences in salary between the sexes (Jena, Olenski, & Blumenthal, 2016). This discrepancy is particularly troubling, because recent research suggests that patients treated by women physicians may even have better outcomes compared with those treated by male physicians, the reasons for which are unknown (Tsugawa et al., 2017).

Although age concordance between patients and physicians seems important to patient satisfaction in bivariate analyses, this effect disappears once we control for other demographic characteristics. Our results also suggest that a patient's history with her physician, race concordance with her physician, and her English language proficiency positively and significantly impact her satisfaction ratings, even while controlling for other demographic variables. These findings make sense intuitively; one would assume that patients who have remained with their physicians for longer periods of time would evaluate that physicians more highly; patients and physicians of similar cultures or race/ethnicities may be able to communicate in more familiar styles leading to more positive evaluations; and communicating directly with a patient rather than through an interpreter could also foster a greater sense of patient satisfaction with care. However, once we control for the care environment through physician and office characteristics, patient history, race, and English language proficiency no longer impact patient satisfaction. That is, a physician may be able to overcome innate patient–physician history, racial discordance, and language preferences through both their own actions and policies in place at the office level.

These result highlights the importance of the care environment, particularly physician-specific characteristics (i.e., the ability to explain conditions, the concern shown for patient questions, inclusion of the patient in treatment decisions, and patient confidence in the care provider) and office-specific characteristics (i.e., overall sensitivity to patient needs, concern for privacy, concern for safety, and cleanliness), because both physician and office assessments were positively and significantly associated with a top LTR score. A closer look at the impact of gender on physician assessment showed that, although women physicians have a lower mean physician assessment than male physicians, this difference is not statistically significant ($p = .24$ using the Wilcoxon Mann-Whitney test). A surprising result was that access assessment (i.e., ease of reaching the clinic by phone, convenience of office hours, ease of scheduling, and ability to get choice appointment times) had no significant effect on patient ratings once they were actually seen for their outpatient visit.

Our study was limited by several factors. First, the interpretation of our data is limited by the source used to collect it. Patient satisfaction is difficult to reliably quantify and surveys are fraught with inherent impacts of biases and perceptions (Lin & Kelly, 1995). Self-report may not accurately reflect quality of care, because high patient satisfaction has been associated with higher odds of an inpatient visit, greater total health care expenditures, and higher mortality (Fenton, Jerant, Bertakis, & Franks, 2012; Robbins, 2015). Those who respond to questionnaires also may represent extremes of satisfaction or dissatisfaction, and may not be representative of views across the patient population. Responder bias has been demonstrated in studies using the PG survey, specifically over-representing Whites and those with private insurance (Nieman, Benke, Ishman, Smith, & Boss, 2014; Tyser, Abtahi, McFadden, & Presson, 2016). Although our results may also be subject to responder bias, the demographic characteristics of our cohort are similar to those of the surrounding population. The majority of our cohort was White (60.7%) and had private insurance (78.4%). In the counties surrounding our institution 43%–72% of the population is White, 85%–89% have at least a high school diploma, and the mean household income ranges from $66,923 to $93,854 (Census Bureau, 2010). Our results, therefore, may not be generalizable to institutions with different patient demographic characteristics. Second, our dataset represents a snapshot in time. For this reason, we cannot control for certain longitudinal characteristics such as return visits. To address this factor, we used duration of patient–physician relationship to reflect repeated interactions. Third, there may be additional visit characteristics that were not accounted for in this analysis. Visit type is unknown (e.g., routine, procedure, or urgent visit) and this factor may impact patient experience. Patients also may have purposefully selected physicians by gender and the prevalence of this phenomenon in our data is unknown (Adams, 2003). Women patients who intentionally select a male provider may also have done so for a particular reason that remains unmeasured. Third, we are unable to perform finer gradations of racial concordance owing to low numbers of certain underrepresented minorities subgroups in our analysis. We would recommend that future research focus on the question of racial concordance, perhaps in combination with gender concordance, in this population. Finally, our study takes place at one academic medical institution and results may therefore not be generalizable; however, given the environmental characteristics within the field of gynecology, we suspect our results are not unique.

Despite these limitations, this patient survey provides data currently being used to incentivize providers and to understand patient-centered care at institutional levels, making a critical in-

depth examination of the survey of the upmost importance. The implications of these findings are far reaching. Although patient satisfaction assessments may in some way benefit the health care system in its goal to provide patient-centered care, we must at the same time consider how societal biases may enter into the assessment process (Crossing the Quality Chasm, 2001).

Implications for Policy and/or Practice

The implications of our findings are many. First, given the importance of the physician and office assessments on LTR scores, additional training for physicians and office staff may be warranted, specifically in the areas related to patient communication, inclusion of the patient in clinical care, and ensuring a sense of safety and trust. Second, we may ask ourselves: If this questionnaire is subject to inherent biases, should it be used to assess patient care and to incentivize physicians in the first place? Although this may seem like an obvious place to start, understanding patient satisfaction and engagement with their care is an essential component to providing patient-centered care and eliminating the quantifiable metrics these surveys provide could be detrimental to that goal (Epstein & Street, 2011). Alternatively, by understanding the biases at play, we may be able to account for them in our data collection. Future research should explore the potential underlying mechanisms for this expressed bias and how it may impact all fields of medicine.

Conclusions

Women gynecologists are 47% less likely to receive top patient satisfaction scores compared with their male counterparts owing to their gender alone, suggesting that gender bias may impact the results of patient satisfaction questionnaires. Therefore, the results of this and similar questionnaires should be interpreted with great caution until the impact on women physicians is better understood.

Supplementary Data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.whi.2018.01.001.

References

Adams, K. E. (2003). Patient choice of provider gender. *Journal of the American Medical Womens Association*, 58(2), 117–119.

Bernzweig, J., Takayama, J. I., Phibbs, C., Lewis, C., & Pantell, R. H. (1997). Gender differences in physician-patient communication. Evidence from pediatric visits. *Archives of Pediatric and Adolescent Medicine*, 151(6), 586–591.

Crossing the Quality Chasm. (2001). *A New Health System for the 21st Century*. Washington (DC): House Office of the Legislative Counsel. Available at: https://www.hhs.gov/sites/default/files/ppacacon.pdf?language=en. Accessed: January 25, 2017.

Cuddy, A. (2004). When professionals become mothers, warmth doesn't cut the ice. *Journal of Social Issues*, 60, 701–718.

Epstein, R. M., & Street, R. L., Jr. (2011). The values and value of patient-centered care. *Annals of Family Medicine*, 9(2), 100–103.

Fenton, J. J., Jerant, A. F., Bertakis, K. D., & Franks, P. (2012). The cost of satisfaction: A national study of patient satisfaction, health care utilization, expenditures, and mortality. *Archives of Internal Medicine*, 172(5), 405–411.

Gerber, S. E., & Lo Sasso, A. T. (2006). The evolving gender gap in general obstetrics and gynecology. *American Journal of Obstetrics and Gynecology*, 195(5), 1427–1430.

Guss, D. A., Gray, S., & Castillo, E. M. (2014). The impact of patient telephone call after discharge on likelihood to recommend in an academic emergency department. *Journal of Emergency Medicine*, 46(4), 560–566.

Hall, J. A., Blanch-Hartigan, D., & Roter, D. L. (2011). Patients' satisfaction with male versus female physicians: A meta-analysis. *Medical Care*, 49(7), 611–617.

Hall, J. A., Gulbrandsen, P., & Dahl, F. A. (2014). Physician gender, physician patient-centered behavior, and patient satisfaction: A study in three practice settings within a hospital. *Patient Education and Counseling*, 95(3), 313–318.

Hall, J. A., Roter, D. L., Blanch-Hartigan, D., Mast, M. S., & Pitegoff, C. A. (2015). How patient-centered do female physicians need to be? Analogue patients' satisfaction with male and female physicians' identical behaviors. *Health Communication*, 30(9), 894–900.

Hofler, L., Hacker, M. R., Dodge, L. E., & Ricciotti, H. A. (2015). Subspecialty and gender of obstetrics and gynecology faculty in department-based leadership roles. *Obstetrics and Gynecology*, 125(2), 471–476.

Janssen, S. M., & Lagro-Janssen, A. L. (2012). Physician's gender, communication style, patient preferences and patient satisfaction in gynecology and obstetrics: A systematic review. *Patient Education and Counseling*, 89(2), 221–226.

Jena, A. B., Khullar, D., Ho, O., Olenski, A. R., & Blumenthal, D. M. (2015). Sex differences in academic rank in US medical schools in 2014. *JAMA*, 314(11), 1149–1158.

Jena, A. B., Olenski, A. R., & Blumenthal, D. M. (2016). Sex differences in physician salary in US public medical schools. *JAMA Internal Medicine*, 176(9), 1294–1304.

Lin, B., & Kelly, E. (1995). Methodological issues in patient satisfaction surveys. *International Journal of Health Care Quality Assurance*, 8(6), 32–37.

Long, C., Tsay, E. L., Jacobo, S. A., Popat, R., Singh, K., & Chang, R. T. (2016). Factors associated with patient Press Ganey satisfaction scores for ophthalmology patients. *Ophthalmology*, 123(2), 242–247.

Nieman, C. L., Benke, J. R., Ishman, S. L., Smith, D. F., & Boss, E. F. (2014). Whose experience is measured? A pilot study of patient satisfaction demographics in pediatric otolaryngology. *Laryngoscope*, 124(1), 290–294.

Press, Ganey–first year of patient satisfaction measurement. (1986). *Hospital Guest Relations Report*, 1(11), 4–5.

Resnick, A. S., Disbot, M., Wurster, A., Mullen, J. L., Kaiser, L. R., & Morris, J. B. (2008). Contributions of surgical residents to patient satisfaction: Impact of residents beyond clinical care. *Journal of Surgical Education*, 65(3), 243–252.

Robbins, A. (2015). The problem with satisfied patients. *The Atlantic*. Available at: www.theatlantic.com/health/archive/2015/04/the-problem-with-satisfied-patients/390684/. Accessed: October 25, 2017.

Roter, D. L., Hall, J. A., & Aoki, Y. (2002). Physician gender effects in medical communication: A meta-analytic review. *JAMA*, 288(6), 756–764.

Schmittdiel, J., Grumbach, K., Selby, J. V., & Quesenberry, C. P., Jr. (2000). Effect of physician and patient gender concordance on patient satisfaction and preventive care practices. *Journal of General Internal Medicine*, 15(11), 761–769.

Siddiqui, Z. K., Zuccarelli, R., Durkin, N., Wu, A. W., & Brotman, D. J. (2015). Changes in patient satisfaction related to hospital renovation: Experience with a new clinical building. *Journal of Hospital Medicine*, 10(3), 165–171.

Tsugawa, Y., Jena, A. B., Figueroa, J. F., Orav, E. J., Blumenthal, D. M., & Jha, A. K. (2017). Comparison of hospital mortality and readmission rates for Medicare patients treated by male vs female physicians. *JAMA Internal Medicine*, 177(2), 206–213.

Tyser, A. R., Abtahi, A. M., McFadden, M., & Presson, A. P. (2016). Evidence of non-response bias in the Press-Ganey patient satisfaction survey. *BMC Health Services Research*, 16(a), 350.

U.S. Census Bureau. (2010). United States Census. Available at: http://www.census.gov/en.html. Accessed: August 10, 2017.

Author Descriptions

Lisa J. Rogo-Gupta, MD, is a Clinical Assistant Professor of Urogynecology and Pelvic Reconstructive Surgery and, by courtesy, Urology. Her research interests include prolapse and incontinence surgery outcomes on both institutional and national levels, and the impact of surgical volume on outcomes.

Carolyn Haunschild, MD, is a Resident in Obstetrics and Gynecology whose research interests include patient satisfaction and outcomes in oncology patients.

Jonathan Altamirano, MS, is a research data analyst whose research interests include medicine, public health, and global child health.

Yvonne A. Maldonado, PhD, is a Professor of Pediatrics and Pediatric Infectious Diseases who serves as the Senior Associate Dean of Faculty Development and Diversity.

Magali Fassiotto, PhD, is the Assistant Dean of Faculty Development and Diversity. Her interests include faculty training, research, leadership development and career advancement.