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Published in:
Journal of Gastrointestinal Surgery

DOI:
[10.1007/s11605-022-05403-z](https://doi.org/10.1007/s11605-022-05403-z)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2022

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):
Welten, V. M., Dabekaussen, K. F. A. A., Hill, S. S., Columbus, A. B., Lu, P. W., Fields, A. C., Reich, A. J., Davids, J. S., & Melnitchouk, N. (2022). Leadership Styles Among Female Surgical Department Chairs. *Journal of Gastrointestinal Surgery*, 1776–1780. <https://doi.org/10.1007/s11605-022-05403-z>

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Leadership Styles Among Female Surgical Department Chairs

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Received: 28 March 2022 / Accepted: 18 June 2022
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Introduction

Women remain under-represented in academic surgery leadership positions, as is evidenced by the declining proportion of female faculty in ascending academic ranks, distributed as follows as of 2020: 60.7% of instructors, 30.2% of assistant professors, 23.1% of associate professors, and 13.5% of professors.¹ In 2020, women represented 8.7% of surgical department chairs in the USA.² We aimed to identify leadership styles and characteristics among female surgical chairs.

Materials and Methods

In prior work interviewing female surgical department chairs across the USA,³ leadership emerged as a prominent theme warranting dedicated analysis and study. A post hoc leadership codebook was developed based on literature review of leadership styles in academic medicine, identifying the most common leadership styles: *transactional*, *passive-avoidant*, *servant*, and *transformational* (Table 1).⁴⁻⁶ The codebook was used to re-analyze interviews with directed content analysis.

Results

Twenty of 26 (77%) eligible female surgical chairs at the time of study participated in interviews.³ The following leadership styles emerged: *transactional*, *servant*, and *transformational* leadership. The fourth leadership style, *passive-avoidant*, was not identified. Individual participants expressed overlapping leadership styles, with *servant* and *transformational* leadership expressed by all 20 participants. Representative quotes for each style and characteristic are shown in Table 2.

Transactional leadership emerged as a style for most participants. “Management by exception *active*” was expressed by participants as they described ways in which they proactively anticipated problems and determined solutions, with a couple of participants describing themselves as “fixers.”

Servant leadership was the most prominent style. Participants described the need to create an effective team within their departments, establish common goals, and select individuals uniquely qualified to contribute to the educational atmosphere. They valued the idea that the result of teamwork and of a cohesive departmental community is greater than the sum of its individuals working in isolation. Participants highlighted the importance of appreciating diversity and empowering members of the department by recognizing individual strengths.

Transformational leadership was described by all participants. It described how participants lead by engaging and inspiring members of their department toward common goals. Most participants expressed “individualized consideration,” emphasizing the importance of recognizing individual needs and tailoring mentorship. “Inspirational motivation” was founded on mutual respect and trust between leaders and those being led. “Intellectual stimulation” was described as encouraging members of the department to work toward their potential.

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Table 1 Leadership styles and characteristics with their corresponding descriptions

Leadership style	Characteristics	Descriptions
Transactional	Contingent reward	Rewards or punishments are given based on follower behavior
	Management by exception <i>active</i>	Monitors and makes <i>prospective</i> corrections
Passive-avoidant	Management by exception <i>passive</i>	Corrective action <i>after</i> problem becomes significant
	Laissez-faire	Hands-off approach
Servant	Vision	Provides direction and mission for leadership goals
	Modeling	Functions as a visible personal example of behavior
	Empowerment	Motivates by providing autonomy and resources
	Shares power	Facilitates and shares positions of leadership
	Puts needs of others first	Places followers' needs at a priority
	Listening	Understands importance of identifying what followers want
	Stewardship	Supervising and serving the needs of the community
	Building community	Develops strong personal relationships and collaborations among followers
Transformational	Forsakes personal advancement and rewards	Is willing to prioritize advancement of others at cost to one's own goals
	Idealized influence attributed	Provides vision and sense of mission, followers encouraged to emulate leader's values
	Idealized influence behavior	Sets example for follower behavior through actions and followers look to leader for guidance on their own behaviors
	Inspirational motivation	Communicates charismatically and uses referent power
	Intellectual stimulation	Promotes creativity and active problem solving among followers
	Individualized consideration	Gives individual-level attention and mentoring to followers

Table 2 Representative quotes of leadership styles, associated characteristics, and themes from participant interviews

Leadership style or theme Leadership characteristics	Representative quotes from participant interviews
Transactional	
Contingent reward	–
Management by exception <i>Active</i>	<p>“I found myself as somebody who has the gift and the curse of being able to see possibilities. So, someone who wants to increase process and improve process and make things work better. Sometimes you're the only person in the room that gets the idea of what has to be done to get there. You roll up your sleeves and do it.” – Participant 4</p> <p>“I just always was that person who if I see something that's not right, I want to try to fix it. That's just an inherent thing inside of me. I cannot stand when I see things that are wrong and need to be addressed. I have a hard time looking the other way.” – Participant 13</p>
Servant	
Vision	<p>“You have to understand who you are, what you bring to the table, how you're going to lead.” – Participant 7</p> <p>“You know, I want to be clear on what our vision is. I want there to be a purpose; why are we doing this; who are we, the whole thing. So, a lot of it really reflects back on us.” – Participant 10</p> <p>“I don't mind being different and I'm just going to go for it. Being different was less important than me following my heart.” – Participant 14</p>
Modeling	<p>“I think it makes a difference to see somebody who is clearly an amazing surgeon who is of your gender and actually at that point is a mother... I think it's got to make some kind of psychological imprint.” – Participant 3</p> <p>“I do recognize that it's been important to succeed and do my job well so that you have examples of strong women leaders that are doing well so that it helps the world who doesn't believe that women can succeed.” – Participant 6</p> <p>“There is an issue that women—a lot of women, including myself – feel that we don't necessarily need a title to make a difference, and so we might be less proactive perhaps in seeking those leadership positions that, in fact, make a big difference, because I think that influence of being a chair or being the dean or being the program director is important to change and to improve the field.” – Participant 9</p> <p>“As a woman chair, what I think about is how to be intentional around equity and inclusion. It pushes people ahead of me, and it is pulling people behind me forward.” – Participant 16</p>
Empowerment	<p>“When I arrived as the chair here, I noticed there were some of the women faculty that have been here for a long time that were still not promoted, and I looked at their CVs, and they were strong CVs and ready to be promoted, and we did that successfully for them.” – Participant 9</p> <p>“It's not how many women you have, but whether women are empowered. And I think as a woman chair, it is our responsibility – it should be everyone's responsibility. But when you live something, and you think about it every day, when it is part of your fabric, I think in many ways it comes easier.” – Participant 16</p> <p>“So you nominate, you elevate everybody and you say, 'go do that.'” – Participant 18</p> <p>“As a leader, having a group of people around you who are diverse and who will give you a different opinion and say, 'Do you know what? I don't think you're right about this.' It's so important, you're such a better leader if you have a diverse team.” – Participant 18</p>

Table 2 (continued)

Leadership style or theme Leadership characteristics	Representative quotes from participant interviews
Shares power	<p>“So, if I’m in this position and I need help with real high-end leadership skills, I need to find the expert.” – Participant 10</p> <p>“I really had to go out and just say, ‘I need to surround myself with people that know how to manage the finances, understand the books, understand what the organizational structure is, how to run a practice, how to hire people, how to evaluate people.’ So I took the tactic that it’s okay not to know, and I need people that can help me learn how to do that.” – Participant 17</p> <p>“I really like the big picture, so I need to surround myself with people that are much more detail-oriented, so they can keep the trains on time and all that sort of thing.” – Participant 17</p>
Puts needs of others first	<p>“The other reason it takes years is that you have to be ready to put your career secondary to the needs of the department. So, for example, if the department needs you to develop trauma surgery, and you’re a heart surgeon, you need to help develop trauma surgery.” – Participant 5</p> <p>“I believe strongly in servant leadership, it means you try to take care of the people. It’s like being a parent. It’s not about who you are as a parent. It’s what your child needs from you.”</p> <p>□□□□□□□□□□□□□□□□□□□□□□□□ – Participant 7</p> <p>“The opportunity to influence and help guide the lives of others is really what makes being a chair a desirable thing. You get to build something that looks like you, they have the principals you care about. It’s a service job. It’s a great service job.”</p> <p>– Participant 19</p>
Listening	<p>“I went to the people I trusted in the school, the senior people, and I said, ‘What should I do? How should I run it?’” – Participant 10</p> <p>“I think I’m flexible, where I can change my mind, and then I’ll make decisions. I listen really well... I’m also very inclusive. I like lots of people at the table when we make decisions, so you hear different voices.” – Participant 18</p>
Stewardship	<p>“At some point in your career you have to just decide whether it’s going to really be about you or if it’s going to be about the people that you mentor and support and promote.” – Participant 4</p> <p>“[Chairs] come in all shapes and sizes and you need to play to your strengths and if this is what you enjoy, you’ll get there. If it’s not, the title is not the job. It’s the stewardship. It’s the service development. It’s planting the seeds in the ground and watching the flowers come up” – Participant 4.</p> <p>“I’m a big believer that one needs to consciously think about being both a mentor and a sponsor and create those opportunities for our mentees.” – Participant 9</p>
Building community	<p>“I give people the benefit of the doubt because I think we just really have to rely on each other to do the hard work that we do. So, if we’re always not trusting each other that our intentions are really to be part of the group, it’s hard to move forward.” – Participant 8</p> <p>“I have a great team, but you have to pick the right people who are on the bus and who share your values, and so transparency is really important, and being interested in what their future is. So, faculty is something I definitely invest in, because it’s worth everything.” – Participant 10</p> <p>“I like problem solving, and I like bringing people together on a team to solve problems and move forward.” – Participant 17</p> <p>“I know when to decree and when to take consensus. I also delegate very well and find good people that work with me and let them make the decisions. I realize that 80 to 90 percent of the decisions don’t have to be exactly the way I wanted them, I just want results.” – Participant 18</p>
Forsakes personal Advancement and rewards	<p>“I felt like I was just doing my job, like I’m supposed to be the leader of these people, which means I’m supposed to fight for them and stuff, and I’m supposed to help them get what they need, not that they’re supposed to help me to advance my own career forward.” – Participant 8</p> <p>“I’m very service-oriented. I’m also very collaborative. I don’t always need to find a win–win. In other words, I’m okay if I pass on a win so long as I do it in the interest of helping someone else, another department, another division, high-impact science.” – Participant 9</p>
Transformational	
Inspirational motivation	<p>“I want to be a chair for all my faculty. I’m up there fighting for all of them. So, I think the traits are I have a really strong sense of fairness, that things should be fair, that they should be transparent. Truth is really important to me. I feel like I’m really trusting. I want to be in an environment where I can trust people, and they can trust me.” – Participant 8</p> <p>“I think if you are a teacher, you are a leader. You are a leader because people trust you, you must be trustworthy. You must trust your students. And so that’s a form of leadership.” – Participant 16</p>
Intellectual stimulation	<p>“You can’t just tell people what to do. You have to understand what motivates people. You have to have an executive presence.” – Participant 7</p> <p>“The other thing I would say is that always learning, reading, listening, curious about how things work and trying to make sure that they do work well, so that I do the work of making things better for people who have to do the primary work.” – Participant 7</p> <p>“I enjoy career development, I enjoy strategic thinking, I enjoy and am comfortable with conflict and using that as a platform to make change.” – Participant 15</p>
Individualized consideration	<p>“How can I better help my residents, and trainees, and my faculty and make the department better.” – Participant 3</p> <p>“Nobody has all the same talents. We all come with different tickets, and then we have to figure out how to use those to optimize what our followers need.” – Participant 7</p> <p>“I took a more personalized approach because my goal is to make everybody successful.” – Participant 12</p> <p>“I think everyone has unique skills, unique passions, unique interests that they could craft to take leadership in some avenue.” – Participant 16</p>

Table 2 (continued)

Leadership style or theme	Representative quotes from participant interviews
Leadership characteristics	
Leadership training	
Courses	<p>“They had a really fabulous leadership program for the residents and I think it’s important both for men and women and I think we tend to overlook that in our trainees... I really was not exposed to anything like that until after I finished my residency. But I think it’s an integral part of training surgeons because they are the leadership in their communities. In rural hospitals, surgeons make or break a hospital.” – Participant 1</p> <p>“I got a personal coach because I had major imposter syndrome, and that coach helped me a lot for the first two to three months, and then I didn’t need a cheerleader anymore.” – Participant 10</p> <p>“I’m a believer in coaching. I did some leadership development... That was really a transformative experience to understand what leadership is and all of those skills in building a team and getting help when you need it and really sort of managing oneself.” – Participant 17</p>
Timing—early	<p>“It does take a person that has been encouraged throughout their life to take on leadership positions and challenges and has been successful and learned a great deal from those in order to be interested in doing that.” – Participant 1</p> <p>“I think it was when I was in my surgical residency when seeing what a chair does and seeing the impact that a chair can have is when I probably had my first thoughts that ultimately way down the road that may be a path that I want to pursue after residency.” – Participant 13</p> <p>“I always thought I would do something leadership wise. Initially coming out of medical school I thought pretty strongly about the dean role.” – Participant 12</p>
Timing—late	<p>“I never really sought out leadership positions when I was younger. I was never involved in student government for example. I was very much behind the scenes.” – Participant 5</p> <p>“I think sometimes situations select you out, and I think if it’s a good fit, you kind of start filling that role. So, there is kind of a trajectory, but in my particular situation, I wouldn’t say that there is a lot of intentionality until quite later.” – Participant 15</p>

Leadership training emerged as an additional theme, characterized by descriptions of formal and informal leadership training and by timing of leadership experiences, as either “early” or “late,” that promoted leadership development. Participants noted that leadership was not necessarily an innate skill, but a learned skill developed through acquired experiences, mentorship, and formal training.

Discussion

We present prominent leadership styles among female surgical department chairs. Participants described overlapping leadership styles, with *servant* leadership being the most prominent. *Leadership training*, through courses and early or late experiences, was described as influential in defining the participants’ career paths. Successful leadership is not necessarily the result of innate characteristics, but rather a skill set that can be learned and developed over time.

Our study has a few limitations. The study population is limited and only included female department chairs, so it is not known how the findings may differ from leadership styles among other groups in surgery.

Conclusion

The female surgical chairs expressed the importance of appreciating diversity, of recognizing individual strengths, and of thinking of the needs of the individuals of their department to optimize performance toward common goals and to lead for the department’s sake rather than for their own personal advancement. Our results emphasize the importance of deliberate leadership training to promote diversity among surgery leadership.

Author Contribution All authors made substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; and drafting the work or revising it critically for important intellectual content; and provided final approval of the version to be published; and agreed to be accountable for all aspects of the work.

Declarations

Ethics Approval This study was approved by the Brigham and Women’s Hospital Institutional Review Board and followed the COREQ reporting guidelines for qualitative research.

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Meetings

- Virtual quickshot presentation at Round 2 of the Association of Women Surgeons (AWS) Research Madness Competition, held on September 18, 2021.
- Oral presentation at the Massachusetts Chapter of the American College of Surgeons (MCACS) 68th Annual Meeting, held on December 4, 2021, in Boston, Massachusetts.
- Virtual oral presentation at the 17th Annual Academic Surgical Congress (ASC), held February 1–3, 2022.

Related Paper

This study conducted a post hoc analysis of transcripts from interviews conducted as part of a previously published study, entitled “Factors Associated With the Professional Success of Female Surgical Department Chairs: A Qualitative Study” (*JAMA Surg.* 2020;155(11):1028–1033). This initial study was presented at the 2019 Annual Meeting of the Association of Women Surgeons (AWS) held on October 26, 2019, in San Francisco, California.

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