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PERSPECTIVES

What a medical school chair wants from the dean

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Abstract: Economic pressure has led the evolution of the role of the medical school dean from a clinician educator to a health care system executive. In addition, other dynamic requirements also have likely led to changes in their leadership characteristics. The most important relationship a dean has is with the chairs, yet in the context of the dean's changing role, little attention has been paid to this relationship. To frame this discussion, we asked medical school chairs what characteristics of a dean's leadership were most beneficial. We distributed a 26-question survey to 885 clinical and basic science chairs at 41 medical schools. These chairs were confidentially surveyed on their views of six leadership areas: evaluation, barriers to productivity, communication, accountability, crisis management, and organizational values. Of the 491 chairs who responded (response rate =55%), 88% thought that their dean was effective at leading the organization, and 89% enjoyed working with their dean. Chairs indicated that the most important area of expertise of a dean is to define a strategic vision, and the most important value for a dean is integrity between words and deeds. Explaining the reasons behind decisions, providing good feedback, admitting errors, open discussion of complex or awkward topics, and skill in improving relations with the teaching hospital were judged as desirable attributes of a dean. Interestingly, only 23% of chairs want to be a dean in the future. Financial acumen was the least important skill a chair thought a dean should hold, which is in contrast to the skill set for which many deans are hired and evaluated. After reviewing the literature and analyzing these responses, we assert that medical school chairs want their dean to maintain more traditional leadership than that needed by a health care system executive, such as articulating a vision for the future and keeping their promises. Thus, there appears to be a mismatch between what medical school chairs perceive they need from their dean and how the success of a dean is evaluated.

Keywords: academic medicine deans, leadership characteristics, organizational values

Forced evolution of the medical school dean

The role of a medical school dean is rapidly evolving in the face of cultural, economic, and regulatory pressure. The leadership style that is most effective in the modern, complex departmental structures of medical schools is also changing. Most academic medicine deans accepted their positions expecting that they would be fulfilling the historical tripartite mission of academic medicine – education, research, and patient care. However, their current tasks are often more oriented toward the business of clinical medicine, such as managing operations, recruiting and retaining clinicians, marketing services, negotiating contracts, and managing expenses and enhancing revenue. Because of the changing demands of academic medicine leadership, deans

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may be expending leadership efforts in areas that their chairs do not find helpful or are missing areas that are crucial for their chair's success.

The historical role of a medical school dean as steward of the tripartite mission began in 1910 with the Flexner Report.[1] Deans served as visible models of physicians whose education and practice were based on scientific method as opposed to anecdote. Medical schools had far fewer students, faculty did little research, and any affiliated hospitals were small in size.[2] Deans did not function as organizational managers, but rather as visible and visionary leaders and quintessential academicians.[3] Such deans ruled authoritatively and anecdotally, since they personally embodied the academic medicine enterprise.[1,3–5]

Three factors that appeared in the latter half of the last century substantially altered the leadership requirements of medical school deans. First, the growth of the National Institutes of Health (NIH), with the attendant public interest in the development of new medical therapies, has forced deans beyond clinical leadership alone.[3,6] This also prompted the integration of medical schools within larger universities and health science centers.[2,3] Second, the development of faculty practice plans as an engine for financial margins for medical school expansion created a new role for the dean as an chief executive officer (CEO) of a health care system.[7,8] This pressure has continuously expanded to this day, such that financial success often overshadows other outcomes as a metric of success for deans.[3,9,10] Third, the passage of the Medicare and Medicaid Act in 1965 led to defined criteria for the operation of these practice plans and created regulatory layers for patient reimbursement.[11] This led to a new social mission for many deans as leaders of health care system for less well-insured patients. More importantly, it also led an essential role for the dean in regulatory compliance.[9,12] These three major national changes – the creation and expansion of the NIH, the assembling of the Centers for Medicare & Medicaid Services, and the related expansion of faculty clinical practice plans, markedly altered the requirements for effective leadership by medical school deans.[2,13–16]

There is an additional, more recent change in the landscape of academic health that impinges on how deans lead medical schools, and it is the vertical integration of medical schools with university hospitals and even health insurance plans.[7,15–20] As clinical revenue becomes even more important in sustaining the research and educational missions, medical school deans have turned toward enhancing this vertical integration of faculty care giver with hospital and health insurance plans as a mechanism to promote efficiencies and to increase revenue for the medical school.[2,15,16,19] In this new era, deans currently need to merge skills in human resources, financial management, and federal and state regulations with more traditional expertise in education, research, and clinical care.[2,3,9,14,21,22] The current dean may play such varied roles as leading the affiliated hospital, managing the practice plan, negotiating with insurers, leading accreditation self-studies, or managing NIH center grant renewals.[10,14,21] Since these diverse tasks often require expertise beyond one person, this means the dean has had to delegate specific authority to associate deans and chairs with defined expertise within the required specialties.[13,21] Many current deans function more as a health system CEO than a traditional university dean, with the attendant benefits and risks.[2] The benefits of this model are that the dean oversees a far larger and more potent organization than ever before, which is capable of discovering extraordinary new advances in health care.[2,3,21] One of the risks of leading such a complex organization is that the dean loses direct connection with the department chairs, and the alignment of both strategic goals and tactics can suffer.[3,13,14,21,22]

Changing role of chairs

The roles of medical school department chairs are also rapidly evolving.[12,14] Like the evolution of the dean position, the requirements of medical school chair are often distinct from what led to the chairs' success in academic medicine. The current academic medical center chair has to balance educational needs and research endeavors with the business of their specialty, such as enhancing clinical revenue and decreasing clinical expenditures, recruiting and managing an increasingly diverse workforce, and personally dealing with patient satisfaction issues.[22–26] The role of chair is evolving so rapidly that academic health leaders disagree on the skills needed for a successful chair, with deans placing more emphasis on educating trainees, mentoring faculty, and supporting research, while hospital CEOs place more value on the quality and volume of patient care.[27] The growing administrative and financial responsibilities have led some chairs to delegate responsibility of education, research, or faculty development to others in the department.[24,25] Indeed, many top candidates for chair positions increasingly prefer to seek leadership of centers or institutes in order to maintain more of a traditional academic mission.[25]

Misalignment of expectations

The rapidly changing nature of both the dean and chair positions can lead to misalignment of strategic goals and organizational values between the dean and chairs.[28] In a

survey of deans and chairs of surgery on their opinions of the alignment of institutional values and priorities, both groups agreed that integrity and trust were most important, and both groups thought that business acumen and enhancing institutional reputation were least important priorities. However, chairs of surgery thought that information could be more widely shared, and missions should be more aligned.[28] Deans consistently thought that a healthier institutional leadership climate existed than did chairs of surgery.[28] This indicates that there are some misunderstanding of the leadership climate and some misalignment between deans and chairs.

In another study, Souba et al surveyed chairs of departments of medicine and surgery for the ability of their organizations to openly discuss obvious problems that may be awkward in nature. He found that chairs perceived that misalignment of resources and stated goals was common and rarely discussed.[29] The reason why such problems were rarely discussed was that faculty had a perception that speaking up and forcing discussion on awkward problems would be ignored and not generate any productive solutions.[29] These studies indicated that the changing demands of the leadership of medical schools by deans can lead a dean to expending effort on areas that chairs perceive as less beneficial. This discrepancy between what a dean expects of their job and what type of leadership is most beneficial to their chairs is frequently not explicit during their tenure. Because of the changing demands of academic medicine leadership, it is possible that needs of chairs and the actions of deans are mismatched.[10,12–14,24–26,28,29]

Thus, the rapidly evolving economic environment has been a primary driver of an unaddressed problem in the relationship between medical school chairs and their dean. To begin to address how chairs define successful leadership from their dean, we surveyed medical school chairs on six areas of leadership provided by their dean: evaluation, barriers to productivity, communication, accountability, crisis management, and organizational values, as well as overall effectiveness. These responses can provide insight into areas where chairs perceive deans should be expending their leadership efforts, and careful incorporation of these insights could produce better alignment of the leadership efforts of a medical school dean with the needs of their chairs.[22,26–28] This review of the literature presented here and these results can begin to frame a larger discussion on intentionally improving the relationship between chairs and their dean and prevent it from being defined for them by external economic pressure.

Asking instead of guessing

To obtain insight into the characteristics of leadership medical school chairs desired from their dean and to frame a discussion about the impact of the evolving role of the dean, we surveyed US medical school chairs. Survey questions were initially chosen based on the literature cited above.[10–16,21,24–29] Responses from an initial pilot survey from 90 medical school chairs were used to construct a wider survey. Questions were designed to minimize participants' time and promote a high response rate while still providing the maximum amount of relevant information. A modified Likert scale of 1–10 was used to assess responses. The larger scale was chosen in order to obtain a greater spread of opinion and to prevent reversion to the mean that can be found in standard Likert scales.[30] Free-text responses were not used in order to standardize responses for statistical analysis and also to keep the survey brief, insuring maximum response rates. The final survey was submitted to the University of Florida Institutional Review Board (IRB), who deemed the study exempt (IRB #201700712). The survey had an informational cover letter that described the rights of the respondents, and continuing past that letter and entering the survey was deemed consent to take part in the survey. The IRB required the survey to be completely anonymous; no information that would permit personal identification of the respondents could be requested in the survey, including gender, age, departmental type, or geography. The survey was placed on the Qualtrics.com website, as a secure contracted University of Florida survey instrument, and password-protected to promote only appropriate responses. Table 1 lists the national survey questions, and the raw results are available upon request.

The modified survey link and password were e-mailed to 100 medical school deans, requesting that they disseminate it to their chairs. Deans were chosen at random from the roster of the American Association of Medical Colleges (AAMC) Council of Deans. Interim deans were excluded from the sample. The number of deans surveyed was chosen to give a statistically meaningful number of respondents based on the number of faculty represented and the anticipated response rate. Deans were asked that all medical school departments be included in the survey, from basic science departments such as microbiology and biochemistry to clinical departments such as internal medicine and surgery. Basic science departments typically are smaller, usually containing 15–45 faculties, while clinical departments typically contain several hundred faculties. A cover letter explaining the purpose of the study and defining the IRB exempt status was included in the survey. The cover letter also defined the anonymity

Table 1 Survey questions and summary of responses to the survey, "What a medical school chair wants from their dean?"

1. Would more feedback from your dean enhance your effectiveness as a chair?	Weighted average 6.8 of 10 toward enhancement of performance
2. Rank who you think would provide a better evaluation of your work:	Most common first choice (41%) was the dean
3. Would a formally designated mentor besides your dean enhance your effectiveness as a chair?	61% yes
4. If yes, rank who that formal mentor should be:	Most common first choice (44%) was an external executive coach
5. Besides financial constraints, rank the obstacles to your productivity:	Most common first choice (33%) was lack of own time
6. Besides financial support, rank the most important methods your dean can use to assist you in overcoming the above obstacles:	Most common first choice (42%) was aligning the medical school mission with the teaching hospital
7. Does your dean provide you with sufficient authority to complete an assignment?	64% yes
8. Rank the most important expertise a dean should have:	Most common first choice (56%) was defining a strategic vision
9. How clearly do you understand your dean's priorities?	Weighted average 7.1 toward understanding
10. How helpful is it to your productivity when your dean corrects your direction or behavior?	Weighted average 6.7 toward helpful
11. How often does your dean take your views into account before making a decision?	Weighted average 6.7 toward input
12. How important is it for your dean to openly discuss awkward and unresolved institutional issues?	Weighted average 8.4 toward discussion
13. How important is it for you to know why your dean has chosen a specific decision?	Weighted average 8.7 toward transparency
14. How responsive is your dean to the problems you bring to them?	Weighted average 7.5 toward responsive
15. How often does your dean publicly review their own mistakes?	Weighted average 5.4 toward rarely
16. How much confidence does your dean instill in you when they publicly review their mistakes?	Weighted average 7.4 toward confidence
17. How productive are you when under moderate pressure from your dean?	Weighted average 7.1 toward productivity
18. How well does your dean come up with successful plans to deal with crises?	Weighted average 7.1 toward successful planning
19. How frequently does your dean face a crisis with the following characteristic:	Most common first choice (60%) was calm
20. How well does your dean protect your department when harm threatens it?	Weighted average 6.8 toward protection
21. Rank the value that makes a dean most effective:	Most common first choice (58%) was integrity between words and deeds
22. How important is it for your dean to publicly identify and exemplify the values you ranked above?	Weighted average 8.6 toward public values
23. How well do you like your current position?	Weighted average 8.0 toward enjoyment
24. How effective overall would you rate your current dean in promoting the missions of your medical school?	Weighted average 7.8 toward highly effective
25. How well do you enjoy working with your dean?	Weighted average 8.1 toward enjoyment
26. Would you want to be a dean of a medical school at some point?	77% no

Notes: Forty-one medical school deans agreed to send out the survey link and password to their chairs, of which there were 885 in total. Of the 885 queried chairs, 491 responded (55% response rate).

afforded the participants; therefore, there could be no bias of respondents from fear of possible retribution. The cover letter also stated that any questions may remain unanswered for any reason to decrease any sense of coercion. No incentive was provided for participation. Forty-one deans responded affirmatively, and they sent the survey request to each of their chairs, from basic science and clinical departments, for a total of 885 requested participants, with 491 responding, indicating deep interest in the topic. The survey link was opened on March 31, 2017, and closed on May 1, 2017. The wide range of responding medical schools and the large number of chairs who participated controlled for selection bias. Given the high response rate from the large number of medical schools, it was unlikely that a single type of school or a single region could dominate the responses.

A number of strategies were used to reduce the potential for various forms of bias. We used both negative and positive responses at either end of the 10-point scale to control for acquiescence bias. We attempted to control for demand characteristics by phrasing the questions as neutral as possible, in order not to imply that a certain response was desired.[31] There was no evidence of an aggregation of

extreme responses within the survey, where only the extreme ends of the scale were chosen for each question, biasing the analysis toward one end of the response scale.[31] The survey link came from the dean, inducing potential selection bias if only certain deans chose to distribute the survey. Similarly, there was a potential for social desirability bias that was mitigated by explicitly communicating that the survey was anonymous so that respondents knew that the dean could not identify their responses.[32] Further, the survey was designed to rate the values and attributes generally desirable for a dean, rather than the functional characteristics of the faculty's own dean. The explicit anonymity of the survey should be sufficient to control for social desirability bias.[32] Confirmation bias of the authors was controlled for by the pilot survey feedback. The password-protected secure website for the survey maintained the external validity of the survey, by limiting participation to eligible subjects (only active chairs of medical schools).

Four main statistical methods were used to analyze responses: ordinal logistic regression, weighted averages, Bayesian normal regression, and Bayesian ordinal probit models.[33] Data were analyzed using R statistical software, Version 3.4.0, and Stata statistical software, release 14.[34,35] Of note, the statistical methods used to analyze the data directly without predictors, using weighted average, proportions, Bayesian normal regression modeling, and Bayesian ordinal probit model, yielded similar statistical conclusions for the responses. For the questions that involved ranking choices (questions 4, 5, 6, and 8), the *p*-values were derived from a χ^2 test of equality of proportions between the first choice (highly ranked) and the next most common choice. The null hypothesis being tested is that there is no significant difference in these two proportions. For the Likert-type questions, the statistical comparison was made between the weighted average and an estimation of a neutral response. In these cases, the null value was set at an arbitrary weighted average value of 5.5. Table 1 shows a list of the survey questions and a summary of the responses including the weighted averages for Likert-type questions. Results for the individual leadership domains surveyed are reported in the following sections and summarized in Table 1.

What chairs want from evaluation

Chairs were asked four questions on how to improve the evaluation of their performance.

1. Would more feedback from your dean enhance your effectiveness as a chair?

The majority (75%) responded that more feedback would enhance their job performance (weighted average 6.8 of 10 toward the enhancement of job performance, $p<0.001$, standard error [SE] =0.10).

2. Rank who would provide a better evaluation of your work.

When the participants were asked about who they thought would provide a better evaluation of their work, the first choice was the dean (41%), and the second choice was faculty in their department (38%), with the difference between these two choices not statistically significant ($p=0.352$). Only 5% thought that a chair of the same department at another medical school would perform the most helpful evaluation of their performance.

3. Would a formally designated mentor besides your dean enhance your effectiveness as a chair?

Chairs were queried whether a formally designated mentor besides the dean would enhance their effectiveness; 61% responded that such a mentor would indeed be helpful (95% CI [57%, 65%] vs 39%, 95% CI [35%, 43%], $p<0.001$).

4. If yes, rank who that formal mentor should be.

Queried who should fulfill this role as an additional formally designated external mentor besides the dean, 44% (95% CI [38%, 49%]) of chairs chose an external executive coach ($p<0.001$ as the first choice compared with the next most common choice), while 20% (95% CI [15%, 24%]) said the chair of the same department at another medical school. External coaches are not common for medical school chairs and could be an innovative mechanism to improve mentoring of chairs.

Enhancing chair productivity

The pilot survey revealed that responding chairs thought that financial constraints were by far the single most significant barrier to their productivity as a chair (the first choice of 89%). Since this response overwhelmed all others, it was omitted from the subsequent national survey. The national survey had four questions on leadership that are related to enhancing productivity (Tables 1 and S1).

5. Besides financial constraints, rank the obstacles to your productivity.

When financial constraints were removed as a choice, 33% (95% CI [28%, 37%]) of chairs felt that lack of their own time was the largest obstacle to their productivity ($p<0.001$ as the first choice compared with the next most common choice), with the next largest obstacle chosen was recruiting and retaining faculty (17%, 95% CI [13%, 20%]). Interestingly,

disruptive faculties were considered the smallest obstacle to the productivity of responding chairs.

6. Besides financial support, rank the most important methods your dean can use to assist you in overcoming the above obstacles.

When chairs were asked what specific action of the dean could improve their productivity, 42% (95% CI [37%, 46%]) chose aligning the medical school mission with the teaching hospital ($p<0.001$ as the first choice compared with the next most common choice). The activity of the dean that chairs thought they needed least was providing support for removing disruptive faculty (3%, 95% CI [1%, 5%]). This implies that either this obstacle does not occur or most chairs think they can overcome it themselves.

7. Does your dean provide you with sufficient authority to complete an assignment?

Chairs were also queried whether their dean provided them sufficient authority to complete their assignments, and 64% responded that the dean delegated sufficient authority to complete assigned tasks, with a weighted average of 7.6 toward the provision of authority ($p<0.001$; SE =0.10).

8. Recognizing that each area of expertise is important, rank the most important expertise a dean should have.

The majority of chairs (56%, 95% CI [52%, 61%]) responded that defining a strategic vision was the most important area in which a dean should have expertise ($p<0.001$ as the first choice compared with the next most common choice). Interestingly, chairs considered financial acumen (2%, 95% CI [0.4%, 3%]) and educational expertise (1%, 95% CI [0.3%, 2%]) as the least important areas of expertise for a dean, even though many deans are themselves evaluated based on their financial success ($p<0.001$ as the last choice compared with the next most common choice).[2,3,15,16,19] Thus, chairs desired more classic leadership attributes such as vision-casting than the health care system CEO skills that are currently proposed for deans.[2,3,7,8]

Chair communication with the dean

Chairs were asked five questions on the effectiveness of their communication with the dean (Tables 1 and S1).

9. How clearly do you understand your dean's priorities?

When asked how clearly they understood the priorities of their dean, 80% of chairs responded that they understood them well (weighted average 7.1 toward understanding, $p<0.001$; SE =0.09). There is evidence that deans are communicating their strategic vision fairly well, fulfilling the most important leadership attribute desired by chairs.

10. How helpful is it to your productivity when your dean corrects your direction or behavior?

A majority of chairs (71%) also thought that it was helpful to their productivity when their dean corrected their behavior or direction (weighted average 6.7 toward helpful, $p<0.001$; SE =0.10). This implies that deans could be more instructive if needed without damaging their relationship with their chairs.

11. How often does your dean take your views into account before making a decision?

Next, when chairs were queried about whether they thought their dean took their views into account when making a decision, 71% responded that they felt the dean indeed took their views into account (weighted average 6.7 toward input, $p<0.001$; SE =0.11).

12. How important is it for your dean to openly discuss awkward and unresolved institutional issues, even if the issues are outside of your dean's control?

Souba et al reported that most chairs and deans avoided awkward discussions about complex issues that were difficult to solve and had a personal component to them.[29] Thus, chairs in this survey were asked whether they thought it is important for their dean to have such awkward discussions, and a vast majority (93%) thought that it is crucial (weighted average 8.4 toward discussion, $p<0.001$; SE =0.08).

13. How important is it for you to know why your dean has chosen a specific decision?

The vast majority (98%) desired to know the rationale behind the dean's decision making (weighted average 8.7 toward transparency, $p<0.001$; SE =0.06). This question received the highest weighted score in the survey. Thus, from the data here, it appears that chairs desire extensive and transparent communication with the dean, even if discussions are awkward and are about issues outside the dean's control.

Accountability of the dean

There were four questions relating to the accountability of chairs and deans to each other (Tables 1 and S1).

14. How responsive is your dean to the problems you bring to them?

When asked whether their dean was responsive to the problems brought to them, 83% responded that their dean was

responsive to their problems (weighted average 7.5 toward responsive, $p<0.001$; SE =0.10).

15. How often does your dean publicly review their own mistakes?

As a group, chairs were evenly split about whether their dean publicly reviewed their own mistakes (48% affirmative). Interestingly, chairs were much less positive about this attribute of their deans than any other.

16. How much confidence does your dean instill in you when they publicly review their mistakes?

Because the pilot survey revealed the same trend toward not reviewing mistakes, a follow-up question was asked in the national survey. Chairs were queried whether a dean reviewing mistakes publicly promoted confidence in the dean's leadership, as opposed to making them appear weaker. The majority (78%) responded that reviewing mistakes did promote confidence in the dean's leadership (weighted average 7.4 toward confidence, $p<0.001$; SE =0.10).

17. How productive are you when under moderate pressure from your dean?

Finally, chairs were asked whether moderate pressure from their dean increased their productivity, and 82% replied that moderate pressure indeed increased their productivity (weighted average 7.1 toward productivity, $p<0.001$; SE =0.08).

In summary, deans are responsive to problems brought to their attention, and in return, chairs respond productively to moderate pressure from the dean. However, despite the finding that publicly reviewing a dean's mistakes by himself/herself would increase the confidence of chairs in the leadership of a dean, it occurs less frequently.

Crisis management by the dean

Chairs were asked three questions on crisis management by their dean (Tables 1 and S1).

18. How well does your dean come up with successful plans to deal with crises?

When chairs were queried about how often their dean provided a successful plan for dealing with crises, a majority (79%) responded that more frequently than not they were able to come up with a successful plan (weighted average 7.1 toward successful planning, $p<0.001$; SE =0.09).

19. How frequently does your dean face a crisis with the following characteristic (with 1 being the most frequent and 6 being the least frequent)?

Sixty percent of chairs thought that their dean most commonly faced a crisis with calm. Interestingly, 31% of chairs did not know when their dean faced a crisis, implying that the communication by a dean about crisis could be enhanced.

20. How well does your dean protect your department when harm threatens it?

The majority of chairs (75%) responded that the dean protected their department from harm (weighted average 6.8 toward protection, $p<0.001$, SE =0.10).

In summary, while deans do not communicate the presence of a crisis effectively, they do face it with calm and usually generate a successful plan to resolve it that prevents harm to the departments.

Organizational values of the dean

It was recognized from the pilot survey that questions on values were complex, since a dean needs to hold many values simultaneously and weight each of them differently for distinct situations. However, the feedback from the pilot survey was that the values a dean holds in highest regard may not be the values the chairs think are of the highest importance. Thus, the following two questions on values were retained in the national survey (Tables 1 and S1).

21. Recognizing that all the values below are important, rank the value that makes a dean most effective.

Chairs were asked to rank which of the eight values – loyalty, integrity, unselfishness, persistence, equity, transparency, courage, and accountability, were most important for a dean to be most effective. Significantly, 58% of chairs ranked integrity between words and deeds the most important organizational value a dean should hold. Chairs thought that the least important value from this list was persistence in the face of adversity (2.2%).

22. How important is it for your dean to publicly identify and exemplify the values you ranked above?

Interestingly, they also reported that unselfishness was not high on the list of values that make a dean more effective (2.6%). It is also essential for a dean to publicly exhibit integrity (weighted average 8.6 toward public values, $p<0.001$; SE =0.07) as opposed to maintaining that value in private.

How chairs view the overall effectiveness of the dean

From the pilot survey, it was clear that there was a fraction of chairs who enjoyed their jobs but did not enjoy working with their dean. Thus, these issues were separately addressed as

distinct questions in the national survey. Chairs were asked three questions on overall effectiveness (Tables 1 and S1).

23. How well do you like your current position?
The vast majority (92%) of chairs liked their current position (weighted average 8.0 toward enjoyment, $p<0.001$; SE =0.09).

24. How effective overall would you rate your current dean in promoting the missions of your medical school?
The majority (89%) of chairs thought that their deans were highly effective (weighted average =7.8, $p<0.001$; SE =0.08). The overall effectiveness question was an important control for the positive responses received above for communication, delegation of authority, and protection from harm by deans. That the majority of chairs thought that their dean was effective overall reinforced the positive responses to the other questions about the more specific leadership activities of the dean.

25. How well do you enjoy working with your dean?
The vast majority of chairs (89%) enjoyed working with their dean (weighted average =8.1, $p<0.001$; SE =0.09). Thus, the larger national survey revealed that the fraction of chairs who liked their job but did not enjoy working with their dean was a much smaller than that in the pilot survey indicated. While the vast majority of chairs enjoyed their current position and liked working with their dean, the majority (77%) did not want to become deans at some point in the future. Thus, chairs see deans as effective and enjoyable to work with, but few covet their job.

Chairs rate their dean more highly than faculty do

In general, chairs rated their deans as highly effective and enjoyable to work with. While only 23% of chairs wanted to be deans themselves, the vast majority enjoyed their job as chair and liked working with their dean. This implies that the majority of chairs see the job of chair as more desirable and fulfilling than what they envision of the dean's position.[1,10,12,21,23–26] It is interesting to note that surveys of medical school faculty rank the effectiveness of deans significantly lower than the chairs did in this survey. In the AAMC Faculty Forward Survey completed in 2016 in which faculty from 26 medical schools took part, only 45% of all responding faculty approved or strongly approved the governance of their deans (Likert scale 4 or 5, data from the cohort from the University of Florida). Faculty ranked departmental chair governance much higher, with 64% approving or strongly approving the leadership of their chair.

There may be several reasons for this interesting discrepancy. First, chairs share a closer organizational and personal relationship with the dean as compared to most faculty, and they have more information on decisions a dean makes. Thus, they may be more likely to provide the dean more leeway to make difficult and unpopular decisions as compared to faculty. Academic hierarchy holds that a dean works for the chair's success, and chairs work for the success of the faculty. This would be consistent with faculty feeling more supported by their chair than by their dean.[12–14,24–26,36,37] Second, the dean hires the chairs, and the chairs may therefore feel more responsible to the dean for their positions. Third, despite the complete anonymity of the survey, we may not have completely controlled for unconscious social acceptance bias; chairs may want to be accepted by their deans, even if the dean does not know how they individually responded.[32] Finally, it is also possible that there may have been selection bias in the deans who disseminated the survey. The deans who perceived that their chairs were favorably disposed toward them may have preferentially disseminated the survey. Thus, this survey is used to frame a discussion on the type of leadership chairs desire from their dean and not as a definitive evaluation of the issue.

What chairs feel most strongly about

This survey used a robust Likert scale to discern how strongly chairs felt about a given leadership attribute. Using the weighted averages of responses, chairs felt most strongly that the dean should provide the rationale behind each of their decisions more than any other leadership attribute (Table 1). There are likely several reasons for this. First, a chair can better explain to their faculty a decision made by the dean if the chair knows the rationale.[28,29] Second, explaining the reasons behind a proposed course of action makes the chairs feel like they are part of the team. Explaining the rationale behind decisions is a mark of respect for the effort a chair provides.[21,22,37] Third, while the dean makes a decision, chairs implement the decision.[24–26] If a chair does not share the confidence in a decision, then they are less likely to extend much effort in implementing it. Explaining the rationale behind a specific decision increases the motivation of chairs to implement the decision.[28,29] Understanding the rationale behind a decision not only increases the motivation to implement it, but can also provide guidance for how a decision should be implemented. Finally, chairs may have crucial information not taken into account that could alter the decision by the dean, if they know why the dean made a specific decision.

Thus, explaining the rationale for a decision could ultimately protect the dean from making an unproductive decision.[28,29]

The next highest weighted average score was also related to transparency. Chairs felt strongly that deans should openly discuss awkward and difficult topics, even if the dean did not control the possible solutions. Souba et al found that academic medicine leaders, including deans and hospital CEOs, avoided discussion on topics that either appeared unsolvable or made leadership feel uncomfortable.[29] This decreased organizational learning and led to flawed decision making because all necessary information was not available.[36,38] Avoidance of these discussions can occur from learned helplessness, where there is a pervasive feeling that there are no solutions, or it can occur when there is a fear of retribution.[29,39] This means that organizations are less likely to identify and correct errors, and ultimately the performance of the organization will suffer.[40–42] When such discussions do not occur, it implies that there is no possible solution. However, only from such open debate can any innovative solutions be discovered.[43] Thus, this survey indicates that chairs valued comprehensive communication, which should empower deans to engage in discussion of even the most sensitive and difficult subjects.

Opinions of the chairs varied over how often their dean publicly reviewed their own mistakes. The number of chairs reported that the dean never reviewed mistakes is more than the number of chairs reported that they always reviewed mistakes (Table 1). The data here indicate that a formal process for self-review may actually enhance a dean's authority and not diminish it.[42,43] This is consistent with the desire of chairs for communication of the rationale behind the dean's decisions. There are two major benefits that can be gained when such a postoutcome review is undertaken. First, such reviews increase the chair's ownership of the success of a dean. By publicly revealing and reviewing adverse outcomes, deans can create agreement on shared goals.[21,22,29,37,42,43] Thus, while the outcomes of a given decision may have been poor, if the goal of the decision is still valid, then the review creates an opportunity for further innovative proposals.[43–46]

The second benefit of reviewing outcomes is to provide a learning opportunity whereby both the process of decision making and its implementation can be reviewed.[43–46] It permits a broader discussion on data gathering and analysis, stakeholders, and opportunity costs than would have occurred otherwise. Public reviews of adverse outcomes embody the humility that leaders need to encourage innovation. Health care innovation by its nature is complicated and potentially disruptive.[47–50] Without the humility that comes from owning failure, such disruption will be forcibly constrained by an organization's leaders.[29,38,40,42] Such reviews of adverse outcomes are excellent venues for promoting real change within an organization. Change cannot occur without recognition of the need for change. As the economist Paul Romer said, "A crisis is a terrible thing to waste."[51] However, such discussions on adverse outcomes cannot center on who is at fault, but rather on what can be improved. Fault-finding can markedly decrease the usefulness of the review of adverse outcomes because it would stifle innovation.[42,52] No one would want to propose a new initiative for fear of being blamed if it fails.[40,42,46] Thus, for such a review to be productive, the dean needs to assume responsibility for the decision as a foundation of the review.[52]

Discrepancy between how deans are judged and what chairs want

Chairs ranked integrity between words and deeds as most important value a dean should hold. While most deans recognize that keeping promises is important, they may not recognize how significant it is to their chairs.[28,29,37] An expedient decision that reversed a promise could be more costly for the dean than the short-term gain, because it could harm their ability to lead their chairs. One reason for this is that it makes the job of the chair more difficult if the dean does not keep their word. The chair cannot plan for the future, and any budgetary process would then be fragile, since a budget could be dismantled at any time.[24–26] Chairs are implying with this choice that they require certainty in managing their department. Second, the foundation of any team relationship is trust, and compromising integrity would mean loss of the team relationship.[12–14,22,37] It would fundamentally alter the relationship between dean and chair, making it one of contractual and enforceable transactions.[37,52] It is clear that most chairs enjoy their current relationship with their dean, and if a dean forsakes an agreement, it would alter that relationship and damage the personal reward chairs derive from the relationship.[5]

Conversely, chairs reported that persistence in the face of adversity was the least important value for a dean. On the surface, it would appear that this is contradictory to the value chairs reported as most important – integrity between words and deeds. Integrity requires a certain amount of persistence to prevent compromise. However, it is also possible that persistence in the face of adversity may not be a welcome attribute when the dean is wrong in their approach.[5,10,22] Persistence in the face of adversity could also result in the dean not listening to counter-opinion and data or failing to

learn from their mistakes.[29,40–42] The group or concept that the dean was persistently resisting could be correct. This is consistent with the importance chairs place on the ability of the dean to publicly review mistakes.

In this survey, chairs implied that they valued financial or operational acumen less than classic leadership attributes such as communicating a strategic vision. While financial skills are certainly important for the success of a dean, they are likely insufficient on their own. Rich et al reviewed the qualities of a successful medical school dean[12] and found that financial management skills were crucial to a dean's success. This is consistent with several other reports that the changing nature of academic health, with its reliance on the clinical enterprise for funding,[2,3] required a dean who was skilled in financial management. Indeed, such a skill set may be a key driver in the longevity of a dean.[3] Deans who preside over financial reverses often have shorter tenures.[3] However, when chairs were queried over what expertise was most important for a dean, creating and communicating a strategic vision were considered most important. Expertise in financial management was the expertise a chair valued least. Thus, there is likely a misalignment between what expertise chairs value and what university presidents and hospital CEOs value.[7–10,13–15,19,20,27] This misalignment can generate a tension for the dean between their constituents, the chairs, and their supervisors.[22,23,28] Such a tension might be one pressure that could lead a dean to compromise their integrity, the value that chairs held in highest regard.

The responses by chairs here favor the academic mission of a dean over financial management, yet most academic health centers must be financially self-sustaining or they would not survive. Investments in faculty, new programs, or new infrastructure require a positive financial margin. In a constrained economic environment, it is very challenging to foster creativity and innovation, because requests for resources are almost always declined. Balancing the needs of the chairs and yet fulfilling the charge of their university president make the office of the dean much more complex.[14,15,20,21,23] Favoring the chairs over the university president could lead to losing authority, which is derived from the president. Yet, favoring the president over the chairs could lead to lost credibility with the chairs, who would then take the dean less seriously. Worse, this could result in lost productivity, since the chairs are the instruments to fulfill the dean's agenda. However, currently deans are maintaining this balance, at least in the views of their chairs, since the majority of chairs responded that their dean is highly effective and they enjoyed working with them. This inherent tension in the job of the dean might be one reason why only a small fraction of chairs want to be a dean.

Finally, there is a significant amount of goodwill that chairs have for their dean. As mentioned, chairs said they thought not only that their dean was effective, but that they also enjoyed working with them. Indeed, chairs said that they would respond with more productivity if the dean added moderate pressure. This implies that chairs genuinely thought their deans had integrity and would not request increased effort unless it was truly required. Chairs stated that their deans did respond appropriately to problems they brought to them and that deans protected their departments from harm. These characteristics are likely the reasons for the goodwill that chairs feel for their dean. Interestingly, this reservoir of goodwill may not be fully tapped since 31% of chairs were not even aware when their dean faced a crisis. Thus, chairs may be an important additional resource for deans as the challenges in health care rapidly escalate.[13,19,20,23]

When the crisis is external in origin, such as NIH budget decreases or third-party payer contractual disputes, communicating the details with the chairs should be easier for a dean. However, some internal crises are sensitive in nature, and detailed communication might exacerbate them. Communication in some of these types of crises might even be ethically or legally proscribed. This type of crisis might include research misconduct, malpractice, or disputes with higher leadership. For this latter type of crisis, it might be best to use an inner circle of select chairs to obtain highly confidential input, for whom the expectations of confidentiality are made clear.

Bridging the expectation gap

While there is a robust literature on metrics of success and predictions for failure in academic health center leadership,[2,4,5,7–11,13,14,21,22,37] we found that there is a paucity of literature on what leadership medical school chairs actually want from their dean. Our study was the first to examine what characteristics of a dean's leadership chairs viewed as most important. Souba et al found evidence for an unspoken assumption by deans that their leadership is aligned with their chairs when it was not.[28] We found that most chairs think that deans are doing reasonably well in their leadership efforts, with only a few areas identified that need improvement, such as reviewing past mistakes or communicating when a crisis is occurring. The brevity of this survey along with the modified Likert scale responses, as opposed to free text, probably enhanced our response rate, which was remarkable

for this population. Certainly, more extensive and in-depth queries with free-text responses could have provided more detailed information on what types of leadership a medical school chair desired. Free text would have made statistical analysis more difficult, but could have lent more nuance to the responses. Future surveys could explore in more depth the comparison of values or expertise that chairs felt were important for their dean and compare responses among different ages and genders.

Conclusion

We sought to examine the leadership characteristics that a chair thought were important, rather than to focus on what leadership characteristics were currently practiced. Table 2 summarizes the lessons that a dean could take away from this survey on how to most effectively lead their department chairs is provided in. The goal here was to provide the perspective of chairs, since little has been published in this area, yet chairs are key drivers of medical school productivity. Chairs indicated the most important area of expertise of a dean is to define a strategic vision, and the most important value for the dean is integrity between words and deeds. Thus, there may be a misalignment between what chairs want from the dean and what the dean's institution wants. A common theme woven throughout this survey was the chairs' desire for extensive and transparent communication. Chairs felt strongly that a dean should explain their decisions and openly communicate difficult or even awkward topics. Chairs indicated a dean's ability to admit error promoted confidence rather than being seen as a weakness. Thus, to bridge the expectation gap between these two constituencies of the dean – chairs and institutions – a dean should have a sophisticated skill set in transparent communication. This can bring the expectations of these two constituencies more closely into alignment. Such a skill set is not always innate, and formal training might be helpful for some deans.

Table 2 Ten lessons for deans in leading department chairs

1. Proactively ask for input on a decision before the decision is made
2. Be flexible in changing direction upon receiving new data
3. Openly discuss awkward topics even if there is no immediate solution
4. Transparently acknowledge errors and encourage a learning discussion about them
5. Maintain promises at all costs
6. Communicate a specific strategic vision again and again
7. Provide external leadership coaching regardless of the strength of the chair
8. Share the burden of a crisis and ask for specific assistance
9. Create formal channels for chairs to communicate with affiliated teaching hospitals
10. Few care about funding until there is not any, which means you have to be the one that cares

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