Leadership Development Programs at Academic Health Centers: Results of a National Survey

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Abstract

Purpose
To identify the prevalence and characteristics of faculty leadership development programs (LDPs) offered by North American academic health centers (AHCs) and to uncover gaps in leadership training.

Method
Faculty development/affairs deans of the 161 Association of American Medical Colleges member schools were surveyed in 2015 on their approach to faculty leadership training. For AHCs delivering their own training, the survey included questions about LDP participants, objectives, curriculum, delivery, resources, and evaluation. The literature on leadership and leadership development was used to develop a taxonomy of leadership competencies, which formed the basis of the survey questions related to program content. Survey results were analyzed with descriptive statistics and chi-square analysis for categorical data.

Results
Of the 94 respondents (response rate 58%), 93 provided some form of leadership training and 61 provided a formal internal faculty LDP. Content was variable and rarely based on a specific leadership competency model. Although programs described innovative approaches to learning, lectures and case discussions were the predominant approaches. Evaluation beyond participant satisfaction was uncommon.

Conclusions
Faculty LDPs were common, with some programs describing elements informed by the leadership literature. However, nationally programs can improve by basing content on a leadership competency model, incorporating multiple approaches to teaching, and implementing more rigorous program evaluation.

The complex and rapidly changing nature of contemporary health care has increased the need for developing effective leaders in academic medicine. In response, many academic health centers (AHCs) provide training to prepare faculty for new leadership roles.[1–3] Several systematic reviews have attempted to describe the nature of leadership development programs (LDPs) in academic medicine. In one recent review of general faculty development programs in academic medicine, only 3 of 22 studies specifically had leadership development as the aim of the program.[4] Another systematic review of faculty development at AHCs identified 19 peer-reviewed articles where leadership was the primary focus.[5] Six of these were studies related to a single program, 5 were related to a national or regional leadership program, and only 8 described individual faculty LDPs offered by AHCs.

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A systematic review by Frich included 45 studies of physician leadership programs.[6] However, only 8 of the 45 had faculty physicians as the target audience, and most of the remaining programs targeted residents or fellows.

Therefore, it appears that the current body of literature on leadership development at AHCs is informed by relatively few programs that have published on their work. This makes it difficult for individual AHCs to compare their programs with others or to understand the possible range of offerings when creating new programs. The lack of data also has implications for national organizations that have an interest in health care leadership development on a broader scale. A more comprehensive review of faculty LDPs may help identify national gaps in content, implementation, and evaluation, as well as identify model programs.

The purpose of this study was to identify the prevalence of faculty LDPs at North American AHCs and to describe program characteristics related to content, resources, delivery, and evaluation. Given the increasing attention to leadership development at AHCs, the limitations of the current literature, and the sizable investment many programs require, there is a need to identify the state of LDPs at AMCs and to identify and share effective practices.

Method

In 2015, the George Washington University School of Medicine and Health Sciences (GWU) and the Association of American Medical Colleges (AAMC) surveyed all of the 161 AAMC member medical schools in the United States and Canada on LDPs. The AAMC administered the survey using their software (Verint). The target population was faculty development/faculty affairs deans. This population is frequently engaged with the AAMC through the Group on Faculty Affairs (GFA). An e-mail soliciting participation, as well as follow-up e-mails, came from the GFA, as this approach was thought to best optimize the response rate. The survey was nonconfidential by design so that follow-up questions could be asked of the participants if needed. The institutional review board at GWU deemed the study exempt from review.

The survey instrument (Supplemental Digital Appendix 1, http://links.lww.com/ACADMED/A459) was developed by the research team members from GWU (R.L., E.G., A.S.) based on the leadership literature and similar surveys of other faculty development programs[7,8] and the researchers' recent work.[9] For the purpose of this survey we defined a formal program as "a single cohort of faculty who participate in extended

faculty leadership development activities (i.e., more than a single workshop)." The survey included questions about institutional characteristics: faculty size; National Institutes of Health (NIH) research dollar ranking; or status as a private, public, freestanding, university-affiliated, or community-based medical school. We constructed questions pertaining to key elements in designing and delivering a successful LDP.[10] They related to:

- Stating clear goals and objectives;
- Using a definition of leadership as a foundation for the program;
- Using a leadership competency model or theoretical framework appropriate for the institutional context to inform content and delivery;
- Identifying target participants;
- Identifying curricular topics;
- Determining program requirements, instructors' time, length, and resources;
- Selecting appropriate teaching methods;
- Assessing participants and determining requirements for completion; and
- Evaluating the program.

Embedded within the survey were questions about the inclusion of 33 specific content areas stated in seven categories of leadership competencies: leadership concepts; setting direction and leading change; working with and developing others; communication skills; teambuilding; business skills; and self-management (Table 1). We developed this list from the medical and leadership literatures,[11–24] and it was intended to comprehensively include knowledge, skills, and abilities that crossed the various approaches to leadership as described in the literature. Finally, the survey included queries regarding why those institutions without LDPs had not established them.

The format of the survey was largely a drop-down menu of response choices with space for write-ins. We piloted the survey instrument with members of the GFA research committee who closely resemble the targeted recipients of the survey. The results of the pilot resulted in no substantive changes in survey content, but several questions were edited for clarity based on this feedback.

Table 1

Leadership Competency Areas and Topics Identified in the Literature[11–24] and Addressed in the Leadership Development Program Survey, From a Study of Leadership Development Programs at North American Academic Health Centers, 2015

Competency area	Topics
Leadership concepts	• Models of leadership • Leadership styles • Organizational structures and culture • Developing others as leaders
Setting direction and leading change	• Understanding the environment • Setting goals and objectives • Change processes and change management • Creating incentives and rewards • Decision making
Working with and developing others	• Motivating and empowering others • Promoting innovation • Interpersonal effectiveness • Coaching to address specific behaviors
Communication skills	• Effective listening and communication of feedback • Oral and written presentation skills • Negotiation skills • Networking skills • Group facilitation skills
Teambuilding	• Team processes and development • Group problem-solving and decision-making • Power relationships • Conflict management • Encouraging creativity
Business skills	• Work flow and information management • Financial management/budgeting • Human resource management • Quality improvement • Measuring and evaluating effectiveness • Creating a business plan
Self-management	• Emotional intelligence • Time management • Work–life balance • Lifelong learning

The AAMC solicited survey participation, collected and stored data on their secure services, and shared the data with research team members at GWU for analysis. We used descriptive summary statistics to summarize responses to all questions. Chi-square analysis was used to compare categorical variables for some responses. Free-text fields in the survey were used to allow respondents to write in responses that may have not been among the choices offered. These free-text insertions were reviewed by two members of the study team (A.S. and E.G.) and are included in the results. Statistical analysis was performed using SPSS statistical software, version 16 (IBM SPSS Inc., Armonk, New York). This study was reviewed by the Office of Human Research at George Washington University and deemed exempt for review.

Results

Prevalence of programs

Of the 161 AAMC member institutions, 94 (58%) completed the survey. Individual survey questions were

not required to be answered in the survey, resulting in varying numbers of total responses for each question. In reporting the results, the percentage as well as the number of respondents are included throughout. We compared the characteristics of responding and nonresponding schools, and no significant differences were found between them with respect to faculty size; NIH research dollar ranking; or status as a private, public, freestanding, university-affiliated, or community-based medical school (Table 2).

Sixty-one schools (65%) reported having at least one formal faculty LDP. Research-intensive schools (defined as those in the top half of NIH research ranking) were more likely to have a formal LDP than those in the lower half of the ranking: 62% versus 35%, respectively ($x^2 = 6.4$, $P < .05$). For schools without a formal LDP, 42% cited lack of resources as the reason, and 27% reported having one under development or serious consideration.

Over 80% of the 94 responding organizations indicated that they conducted other types of leadership training that were not included in their formal LDPs. Most commonly reported were single classes or workshops (47/79; 59%) or occasional seminars (43/79; 54%) on leadership topics. Approximately 20% of responding organizations offered only these more informal approaches to leadership training, while almost 40% had both formal LDPs and informal leadership training.

Most organizations (69/78; 88%) sent faculty to externally delivered LDPs. For almost 30% of these, external LDPs were the only form of leadership development training. However, more than half of the organizations indicated that they used both formal internal LDPs and external LDPs. Over 40% indicated that they used all three methods of leadership development: formal internal LDPs, external LDPs, and informal internal leadership workshops. Commonly reported external programs included AAMC Early-Career and Mid-Career Women's Programs, other AAMC LDPs, Executive Leadership in Medicine (ELAM), and other university programs (i.e., Harvard Medical Leadership Program and others).

Table 3 shows a comparison of multiple characteristics of formal internal versus external LDPs. Both were more likely to have physician or basic science faculty as targeted participants. Costs to the institution were similar for both. Internal LDPs were more likely to evaluate their program with satisfaction surveys, while external LDPs were more likely to measure participants' achievements or impact on their institution.

Table 2

Demographic Characteristics of Survey Respondents Compared With the Population of 161 AAMC Member Schools, From a Study of Leadership Development Programs at North American Academic Health Centers, 2015

Characteristic	94 responding schools, no (%)	All 161 AAMC member schools, no. (%)
Location		
Canada	5 (5)	18 (11)
Central United States	23 (24)	34 (21)
Northeast	26 (28)	40 (25)
Southeast	32 (34)	51 (32)
Western	8 (9)	18 (11)
Ownership		
Public	55 (59)	85 (53)
Private	32 (34)	56 (25)
Unidentified	7 (7)	20 (12)
Relationship to academic medical center		
Consortium	1 (1)	1 (1)
Federal government freestanding	1 (1)	1 (1)
Freestanding	7 (7)	11 (7)
Freestanding/health science university	4 (4)	8 (5)
Freestanding/state system	11 (12)	18 (11)
Distant location	11 (12)	22 (14)
Close proximity	52 (55)	80 (50)
Unidentified	7 (7)	20 (12)
Research intensity (ranking)[a]		
< 65	40 (43)	66 (40)
≥ 65	38 (40)	65 (40)
Undefined	16 (17)	33 (20)
Faculty size[b]		
< 1,191	31 (33)	56 (25)
≥ 1,191	1 (1)	16 (10)
Unidentified	55 (59)	72 (45)

Abbreviation: AAMC indicates Association of American Medical Colleges.
[a]Based on direct federal grant and contract expenditures for organized research as reported on the FY2014 Liaison Committee on Medical Education (LCME) Part I-A Annual Financial Questionnaire. Data include expenditures recorded and not recorded on the books of medical schools and are reported only for medical programs with LCME full accreditation (≥ 65 is classified as research intensive; < 65 as not research intensive).
[b]Based on the national average for faculty size, which was 1,191 in 2015.

Characteristics of formal programs

Formal internal LDPs, indicated by 61 respondents, were analyzed based on purpose, time commitments, program requirements, and instructors' background. There were no significant differences in these characteristics between public and private schools, schools in the top and bottom halves of NIH research ranking, or schools that did and did not have a close association with a parent university.

The most common purposes for starting formal LDPs were preparing faculty for new leadership roles (45/61; 74%), cultivating/nurturing junior faculty for next-generation leadership (45/61; 74%), and developing or improving specific leadership competencies (44/61; 72%). Additional reasons cited included developing leaders' understanding of

Table 3

Comparison of Characteristics of Formal Internal Leadership Development Programs and External Leadership Development Programs, From a Study of Leadership Development Programs at North American Academic Health Centers, 2015

Characteristics	No. (%) internal	No. (%) external
Target participants	61	70
Physician faculty	59 (97)	68 (97)
Basic science faculty	57 (93)	61 (87)
Other health professionals	25 (41)	17 (24)
Staff	16 (26)	10 (14)
Other (directors, senior leaders, directors, deans, faculty, and staff)	8 (13)	3 (4)
Average number of participants in the program	55	65
< 10	6 (11)	48 (74)
10–20	30 (55)	15 (23)
21–35	17 (31)	1 (2)
> 35	6 (11)	1 (2)
Cost of delivering the program	36	55
< $10K	10 (28)	29 (53)
$10–20K	6 (17)	13 (24)
$21–30K	0 (0)	2 (4)
$31–40K	4 (11)	0 (0)
> $40K	10 (28)	0 (0)
Evaluation of program impact on individuals	50	69
Satisfaction survey	43 (86)	10 (14)
Assessment of learning	19 (38)	10 (14)
Assessment of behavior change	15 (30)	14 (20)
Individual's impact on organizational achievements	12 (24)	38 (55)
Individual achievements	19 (38)	30 (43)
Other (no evaluation, debrief with supervisor)	n/a	13 (19)
Evaluation of program impact on the organization	48	69
Retention of program participant	28 (58)	33 (48)
Meeting budget (of the participant's area of responsibility)	2 (4)	4 (6)
Revenue growth (of the participant's area of responsibility)	2 (4)	3 (4)
Research funding growth (in the participant's area of responsibility)	7 (15)	8 (12)
Other (no consistent comments)	9 (19)	20 (29)
Achievements measured	19	30
Promotion	11 (58)	17 (57)
Tenure	4 (21)	9 (30)
Additional administrative leadership roles	18 (95)	29 (97)
Additional professional society leadership roles	9 (47)	13 (43)
Enhanced personal growth (pre/post survey)	12 (63)	7 (23)

[a]Numbers without percentages are the number of participating leadership programs with responses for that category. Percentages are calculated based on these numbers.

business-related topics, language, and tools (30/61; 49%); preparing faculty to take on institution-wide projects (29/61; 48%); and providing remediation for current leaders (8/61; 13%).

Target participants were most commonly physician faculty (97%) and basic science faculty (93%). Forty-one percent included other health professionals (registered nurses, physician assistants, etc.), and 26% included nonfaculty staff. Sixty percent used an internal competitive process for participation, and 85% required approval by the participant's unit head. Fifty-one percent reported that participants were given protected time for the program.

The cohort size for formal LDPs ranged from < 5 to 75. Most were in the range of 10 to 20 participants (51%). Seventy-nine percent reported a time commitment of four hours or less per week in class, and 90% reported a time commitment of four hours or less per week out of class for reading, assignments, and projects.

Leadership competencies in formal programs

Approximately one-quarter of the AHCs used a leadership competency model to frame the content of their formal LDP (13/50; 26%). However, no single leadership competency model was used by more than one organization. Figure 1 displays the frequency with which programs included each of the 33 leadership topics identified in the literature and summarized in Table 1.[11–24] The most common topics included by 60% or more of the organizations with formal LDPs (grouped according to the leadership competency areas in Table 1) were:

- Leadership concepts: Leadership styles (41/50; 82%) and organizational structures and culture (36/50; 72%);
- Setting direction and leading change: Setting strategic goals and objectives (38/50; 76%), understanding the environment (35/50; 70%), change processes/change management (34/50; 68%), and decision making (31/50; 62%);
- Working with and developing others: Interpersonal effectiveness (40/50; 80%) and motivating and empowering others (30/50; 60%);
- Communication skills: Effective listening and communication of feedback (39/50; 78%) and negotiation skills (36/50; 72%);
- Team building: Conflict management (40/50; 80%) and team processes/development (34/50; 68%); and
- Self-management: Emotional intelligence (35/50; 70%).

Less than half of LDPs covered topics related to the competency of business skills.

Approaches to learning in formal programs

Table 4 summarizes the frequency of learning approaches grouped according

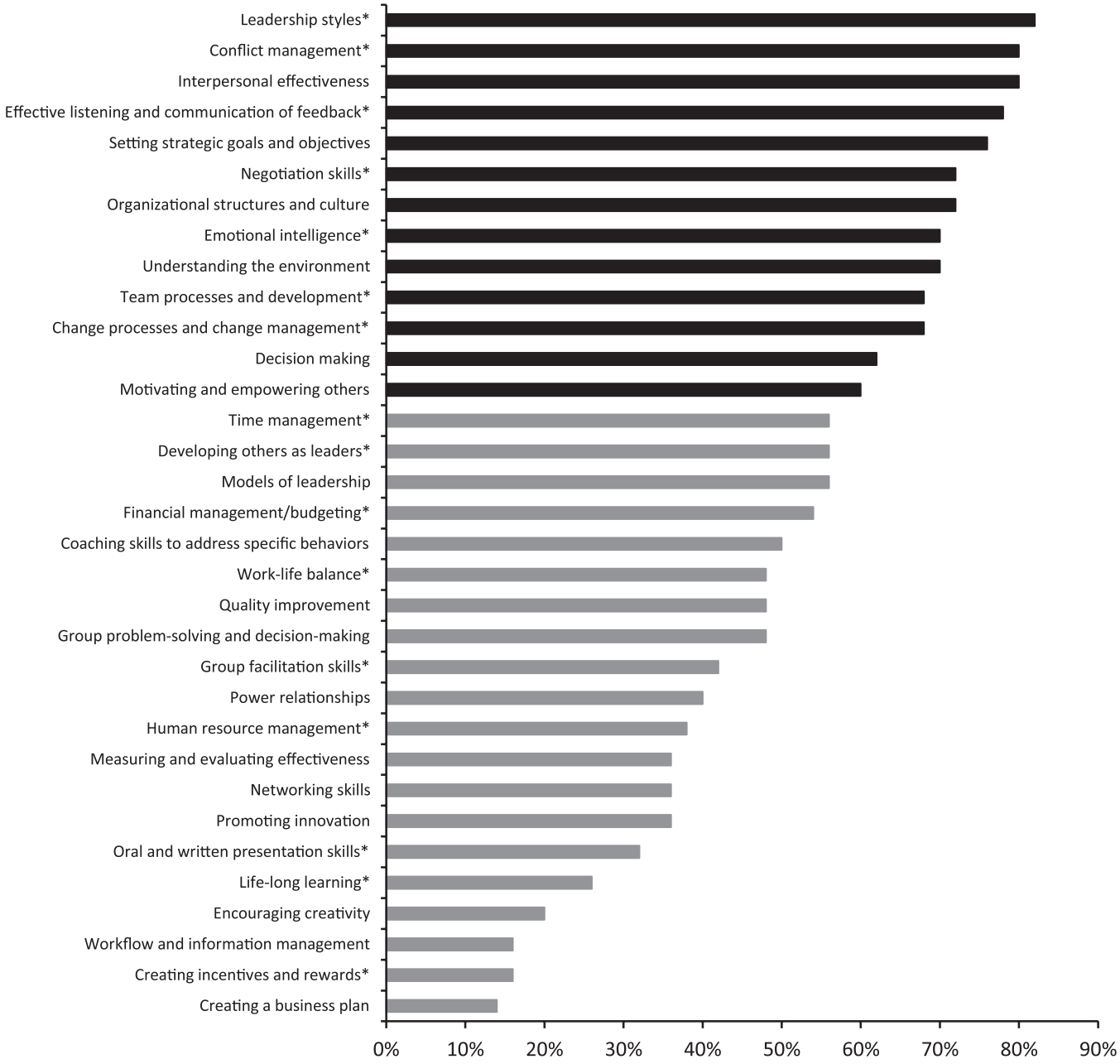

Figure 1 Frequency of each leadership topic in the content of the leadership development programs, from a study of leadership development programs at North American academic health centers, 2015.
*Topics mentioned for informal, internally delivered leadership development single seminars or workshops.

to the four learning categories required for LDPs.[25,26] The most common approaches involved transmitting conceptual understanding via traditional classroom-based techniques such as case discussions (42/50; 84%), lectures (40/50; 80%), and guest speakers (37/50; 74%). Other common approaches to learning included feedback from self-assessments (34/50; 68%), peer-to-peer coaching (27/50; 54%), and skill building via leadership games and simulations (25/50; 50%). Less attention was given to personal growth activities (i.e., role modeling and reflection). Online delivery of content was reported by 30% of institutions with LDPs but constituted no more than 20% in any single program.

Most of the instructors in formal LDPs were medical school faculty and deans (23/38; 61%). Other instructors included subject matter experts (12/38; 32%), organizational development or leadership consultants (9/38; 24%), business school instructors (7/38; 18%), and human resource/organizational development staff (2/38; 5%).

The primary tangible completion requirements for formal LDPs were individual (20/50; 40%) and group (15/30; 30%) projects. Approximately one-quarter of the organizations indicated that they required leadership development plans. Most organizations issued certificates of completion for their programs (31/50; 62%). Thirty percent offered continuing education credits, only a few offered academic credits toward a degree or certificate, and none awarded academic degrees (i.e., master's).

Table 4

Approaches to Learning Categorized by 50 Participating Leadership Development Programs, From a Study of Leadership Development Programs at North American Academic Health Centers, 2015

Category and approach[25]	No. (%)
Personal growth: Reflection on behaviors, values, and desires	
Behavior role modeling	21 (42)
Reflective writing	14 (28)
Conceptual understanding: Theory and cognitive development	
Case discussion	42 (84)
Lectures	40 (80)
Guest speakers	37 (74)
Written paper	6 (12)
Feedback: Feedback and skill measurement	
Self-assessments: MBTI, DiSC, MLQ, etc.	34 (68)
Peer-to-peer coaching of program participants by each other	27 (54)
Mentoring program participants	24 (48)
360° leadership assessment tools	19 (38)
Executive coaching	12 (24)
Skill building: Practice with feedback	
Leadership games and simulation	25 (50)
Group projects	22 (44)
Individual projects	21 (42)
Leadership development plan	12 (24)
Stretch assignments	1 (2)

Abbreviations: MBTI indicates Myers–Briggs Type Indicator; DiSC, Dominance, Influence, Steadiness, Conscientiousness tool; MLQ, Multifactor Leadership Questionnaire.

Program evaluation

Most organizations evaluated impact on the individual faculty participant by satisfaction surveys (43/50; 86%). Less than half of the programs indicated they used assessments of learning (19/50; 38%), measurements of postprogram individual achievement (19/50; 38%), or assessment of behavior change (15/50; 30%) by the individual.

Evaluation of the LDP's impact on the institution was most commonly measured with retention within the organization of participating faculty or staff (28/48; 58). Research funding growth by participant (7/48; 15%) was also reported.

Discussion

To our knowledge, our study is the first comprehensive report of the state of faculty leadership development training offered by North American AHCs. Leadership development training is common at AHCs; only 1% of the 94 responding institutions reported offering no form of leadership training at all.

Like organizations in the nonhealth sector, many schools reported significant investments in time and money delivering formal internal LDPs, sending faculty and staff to well-known external LDPs, and offering informal leadership workshops or seminars.

Using a definition of leadership, leadership competency model, and/or theoretical framework of leadership as a basis for the program is of fundamental importance in designing and delivering a faculty LDP. This practice appeared to be uncommon based on responses to our survey and remains an important way that AHCs may improve their LDP content. Our findings are also consistent with prior reports, in which leadership scholars across industries have criticized program design as lacking definitions of leadership or any relationship to leadership theory and being ignorant of organizational issues, processes, and relationships.[25,27–32]

Leadership scholars advise that leadership development training should be contextual,[5,25] and organizations should ground their program on a model that fits their individual participants and institutional needs. The University of Florida[33] is an example of an institution that started with a published competency model,[34] modified it based on interviews and focus groups within their own leadership context, and used it as the theoretical framework for their LDP.

The predominant approaches to learning in formal LDPs reported by AHCs responding to this survey were case discussions, lectures, and guest speakers. This finding is similar to another survey focused on teaching methods in college leadership courses.[35] Research on the effectiveness of specific techniques in leadership training is either sparse or disassociated from the competencies participants develop. However, it is generally agreed that effective programs should be framed around four components: conceptual understanding, skill building, feedback, and personal growth.[22,23,25]

It is encouraging that about half of surveyed programs used some form of feedback, peer coaching, simulation, or work-related projects in their approaches to learning, but there is room for improvement. Incorporating approaches such as individual or group work projects or action learning assignments is consistent with evidence that actual work events and experiences are the primary sources of leader development[36] and may help align LDPs with the organization's overall strategy and performance.[27] It is notable that the use of individual or group reflection was rarely reported, despite its importance for personal growth in leadership.[25,37,38] Programs can improve by incorporating self-reflection activities such as learning journals, reflective writing assignments, and in-class reflective dialogue. ELAM[39] is an example of an external LDP that has successfully incorporated all four suggested approaches to teaching in LDPs.[25,26] These approaches include direct applications of learning such as action projects, individual work assignments at the home institution, and individual leadership development plans (skill building); opportunities for reflection-in-action, networking, and career counseling (personal growth); and 360-degree and other assessments (feedback).

The impact of LDPs on the individual and the institution was largely evaluated with satisfaction surveys of participants

and others in the organizations. A minority of institutions reported evaluating the higher levels of impact according to the Kirkpatrick model: learning, behavior change, and results.[40] Although some programs tracked achievements and retention of individual participants at the institution, it was not the norm. Indication that respondents measured institutional impact beyond satisfaction was nearly absent from our findings. This is consistent with other studies, which have concluded that physician LDPs have demonstrated only modest impact on outcomes important to AHCs and that more rigorous program evaluation is needed.[2,4] External programs described by our respondents were more likely to measure achievements and the impact of the individual on their home institution. Some external programs have published evaluations of their LDPs at the learning, behavior change, and results levels[2] and may provide examples of how internal LDPs at AHCs may improve their evaluation. As demands increase for developing leaders for complex health organizations in an environment where leadership development resources may be scarce, AHCs should consider results-oriented outcome measures at both the institution and the individual level to ensure that their LDPs are as effective as possible. This finding suggests that optimal program evaluation of LDPs at AHCs may be an important area for future research or as a topic for a consensus conference in the field.

Limitations

As with any survey form of research, there may have been selection bias in our study. Although responding and nonresponding schools were statistically similar in several demographic variables tested, it was possible that schools with LDPs of any sort were more likely to respond than schools that did not offer faculty LDPs. Thus, our prevalence estimation may be falsely high. Nevertheless, we captured a significant amount of program detail on LDPs at 94 AHCs as a rich source on information on content, delivery, and evaluation that can be informative to the faculty development community.

Conclusion

Faculty LDPs are common at North American AHCs, both as internally delivered programs and participation of faculty in external programs. To our knowledge, ours is the first comprehensive report on the design, content, delivery, and evaluation of these common programs. On a national scale, programs offered by AHCs can improve by basing content on a leadership competency model relevant to their institution and by incorporating multiple teaching approaches that provide conceptual understanding, skill building, personal growth, and feedback. Furthermore, programs should incorporate more rigorous evaluation beyond satisfaction surveys and strive to find meaningful outcome measures at the level of both the individual faculty member and the institution.

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Ethical approval: This study was reviewed by the Office of Human Research at George Washington University and deemed exempt for review.

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