Surgical culture in transition: gender matters and generation counts

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Background: We sought to study the impact of the change in gender balance and the shift in generational beliefs on the practice of surgery.

Methods: We used in-depth, individual, semistructured interviews to explore the ideas, perceptions and experiences of recently recruited academic surgeons regarding the role of gender and the influence of the changing attitudes of this generation on the work environment. All the interviews were audiotaped and transcribed verbatim. The data analysis was both iterative and interpretative.

Results: Nine women and 8 men participated in the study. All participants stated that departmental expectations regarding their performance as clinicians and as academics were not influenced by gender. However, further exploration revealed how gender did influence the way they sought to balance their personal and professional lives. Women in particular struggled with attaining this balance. While maternity leave was endorsed by both men and women, the challenging logistics associated with such leave were noted. Our data also revealed a generational shift among men and women in terms of the importance of the balance between their personal and professional lives. Participants saw this priority as radically different from that of their senior colleagues.

Conclusion: Gender and the shift in generational attitudes are changing the culture of academic surgery, often described as the prototypical male-dominated medical environment. These changes may reflect the changing face of medicine.

Contexte : Les changements générationnels observés sur le plan de la répartition hommes:femmes et sur le plan des attitudes exercent un impact sur la pratique de la chirurgie et nous avons voulu mesurer cet impact.

Méthodes : Nous avons utilisé des entrevues de fond individuelles semi-structurées pour explorer les opinions, les perceptions et les expériences de chirurgiens frais émoulus des universités quant à l'influence exercée sur le monde du travail par les changements qui touchent la répartition hommes:femmes et les attitudes de la présente génération. Toutes les entrevues ont été enregistrées et transcrites textuellement. L'analyse des données s'est faite de manière itérative et interprétative.

Résultats : Neuf femmes et 8 hommes ont participé à l'étude. Tous les participants ont affirmé que les attentes départementales à l'endroit de leur rendement en tant que médecins et en tant qu'universitaires n'ont subi aucune influence de leur appartenance à un sexe ou à l'autre. Toutefois, une analyse plus approfondie a révélé en quoi l'appartenance à l'un ou l'autre sexe exerçait une influence sur la recherche de la conciliation entre vie personnelle et professionnelle : les femmes luttaient plus particulièrement pour atteindre cet équilibre. Le congé de maternité recevait l'aval des hommes autant que des femmes, mais les répondants ont mentionné les défis logistiques qui lui sont associés. Nos données ont aussi révélé une distinction générationnelle entre les hommes et les femmes pour ce qui est de l'importance de l'équilibre entre les dimensions personnelles et professionnelles de leur vie. Les participants ont accordé à cette priorité une importance radicalement différente comparativement à leurs collègues plus âgés.

Conclusion : Les changements générationnels de la répartition hommes:femmes et les changements d'attitudes modifient la culture de la chirurgie dans les établissements universitaires, souvent décrits comme un environnement médical surtout dominé par les hommes. Ces changements pourraient modifier le visage de la médecine.

Two distinct but interrelated phenomena are currently impacting the practice of medicine: the shift in gender balance and the changing expectations of the present generation regarding the importance of work and family life. Although many more women are studying medicine, certain disciplines have been slow to reflect this change, perhaps owing to the culture of the specific area of practice. While the percentage of women choosing a surgical career is increasing, the numbers remain low, particularly in academic surgery.[1–3] Over the last 2 decades, there has been a growing interest in the challenges faced by female surgeons.[1,2,4–8] Studies have examined the deterrents to choosing a surgical career as well as the barriers, such as a lack of mentors, childbearing and child care, workload and lifestyle issues, to women pursuing an academic position in surgery.[1,2,6–9] Furthermore, female surgeons consistently report the challenges they encounter in balancing the demands of their personal and professional responsibilities.[1,5,10,11]

The era that defines one's generation is associated with specific behaviours, attitudes and expectations. Generation X, which includes individuals born between 1965 and 1981, represents many of the young physicians who are commencing their medical practice. Characteristics often attributed to Generation X include an expectation to work hard but not at the expense of family, friends or personal growth; a desire for autonomy; and loyalty to themselves versus an organization or institution. They also seek flexibility and portability in their career paths and are up to date with the latest technology.[12–19]

While editorials comment on the potential impact of the current generation of young physicians on the practice of medicine and surgery specifically, empirical research on this issue is scant.[12–15] In a mixed methods study examining generational differences among internal medicine physicians, the qualitative findings revealed that Generation X physicians were less committed, whereas the quantitative survey data found few differences between the attitudes of Baby Boomers and the Generation X physicians toward patient care and work–life balance. The notable difference was that the younger physicians worked significantly longer hours than their senior colleagues.[16]

In contrast, recent policy decisions have regulated resident duty hours; hence the decrease in hours likely reflects both the attitudes of this current generation and the externally imposed guidelines.[17,18] The literature also suggests that as Generation X physicians assume academic positions in medical schools, a shift in priorities may influence the culture of the institution.[19]

The issues of the gender balance in medicine and Generation X are not unique to the discipline of surgery. However, this specialty has historically been male-dominated and has been described as an environment that is "macho" in nature and in which long hours, at the expense of family time, have been the norm.[3,19]

The initial impetus of the present study was recognition of a substantial increase in the number of female academic surgeons recently recruited to the Department of Surgery at the Schulich School of Medicine and Dentistry, Western University. Departmental leadership had paid specific attention to increasing the number of qualified women candidates in the recruitment pool. In 2002, the department had 55 full-time clinical faculty. In the subsequent 7 years, 24 full-time faculty were hired with an equal distribution of men and women, bringing the total number of women in the department from 2 to 14. In a prior publication,[20] we reported the complexity of making choices as experienced by these new recruits as they tried to establish a balance between their personal and professional lives. The present paper focuses on how the new recruits perceived the change in the gender balance and how the different priorities of their generation influenced their attitudes and behaviours.

Methods

Participant recruitment

All recently hired faculty were invited to participate in this study via an email outlining the purpose of the study. Interested participants were contacted by the project coordinator, and a time and location for the interview was arranged. Western University's Review Board for Health Sciences Research Involving Human Subjects (review 16042E) approved this study.

Data collection

This phenomenological study used individual semistructured interviews to explore the participants' ideas, perceptions and experiences of the role of gender in negotiating the obligations in both their personal and professional lives. A phenomenological approach to inquiry provides an opportunity to examine the unique perspectives of the participants.[21,22]

Interviews were conducted by 1 of 2 researchers (J.B.B. or M.F.) and lasted 45–60 minutes. All the interviews were audiotaped and transcribed verbatim. The interview questions explored the role of gender in personal and professional roles and responsibilities as well as the participants' attitudes and experiences regarding parental leave.

Data analysis

In the initial phase of the analysis, all 4 of us independently reviewed each transcript to identify key concepts emerging from the data. We then met to compare and contrast our independent reviews, culminating in a consensus that informed the development of the coding template, which evolved over the course of the analysis. All the coded transcripts were input into NVivo 8 software

(2007).[23] We then met for further synthesis and interpretation of the themes using the techniques of immersion and crystallization.[24] Immersion involves researchers' complete engagement in the data, therefore sensitizing them to the tone, range, mood and context of the data during the analysis.[24] Crystallization reflects the ultimate synthesis of the central themes, as expressed by participants.

Theme saturation was achieved by the twelfth interview. The remaining interviews reinforced the emergent themes and conceptualizations of the data. Credibility and trustworthiness of the data were enhanced through verbatim transcripts, field notes generated after each interview, and independent and team analysis. Reflexivity, the awareness of the researcher's contribution to the construction of meanings throughout the research process, was promoted throughout the analysis. As we came from different backgrounds (1 doctoral-level researcher, 1 masters-level researcher and 2 academic family physicians), each of us reflected on the ways in which our own values and experiences shaped the interpretation of the data.

Results

Final sample

We invited 24 recently hired faculty to participate in this study. During the data collection, 2 potential participants left their academic positions, 1 declined for personal reasons and 4 did not respond to the email invitation, resulting in a final sample of 17 participants. The sample consisted of 9 women and 8 men who ranged in age from 32 to 48 (mean 38) years. The men and women were comparable in age. All participants were currently in committed heterosexual relationships. Of the 6 female participants with children, 4 had partners who were actively engaged in a professional career, whereas the 2 others had partners whose careers provided flexibility in assuming child care responsibilities. For the 6 male participants with children, their partners assumed the majority of child care and/or household responsibilities. Most of the participants' children were under the age of 4 years.

Participants worked in a broad range of subspecialties. Fifteen of the participants were at the rank of assistant professor. The 2 associate professors were men and had been affiliated with the department for the longest period of time. No specific information was obtained regarding publication and teaching records, yet all participants at the rank of assistant professor were preparing for promotion.

Participants were specifically asked whether departmental expectations for performance as clinicians and academics were different for women and men. While they explicitly stated that expectations were not informed by gender, it was apparent throughout the interviews that gender did have an influence in the workplace. Concurrently, what spontaneously emerged in the data was a generational shift in perceptions of the importance of the balance between personal and professional domains. The ways that participants set priorities and managed their time were perceived as different from those among their senior colleagues.

The influence of gender in the workplace

All participants definitively stated there were no differences in the departmental expectations of women and men recently recruited to the department. As one female participant stated: "I think everybody [who's] been recruited at the same time has the same expectations… I don't think there's any gender bias… at all." Male participants expressed an appreciation of the growing number of women in the department. "I think it's great to have a department that has more women. I think they'll make the department flourish, and [produce] better ideas." Some participants believed that change in the gender balance in the department would alter the culture of the organization. A female participant noted: "I think that culture will change as more and more women are doing surgery… and that's a good thing."

Yet, the women participants appeared to struggle more when obligations at work conflicted with childcare responsibilities. As a female participant described,

> If I want to drop my kids off to school, I skip rounds. I don't feel guilty about it anymore. I did at first. And then I gave myself permission to skip early morning department meetings, and I told [name] that. I said, "Those departmental meetings are not conducive to normal family living.

Another participant, not wanting to perpetuate the stereotype that women work less than men, expressed caution in sharing with her male colleagues when work and home responsibilities conflicted.

> I find, especially the older male surgeons, there is no concept of them doing any household stuff so they just schedule [rounds/meetings] and don't think twice about it. Whereas if it was me making the schedule I would [say] "Let's have the meeting at 3 p.m." [but] I probably would never say to my male colleagues … "I have to be home for the kids."

Maternity leave was endorsed by both men and women. As a male surgeon explained,

> The fact that with their child-bearing years and they have to take some time off, I think that as long as their colleagues are saying, "Well, that's fine," I totally support that.

A female participant described the support she received for maternity leave. "I had a baby 2 years ago. My colleagues were very supportive. I took 3 months off." The presence of more women in the department appeared to increase the acceptability of starting a family and taking maternity leave. Another female participant noted,

> The volume of women has made those kinds of things more the norm. And a few of the women have babies end-on-end and take up to

6 months of maternity leave…And that would never have happened before…those are very productive surgeons who are respected, so they're not demeaned anymore.

However, the women also described the challenges they experienced in orchestrating their maternity leaves.

It was really difficult to juggle [everything] leading up to being off. You have to limit who you're going to see, what referrals you will accept and find people to look after all the patients [who] need to be seen.

The duration of maternity leave was sometimes truncated owing to financial considerations. "I would like to take a year off but we don't get paid and we still have to pay the mortgage." In addition, an early return to work was required for those in subspecialties with limited coverage. "If you're really subspecialized in 1 area, then you're the only one that can look after [those] patients."

Both men and women described the potential challenges maternity leave could pose for a division in terms of covering both call and the operating room (OR) time. A male participant observed,

If we have a female colleague [who] decides to take 6 months of maternity leave, all of a sudden my schedule goes from 1 in 7 to 1 in 6. Or there's more OR time that needs to be filled, or there's procedures that they can't do that I need to do on their behalf. It does directly influence and impact me as a male.

A different generation

What emerged in all the interviews was how this generation has chosen to establish different priorities and expectations with respect to their personal and professional lives. One male surgeon stated,

I think things have changed over the years…I mean surgery in the past has been you just work hard, this is your life, and I think it's changing a little bit … you are allowed to have a life outside. I think that's good.

This generational shift also reflected men's more active role in fulfilling family responsibilities.

I think the younger male colleagues, like my generation, it's a bit different. We're seeing more and more male surgeons who are doing more stuff at home … and they're also having to leave early to pick up their kids because their wife is working too… So it's changing. It's not like how it used to be, 20 or 30 years ago.

But this generational change confronts a deeply rooted expectation in the surgical culture. A male participant reflected,

The days of people living to work and only doing work are gone…and they're passing quickly. No one wants to devote 100 plus hours a week to work anymore. Although there's a trend toward the change in surgical culture, it's still deeply rooted. And there are many individuals who still live and die by that mentality.

Change will only transpire when sufficient numbers in the surgical environment embrace a similar philosophy, "With enough people [who] believe in the same sort of philosophy, change will eventually occur, but it's just going to take time." Participants attributed this philosophical shift to the age and stage of their cohort. As a female participant explained, "We're all in our late 30s, early 40s, so most of us have young kids ... So I think that's really changed everybody's philosophy and attitude."

Discussion

Recent surveys have examined gender differences, as experienced by female and male surgeons.[1,2,4,5,7,10,11,24,25] This qualitative study adds important information to this literature by illuminating the in-depth experiences of academic surgeons, both women and men, on this key issue.

While participants did not perceive gender as differentially influencing departmental expectations regarding their academic roles or surgical practices, an exploration of their day-to-day experiences indicates that gender did impact directly on participants.[26] Their stories revealed how gender was not inconsequential in their work environment or their home lives. In particular, gender dictated the actions of the female participants as they navigated their personal and professional obligations. On one hand, the female surgeons strongly believed they were treated the same as their male colleagues. Yet their narratives illustrated their reluctance to share with male colleagues details of the struggles they experienced in negotiating their work and home lives for fear of being viewed as less committed and productive. Prior research documents the perception of surgery as an "old boys' club" with ongoing sexual discrimination, albeit often subtle as it transpires at the intersection of work and home.[6,26]

While the challenges of taking maternity leave, as experienced by female surgeons, have been reported previously, to our knowledge our study is the first to reveal the positive perspective of their male colleagues.[1,2,7,8,27] This is an important finding, as prior research suggests that support offered by colleagues enhances physician well-being and to some degree ameliorates stress related to excessive work demands. In other words, the instrumental and emotional support provided by the male surgeons to their female colleagues during pregnancy and maternity leave could make the women's experience less stressful, both personally and professionally.[28,29] Our findings indicate that maternity leaves are no longer viewed as an anomaly or with disdain.[27] The logistics of maternity leave received serious consideration from the female participants. Their maternity leaves, while supported by their male colleagues, were usually shorter than the norm in Canada (1 yr). For some women, this decision was based on financial reasons, whereas for others, career and service demands necessitated an early return to work. Prior research has documented the need to provide alternative work schedules for female surgeons, as well as the need to enhance opportunities for maternity leave and child care.[30] The present study reveals how changes in policy and provision of service (i.e., daycare) may not be sufficient to ameliorate the logistical and emotional challenges female surgeons face in

juggling their personal and professional lives.

As more women join departments of surgery and subsequently take maternity leaves, specific structural issues may require consideration. Adequate health human resources are necessary to cover patient care and teaching responsibilities. Particularly in the subspecialties, attention must be given to securing sufficient resources. This will not only decrease the burden on the women, but also ensure a balanced workload for colleagues, both men and women, who provide coverage.

Prior research indicates that physicians who practise part-time reported less burnout, higher satisfaction and greater control over their work in comparison to full-time physicians.[31] While part-time and flexible work schedules have been reported as a means to achieve personal and professional balance, this may not be conducive to an academic department that is bound by institutional regulations.[3,5,11,32,33] Nonetheless, medical school and university policies must support women in academic roles in the successful achievement of their career milestones. In the context of this particular study, we observed that both the department and larger institution were in transition. As previously reported in the literature, physicians experience less stress if there is an alignment between their goals and those of leadership. The changing surgical culture described in this paper has a unique opportunity to strengthen the expectations and intentions of members of the department and leadership.[34]

We found it noteworthy that all the male participants, both with and without children, placed a high priority on time at home. Male participants also recognized the unique challenges of their female colleagues, acknowledging the additional pressures of being a wife, a mother and an academic surgeon.[27,35] Previous studies have documented the desire, of both men and women, for more time devoted to their personal lives.[2,5,6,20] The current findings enhance this prior research by delving deeper into the reasons and motivations of academic surgeons in striving for this change. Overall, it is striking that participants felt that the change in gender balance has had a positive influence on the culture of the department.

An important finding was the readily apparent shift in the philosophical stance of this generation of surgeons with regard to the importance of balance in their personal and professional lives. Study findings provide new and valuable insight into the changing attitudes and beliefs of this generation of surgeons regarding work–life balance. They did not perceive these changes as detrimental to the discipline of surgery; rather they viewed them as positive for the profession overall. Prior debate about the impact of Generation X on the practice of medicine has been largely anecdotal; however, this study adds to a growing body of empirical evidence regarding this generational shift.[12–16] Study participants were very dedicated to their patients and clearly engaged in their academic responsibilities, yet they were equally committed to preserving quality time in their personal lives.

Each successive generation will bring their unique expectations and experiences. For example, Generation Y, also called the Millennial Generation, born between 1982 and 2003, has lived in an era dictated by instant communication and social media shaping their views and attitudes.[13] Transitioning from one generation to the next in medicine will require openness, flexibility and acceptance of diversity.

Limitations

This study was limited to a single surgical department and explored only the experiences of recent recruits. It would be interesting to compare the perceptions of senior department members regarding the impact of the change in gender mix on their work and the influence of the current generation on surgical culture, as well as to consider the effect of broader societal attitudes toward work and family. In turn, the hypotheses generated could be tested across a number of surgical departments as well as other medical specialties.

Conclusion

Our study findings strongly suggest that the new gender balance in surgery is welcomed and long overdue. This perception may be a reflection of the generational shift that brings a closer alignment between professional and personal goals for both men and women. While we have presented gender and generation as 2 separate phenomena, they are inextricably woven together and reflect a powerful influence on a surgical culture in transition. Both gender and a change in generational attitudes are altering the culture of academic surgery, which has been viewed historically as the prototypical male-dominated environment. These important transformations may reflect the changing face of medicine.

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