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Review Article

Insight for Gender Discrimination and Inhibition in Medicine: Challenges and the Way Forward

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Abstract

The part of female medical graduates in medical schools has been increasing during the past several years, as has the sum of women practicing medicine and other specialties worldwide. Despite their shared desire to work in interventional professions such as surgery and gastroenterology (GE), women remain significantly underrepresented in these professions. A survey was distributed to female patients who were waiting on appointments for basic care at four sites as part of an American study. International reports state that women make up 13% of GE consultants and roughly 25–30% of GE fellows. Of those surveyed, 43% said they would choose a woman endoscopist, 87% said they would give time lag of 30 days for one, while 14% said they would be willing to pay more for one. A multicenter, cross-sectional study carried out in three Pakistani tertiary care facilities. Of the patients who showed favoritism for a particular gender, 707 (65.6%) were willing to wait an average of 7 days for an endoscopist of that gender, and 511 (72.3%) were not. In addition to the previously mentioned obstacles, programs that cater to the female community should take consistent gender choice for an endoscopist into account as an obstacle to screening. Women's compliance with colonoscopy may be increased by the endoscopist's gender preference.

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Introduction

Gender disparity is well-defined as the unsuitable or unequal attitude and manner towards a specific gender that affects their working abilities.[1] Even as the world is opting to a more unorthodox approach towards gender roles, gender discrimination can still be seen in different professions and fields especially in healthcare. Even in leadership roles, women still have to deal with gender bias.[2] Female doctors of developed countries like Japan, the UK and the USA also face gender bias.[3,4] When compared with developed countries, the effects of gender disparity are more worrisome in developing countries particularly Pakistan, which in the World Economy Forum's Genetic Gap Report 2021 has been placed on 153rd position out of 156 on the gender parity index.[5] It has been demonstrated that women patients in several specialties prefer female doctors.[6] It has recently come to light that female patients prefer female endoscopists and that the sex of endoscopists can affect therapeutic outcomes in addition to satisfaction and adherence.[7] A patient's choice of physician is swayed by a variety of intricate and multifaceted factors, and as more women enter the medical field, the gender of a provider has become increasingly significant. A lot of patients express their liking to be treated with a healthcare professional of the same gender, especially when receiving personal exams in specialties like gynecology or urology, gastroenterology.[8,9,10]

Numerous studies have examined patients' preferences for a doctor of the same gender when it comes to uncomfortable and intrusive exams, especially in the fields of urology and gynecology, gastroenterology. For a colonoscopy, approximately 50% of women preferred a female doctor, according to endoscopic studies conducted 20 years ago; recent study data has shown that the percentages can range from 30% to 90%. Research has indicated that the gender of the endoscopist can affect women who were previously reluctant to engage in colorectal cancer screening programs and can affect program compliance. Research indicates that female endoscopists are preferred by female patients who are awaiting a lower endoscopy. Women patients who like female doctors have been linked to more frequent screening procedures for female patients in various medical

specialties. Patients of female physicians are more likely than those of male physicians to have breast and cervical cancer screenings, according to data from the gynecologic and primary care literature. This could be a result of feeling less embarrassed during the pelvic exam from a doctor who respects gender equality. Having a woman doctor do the flexible sigmoidoscopy technique may lessen the embarrassment that female patients experience from the operation. Thus, the femininity of the endoscopist could be a barrier to colonoscopy.

There is evidence in other medical specialties indicating a preference for female physicians. According to the most recent studies published in the gastroenterology literature, between 30% and 48% of female endoscopists want to be female. Instead of taking place in a primary care background, these trials were conducted while patients were waiting for endoscopy and mammography. In addition to the previously mentioned obstacles, programs that cater to the female population should take consistent gender preference for an endoscopist into account as a obstacle to screening. Women's adherence to colonoscopy may rise if the endoscopist's gender is chosen.

Methodology and Results of some studies:

A survey was distributed to female patients who had been waiting on appointments for basic care at four sites as part of an American study. Patients discussed their sociodemographic details, practices with colorectal cancer (CRC), obstacles to CRC screening, the gender preference of their doctor, the significance of this preference, and the rationale behind it. The study's findings indicate that 202 female patients with ages ranging from 40 to 70 (mean 53 years) finished the questionnaire. 43% of those patients said they would rather have a female endoscopist, 87% of them said they would wait 30 days for one, and 14% said they would pay extra for one. Embarrassment was cited as the primary cause of this gender preference in 75% of cases. Predictors of preference for a female endoscopist included the gender of the primary care physician (PCP), younger patient age, current job, and no prior history of colonoscopy. These findings were obtained using univariate analysis. Multivariable analysis revealed that only the female PCP's gender (OR 2.84: 95% CI[1.49, 5.40]) and work (OR 2.4: 95% CI[1.23, 4.67]) were positively correlated with the desire for a woman endoscopist; 5% of respondents said they wouldn't have a colonoscopy unless they could be assured of a female endoscopist. PCP endorsement was the only independent factor linked to screening adherence (OR 2.93: 95% CI[1.63, 5.39]).

Three tertiary-care facilities in Pakistan participated in a multicenter cross-sectional research study. Patients who had appointments for elective outpatient colonoscopies or upper endoscopies in succession were asked to fill out a questionnaire both before and following the procedure. The information gathered covered the following topics: gender preference, procedure type, occupation, education level, and patient demographics. The information gathered covered the following topics: gender preference, procedure type, occupation, education level, and patient demographics. A total of 1078 patients completed the survey (43.5 ± 15.8 years; 53.2% males). Upper endoscopy was the most frequent procedure, performed in 84% of patients. Gender partiality was expressed by 707 (65.6%) patients, of which 511 (72.3%) were willing to wait for an average of 7 days for an endoscopist of the preferred gender. Male patients' preferences (45.1% male endoscopist, 17.1% female endoscopist, 37.8% no preference) differed from female participants (16.9% male endoscopist, 52.6% female endoscopist, and 30.5% no preference), $p < 0.00001$. No education was associated with having a gender preference (odds ratio [OR] 0.55; 95% confidence interval [CI], 0.37-0.81; $p = 0.003$). Reasons for gender partiality included religious values and family conflicts, which were more frequently expressed by females ($p < 0.0001$).[11,12]

Starkey M et al. demonstrated From 2009-2019 the number of women gastroenterology fellows increased by only 3.3%. Gastroenterology continues to have significantly lower female representation than other specialties over the last decade.[13]

Discussion

Women's representation in science and medicine has slowly increased over the past few decades. However, this rise in numbers of women, or gender diversity, has not been matched by a rise in gender inclusion. In Gastroenterology female endoscopists are often preferred by female patients, and this inclination is said to be strong enough to cause delays and personal costs. Five percent of the women in this subgroup who were surveyed said it was an absolute obstacle to endoscopy. To solve this problem and boost female patients' involvement in CRC screening, primary care settings need to implement interventions.

Due to the expectations placed on them at home as they reach childbearing age, female gastroenterologists are facing a growing number of burnout cases, while after February 2020, when the coronavirus disease 2019 pandemic began, this problem has gotten worse. In addition to endangering their safety, medical professionals' burnout negatively impacts patient treatment and the sustainability of healthcare systems. According to a systemic study, interventions can reduce burnout by around half and highlight managerial, fundamental, and personal approaches for addressing the issue of burnout. Furthermore, probably because of surgical procedures, the milieu surrounding endoscopic treatments is changing. In other

words, gastrointestinal (GI) endoscopy is one of the medical specialties where artificial intelligence (AI) is rapidly advancing. The emergence of neural networks based on convolution as a class of techniques for deep learning has the potential to transform GI endoscopy, including esophagogastroscopy, colonoscopy, and capsule endoscopy. In the years to come, this might also have an impact on the gender issue in endoscopy. Given this context, a brief review of the impact of gender and sex on endoscopy was conducted from the viewpoints of gastroenterologists and patients.[14]

Most endoscopic treatments are intrusive and demand physical strength, which presents a difficulty for both male and female gastroenterologists. Because of the differences in their bodies and the features of endoscopic equipment, female gastroenterologists may occasionally experience more severe endoscopy-related injuries (ERIs). Endoscopes are often produced in a single kind, and smaller hands may not be able to fit them. In addition, women typically have lower muscular mass, and excessive progesterone during pregnancy results in ligament and joint stiffness, which may induce ERIs.[15]

Patients' metrics, including adherence, fulfillment, and follow-up, as well as clinical outcomes, might be impacted by the sex and gender of endoscopists.[13,14] This is often discovered during an invasive colonoscopy, where the fiberscope is placed inside the rectum. When selecting endoscopists, female patients are more likely than male patients to take gender into account and prefer female doctors. Surgical specialties as well as medical specialties, including gastroenterology, have seen similar circumstances.

The intrusive nature of gastroenterological treatments can occasionally cause shame and even dread, which can act as an obstacle to receiving care. Regarding gender preference and endoscopy, seven multinational studies revealed some important conclusions. A gender preference for the endoscopists was indicated by 22% to 70% of the surveyed female individuals, whereas a gender concordant preference was held by 56% to 96.8%. The main underlying factor that contributed to the desire for female endoscopists was embarrassment, particularly during colonoscopy. This was followed by perceptions of their personalities as "more kind," "more careful," and "more sympathetic.".

It is commonly known that gastroenterologists have a significant risk of developing endoscopic-related infections (ERIs). This risk is mostly attributed to prolonged standing, the constant and repetitive usage of muscles, tendons, and joints, as well as the adoption of uncomfortable positions during difficult endoscopic maneuvers. According to the largest survey on ERIs, which included 1,698 physicians, both genders had common musculoskeletal injuries (MSIs). Effective tactics are required in the following ways, among others: First, attention should be given to physical injuries such as MSI, which are linked to the number of colonoscopies performed. To achieve gender equity in the field of gastroenterology, more tactics are required. These have to include establishing procedures and policies against harassment and discrimination, promoting fair advancement and promotion procedures, and offering open and equitable pay practices.

A more flexible working environment should be encouraged. Female physicians often need to adjust in their professional choices and roles to accommodate their personal roles as caretaker of their families. Some abandon the field of gastroenterology because of the lack of opportunities to strike a sustainable work and family life balance. The crises of 2020 have illustrated that medicine can support alternative methods and flexible schedules for patient care and scholarly activities. In addition, bold steps are needed to address pregnancy planning in the context of extended years of training, implement fair parental leave policies, and ensure endoscopy unit safety and ergonomics, to make gastroenterology an inclusive career for women. To better support female endoscopists, health systems should implement policies that allow for flexible work schedules, job sharing, on-site daycare, and partner hiring.

Career unhappiness is linked to female endoscopists' heavier household responsibilities compared to their male counterparts. Even with the current coronavirus illness pandemic, female endoscopists continue to handle more household chores and childcare than their spouses, despite recent shifts in thinking and societal trends. In some way, society and the government must actively intervene to address these persistent historical concerns. There is no distinction when it comes to gastrointestinal endoscopy, especially colonoscopy, where patients' preferences for the gender of their endoscopist have been documented to range from 14% to 53%. A recent Korean study suggests that gender preference has increased over the previous ten years.

Knowing patients' religious and cultural expectations can help healthcare providers better meet the requirements of our increasingly diverse patient populations and achieve better patient satisfaction, compliance, and results. This was Unusual for non-Muslim patients; a sizable portion of patients indicated a preference for the gender of their endoscopist. Muslim patients, both male and female, indicated that they preferred endoscopists of the same gender. Patients' preference for one gender over another was substantially higher in those without any schooling. Comprehending patients' cultural and religious beliefs can foster a more comprehensive setting that could decrease procedure aversion and eventually result in better patient outcomes. We are set not

only to benefit our profession on this path, but also the patients we strive to treat.

Conclusion

The proportion of female medical graduates in medical schools has been rising over the past few decades, as has the number of women practicing medicine and other specialties worldwide. Despite their shared desire to work in interventional professions such as surgery and gastroenterology (GE), women are still disproportionately underrepresented in these fields. International reports state that women make up 13% of GE consultants and roughly 25–30% of GE fellows.[16] In the field of GE, women encounter particular difficulties as practitioners as well as patients. Women's lack of progress in GE training can be attributed to a variety of causes, such as childrearing, patriarchy, self-advocacy, insecurity, and part-time employment. A strong mentoring program, a dearth of female role models, long and demanding work hours, a work-life imbalance, the risk of radiation exposure during childbearing age, and other issues all prevent women from enrolling in GE advanced training.[17]

Furthermore, a lot of women begin their careers hoping to hold leadership positions, yet only 25% of them receive offers to work in higher positions like department chairs or full-time professors. The last aspect is particularly significant since there has been a considerable correlation between the proportion of female interventional faculty members and the number of female interventional graduates; the strongest correlation was observed in programs with female endoscopic directors. During Digestive Disease Week (DDW) 2019, Sethi et al. presented data showing that if the program director or co-director is a woman, the percentage of women in that fellowship program is significantly higher (4.26 vs. 3.36, $p = 0.041$). Furthermore, the gap increases much more if a woman leads any department (4.04 vs. 2.87, $p = 0.007$).

Women in gastroenterology fill an important role that is irreplaceable and underappreciated. They provide comfort to patients who seek out female gastroenterologists from office visits to colonoscopy procedures. Numerous studies have documented women's preference for the gender of medical providers, particularly when it comes to endoscopy.[18] About 5% of women in one study would absolutely decline colonoscopy unless they were sure it would be performed by a female physician,[18] and this preference may be increasing for office visits as well as endoscopic procedures.[19,20] It is also important to keep in mind that certain religious and cultural groups require same-gender caregivers. Therefore, having more women practicing gastroenterology could help bridge the colorectal cancer screening gap, where approximately one fourth of adults in the United States have not been screened as recommended.[21,22] A diverse patient population also benefits from caregivers that are just as diverse, and multiple studies have found that, as the diversity of healthcare professionals increases, health outcomes improve.[23,24]

The College of Physicians and Surgeons (CPSP) data (2019) indicates that there has been an increasing tendency of women to apply for GE training positions, which were previously believed to be solely for male physicians.[14] Perhaps those female trainees will advance to become supervisors and consultants, which will eventually result in an increase in the number of gastroenterologists in practice throughout our nation. The gender gap in GE should be reduced, if not eliminated, by promoting and advocating for gender equality, offering sufficient mentorship programs to female residents who choose to specialize in GE, and further encouraging them to pursue advanced endoscopy as a subspecialty by giving them access to flexible training programs. In Pakistan, where the overwhelming population is Muslim, many women prefer to see doctors of the same gender for medical issues and procedures like colonoscopies due to cultural traditions. It will be fascinating to see if the current glass ceiling is broken by the growing trend of women in GE in Pakistan. Increasing female representation in leadership positions is one of the initial steps in alleviating gender disparity in the healthcare system as this will not only make the workplace environment healthier for other female doctors but these female leaders will also become role models for younger female medical students. This will encourage female doctors to chase competitive medical fields like surgery, cardiology and gastroenterology and will encourage them to become more career-oriented. However, regardless of gender, organizations, and institutions should choose expert leaders only based on their skills and competence.

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