

# Perceived Barriers to Professional Equality Among Women in Gastroenterology

Emma Jones<sup>1</sup>, Sowmya Sharma<sup>1</sup>, Courtney Heisler, MSc<sup>1</sup>, , Noelle Rohatinsky, PhD<sup>2</sup>, Kerri Novak, MD, FRCPC<sup>3</sup>, , Yvette Leung, MD, FRCPC<sup>4</sup>, Sharyle Fowler, MD, FRCPC<sup>2</sup>, Melanie Kaczur, MA<sup>5</sup>, Jennifer Jones, MD, MSc, FRCPC<sup>1,6</sup>

Correspondence: Jennifer Jones MD, MSc, FRCPC, Victoria Building, QEII Health Sciences Center, 1276 South Park Street, Halifax, Nova Scotia, B3H 2Y5, Canada, e-mail: jljones@dal.ca

#### **ABSTRACT**

Although significant progress relating to professional equality among men and women in medicine has been made over the past few decades, evidence derived from the medical literature suggests that inequity persists with respect to income, attainment of leadership positions, and professional advancement. These inequities have been observed to be more pronounced in gastroenterology. Literature relating to gender-specific barriers to professional equity in gastroenterology is limited. This qualitative study explored perceived barriers to professional equality among women in gastroenterology in Canada through focus groups using a World Café Approach. Several perceived barriers to professional equality were identified. Identification of barriers to professional equality is an important first step to creating meaningful interventions that address the root causes of gender-related inequity in gastroenterology.

Keywords: Equity, Gender equality, Women in medicine

# INTRODUCTION

Women in medicine continue to encounter multiple barriers to achieve gender equality in the workplace including pay inequity, underrepresentation in higher leadership positions, and overrepresentation in lower paid specialities. Income disparity has been a well-documented phenomenon in the field of medicine (1-4). Wages for physicians can either be derived from a fee-for-service (FFS) model, an alternative payment plan (APP), or a combination of both. The Ontario Medical Association (OMA) published data in 2020 demonstrating that women made up less than 35% of the physicians in the ten specialities with the highest gross and net incomes (5). In contrast, women were overrepresented in the three specialities with the lowest estimated net incomes; family medicine, psychiatry, and pediatrics. When FFS physician level data were collected in Ontario, an income gap was once again demonstrated with females claiming 74% of what males claimed, with differences in claims observed within all specialities (6). The root causes of the income gap, are likely multifactorial. One factor has been described as the 'motherhood penalty', which penalizes women for having children, in turn benefiting male physicians through promotion and higher pay (7). Some physicians argue women should be paid less because having children results in fewer hours worked. However, even without children, women are still getting paid and promoted less than men (8). Female physicians tend to do more work that has historically been undervalued spending more time per patient in FFS models (9). In procedural specialities, there is pay inequity for feminized procedures, with the example of vulvar biopsies and vulvar abscess incisions being reimbursed at a significantly lower rates than for a scrotal abscess or penile biopsy (5). Women may also unintentionally work more hours because they were more likely to be paged or asked questions after hours due to patient requests, when compared with their male counterparts (10).

Female representation in leadership positions continues to be disproportionately low. As of 2017, only 16% of U.S. medical school deans, 15% of department chairs, and 21% of medical professors were female (11). Male and female representation in these roles has an influence on trainee representation with evidence suggesting that the presence of a female in any leadership position leads to an increase in the number of female trainees (12). Ruzycki et al. assessed the proportion of female speakers at Canadian and U.S. conferences over a 10-year period (2007 to 2017) and found 24.6% female representation in 2007 and 34.1% in 2017 (13). Speaking at conferences represents an important opportunity to accelerate academic careers and representation in leadership

<sup>&</sup>lt;sup>1</sup>Division of Digestive Care and Endoscopy, Department of Medicine, Dalhousie University, Halifax, Nova Scotia, Canada;

<sup>&</sup>lt;sup>2</sup>College of Nursing, University of Saskatchewan, Saskatoon, Saskatchewan, Canada;

<sup>&</sup>lt;sup>3</sup>Department of Medicine, University of Calgary, Calgary, Alberta, Canada;

<sup>&</sup>lt;sup>4</sup>Department of Medicine, University of British Columbia, Vancouver, British Columbia, Canada;

<sup>&</sup>lt;sup>5</sup>Canadian Hub for Applied and Social Research, University of Saskatchewan, Saskatoon, Saskatchewan, Canada;

<sup>&</sup>lt;sup>6</sup>Department of Medicine, Dalhousie University, Halifax, Nova Scotia, Canada

positions. Culture differences may also act as a barrier (14) and both males and females can convey implicit bias. Both males and females were more likely to attribute hireability, competency, and worthiness of a higher starting salary to a male name versus a female name (15). In a study estimating implicit gender bias among health care professionals and surgeons, both women and men were more likely to associate males with having careers and females with having families (16). Although some individuals feel that gender issues have been 'over-emphasized' (17), these perceptions continue to foster inequity in the workplace.

Females still comprise of only 30% of the Canadian gastroenterologist population (18). Only 29% of female gastroenterologists held senior faculty positions compared to 50% of their male colleagues (19,20). Males were listed as comprising 86% of division chairs, 82% of division chiefs, 76% of program directors and 63% of associate program directors (12). Forty-three per cent of Gastroenterology programs did not have female representation at any leadership level. Female gastroenterologists were more likely to report having to choose between their family and their careers, often being required to tend to childcare and maternity needs (18,20). Female gastroenterologists were also found to be less likely to have children than male gastroenterologists (18).

It is critical to hear directly from women in gastroenterology (GI), including physicians, research staff and nurses, who can offer first-hand insight about their experiences and potential solutions for addressing barriers to equality. The inclusion of non-physicians in this world café presents an opportunity to understand experiences and perceptions that may be somewhat unique to non-physician community members that would be overlooked if only women physicians were included. Awareness of persistent inequity experienced by women may encourage institutions to address and improve upon policies and facilitate the development of solutions which ultimately will benefit the field of medicine, patients, and society as a whole.

# Purpose

The purpose of this study was to identify perceived barriers to equality among women in gastroenterology in Canada.

#### **METHODS**

#### Research Design

This study used an exploratory, qualitative descriptive design (21,22). The goal of qualitative description is to describe the experiences and perceptions of participants (23). A World Café approach to engagement was applied (24,25). This Café consisted of three mini focus groups, each of which discussed a separate phenomenon after prompting with a single, open-ended question. The following questions were posed to the focus groups:

- 1) How do you define 'gender equality'? What are some gender gaps or gender inequalities you have seen/experienced?
- 2) What do you think are the biggest barriers to gender equality in the workplace, in medicine? In gastroenterology?

### Setting and Sample

The setting for the data collection was Halifax, Nova Scotia in 2019. Gastroenterologists, nurses, and research staff who were women were recruited from eastern Canada using purposive sampling as those participants can provide in-depth information to achieve the study purpose. Participants from Atlantic Canada and Ontario were invited by e-mail. Participants were all female and included six gastroenterologists, two GI nurses, three GI research staff, and one trainee (gastroenterology resident). Both FFS and AFP remuneration models were represented among the physician participants. Participants attended an in-person, full day *Women in Gastroenterology* event. A World Café was structured within this meeting over two hours, with 90 minutes for discussion rounds and 30 minutes for a debrief following the World Café session.

### **Ethical Considerations**

All participants gave permission for the World Café to be audio-recorded and for thematic analyses to be conducted. All data were confidential, deidentified, and participants could withdraw at any time.

#### **Data Collection**

Data were collected in a small group format (four participants) to promote an effective and comfortable environment to foster dialogue. Three round table World Cafes were conducted with 12 total participants. Each question was explored by participant groups for 30-minute intervals. The questions were structured in an open-ended format with the intent to prompt a broad range of discourse among participants. Each station had a moderator to encourage conversation through additional non-biased prompts.

## Analysis

The audio files were transcribed, and the data were imported and analyzed in NVivo 12 Pro for Windows software in a password-protected file. The analysis followed Braun and Clarke's (2006) thematic analysis (26). First, the analyst familiarized themselves with the data by reading through the three transcripts and making notes of any interesting or prominent comments. Next, initial codes were created centered around the two main questions asked: (a) Observed or Experienced Inequalities and (b) Barriers to Gender Equality. The analyst met with the research team to discuss and review the initial codes. Theme names and definitions were finalized and relevant data excerpts were extracted. Larger thematic areas were broken down into sub-themes if they were multifaceted, with each sub-theme carrying enough weight to warrant its own node. High frequency themes/nodes do not necessarily correspond to a more prominent or important theme. The analyst was not part of the research data collection to reduce potential biases of the data interpretation.

# **FINDINGS**

Following an iterative process that involved reading through the data, a finalized version of themes and sub-themes was created.

# Observed or Experienced Gender Disparities

All respondents described, witnessed, or experienced gender disparities. The most common were unequal pay,

underrepresentation of female doctors in senior positions or specialties, and female physicians often being mistaken for a nurse or a member of an alternate historically feminized field in medicine. The sub-themes are expanded upon below.

# Unequal Pay

Nine participants discussed unequal pay as a gender inequality. Participants described learning from male colleagues that their (female) pay was considerably less. When females were asked why they did not negotiate for higher pay, many respondents expressed that they were unaware that they should be negotiating. Instead, they trusted their employer to be providing fair and equal pay. Several participants also described not knowing how to negotiate salaries or just feeling grateful for a position and not wanting to jeopardize that through negotiations.

"The head of the department said 'well you're going to earn this and this is going to be your salary"... I didn't even think about negotiating the salary... thought it was the same for everybody at the same level because we're providing the same service, we're working the same hours." (Female 1).

# Underrepresentation of Females in Senior Positions and Specialties

Nine participants described a smaller proportion of female physicians in senior positions or certain specialties. A few physicians mentioned that female medical students follow specialties that they're represented in, and as a result, certain specialties have a smaller proportion of women in them because they lack accessible female role models.

"Look at urology and it's mostly men and you look at cardiac surgery, general surgery... like there's just this inequality in certain specialties. So, there are just certain specialties that tend to- and it probably comes down to mentorship. Like that's who you follow, that's who you see, that's what you go into." (Female 2).

# Male Physicians more Likely than Female Physicians to be Assumed to Be in Role of Authority

Two participants described situations where a more junior male colleague was assumed to be a more senior physician than them.

"The patient would still focus the conversation on you know to the male resident... a presumed authority in that group. But when these episodes occur... one of my first thoughts is what did I do wrong you know to be perceived as... what do I need to change to you know in order to be perceived as in the proper role here?" (Female 1).

# Self-perpetuating Cycle of Same Gender Sponsorship

Two participants discussed situations in which female physicians were not afforded the same opportunities because male colleagues were often in positions of authority to select individuals for certain opportunities or committees. They often chose male colleagues. With fewer female physicians in more senior positions, there were fewer supportive individuals for female physicians in these departments.

# Patients Not Using Professional Title When Addressing Female Physicians

Two participants mentioned that patients would refer to them by their first or last name rather than calling them 'doctor' even after they had introduced themselves as 'doctor'. Both male and female patients did this but it was more common among male patients. This made participants feel less comfortable during clinical encounters due to the introduction of such informality. It was also perceived as a form of dismissal of their professional role.

"They have a different comfort level... I would say less than 50% of my patients refer to me as doctor... You know I would introduce myself as doctor to them... It takes a toll (Female 3).

### Barriers to Gender Equality

Participants identified a variety of barriers to gender equality. The most commonly described barriers included: clash of career and childrearing goals, women being discouraged from having an assertive personality, unequal division of household labor, and under-valuation of soft skills associated with female gender roles.

# Conflict Between Career and Childrearing Goals

Twelve respondents described experiencing a clash between their career goals and their child-rearing goals, often resulting in a delay having children, accepting less advancement at work, or feeling guilty when they cannot be present for their children as often as they would like. One participant described starting work before their children wake in the morning and not getting home until they are close to bed and how this evoked intense and continuous feelings of guilt. Others described the incompatibility of existing processes and structure of career and academic advancement and child rearing:

"When you start your medical career you're already at a stage where your clock [biologic and academic] is ticking... your best chance of starting off on an academic career is your first five years...after that the door is closed...it's too late..." (Female 3).

# Discouragement of Assertive Personality Traits

Ten respondents described that women were not encouraged to exhibit assertive personality characteristics and that when they did act assertively they were often perceived negatively by colleagues. It also was perceived that if they did not act assertively then others take advantage of them, such as in the case of salary negotiations.

"If you really start pushing for things well now you're pushy and is it okay to be pushy?... Generally [the message]...was that I need to, you know, cool down my assertiveness." (Female 5).

#### Devaluation of Gender-Associated Soft Skills

Eight respondents perceived certain soft skills traditionally associated with female gender roles, such as communication or empathy, were less valued than traditionally masculine skills. One participant stated that their male colleagues did not see the extra time they spent with patients as being of any value. At times they would be judged negatively for committing extra time to care for her patients. Another participant described spending more time with their patients and allowing them to ask more questions while some of their colleagues will end a clinical encounter without giving patient a chance to ask more questions or express concerns.

"... doing unpaid work of like rearing a child and things like that like it builds skills that people don't necessarily recognize like multitasking and caring and...males don't necessarily value the experience that you get from that... the skills that you build at home...and they don't think that's necessarily related to work because they're two separate things" (Female 4).

#### Unequal Division of Household Labor

Nine respondents described an unequal division of household labor. Women were expected to take care of raising children and performing household tasks. Participants frequently mentioned that their partner needed to be given a list and reminded of which chores or tasks needed to be completed rather than taking the initiative themselves. Additionally, participants felt that if their partner dropped their children off at daycare with a messy face, or dirty clothes, they (female not the male) would be the ones who would be judged for it.

"Many of us are also the CEO even if we can't be the CEO of our [jobs], we're all the CEOs of our families and the pay is not that great (Female 5).

"...in some interviews... men will talk about how they have small children and how they enjoy the time they spend with their small children and you can see how people respond that that is a sign of a committed well-rounded man. If a woman comes in for that interview and she's pregnant there's going to be a "hmmm" (Female 3).

# Exclusion of Women as a Negative Consequence of "MeToo" Movement

Seven respondents discussed the "MeToo" Movement and how it has, at times, resulted in their male superiors or colleagues refusing to work with them or have them on their committees or research projects because they are afraid of charges of inappropriate conduct. One mentioned how they have heard of male colleagues whose interactions with women have changed as a result of this.

"Obviously the "me too" movement is a good movement. But then there's also the fear that there is going to be a backlash. Are they going to be less comfortable taking on females...as a student?" (Female 3).

# Need for Women to Demonstrate Hyper-Competence

Six respondents indicated that women needed to demonstrate hyper-competence in order to keep up with men or not be judged on the basis of their gender. One mentioned that over the years that females can be physicians and "have it all" but that they just need to do it differently than their male colleagues. Another pondered the sacrifices female physicians in higher leadership positions had to make and how this has impacted their quality of life.

"I think you know there's still this perception that you're penalized for well you know if, if you're going to be a woman in leadership or in a position of authority that you have to demonstrate hyper competence, that any mistake you make is an immediate sign of lack of competence and probably a sign that maybe you shouldn't have been in this job you know to begin with." (Female 5).

# Hidden Impact of the Differences in Time Spent with Patients

Five respondents indicated that female physicians often have longer clinical appointments because patients feel more comfortable opening up to them and asking questions. Participants indicated that they were proud of this and proud of the quality of patient care they were providing, but felt that this extra effort was not something that was valued in their department's metrics and that they often missed out on other opportunities due to these longer appointments. One of the participants observed that their male counterparts move quickly through clinic appointments but indicated that they spend extra time with their patients because their patients feel more comfortable opening up to them without feeling too rushed.

"These clinics and the patients I've spoken to...the comment is I never feel rushed I never feel like she's looking at her watch even though she's behind whereas with other physicians it's like yeah, I didn't get a chance to ask this because I knew my time was up...they literally feel like the clock is being watched. Whereas with female counterparts they don't have that feeling...they're in a comfort zone." (Female 6).

# Low Participation of Men in Gender Equality Sessions

Four respondents indicated that it is difficult to educate men about gender inequalities because men are less likely to attend workshops, conferences, or discussions about gender inequality.

"Not only do we have to teach ourselves... both the language and the concepts but we have to make this available to men because they're still in positions of power. So, we had a, a session at [place] this past year a lunch time session about gender issues and gastroenterology and the speaker... gave an excellent, uh, presentation...27 people attended, um, 27 of them were women. (Female 5).

# Self-internalized or Limiting Beliefs About Gender Roles

Three respondents discussed that women may not choose to become doctors or may not specialize in certain areas because they hold internalized negative beliefs (consciously or unconsciously) about their own gender's capability and that these beliefs may in fact lead to reluctance to pursue advancement opportunities in the field of gastroenterology. This was further perpetuated in situations where female role models or mentors held these negative internalized beliefs and blamed women for the gender barriers they are facing. In one example, a participant discussed that when they went to a conference, they listened to a woman who said you just have to work hard to be able to make it to the top and to stop complaining.

"A lot of women might go around saying well I'm not good at math or I'm not a science person.... You know when they were six or seven and were told that that's not something girls are supposed to be good at. And eventually it becomes internalized until you don't spend as much time on it until it becomes a self-fulfilling prophecy and you are no longer good at math or no longer believe that I'm good at math" (Female 5).

# **DISCUSSION**

As the gender gap narrows in medical schools, it provides hope for equality in medicine. However, as this interactive World Café demonstrated, perceived gender disparities persist. Female physicians working in gastroenterology identified numerous perceived barriers, similar to those observed in all fields of medicine. However, there is extra burden carried by women in medical fields where they are underrepresented, especially when attempting to advance their careers or looking to leaders who will support them or that they can relate to. When perceived barriers, it is important to acknowledge that some perceived barriers are unique to sex-related constructs, such as pregnancy, as opposed to gender-related constructs such as gender identify (one's personal sense of one's own gender). Gender roles, the role or behavior learned by a person as appropriate to their gender as determined by prevailing cultural norms, are also distinct from sex-related and gender identify constructs as well and these constructs would be born in mind when interpreting the themes derived from this World Café. World café participants were likely speaking from their lived experience in all three domains.

The income disparity between men women was identified as an inequality and is in line with observations in other studies. Jagsi discovered that the mean salary for female physicians in higher-paying specialties (i.e., Gastroenterology) was at least 16% lower than the mean salary for male physicians (\$165,114 versus \$195,771) (27). In fact, this gap has been observed to be larger for all higher-paying specialty salaries in which men are overrepresented compared to specialties with moderate and lower-paying salaries (27). This study is consistent with the qualitative themes derived from the World Café discussion groups; income gap remains a prominent disparity in the medical workplace as participants expressed frustration that they never thought they should or could negotiate their salaries for increased pay which, in turn, could

further widen the income disparity between male and female physicians.

While increased assertiveness could assist with negotiation skills, participants perceived that they were penalized both for speaking up on issues and also for not saving anything at all. Female physicians either were discouraged or fearful of the negative repercussions of being assertive, likely due to the fact that this characteristic is not considered to be part of a woman's gender 'role'. The fear of being assertive may come from backlash from other colleagues. Kolemainen conducted a study about assertiveness and control in stressful situations (28). Both males and females in this study felt that both genders were great leaders, but more women were uncomfortable being outspoken because they felt they would be seen as 'bossy'. This study's results are congruent with those from the World Café themes and suggest that many female physicians may be hesitant about being assertive. Previous research has shown women to be judged more harshly for being more assertive than men (29). Leaders and mentors have a more difficult time evaluating female physicians on traditionally masculine traits, especially in work environments where men are overrepresented (30). Mueller found great variability in feedback when women were evaluated on their leadership skills making it difficult for women to learn from the critiques to improve leadership skills (30), whereas the evaluations of leadership skills for males were quite consistent. As a result, fewer females may be inclined to become mentors if they are uncertain about the strength of their leadership skills. Fassioto et al. has shown that female faculty in academic medicine experience conflict between stereotypes of being female (gentle, nurturing, communal), and stereotypes of leaders (independent, assertive, competitive) (31) with female leaders in medicine being likely to encounter these stereotypes in both subtle and blatant ways. Research has shown that tenure criteria from top-ranked medical schools frequently include words with stereotypically 'male' attributes versus 'female' or 'neutral' attributes (32).

In this World Café, female GIs felt conflicted between family and work obligations. In a longitudinal study of women in academic medicine, it was found that women face a greater burden of family and caregiving responsibilities leading to loss of opportunities for advancement and promotion in their careers, and therefore never 'catching up'to their male colleagues (33). Although more men are likely assuming traditionally feminine gender roles and potentially experiencing similar consequences for career trajectory, the majority of the literature to date suggests that women assume the majority of child rearing responsibilities. Jolly et al. using a nationwide postal survey of junior physician researchers demonstrated that women were more likely to have spouses who were employed full time versus their male counterparts (86% versus 45%) and that after adjustment for work hours, spousal employment, and other factors that married or partnered women spent on average 8.5 more hours per week on domestic activity (34). Participants in the current study felt forced into difficult decisions between advancing their career or becoming parents. Participants described the expectation that they take on most of the childrearing and household obligations, resulting in missed promotions, committees, and publications. According to another national survey, male surgeons were more likely to have their spouses do most of the childcare. As a result, those fields of medicine in which males are overrepresented have institutions that pay little attention to female physicians whose spouses work, leading to female surgeons spending more time on both their work and childcare (15,35).

Participants also felt disadvantaged with respect to academic advancement and leadership, in part because of the extra time that was spent with patients. Previous studies have shown that practice patterns do differ between male and female physicians and perhaps this, in part, could explain why female physicians often spend more time with their patients. Numerous studies have shown that female physicians are more likely to adhere to clinical guidelines (36-38), focus on preventive care (39-46), use more patient-centered communication (9,47,48), perform as well or better on standardized examinations (49), and provide more psychosocial counseling (9) to patients compared to male peers. In fact, although perceived as controversial by some, there are some data that suggest that these practice differences could translate into better outcomes for patients (50). Taken in its totality, these data suggest that female physicians may be disadvantaged in their current professional environment for these clinical practice styles, even though these styles are likely to have significant benefit to patients, the healthcare system, and society as a whole.

In 2020, Jawaid and colleagues demonstrated low female gastroenterology representation at all stages of gastroenterology career development (18). In particular, between 2018 and 2020 GI division heads at academic institutions have ranged from 0% to 13% and program directors from 29% to 36%. In the World Café themes, the lack of specialtyspecific female mentorship was identified as another barrier to leadership and career advancement. Holliday observed that female physicians in male dominated fields have more difficulty finding a female mentors (15). Many studies, including Holliday and Lopez, have demonstrated how men have more success with published papers because they occupy more senior positions and spend a longer period of time working on publications (15,51). Despite this, there has been little gender-based discrepancy observed in publication indices such as the h-index.

These studies do not capture the hyper-competence women feel they must exhibit to prove their abilities in higher leadership positions. As observed in the World Café themes, this includes working extra hours, sacrificing family time, and leaving little room for error. This is important to acknowledge because the focus is often on women losing time to childcare rather than on the extra time spent trying to overcome perceived gender weaknesses. These observed behaviors are the consequences of stereotype threat (ST). Social science research suggests that women's perceptions of their environments are influenced by ST: the anxiety faced when confronted with situations in which one may be evaluated using a negative stereotype, in this case, gender (52). Studies have found that women's performance suffers when reminded of their gender. ST can also result in selfattribution of failure, self-handicapping, and distancing oneself from the stereotyped group. In 2016, Fassiotti et al. conducted a cross sectional survey, using validated measures of vulnerability to and consequences of ST among 174 junior medical faculty (31). Women were demonstrated to be more vulnerable to ST, more sensitive to rejection, to have a lower sense of belonging, and to perceive lower relative potential, in comparison to their male colleagues (P < 0.05). While women reported lower levels of self-belief in career

advancement, they reported similar levels of career interest and identification as men. The authors of this study suggest that rather than suggesting the problem lies with 'women', that ST metrics suggest problems with the environment women are in and advocate for institutional interventions that enhance supportive environments for women such as diversity training, implementing work-life policies, conducting frequent salary reviews, or instituting double blind review processes in order to remove bias (31).

This is one of the first studies to facilitate an in-depth and granular perspective of perceived barriers to gender equality in gastroenterology among women in GI. The identification of these barriers will facilitate the development of interventions and solutions ranging from those implemented at an individual-level up to those at an institutional and policy level. The ultimate goal should be to achieve an equitable and fair environment so that all individuals, regardless of gender, can achieve their greatest potential to serve society.

Some limitations of this study included a limited sample size of participants of which only six were physicians. However, the objective was to understand perceptions of barriers to gender equality among females within the field of gastroenterology. Although including the perspectives of nurses and research staff in this field was very important it may have led to decreased generalizability of findings. The sample only consisted of eastern Canadian participants and may not be represent the perceptions of all women in GI. Although participants represented both APP and FFS remuneration structures, due to small sample size attributing the remuneration structure to the specific participant could risk identification. The ability to have done this would potentially have helped to the root cause for observed perceived disparity in income, when relevant.

### CONCLUSION

This study has revealed themes suggesting areas of inequity for professional women in gastroenterology, particularly female physicians. Many of the observed themes are congruent with research findings in other medical disciplines. The underrepresentation of female physicians in the field of gastroenterology is of particular importance since identified inequities are likely to be more pronounced and may predispose to higher attrition rates and societal loss of specialized skill sets. An in-depth understanding of these inequities from the perspective of those they affect is a necessary first step to developing and evaluating meaningful interventions aimed at leveling the playing field.

# Supplementary Data

Supplementary data are available at Journal of the Canadian Association of Gastroenterology online.

# **Funding**

None declared.

#### **Author Contributions**

E.J.: Study design, audio transcription, report writing. C.H.: Study design, World Cafe facilitation, data collection, report

writing. N.R.: Study design, report writing. S.F.: Study design, report writing.

M.K.: Qualitative data analyses, report writing. J.J.: Study design, World Cafe facilitation, data collection, report writing, project oversight.

### **Conflict of Interest**

K.N. and J.J. report advisory board fees from AbbVie, Janssen, Pfizer, Ferring; speaker's fees from AbbVie, Janssen Takeda; and research support from AbbVie, Janssen and Pfizer. Remaining authors have no relevant conflicts of interest to report

#### References

- Roy B. Gender pay gaps in medicine: moving from explanations to action. J Gen Intern Med. 2018;33:1413-4.
- Weaver A, Wetterneck T, Whelan C, Hinami K. A matter of priorities? Exploring the persistent gender pay gap in hospital medicine. J Hosp Med. 2015;10(8):486–90.
- Read S, Butkus R, Weissman A, et al. Compensation disparities by gender in internal medicine. *Ann Intern Med*. 2018;169:658–61.
- Glauser W. Why are women still earning less than men in medicine? CMAJ2. 2018;190:E664?5.
- Cohen M, Kiran T. Closing the gender pay gap in Canadian medicine. CMAJ. 2020;192(35):E1011–7.
- Tricco A, Bourgeault I, Moore A, Grunfeld D, Peer N, Straus S. Advancing gender equity in medicine. CMAI. 2021;16(193):E244–50.
- Sheehy A, Kolehmainen C, Carnes M. We specialize in change leadership: a call for hospitalists to lead the quest for workforce gender equity. *J Hosp Med*. 2015;10(8):551–2.
- 8. Reichenbach L, Brown H. Gender and academic medicine: impacts on the health workforce. *Br Med J.* 2004;329(7469):792–5.
- Roter DL, Hall JA, Aoki Y. Physician gender effects in medical communication: a meta-analytic review. J Am Med Assoc. 2002;288(6):756–64.
- Gold KJ. Women's work: why are women physicians more burned out? J Am Board Fam Med. 2020;33(3):351-4.
- 11. Kuhlmann E, Ovseiko PV, Kurmeyer C, et al. Closing the gender leadership gap: a multi-centre cross-country comparison of women in management and leadership in academic health centres in the European Union. *Hum Resour Health*. 2017;15(1):1–7.
- Sethi S, Edwards J, Webb A, Mendoza S, Kumar A, Chae S. Addressing gender disparity: increase in female leadership increases gender equality in program director and fellow ranks. *Dig Dis Sci*. 2021;67:357–363.
- Ruzycki S, Fletcher S, Earp M, Bharwani A, Lithgow K. Trends in the proportion of female speakers at medical conferences in the United States and in Canada, 2007 to 2017. *JAMA Netw Open*. 2019;2(4):e192103.
- Modra LJ, Yong SA. Towards gender balance in the Australian intensive care medicine workforce. Med J Aust. 2019;211(7):300–302.e1.
- Salles A, Awad M, Goldin L, et al. Estimating implicit and explicit gender bias among health care professionals and surgeons. *JAMA Netw Open*. 2019;2(7):e1965451–12.
- Holliday EB, Jagsi R, Wilson LD, Choi M, Thomas CR, Fuller CD. Gender differences in publication productivity, academic position, career duration, and funding among U.S. Academic radiation oncology faculty. *Acad Med.* 2014;89(5):767–73.
- Crolla EL, Bamforth MA. Gender and medicine: the challenges for medical educators. Med Educ. 2011;45(6):544–6.
- Jawaid N, Boctor M, Lomonaco J, Bollegala N. a139 Canadian gastroenterology career pathway experiences: a gender divide under examination. J Can Assoc Gastroenterol. 2020;3(Supplement\_1):160–1.
- 19. Diamond SJ, Thomas CR, Desai S, Holliday EB, Jagsi R, Schmitt C, et al. Gender differences in publication productivity, academic

- rank, and career duration among U.S. academic gastroenterology faculty. *Acad Med.* 2016;91(8):1158–63.
- Gupta M, Sasson AN, Targownik LE. Re-cherchez la Femme: a second look at women in gastroenterology in Canada. J Can Assoc Gastroenterol. 2020;3(2):55–6.
- Sandelowski M. Focus on research methods: whatever happened to qualitative description? Res Nurs Health. 2000;23:334–40.
- 22. Sandelowski M. What's in a name? Qualitative description revisited. *Res Nurs Health*. 2010;33:77-84.
- Neergarrd M, Olesen F, Sand Andersen R, Sondergaard J. Qualitative description the poor cousin of health research? BMC Med Res Methodol. 2009;9:1–5.
- 24. Löhr K, Weinhardt M, Sieber S. The "World Café" as a participatory method for collecting qualitative data. *Int J Qual Methods*. 2020;19:1–15.
- Brown J, Isaacs D, The World Cafe Community. The World Café: Shaping Our Futures Through Conversations that Matter. San Francisco, CA: Berrett-Koehler Publishers; 2005.
- Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006;3(2):77–101.
- Jagsi R, Griffith KA, Stewart A, Sambuco D, Decastro R, Ubel PA. Gender differences in salary in a recent cohort of early-career physician-researchers. *Acad Med.* 2013;88(11):1689–99.
- Kolehmainen C, Brennan M, Filut A, Isaac C, Carnes M. Afraid of being "Witchy with a 'B'": A qualitative study of how gender influences residents' experiences leading cardiopulmonary resuscitation. Acad Med. 2014;89(9):1276–81.
- Bowles HR, Babcock L, Lai L. Social incentives for gender differences in the propensity to initiate negotiations: Sometimes it does hurt to ask. Organ Behav Hum Decis Process. 2007;103(1):84–103.
- Mueller AS, Jenkins TM, Osborne M, Dayal A, O'Connor DM, Arora VM. Gender differences in attending physicians' feedback to residents: a qualitative analysis. J Grad Med Educ. 2017;9(5):577–85.
- Fassiotto M, Hamel EO, Ku M, et al. Women in Academic Medicine: measuring stereotype threat among junior faculty. *J Women's Heal*. 2016;25(3):292–8.
- 32. Marchant A, Bhattacharya A, Carnes M. Can the language of tenure criteria influence women's academic advancement? *J Womens Heal*. 2007;16(7):998–1003.
- Carr PL, Raj A, Kaplan SE, Terrin N, Breeze JL, Freund KM. Gender differences in academic medicine: retention, rank, and leadership comparisons from the national faculty survey. *Acad Med*. 2018;93(11):1694–9.
- 34. Jolly S, Griffith KA, DeCastro R, Stewart A, Ubel P, Jagsi R. Gender differences in time spent on parenting and domestic responsibilities by high-achieving young physician-researchers. *Ann Intern Med.* 2014;160(5):344–53.
- 35. Hamel M, Ingelfinger J, Phimister E, Solomon C. Women in academic medicine--progress and challenges. N Engl J Med. 2006;355(3):310–2.
- Kim C, McEwen LN, Gerzoff RB, et al. Is physician gender associated with the quality of diabetes care? *Diabetes Care*. 2005;28(7):1594–8.
- 37. Berthold H, Gouni-Berthold I, Bestehorn K, Böhm M, Krone W. Physician gender is associated with the quality of type 2 diabetes care. *J Intern Med*. 2008;264(4):340–50.
- Baumhäkel M, Müller U, Böhm M. Influence of gender of physicians and patients on guideline-recommended treatment of chronic heart failure in a cross-sectional study. Eur J Hear Fail. 2009;11(3):299–303.
- 39. Andersen MR, Urban N. Physician gender and screening: do patient differences account for differences in mammography use? *Women Heal*. 1997;26(1):29–39.
- Frank E, Dresner Y, Shani M, Vinker S. Preventive health practices. Can Med Assoc J. 2013;185(8):649–54.
- 41. Frank E, Harvey L. Prevention advice rates of women and men physicians. *Arch Fam Med*. 1996;5(4):215–9.
- 42. Franks P, Bertakis K. Physician gender, patient gender, and primary care. *J Womens Heal*. 2003;12(1):73–80.
- 43. Franks P, Clancy C. Physician gender bias in clinical decisionmaking: screening for cancer in primary care. *Med Care*. 1993;31(3):213–8.

- 44. Kruger J, Shaw L, Kahende J, Frank E. Health care providers' advice to quit smoking, national health interview survey, 2000, 2005, and 2010. *Prev Chronic Dis.* 2012;9(7):1–7.
- 45. Lurie N, Slater J, McGovern P, Ekstrum J, Quam L, Margolis K. Preventative care for women: Does the sex of the physician matter? *NEJM*. 1993;329(7):478–82.
- 46. Smith AW, Borowski LA, Liu B, et al. U.S. primary care physicians' diet-, physical activity, and weight-related care of adult patients. Am J Prev Med. 2011;41(1):33–42.
- 47. Bertakis K, Helms L, Callahan E, Azari R, Robbins J. The influence of gender on physician practice style. *Med Care*. 1995;33(4):407–16.
- 48. Krupat E, Rosenkranz S, Yeager C, Barnard K, Putnam S, Inui T. The practice orientations of physicians and patients: the effect of doctor-patient congruence on satisfaction. *Patient Educ Couns*. 2000;39(1):49–59.

- 49. Cleary M, Hayter M, Horsfall J, et al. Learning in practice systematic review of the literature. *Acad Med*. 2002;324(4):748–59.
- Tsugawa Y, Jena AB, Figueroa JF, Orav EJ, Blumenthal DM, Jha AK. Comparison of hospital mortality and readmission rates for medicare patients treated by male vs female physicians. *JAMA Intern Med*. 2017;177(2):206–13.
- 51. Lopez S, Svider P, Misra P, Bhagat N, Langer P, Eloy J. Gender differences in promotion and scholarly impact: an analysis of 1460 academic ophthalmologists. *J Surg Educ*. 2014;71(6):851–9.
- 52. Steele MM. Leading high reliability schools: The effects of organizational mindfulness on collective efficacy. 2009. Available from: http://ezproxy.library.dal.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2009-99091-031&site=ehost-live