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Patient-provider gender preference in colorectal surgery

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ABSTRACT

Background: Preference for a gender concordant surgeon has been demonstrated when the chief complaint is perceived as private. We aimed to investigate this phenomenon among colorectal patients.
Methods: A 3-week prospective, observational, quality improvement study was performed. Schedulers recorded all new patient calls and factors influencing patient selection of surgeon. Demographic information was obtained. Descriptive statistics were performed.
Results: There were 60 new patients scheduled; 35 (58.3%) female. Ten(16.7%) chose a surgeon based on gender; 70% of those with gender requests (GR) were female (70%), and 80% were gender-concordant. Seven (70%) of those with GR had anorectal complaints. Of all patients with anorectal complaints, 20.6% had a GR vs. 11.5% non-anorectal ($p = 0.49$).
Conclusions: A considerable percentage of patients make a GR when seeking treatment, especially for anorectal disease. Departments should be mindful of the sensitive nature of many colorectal diseases and strive to diversify accordingly in order to create safe environments for the optimal delivery of patient-centered care.

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Summary for the table of contents

During the course of a 3-week prospective observational study designed to understand patient scheduling preferences, 16.7% of new patients made appointments in a colorectal surgery department based primarily on the provider gender. Seventy percent of their chief complaints were anorectal in nature.

Introduction

For at least the last decade, the role of patient-provider gender concordance has been investigated in a variety of clinical settings for its effect on the receipt of healthcare and adherence to providers' recommendations. Notably, gender concordance has shown mixed effects when patient complaints are related to primary care or mental health, but more consistently positive effects when the patient complaint is of a sensitive nature, such as in obstetrics and gynecology where pelvic examinations are required.[1–5] The psychology of patient-provider gender concordance when sensitive exams will be performed during the visit suggests that there is comfortability in the sense of a shared connection.[6]

Colorectal surgery, like obstetrics and gynecology, is a specialty that routinely sees patients with chief complaints on socially taboo topics (sexually transmitted diseases, defecatory habits, anorectal disfigurement, etc), performs examinations of a private nature (pelvic examinations and anoscopy), and performs colonoscopies (the idea of which many patients find uncomfortable). Gender preference has been demonstrated for lower gastrointestinal endoscopy, where female patients have been found to express the desire for gender concordant providers significantly more frequently than their male counterparts. This has positive implications for colon cancer screening rates, a phenomenon which has also been demonstrated with regard to breast and cervical cancer screening rates.[7,8]

The overall burden of disease related to complaints that are perceived as "sensitive" is substantial. Ambulatory visits for chief complaints such as constipation and hemorrhoidal disease each account for approximately three million office visits a year. While

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constipation more commonly affects women, visits for hemorrhoids were shared equally between men and women.[9] Striving for gender diversity in colorectal departments may cater to the needs of patients of any gender who may otherwise be reluctant to address some of their healthcare needs related to these complaints. Understanding patient preferences in colorectal surgery as they relate to gender may help to inform recruitment goals for the specialty and better align with the needs of this patient population.

Patient-provider gender preferences have never been quantified within colorectal surgery, despite a commonly held assumption that these preferences exist. We aimed to determine the frequency at which patients voice a preference for a surgeon of a specific gender in a department of colorectal surgery. We hypothesized that gender preference would be more common for new patients expressing a chief complaint related to anorectal problems or pelvic floor dysfunction than for benign and malignant diseases of the colon and rectum.

Methods

A prospective observational quality improvement (QI) study was performed over 3 weeks at a tertiary referral academic medical center in the Fall of 2018. The institution serves a wide catchment area that is urban, suburban, exurban, rural, and rich in diversity.[10] This QI project was undertaken out of a departmental desire to understand patient preferences and referral patterns.

The division of Colon and Rectal Surgery is composed of six faculty, one female and five male members. All new patient calls are routed through three division-specific schedulers who register and schedule patients. There is no pre-determined script or algorithm for assigning new patients to a particular provider. Schedulers were asked to manually document all new patient calls including any factors influencing patient selection of surgeon/appointment only as volunteered by the patient prior to offering appointments. They were specifically asked not to change anything about how they typically handled these calls and to avoid soliciting information about a patient's choice of provider unless it was volunteered (specifically as it is related to gender). To ensure that schedulers were not already soliciting information from patients, a neutral observer audited the schedulers' incoming call conversations during the two weeks prior to the start of the 3-week data collection study period. An informal qualitative analysis was performed of the notes taken during this time to assess for uniformity of the scheduler interactions with regard to gender-related information solicitation. Additionally, this two-week practice period was used to ensure consistent documentation of all new patient calls and minimize selection bias (Fig. 1).

At the conclusion of the three-week study period, the specific factor that primarily affected the scheduling of each patient was identified as either gender, referral, practice location, timing or not given. Patients were divided into two groups based on the explicit expression of gender preference. Additional demographic information was obtained from the medical record, including age, race, gender, marital status and chief complaint. Chief complaints were classified as anorectal disease/pelvic floor dysfunction, benign colorectal, malignant colorectal or other/unknown. Descriptive statistics were performed and the proportion of patients with specific requests compared using Fisher's exact and Chi-square tests as appropriate. Age was treated as a continuous variable, and a Wilcoxon Rank Sum was used to compare the median between groups. This study was undertaken as a quality improvement initiative and was therefore deemed exempt from institutional board review.

Results

During the two-week pre-study period in which schedulers were audited for leading language regarding patient preference of provider, there were no instances identified. Schedulers remained true to their normal scheduling language and routine. They did require infrequent reminders to record all new patient calls at the start of the two weeks, however by the end (and beginning of the study period), schedulers became habitual in their recording.

There were 60 new patients scheduled during the study period with a median age of 49 years (IQR 37.5–64). Of those, 35 (58.3%) were female with a median age of 54 years (IQR 37–64). The majority of patients identified as White (37; 61.7%). Twelve (20.0%) identified as Black and 11 (18.3%) chose not to identify. Most patients were married (33; 55.0%), while the remainder were single (divorced, separated or widowed; 27, 45.0%).

The most common reasons for scheduling were benign anorectal disease (31; 51.7%), followed by malignant colorectal disease (13; 21.7%), benign colorectal disease (11; 18.3%), pelvic floor dysfunction (3; 5.0%) and other/not identified (2; 3.0%).

Scheduling preferences

Ten of 60 patients (16.7%) expressed the desire to see a surgeon of a certain gender as their primary factor in scheduling. Of those 10 patients, 7 (70.0%) were female; 6 female patients requested a female surgeon and 1 female patient requested a male surgeon. Three of the patients who requested based on gender were male (30.0%); 2 male patients requested a male surgeon and 1 male patient requested a female surgeon (see Table 1). All requests were accommodated. Of those with a gender request, 8/10 (80%) were for a provider of the same gender. In the overall cohort, 35 of 60 (58.3%) patient-surgeon pairs were gender concordant.

Seven (70.0%) of those who chose a specific gender were being seen for anorectal disease (5 female, 2 male). Of the 34 patients with an anorectal or pelvic floor chief complaint, 7 (20.6%) chose a surgeon of a specific gender as their primary factor in scheduling. Of the 26 patients scheduled for all other colorectal chief complaints, 3 (11.5%) made a specific gender request (Fig. 2). Although not significant ($p = 0.49$), the likelihood of making a gender request

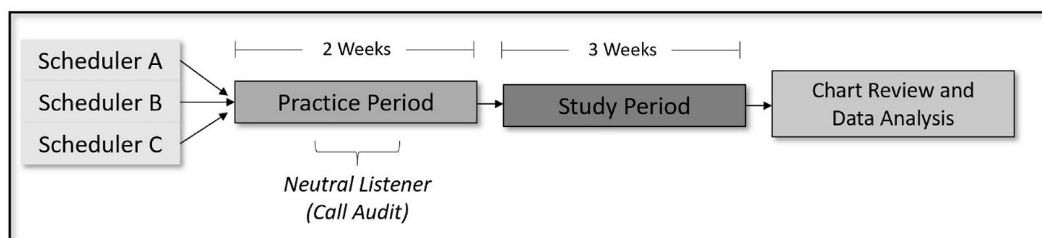

Fig. 1. Schematic representation of the study design.

Table 1
Cohort Description. Patient characteristics compared between those that had a scheduling request based upon surgeon gender versus those that did not.

	Overall Cohort (n = 60)	Request Based on Gender (n = 10)	No Request Based on Gender (n = 50)	p value	Relative Risk
Patient Gender				p = 0.41	
Female	35 (58.3%)	7 (70.0%)	28 (56.0%)		1.47
Male	25 (41.7%)	3 (30.0%)	22 (44.0%)		
Age, median (years) (IQR)	49 (37.5–64)	46.5 (42–69)	51.5 (37–64)	p = 0.92	
Race				p = 0.17	
White	37 (61.7%)	7 (70.0%)	30 (60.0%)		[a]
Black	12 (20.0%)	0 (0%)	12 (24.0%)		
Unspecified	11 (18.3%)	3 (30.0%)	8 (16.0%)		
Marital Status				p = 1.0	
Married	33 (55.0%)	6 (60.0%)	27 (54.0%)		1.23
Single	27 (45.0%)	4 (40.0%)	23 (46.0%)		
Chief Complaint				p = 0.74	
Anorectal & Pelvic Floor	34 (56.7%)	7 (70.0%)	27 (54.0%)		1.78[b]
Benign Colon	11 (18.3%)	1 (10.0%)	10 (20.0%)		
Malignant Colorectal	13 (21.7%)	2 (20.0%)	11 (22.0%)		
Other/Unknown	2 (3.3%)	0 (0)	2 (4.0%)		
Number of Gender Concordant Pairs	35 (58.3%)	8 (80.0%)	27 (54.0%)	p = 0.16	

[a] Relative risk could not be calculated, as no Black patient requested a specific gender provider.
[b] Based on the exposure categorized as dichotomous: “anorectal” and “other.”

if the chief complaint was an anorectal/pelvic floor issue was 1.78 times higher than if the issue was non-anorectal in nature. Female patients were 1.47 times more likely to request a provider based on gender than their male counterparts. There was no significant difference between those patients who chose a gender-specific surgeon by age (p = 0.95), race (p = 0.17), or marital status (p = 1.0; Table 1).

Of those who did not choose their provider based on gender, having been referred to a particular surgeon (15; 25.0%) was the most common factor, followed by scheduling a “first available” appointment (13; 21.7%) and practice location (8; 13.3%). The remaining 12 did not have a specific factor that was evident to the scheduler.

Overall department trends

During the 3-week study period, there were a total of 285 new and established patients seen by all of the providers. There was a significant difference in the proportion of female patients seen by the lone female colorectal surgeon versus the male surgeon faculty (62.8% versus 40.9%; p < 0.01). There was only one male surgeon who saw slightly more female patients during this time period (22 versus 18).

Discussion

In this study, we sought to quantify the frequency of requests for

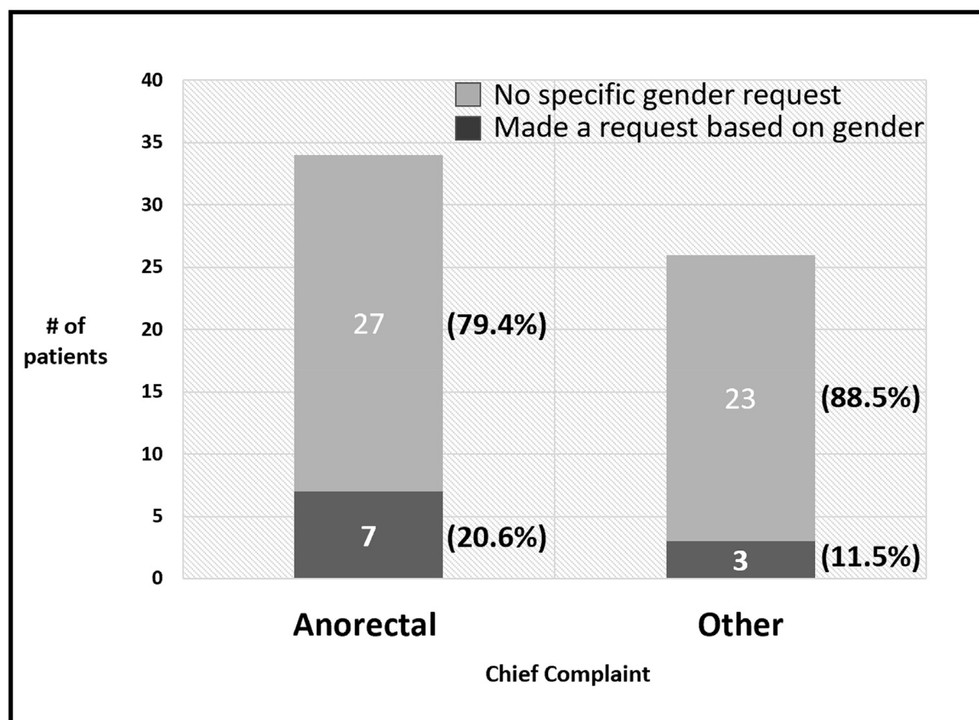

Fig. 2. Gender-Specific Request By Chief Complaint. Number and proportion of patients who made specific gender-based requests when scheduling for an anorectal/pelvic floor complaint versus another colorectal complaint (benign or malignant colorectal diagnoses or colonoscopy).

a provider of a specific gender, and to discern whether this occurred more frequently for a certain category of chief complaint. During the course of scheduling 60 consecutive new patients, 16.7% of patients, or one in every six patients, requested an appointment with a provider of a specific gender. The majority of those who made a gender-specific request were for a gender concordant surgeon (80%), and the majority were for anorectal or pelvic floor dysfunction complaints. This is the first study in the colorectal literature to describe the frequency and nature of gender-specific provider requests. The rate of specific requests, especially for anorectal disease, is noteworthy. This study highlights the sensitive and personal nature of some of the problems treated by colorectal surgeons, and quantifies an underlying assumption that some patients may feel more comfortable being treated by a surgeon of the same gender.

Nearly 21% of all patients calling with a new anorectal complaint in this study requested a surgeon of a specific gender as the primary scheduling factor, versus only 11% in all other categories of chief complaint. While not statistically significant, the relative risk of 1.78 for anorectal concerns points to a likely meaningful association that could become significant in future studies with more power. It is clear from the literature that the perceived sensitive or private nature of the patient complaint drives the scheduling request for a gender concordant surgeon, as the bulk of data on the topic come from disciplines such as obstetrics/gynecology, breast cancer care, urology and colonoscopy/cancer screening. Patient preference for a certain gender provider likely stems from a shared understanding of a gender-related human experience with regard to bodily structure or function.[11] Silliman et al., in 1999, and Iskander et al., in 2015, both showed that female patients with female breast surgeons were more likely to receive standard therapies and undergo reconstruction, respectively.[12,13] To our knowledge, this is the first study to quantify a commonly held belief that patient gender preferences exist in the treatment of anorectal and pelvic floor disease.

Seventy percent of the patients who requested a gender-specific provider in this study were female and 80% requested a gender concordant surgeon. The predilection for female patients to request a female provider is common in the literature on the topic. For instance, in a 2002 study by Varadaraulu et al., 150 consecutive patients scheduled for colonoscopy were surveyed regarding their gender preference of the endoscopist. The study found an overall gender preference rate of 26%. Women were significantly more likely to desire a gender concordant endoscopist than were men (45% vs. 4.3%).[7] In a survey study of urology patients, 62.3% of female patients had a preference for a female urologist, versus 1.3% of male patients desiring a male urologist.[14] In another review of urologists' case logs nationwide, female providers saw significantly more female patients and performed significantly more female-specific procedures, irrespective of subspecialty and geographic region.[15] These findings argue that there is something about the shared gender experience that is likely comforting to patients, perhaps because of a desire for a specific kind of interaction. Providing a healthcare environment that is comforting to patients may affect the ways in which patients share information or their tendency to comply with recommendations. Indeed, some prior studies have shown more active participation in care and improved adherence to treatments. However, other follow-up studies are less clear on the true relationship of concordance with outcomes.[16]

While it is hard to discern what role gender preference may ultimately play in outcomes in colorectal surgery, the literature does provide some validation as to our findings regarding preference. While this study was not undertaken to prove that outcomes in colorectal surgery are superior when gender concordance is achieved, this study highlights the preferences of colorectal patients and provides data to support departmental gender diversity. In this current healthcare climate, which includes departments vying for shares in competitive markets and public reporting of the patient experience, one cannot underestimate the importance of accommodating patient preferences, especially when it pertains to problems of a sensitive nature. Furthermore, diversity can not only facilitate the provision of culturally competent care, but also catalyze innovation and stimulate productivity.[17] Creating departments which are diverse in terms of gender, as well as race, ethnicity and experience, is important to promote and maintain trainee interest in the surgical specialties. Strong mentorship and positive role modeling have been given as reasons for pursuing a career in colorectal surgery.[18] Indeed, since 2008, the percentage of active general surgeons who are female has increased steadily, from 13.6% to 20.6% in 2017.[19,20] Colorectal surgery specifically is drawing an increasing number of women into the specialty. Female surgeons represented 21% of the membership of the American Society of Colon and Rectal Surgery in 2017, and currently over 40% of the trainees in colorectal fellowships are female.[21] Continuing to attract new surgeons so that the field continues to grow will ensure that we, as a colorectal community, can accommodate the complex psychosocial needs of the patient population when it comes to sensitive and private health issues.

Despite the emphasis on gender, this study also demonstrated that for the majority of new patients in this study, the most influential factor for scheduling an appointment was a referral or recommendation to a particular surgeon. This finding is corroborated by a 2015 systematic review of factors that patients use in choosing their surgeon. In that study also, both surgeon reputation and hospital reputation were deemed most important factors overall.[22] For choosing a cancer surgeon in particular, surgeon reputation and competency were incredibly influential. Although this study did not overtly ask patients to assign a hierarchy to their scheduling preferences, we might propose the following theory regarding the psychosocial interplay between surgeon experience/reputation and gender: the gender of a surgeon is most important to patients when the complaint is private/sensitive in nature and not life-threatening. When the disease is perceived as gender-neutral by the patient (benign or malignant intra-abdominal processes, for example), referral, likely as a surrogate for experience and trust from the community, takes precedent.

There are several limitations to this study. First, there is the possibility that not all new patient calls were captured, or that selection bias was introduced because patients who requested based on gender were preferentially recorded. However, the two week practice period was done to minimize this possibility and maximize data capture. Another way of handling this may have been to introduce a common script amongst schedulers. However, we did not seek to change the departmental standard for scheduling or schedulers' workflow for this study, as they handle a considerable volume of calls per day, not just for scheduling. Second, our data collection period of 3 weeks is relatively short, therefore limiting our sample size. While extending the study may have provided a better understanding of gender preferences and provided statistical power, we felt the need to minimize burden on the schedulers (avoid "recording" fatigue) and thereby minimize any selection bias that may ultimately be due to missed data collection opportunities. An amount of time was chosen that attempted to maximize the accuracy of our results. Finally, as all of the schedulers were female, there may have been a component of social-desirability bias introduced. For instance, perhaps female patients would be more comfortable expressing the desire to see a female provider from a female scheduler.

In order to overcome some of these limitations, future studies on this topic might seek to record and transcribe all new patient

scheduling calls. Using this method, a formal thematic analysis could be performed in which the relative weight of gender preference on scheduling could be elucidated. In addition, the study could be performed over an extended period of time to achieve an adequate sample size. Finally, given the prior literature which suggests that gender preferences exist for colonoscopy, capturing this information may add another dimension to the analysis and a better understanding of patients' needs and desires across the breadth of colorectal care.

Conclusions

A considerable percentage of patients request a surgeon of a specific gender when seeking treatment for anorectal disease. The majority of patients who request a specific gender surgeon are female. This study highlights the sensitive nature of the problems treated by colorectal surgeons, and quantifies an underlying assumption that some patients, especially female patients, may feel more comfortable being treated by a surgeon of the same gender. Departments should be mindful of the complex psychosocial needs of some colorectal patients and strive to diversify accordingly in order to create safe environments for the optimal delivery of patient-centered care.

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Declaration of competing interest

None of the authors have any conflicts of interests to disclose. There was no financial support provided for this study.

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