

Hierarchy as a Barrier to Advancement for Women in Academic Medicine

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Abstract

Background: Research on barriers to professional advancement for women in academic medicine has not adequately considered the role of environmental factors and how the structure of organizations affects professional advancement and work experiences. This article examines the impact of the hierarchy, including both the organization's hierarchical structure and professionals' perceptions of this structure, in medical school organization on faculty members' experience and advancement in academic medicine.

Methods: As part of an inductive qualitative study of faculty in five disparate U.S. medical schools, we interviewed 96 medical faculty at different career stages and in diverse specialties, using in-depth semistructured interviews, about their perceptions about and experiences in academic medicine. Data were coded and analysis was conducted in the grounded theory tradition.

Results: Our respondents saw the hierarchy of chairs, based on the indeterminate tenure of department chairs, as a central characteristic of the structure of academic medicine. Many faculty saw this hierarchy as affecting inclusion, reducing transparency in decision making, and impeding advancement. Indeterminate chair terms lessen turnover and may create a bottleneck for advancement. Both men and women faculty perceived this hierarchy, but women saw it as more consequential.

Conclusions: The hierarchical structure of academic medicine has a significant impact on faculty work experiences, including advancement, especially for women. We suggest that medical schools consider alternative models of leadership and managerial styles, including fixed terms for chairs with a greater emphasis on inclusion. This is a structural reform that could increase opportunities for advancement especially for women in academic medicine.

Introduction

THE ADVANCEMENT OF WOMEN in academic medicine has lagged relative to their increased presence in medicine. The percentage of women in medical school has increased steadily over the past 30 years,¹ with the result that women constitute approximately half of medical school graduates,² yet the gender distribution of faculty in leadership positions in academic medicine remains primarily unchanged. For example, in terms of academic rank distribution by gender, among clinical scientists, 29% of male faculty compared with 14% of female faculty achieve full professorship positions³

(only 17% of full professorships are held by women).⁴ Women are somewhat more represented at associate professor (15% men vs. 6% women) and assistant professor levels (24% men vs. 17% women).⁵ This was virtually unchanged from 2003 to 2008. In 2007, the average department chair's per medical schools were 21 male to 3 female chairs, a 7-fold difference.⁶ As of 2008, 14 women were deans or interim deans (11%) of the current 129 medical schools⁷; interim deans are not guaranteed to assume deanship.

In addition to inequalities in rank and leadership, women are also paid less than men at the same rank^{8–10} and move through the ranks of leadership more slowly when they do

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advance.^{9,11–13} According to a recent study, women earned 11% less than men, after adjusting for rank, track, degree, specialty, years in rank, and administrative positions.¹⁴ Several studies have shown that some women in academic medicine also report experiencing gender-based discrimination.^{14–16} Gender-based inequalities in pay and difficulties in professional advancement are found in other professions as well.^{17,18}

Sociologists have made major progress establishing that race and gender matter at work; however, there has been less success in explaining why workers' sex and race affect their employment outcomes.¹⁹ Much research on women's advancement (or lack of it) in professions has focused on cultural and gendered values. Other studies have examined how the structure of the organization relates to professional advancement and work experiences. One area of organizational interest is the impact of hierarchy on advancement. Kanter, in "The Impact of Hierarchical Structures on the Work Behavior of Women and Men," emphasized the importance of understanding how structures of power and hierarchical arrangements relate to inequity in the workplace.²⁰ Kanter's study shifts perceived differences in men's and women's work orientations from individual-level factors connected with the culture and socialization of women (family and work roles) to the role of organizational structures (e.g., organization hierarchy) in shaping apparent sex differences in the workplace (e.g., low aspirations as a result of opportunity structure).

Sex composition is one aspect of social structure that can affect social inequality.^{21–24} Kanter's theory of tokenism suggests that the relative number of women and underrepresented minorities (URMs) can affect employment outcomes.^{21,22} The proportion of women in leadership positions can have an effect on women's hiring and promotion when they are present in large enough numbers to form coalitions and affect personnel decisions.²⁵ Institutional practices, such as leadership terms and policies for transparency in decision making, can also affect social inequality in the workplace. Policies that limit the effects of decision makers' biases on employment outcomes can limit discrimination based on gender and race. The potential for bias is greatest when decision makers have full discretion over their selections.^{19,26,27} Because institutional practices can have serious consequences for hiring and promoting women and URMs, they necessitate further study.

The importance of hierarchy and institutional practices in understanding gender-based work inequalities in medicine is underexplored,²⁰ with a focus on coping strategies¹⁶ and the impact of gender-based unconscious biases on women's advancement into leadership positions.²⁸ Few articles have specifically examined how the hierarchy of medicine and specific institutional practices impact women's professional advancement and work experiences.^{16,28}

As part of a larger interview study on women and advancement in academic medicine, we have discovered several cultural factors that appear to affect potentials for women faculty advancement.^{29,30} This article aims to fill a gap in existing literature on barriers to advancement of women in academic medicine by linking discussions of inequality to the institutional structural barriers. Specifically, we explore the perceived impact of one structural factor, hierarchy in medical school organization, on women faculty's experience and advancement in academic medicine.

Materials and Methods

The data were collected as part of a study on the advancement of women and URM faculty in academic medicine, C-Change (The National Initiative on Gender, Culture and Leadership in Medicine). Five medical schools were selected representing diverse characteristics of U.S. medical schools. The schools were drawn from different regions, including two public and three private schools. The demographics of women and URM faculty were nearly identical to national statistics. The study was IRB approved.

Participant criteria

Stratified purposeful and chain referral strategies were used to identify and select medical faculty from the five C-Change medical schools according to school, gender, race/ethnicity, department/discipline, and career stage. The principal investigator (L.P.) obtained a confidential list of faculty from each school and selected participants based on these criteria to produce a stratified sample based on demographics, positions, and career stages. Participants included medical and surgical subspecialist, generalist, and research scientist faculty, with 84% having an M.D. terminal degree and 16% a Ph.D. A total of 96 faculty were interviewed, divided into four career stages: (1) early career (2–5 years as faculty), (2) plateaued (those who had not advanced as expected in rank and responsibility and had been faculty members for ≥ 10 years), (3) leadership (senior) faculty, including deans, department chairs, and center directors, and (4) left (former faculty who had left academic medicine). Interviewees were divided almost equally among the four groups and the five schools, but we interviewed fewer participants in the early career stage because we reached data saturation in this category early in the study.

Sample selection

A total of 175 faculty were invited to participate, 8 refused primarily because of time constraints, 54 never responded, and 12 others responded but were unable to be scheduled. Male plateau faculty were more difficult to identify than similar stage female faculty. Women (55%) and URM faculty were oversampled (17% African American, 4% Hispanic/Latino, and 79% Caucasian/white), as were generalist physicians (20%). Details on the breakdowns of gender, race, and stage of sample are available elsewhere.²⁹

Data collection and analysis

Four of the authors (P.C., P.C., L.P., S.K.) conducted in-depth, open-ended interviews with the selected respondents. All were experienced interviewers and used the same research protocol when interviewing respondents; 15% of the interviews were conducted in person, the rest by telephone. Interviews, typically 1 hour in length, were audiorecorded and transcribed verbatim. Interviewers used an interview guide with 20 open-ended questions and dozens of probes to supplement the major questions, including items related to choice of medicine as a career, faculty aspirations, energizing aspects of their careers, advancement and advancement barriers, collaboration, leadership, power, values alignment, and work-family integration. The interview guide included no specific questions on hierarchy, but respondents discussed

hierarchy-related issues when answering questions about belonging, frustrations, decision making, power and leadership, and aspirations. Hierarchy-related issues emerged as a major concern through the coding process of the data.

The data were coded, and all names and identifying information were removed. Multiple coders compared, verified, and refined coding categories. Data were analyzed by repeated readings of interview transcripts with an analytic focus on understanding and interpreting meaning. Over 4000 pages of transcribed narrative were stored, coded, and sorted using Atlas.ti software. Analysis involved data condensation to identify patterns and themes emergent from the coded data. The analysis was inductive and data driven, in line with the grounded theory tradition.^{31,32} To verify data patterns and conclusions, we continuously reviewed transcripts and discussed findings among co-authors to achieve consensus. In this article, participants are identified by gender, degree, and faculty category.

Results

The hierarchal organization of the medical school emerged as an issue of concern in our interviews. Many of our respondents view the medical school as a hierarchical institution that strongly impacts their experience in academic medicine. Sometimes, the faculty members we interviewed felt they were treated more like underling employees than professionals or colleagues. Many thought they were informed about decisions that affected their work lives rather than being active participants in the decision-making process; they did not believe they had adequate input in some decisions that were directly consequential to their work. Respondents often noted that the medical school was a very bureaucratic organization and apparently becoming more so. Sometimes, the hierarchy and organization seemed convoluted when faculty had to wend their way to get some information or a decision. These bureaucratic layers can lead to frustration, resentment, or even apathy. As an early career female Ph.D. faculty noted, "It's such a heavily tiered administrative monster, the medical school tiers." A male former academic physician described the hierarchy well:

Well, the leadership—it's a very small academic department—there's a hierarchy of a chairman of the department, supervising division chiefs, and to become a division chief, seniority is very important, but also the amount of grant money you bring to the institution. It's almost ironic because frequently I see the people who are the best researchers are often named division chiefs, and these are not always the people who have the best managerial skills, but they have brought in the most research dollars to the academic institution, and it's unfortunate that frequently they have to give up some of their research in order to take on the administrative duties of division chief.

Length of tenure of chairs

One issue that came up often was the power and extended length of service of the chairs. To respondents, department chairs seemed to be appointed for indefinite terms and serve at the dean's pleasure or until they chose to step down (or up). As one male faculty noted:

You are chair for life. I mean, you don't serve at the pleasure of the clock; you serve at the pleasure of the dean. And if it

pleasures him for you to remain as chair for the remainder of your mortal days, you will remain as chair for the remainder of your mortal days. . . . I could resign. [male, Ph.D., leader]

The extended duration of chair appointments seems to be a real issue in the accumulation of power and authority in the hierarchy. One plateaued female physician faculty noted that her department had had only three chairs since it was founded in the 1960s! Another pointed out that "removing a chair is a rare thing." [male, Ph.D., leader]

Styles of chairs

Numerous faculty said that virtually all important decisions are made by the department chair. Faculty often feel excluded at this level of decision making, even about decisions that affect their work lives (e.g., when and where to move offices, strictures related to changes in clinical responsibilities). Although there does seem to be more participation in decision making at the local or division level, the department seems very hierarchical and even more so at the upper administrative level. For example, a male physician stated, "...it's very hierarchical [so] those at the lower levels have minimum input I think by and large. Certainly not into major strategic decisions at a departmental level. It's all held at a very high level. . . ." [male, physician, leader].

Chairs varied greatly in their style of inclusiveness. Some chairs are rather authoritarian, even dictatorial, in their style of running a department, allowing no opposing viewpoints. One plateaued female physician said: "...we work in a department where if my department chair got word of what I was saying to you, it would threaten my position." At least one person (male, Ph.D. left) called this "a feudal system where the lords reign." The chair seems to set the tone for leadership in the organization, and his or her particular management style affects the experience of being in the department. For example, one physician described how different managerial styles set the tone of expected interactions and decision-making processes: "One is I'm the boss, talk to me; the other is I'm the boss, don't hesitate to talk to somebody who's keeping me from ever having to talk to you" (male, M.D., leader). Some chairs do adopt a more collegial, or at least inclusive, style of management. The "I'm the boss, talk to me" does not necessarily mean that decisions are made democratically (male, physician, leader) but sets more of a collaborative tone that is appreciated by department members. So participation often results from the individual style of the chair.

There are consequences to the hierarchy. Some faculty members thought that upper administration "doesn't have a clue" of what is happening in their division. As a female physician noted:

I think the upper administration does not appear to be aware of the problems we have, which I think is very strange because I think at one point they had to be where we are now. . . . It's like parents don't get teenagers anymore and they were once teenagers [female, physician, early career]

How people move in and out of leadership positions (including advancement and tenure) is often described as a mystery, something "done behind closed doors" (male, Ph.D., left) or in a "black box" (male, physician, leader).

Some faculty see the pitfalls of the hierarchy and believe a more collegial organization might be more productive. As one woman (female, former faculty, Ph.D.) noted:

So if [the organization] were actually function driven... or if our purpose is to produce really excellent physicians and an inspired group of people who want to do research and biomedicine, what kind of structure would that... it would look a whole lot different... a whole lot less hierarchical, a whole lot more collaborative and it would be a little more welcoming to women and minorities.

In sum, hierarchy, length of chairship, styles of leadership, and probably communication all affect leadership in medical schools in complex but not incomprehensible ways.

Hierarchy and transparency

One of the major consequences of the hierarchical structure is its impact on decision making. For numerous decisions, faculty experienced a lack of transparency. Inclusion varied by the level of decision making. Overall, faculty feel more involved in decisions on a local level (e.g., the clinic or the division) or in the decision-making process closer to their own work. The amount of involvement in decision making was almost a continuum, from medical school to department to division to clinical or teaching situation, and as several respondents noted (e.g., male, physician, *plauteaued*), inclusion and usually transparency depended on what kinds of decisions were being made. Numerous respondents recognized that many institutional decisions were complex and difficult to judge "because you're not privy to the information" (male, physician, left). Although the same individual noted, as he moved up in the organization, that "it's unbelievable what's available to me, which I was never privy to..." This is mediated in part, however, by the style of the chair, chief, or director. If the chair is one who includes people's views and opinions in decisions, faculty are more likely to believe they are part of the decision-making process. If the chair is authoritarian or chooses only a small group to consult, others will feel excluded. For example: "[Decisions are made] behind the scenes. A few key people deciding how to make something happen..." (male, physician, leader) or "decisions were made by a group of privileged individuals behind closed doors" (female, physician, *plauteaued*). A well-placed male physician in a leadership role commented how his chair set the tone: "There's not a lot of democratic decision making going on in my department." On the other hand, sometimes a new chair can bring in a new style, as an early career female Ph.D. noted about the consensus oriented style of the current chair. Similarly, a former faculty male Ph.D. described how transparency has gotten better with the current head. He noted, "If the head happens to be a good communicator and if the head chooses to seek input, you can feel a little like you've got some say in the matter. Otherwise, it's essentially decisions are made behind closed doors and you're informed." A *plauteaued* female physician pointed out how a change in chair and style transformed a close-knit department to a place where decisions are no longer shared and are made behind closed doors. It felt to her like a "loss of family," but as a former faculty male Ph.D., commented, sometimes these decisions turn out well and are actually benevolent. People still didn't see the process as adequately transparent, however.

Lack of inclusion and transparency occurred on higher levels as well. For the most part, people did not feel much involved about decisions on the university level. A female faculty recalled:

It used to be that... decisions were not talked about openly and that decisions were made by some group of privileged individuals behind closed doors... and you always got the feeling that you were getting [only] part of the story. [female, physician, *plauteaued*]

Another male leader physician noted that the chancellor ran an "efficient, crisp, and clean and military-like organization, but the faculty felt excluded." Another respondent observed, "In our faculty meetings, it's not a discussion about (an issue)... It's usually a reporting out about decisions that have already been made" (female, physician, *plauteaued*).

Sometimes respondents thought that a small group was making the decisions. Despite feeling involved on the local (division) level, more than one faculty expressed not feeling involved in the department because it was "a very authoritarianly run department" (female, physician, *plauteaued*). Another woman mentioned that at the institutional level, decisions often felt arbitrary, but she still felt part of the decision making "at the level of the clinic, not at the level of finances..." (female, physician, early career). As an early woman faculty member stated, "There are too many things that are unspoken. There are too many things that are not transparent."

It seems that people are most resentful when decisions are made without them that affect their lifestyle (e.g., call schedule, patient responsibilities) or immediate work environment. This is likely significant because people believe it is important to maintain some measure of autonomy and control in their everyday work. As a female early career physician described, "I don't have any authority about some other things, like, right now we're in a position where we need to hire." This is clearly a major issue for some people. One faculty noted that all the medical director positions were eliminated without any consultation, and this led to a problem about who would pick up the medical directors' salaries. She said, "I felt betrayed" (female, physician, *plauteaued*). Another faculty noted that after a doctoral program was eliminated, the school just said, "Fine, we won't replace you, we'll just give those students to [name]" (female, PhD, leadership). She felt they dumped the students on her, knowing she was the kind of person who would not let the students flounder.

As faculty move up the ranks in the hierarchy (and a few do), there is some sense they are more involved in decision making. As one woman pointed out, "In my administrative position now, I feel that I am actually consulted more..." (female, PhD, leader). A female administrator noted, "Because I'm department chairman, I'm part of the council of clinical chiefs... so I feel that my voice is heard" (female, physician, leader). A male faculty member reflected that as he moved up the ranks, he felt more included, to the point where he now felt the decision making was "collaborative and inclusive" (male, physician, leader).

Hierarchy and gender

Both men and women generally described hierarchy, especially the structure of chairs, as a strong feature of academic medicine, but men seemed to be more tolerant of the structure (e.g., "it's just a different management style") and seemed less bothered by it than women. Men typically described the hierarchy in a very matter-of-fact fashion. For example, a male faculty member described the structure of academic medicine

and the lack of democratic decision making but did not suggest it negatively impacts him:

It's very hierarchical and those at the lower levels have minimal input, I think, by and large. Certainly not into major strategic decisions at a department level. It's all held at a very high level, really, and partially, that reflects the way the chairman operates, and he doesn't really broker a lot of discussion about decisions. There's not a lot of democratic decision making going on in my department. [male, physician, leader]

However, another male physician, despite his leadership status, described feeling "excluded" yet noted some ironic benefits of being able to work around this challenge: "The bad news is that I feel excluded. The good news is he doesn't speak to me so he doesn't tell me what to do. So I go about my business in my area of responsibility for the most part" (male, physician, leader).

When male faculty talked about hierarchy and top down decisions, they talked more about poor communications with underlings as a problem. As one man observed: "I think you have a few people who are administrators . . . and I think one of the most simple things they forget is just communication, good communication with people who really do the work and pay the bills. . . ." (male, physician, early career).

Women, on the other hand, perceived the hierarchical structure to be more burdensome. Female faculty described very specific and detailed accounts of how system-level hierarchical processes (e.g., appointment processes) and gendered-cultural values negatively impacted their career progress and advancement. For example, one female faculty member commented on how she believed a normal search process was altered to specifically detour her from being appointed.

Historically, what happened at the institution is that there's a division that needs a director. If there are senior productive people . . . it is suggested that they apply. . . . When it was time for the director to step down they said . . . we're not appointing anybody, we're going to conduct a national search, which of course they had never done before . . . it had been unprecedented. . . . I think it was people being a bit uncomfortable with me being appointed division director.

Several women presented stories about how they felt marginalized and not taken seriously (with some exceptions, of course). For example, female faculty reported feeling as if they were treated like teenagers (female, physician, early career) or singled out as "disruptive" to the department when they spoke up (female, physician, left). Women, unlike men, discussed whether or not their voice was heard within the medical department. They state several reasons for this, including feeling inexperienced, self-doubt about knowledge of issues at hand, and perceived ramifications for speaking up. One female medical scientist (female, Ph.D., early career) spoke for a number when she said, "Many times I don't know how to make a contribution because I'm quite certain I don't know enough about the issue at hand." Another woman (female, physician, plauteaued) said, it was "too stressful and risky for her to participate" in department decisions, so she talked with the chair individually. This same woman believed her job might be threatened if she spoke up:

The hardest thing . . . was to be in a department where you couldn't express yourself without getting—feeling that you were jeopardizing your career, and so my personal values . . .

I was afraid earlier on that I would . . . lose my . . . I would get kicked out of the department . . . [female, physician, plauteaued]

One woman summarized this well, explaining how women have been socialized to think they need to be at a certain level of experience or meet certain qualifications, whereas men do not question their own level of knowledge or experience. "More likely [women] feel they need to be qualified to do something, where, men, in many ways, don't feel that need. . . . they assume they are qualified" (female, physician, plauteaued).

According to some female faculty, in order to be in a position of power and leadership in this authoritarian-style structure, one must dehumanize (female, physician, left) and "out-macho the guys" (female, Ph.D., left). In response, at one school, a group of women faculty met to give each other support. ". . . there is even a secret group of women faculty who met over a year or two to give support and to talk about what was going on, and [a] lot of paranoia that if somebody found out; namely, the chair . . . they'd be the next target. . . ." (female, physician, left).

Discussion

It seems clear that the hierarchy of chairs is a common and well-established structure in medical schools, and it has a significant impact on the faculty work experience and their perception of transparency. Although our research is based entirely on interviews, we heard nearly no comments negating our depiction of the hierarchy of chairs and what were perceived as "chairs for life." There are surely some excellent department chairs who run departments with inclusive and transparent decision making, but this seems largely based on the chair's personal orientation and leadership style. It is more difficult to control for individual chair style variations than it is to focus on a system that allows for little self-regulation. There is greater opportunity for biases and, thus, discrimination to play a role in decision making when there is little transparency.^{19,27}

It is obvious that medical schools as bureaucratic organizations need some kind of hierarchy to operate. In such large organizations as academic medical centers, it is not surprising that many faculty feel remote from the upper levels of administration, but it is of much more concern that so many faculty see difficulties with the department chairpersons' managerial styles. The perceived problem with upper administration is that it is "out of touch" with what goes on in the academic trenches, making decisions without adequate transparency, and supporting the power of chairs.

We found that both men and women recognized the hierarchy, but it seemed to have a greater impact on women, creating what may be a real barrier to women's advancement in academic medicine within the hierarchy. Bickel et al. stated that "most women are accustomed to thinking of relationships in terms of support affiliation, whereas men are accustomed to competition and hierarchy."³³ To the extent this is true, this may provide insight into why men discuss the hierarchy in a matter-of-fact tone and experience this as less of an obstacle to advancement. Although we have no direct evidence to connect the hierarchy to women's advancement (that would take a different kind of study), there is little question that women faculty see the hierarchy of chairs with

its open-ended term policy and the reliance on individual chairs' personal orientation for inclusion as both affecting their work lives and their chances for advancement. It may also be that women do not see others like themselves at the top of the hierarchy, which may make it more threatening. Many women see this as "where the lords reign." Although it is not clear how much of the problem with hierarchy is the structure and how much is the incumbent, the indeterminate length of chair appointments creates a calcified structure that is difficult to change (or avoid). As W.I. Thomas' famous sociological dictum states, "Anything that is perceived as real is real in all of its consequences."³⁴ Here, the insight translates to if women perceive the hierarchy of chairs as a barrier to advancement, it becomes a barrier.

The hierarchy of chairs and the attendant perceived indeterminate term chair policy are not inevitable aspects of academic structure. Some medical schools have performance reviews for chairs, but these do not necessarily affect the length of time a chair serves. University Arts and Science departments typically have a rotating chair, where the chair is appointed or elected to a fixed term (often 3–5 years). In such a system, a chair can be reappointed or reelected, and every few years there is a review to see if this person should or desires to continue as chair. Adopting such a system would go a long way toward reduce the impact of the hierarchy of chairs and make for a more collegial structure. It would also create more openings where women, URM, and younger faculty could advance in academic medicine. Such a policy change could contribute to advancement for women (and by extension, URM and younger faculty) in several ways: (1) women currently perceive hierarchy as a barrier, (2) there are aspects of hierarchy that actually affect women (and men) in ways that are detrimental to their advancement, and (3) the indeterminate length of a chair's tenure allows for less turnover of the chair and, thus, fewer openings.

Most women faculty and many men faculty clearly would prefer a less hierarchical and more collegially oriented organizational structure. The structured hierarchy affects both inclusion and the perception of transparency in decision making. This aligns with our findings that women seek more collaborative work relationships in academic medicine.³⁰ A flatter, less hierarchical, and more collaborative structure is preferred by most faculty members.

The structured hierarchy, limited inclusion, and lack of decision-making transparency are not the only factors affecting women's advancement in academic medicine. A study by Carr et al.¹⁶ further supports this by showing that female faculty who have experienced gender discrimination in a hierarchical structure report feeling a sense of helplessness to affect change, suggesting that the structure of hierarchy can affect psychosocial feelings and behaviors. Others have found that the hierarchical structure also impeded effective negotiations.³⁵ A recent survey study in one medical school shows that the top reasons women leave faculty positions include chair/departmental leadership issues, professional advancement, low salary, and personal reasons.¹³ The most common reasons men leave include career and professional advancement, low salary, and lack of faculty development/mentoring. Although men and women share some similarities in terms of professional advancement and salary, women in particular express difficulties with chair/departmental issues, which is also reflected in the findings from our study. The

current hierarchical structure developed when medicine was populated overwhelmingly by men. The gender composition of medicine and medical schools has changed enormously in the past three decades, and it may be time to reconsider whether some of this structure is optimally functional for the current needs of academic medicine.

This study has limitations. Although we attempted to select representative medical schools, the sample is from only five schools. Moreover, although we endeavored to interview a stratified but widely representative group of faculty, we only interviewed 96 people out of the thousands of academic faculty in the five schools. As noted, we had difficulty locating plateaued men to interview. Finally, hierarchy is only one factor limiting the advancement of women and URMs in academic medicine. How much this factor impacts advancement compared with other factors is still unknown.

Conclusions

Based on interviews with 96 faculty members at five disparate medical schools, we have identified the hierarchy of chairs as a potential barrier for the advancement of women in academic medicine. The fact that chairs are appointed for what appears to be indeterminate tenure creates a number of obstacles for advancement, especially given the calcified academic structure, including problems with inclusion and transparency in decision making and, given the infrequent turnover in chairs, a bottleneck for advancement. Women faculty seem more affected by this hierarchical structure than men, and addressing this may help the advancement of women in academic medicine.

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The authors have no conflicts of interest to report.

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