

Exploring Leadership Competencies in Established and Aspiring Physician Leaders: An Interview-based Study

Christine A. Taylor, PhD^{1,2}, Jay C. Taylor, MEd³, and James K. Stoller, MD, MS^{4,5}

¹Faculty Development, Cleveland Clinic Lerner College of Medicine, Cleveland, OH, USA; ²Division of Education, Cleveland Clinic Lerner College of Medicine, Cleveland, OH, USA; ³Engineering Technologies, Owens Community College, Toledo, OH, USA; ⁴Division of Medicine, Cleveland Clinic Lerner College of Medicine, Cleveland, OH, USA; ⁵Section of Respiratory Therapy, Department of Pulmonary, Allergy, and Critical Care Medicine, Cleveland Clinic, Cleveland, OH, USA.

BACKGROUND AND OBJECTIVES: Academic health care institutions have become interested in understanding and supporting current leaders and preparing leaders for the future. We designed this exploratory study to better understand specific perceived leadership needs of physicians from the perspective of “aspiring” and “established” leaders within our institution.

DESIGN: A qualitative, inductive, structured interview-based design was used to examine the study questions.

PARTICIPANTS: A purposeful sample of current and aspiring leaders was obtained, sampling across specialties and levels of leadership.

INTERVENTIONS: All participants were interviewed by the same investigator (CT). Five open-ended questions were developed as prompts. Two of the investigators independently analyzed the transcripts, using an open coding method to identify themes within the narratives. Inter-observer comparisons were made and discrepancies were resolved through discussion.

RESULTS: Four themes emerged from analyzing the responses to our questions. Aspiring and established leaders agreed that “knowledge”, “people skills” or emotional intelligence, and “vision” were all characteristics of effective leaders and critical to the success of aspiring leaders. Established leaders in our sample added a characteristic of “organizational orientation” that extended the description of “leaders” to include an understanding of the institution as well as dedication to its success (a trait we have called “organizational altruism”).

CONCLUSIONS: Our findings validate others’ regarding leadership competencies while extending these findings to the specific context of health care and physicians. Important implications for curricular design include: inclusion of emotional intelligence competencies and reducing formal didactics in favor of programs that are both interactive and problem-based.

KEY WORDS: leadership competency; great leaders; organizational success; leadership development.

Received November 8, 2007

Revised January 29, 2008

Accepted February 19, 2008

Published online March 8, 2008

J Gen Intern Med 23(6):748–54

DOI: 10.1007/s11606-008-0565-5

© Society of General Internal Medicine 2008

INTRODUCTION

Because great leadership is a critical element of organizational success,^{1,2} the attributes and competencies of great leaders have received much attention. For example, Kouzes and Posner² have suggested 5 leadership challenges:

- ▶ Challenging the process,
- ▶ Inspiring a shared vision,
- ▶ Enabling others to act,
- ▶ Modeling the way, and
- ▶ Encouraging the heart.

Health care poses special leadership challenges because of the complexity of health care institutions^{3,4} and because of the characteristics and training experiences of physicians, which may conspire against collaboration and willingness to follow or receive direction from others.^{5,6} Furthermore, as pointed out by Lobas in a study of academic chairs of Internal Medicine,⁷ criteria for promotion to leadership in academic institutions often relate more to academic and clinical accomplishments than to skill in the aforementioned leadership competencies. In fact, the commitment needed to develop clinical and investigative talent and to achieve academic success may eclipse physicians’ attention to learning these leadership competencies, thereby potentially handicapping their leadership.

Given these emerging insights about the special needs and challenges of leading in health care, business school faculties,⁸ health care institutions, and medical societies have become interested in better understanding the specific leadership needs of physicians and in training physician-leaders.^{9–12} In this context, we undertook this study to better understand the specific leadership needs of physicians and to inform the curriculum of our physician leadership training program at the Cleveland Clinic.⁷ Specifically, we addressed two groups of physician-leaders: high-potential, aspiring leaders and a stratified group of established leaders—to clarify two questions:

1. What knowledge, skills, and attitudes are needed by members of the professional Staff (faculty) who aspire to

leadership positions at the Cleveland Clinic or at other large academic health centers?

2. What kind of experiences lead to the acquisition of leadership skills and can these skills be learned?

QUALITATIVE APPROACH

This study was approved by the Cleveland Clinic Institutional Review Board.

Based on Inui and Frankel's standards for qualitative research,¹³ we developed a qualitative, structured interview-based design using an inductive approach to identifying themes, including systematic sampling, inductive data collection, and concern for reliability and validity.¹³ We chose a purposeful sample to provide a broad perspective on leadership¹⁴ that was selected to represent the views of 2 cohorts: aspiring leaders and established leaders, a term that includes both mid-level and senior leaders.

Aspiring leaders at the Cleveland Clinic were identified based on their expressed interest in gaining new academic and leadership skills, i.e., by either being nominated for and attending the Cleveland Clinic "Leading in Health Care Course" (a 9-month internal physician leadership training program⁷) or by self-selecting to participate and complete the "Distinguished Educator Program" (an 8-month academic skills program). Both programs were developed to build skills and support physicians' career advancement.

Established leaders were chosen by selecting individuals from a list of institutional leaders, stratifying for type of specialty (surgical vs medical) and variety of roles. To assure a representative sample, invitation letters were sent to 10 aspiring, 10 mid-level (course and clerkship directors, program directors, department chairs), and 10 senior leaders (division directors and academic deans) with the intent to use a "theoretical saturation"¹⁴ approach (to indicate whether more interviews would be helpful).

All participants were interviewed by the same investigator (CT). Five open-ended questions were developed as prompts. Questions were altered slightly in some cases to reflect the participants' leadership level; for example, an aspiring leader was asked, "In preparing for a leadership position, what knowledge, skills and attitudes do you think are fundamental to being successful?", whereas established leaders were asked, "When you look for 'potential leadership talent' in those faculty who report to you, what are the characteristics that you have found most predictive of success?" Other questions were not altered by leadership level, e.g., "Think about the most effective leader that you have ever encountered and describe the characteristics of that individual that are relevant to his/her effectiveness as a leader?"; "Do you think leadership skills can be acquired through classroom experience?" Interviews were audio-taped and transcribed.

Two of the investigators independently analyzed the transcripts,¹⁵ first by using an open coding method to apply descriptive labels to idea units within the narratives. Idea units were defined as comments focusing on one idea plus any elaboration. The frequency of comments by theme and category was then calculated for each participant. Inter-observer comparisons were made and discrepancies were resolved through discussion. Descriptive "labels" for central concepts were then reduced into more abstract "categories." Because

early open coding revealed that certain descriptive labels were consistent with categories of "emotional intelligence" (EI),^{16, 17} the second "pass" coding used the EI nosology for classification. Emotional intelligence has been defined as "the ability to perceive emotion, integrate emotion to facilitate thought and to regulate emotion to promote personal growth".¹⁸

The categories were examined for overarching themes that provided insight about the original research questions. To further validate the central themes, study participants were sent a copy of the research questions and central themes and were asked whether they believed this thematic interpretation was consistent with their experience. All but one affirmed the themes.

RESULTS

Twenty-five faculty participated in this study: 10 aspiring and 15 established leaders (8 mid-level leaders and 7 senior leaders). Senior leaders tended to be older than aspiring leaders (i.e., mean age 57.9±2.1 years [range 54–60] vs 39.8±4.9 years). Although our original plan was to interview 10 faculty in each group, we found marked redundancy in responses after the sixth interview. Still, all scheduled interviews were conducted.

The first research question, "What knowledge, skills and attitudes are needed by members of the professional Staff (faculty) who aspire to leadership positions at the Cleveland Clinic or at other large academic health centers both now and in the future?," was approached from 2 perspectives. The first was to recall an admired leader and the second was to predict what they would need to do (aspiring leaders) or what they would advise junior faculty to do to prepare for leadership positions (established leaders).

Four recurring themes emerged from the data as requisite qualities and skills for leaders. Participants consistently described leaders as demonstrating "knowledge," "people skills," or emotional intelligence, and "vision." The established leaders group added a fourth theme—"organizational orientation." Table 1 provides an overview of the 4 themes with the percent of comments contributed by aspiring and established leaders. Differences in frequency of comments are described without statistical comparison, as we felt that the purposeful sampling design used in this study did not support meaningful statistical analysis. The discussion that follows describes each theme with illustrative comments.

Knowledge

The knowledge theme was divided into 2 subcategories: 1. knowledge about "role-related" information, such as practical dimensions of a position, finance, budgets, technology, etc., and 2. knowledge in the physician's discipline or medical specialty. Although only a few subjects mentioned "knowledge" as an important characteristic of their admired leader, many more mentioned the importance of gaining knowledge to prepare for a leadership position.

Examples of comments in each subcategory include:

Role-related Knowledge

... "Learning more about how the residency program operates, learning more about developing

Table 1. Competencies Cited by Study Participants as Being Important to Learn and Acquire in Preparation for a Leadership Role*

Competencies	Aspiring Leaders (N= 10) Total Comments=38 N (%)	Established Leadership† (N= 15) Total Comments=51 N (%)
Knowledge		
Role-related knowledge	12 (32)	9 (18)
Expertise in one's own field	1 (3)	10 (20)
Emotional Intelligence		
Self-awareness	4 (11)	1 (2)
Self-regulation	2 (5)	2 (4)
Motivation	2 (5)	7 (14)
Empathy	1 (3)	1 (2)
Social skills	13 (34)	10 (20)
Vision	2 (5)	3 (5)
Organizational orientation		
Knowledge	1 (3)	4 (8)
Altruism	(0%)	4 (8)

*Collected from aspiring leaders' "personal plan" and established leaders' "advice" questions

†Mid-level, N=8 (residency directors, course and clerkship directors, department chairs)

Senior Leaders, N=7 (division chairs, associate and executive deans)

curriculum, teaching all that will also help to enhance my knowledge base and then potentially as I continue to have discussions with Dr P, see how that can eventually lead to my goal, be Associate Program Director, that's what I'm really heading for."

Knowledge in Field

"So, my first recommendation to them is to be a good physician in every sense of the word, and pay attention to that, and be a good teacher and then to really get a sense of the organization as it all fits together and look for opportunities that would be attractive to them."

Emotional Intelligence

Although "knowledge" was an important recurring theme, "emotional intelligence" (EI) was the most often cited quality of admired leaders (>70% of comments) as well as a "skill" seen as important to acquire when preparing for a leadership position (40–58% of comments, depending on group). Table 2 provides examples of the five subcategories EI by group. The aspiring leaders often spoke of social skills that their admired leader demonstrated, very often mentioning the leaders' willingness to listen, resolve conflicts, pay attention, and motivate their staff through energy and positive attitude.

Some examples of aspiring leaders' comments concerning the EI dimensions of their most admired leaders include:

"Obviously a great leader, somebody who's very fair and is interested not only in promoting programmatic development but in promoting those that are under them to thrive in that environment..."

The very important part of leadership is that you're being listened to. I don't care how busy you are, if that

person takes the time and makes you feel when you walk away from that meeting that you're being listened to, ... and I really do think that's an invaluable quality."

Established leaders commented most often on "motivation" and "social skills." The concepts of "high energy," "hard work," and a "passion for work" were prominent on their lists of attributes of admired leaders and predictors of future leaders. Some representative comments include:

"Well, I think looking at the young people, having ambition to excel, that could be to excel in patient care, clinical research, taking on projects of one type or another but a desire to do, to continue to grow and develop".

"Well, I think it's enthusiasm, ability to communicate that enthusiasm and it's almost more important than the message in some ways, I think creating a sense of togetherness or being able to pull people together with that enthusiasm, so it's sort of a charisma I suppose, and clearly the content is important, because it's related to the credibility of the individual. So if they're all charisma and no content, but that charisma part is important in the energy behind it".

Table 2. Examples of Quotes Demonstrating the Belief that Emotional Intelligence Comprises an Important Leadership Trait

Emotional Intelligence Category	Example from Interviews
a. Self-Awareness — The ability to recognize, understand and realistically assess one's own feelings, motivation, knowledge.	a. "A leader needs to be somebody who effectively works together with individuals... and understands their own weaknesses and strengths with their ability to deal with conflict"
b. Self-Regulation — The ability to control one's own behavior, focus, suspend judgment, think and listen before making a decision.	b. "...but also has the willingness to listen to other people and admit sometime that others might be right and the ability to manage time and make sure things don't cross his desk more than once..."
c. Motivation — The inclination to pursue goals with enthusiasm, energy and persistence; an intrinsic drive to achieve, a passion for work.	c. "...having ambition to excel; that could be excel in patient care, clinical research, taking on projects of one type or another, but a desire to do, to continue to grow and develop".
d. Empathy — The ability to recognize and understand the emotional reactions of others.	d. So the third thing I would say is that these leaders had in common is that they had a very clear vision for what they saw my role was and applied my attributes to my career, not for their benefit, but for my benefit.
e. Social Skills — The ability to communicate, manage relationships, find common ground and build rapport.	e. "...learn how to get along with people at different levels, how do you finesse a situation that may be where you don't agree with someone, how do you voice your opinion without sounding, you know, making someone else feel put off..."

Only two of the aspiring leaders commented on “enthusiasm” or “hard work” as a prerequisite for leadership. One aspiring leader particularly captured the importance of energy and of execution¹⁹ as important qualities of successful, established leaders:

“I guess the challenge for me is to convey the enthusiasm for what you have and so people can pick off on that energy and do that in an effective manner. That’s something I struggle with here, not because it’s the Clinic, it’s just in general, if you have enthusiasm for projects then the Clinic is a pretty amazing place, ... and you can feel the collective energy and everybody’s like “Yah, this is great” and so forth, but then taking it and making sure it goes to fruition”.

Both groups recognized “social skills as a very important component of leadership. In fact, the concept of managing relationships was considered by some as a hallmark of leadership. Some representative comments include:

“The things that make her a good leader, one is actually communication skills, number two is her ability to address conflicts in a fashion that is fair, and be able to communicate ideas on both sides and have one side understand the other side’s perspective. Third is actually to be able to take a stand despite resistance from the other side and being able to communicate effectively the reasons behind that and to stand their ground and be able to explain their position clearly and to have conviction”.
 “... this person was able to make everybody under them think that any ideas for change, for where we were going in the future, basically came from us. So, it was the person’s idea, you know you were young and full of vigor, we’d walk in and say “Well I think so and so” and by the time you left they had you on their page, but they made you think as though it was your idea to be on that page. That made that person a very effective leader, because it took away a huge thing that causes conflict, it took it out of the equation.”

Vision. The concept of having vision was (~15% of comments) cited as an important quality of admired leaders. It is interesting to note that gaining vision was not mentioned as often when describing advice (for established leaders) or describing a personal plan for aspiring leaders, e.g.,

“I think that the leaders that I think have been effective had clear goals and were able to translate them transparently to people that they’re working with”.

Organizational Orientation (Knowledge/Altruism). One of the most striking differences in the 2 cohorts’ description of leaders and the knowledge, skills, and attitudes needed by leaders regarded organizational orientation. Organizational

orientation was described as pursuing knowledge of the history, structure, and function of the organization as a whole. During the second review of this theme, it was noted that 4 of the 7 senior leaders described this characteristic differently, emphasizing not simply knowing about organizational structure and function, but rather as a commitment to promoting the good of the organization, even when that good might conflict with personal or department goals. We propose the term “organizational altruism” to describe this phenomenon. Senior leaders provided the clearest description of organizational altruism. For example, in response to the question concerning “What are the characteristics that you have found most predictive of success?,” 1 senior leader stated:

“I think the ones that are most successful have an institutional perspective rather than a personal perspective, to be as successful as you can be here you’ve got to transcend your own discipline specific goals.”

Another comment by a senior leader was:

“It’s not about them, it’s really about an organization that makes patient care better. So having an attitude that you know this is how I make things better in the organization, I’m not interested in people who work just for power, I’m interested in people interested in making things better and that involves changes, changes in management”.

The second research question, “What kind of experiences lead to the acquisition of leadership skills and can these skills be learned?,” explored the beliefs of the two cohorts concerning how best to learn the skills and attributes associated with effective leadership. Two themes emerged. The first concerns the construct of leadership. For the most part, the subjects viewed leadership as containing two components, the first being knowledge and skills and the second being personal attributes that may be considered innate, or at least learned early in development (Table 3). Many of the subjects made this distinction, but voiced some uncertainty about how to distinguish between innate and learnable traits. The second theme concerned optimal ways to the acquire leadership skills. A description of both and examples follow.

Leadership Construct

The view of the construct of leadership as containing a knowledge and skill component and a personal attribute

Table 3. Qualities and Competencies Most Often Cited as “Innate” Versus “Teachable”

Cited as “Innate”	Cited as “Teachable”
Charisma	Strategies for dealing with groups
Vision	Knowledge of finance, budgets, regulations, etc
Energy	Knowledge of organizational priorities
Caring Empathy	Networking Planning skills

component was mentioned by over half of the subjects. Established leaders were more likely (63%) than the aspiring leaders (40%) to view leadership as being at least partly innate. For example,:

“I have my doubts, I think it’s important that there are some native talents or skills that are hard to learn in the classroom, and some of it has to do with that vision thing. Or the energy or charisma, some of those things that are so important that you can’t learn, that doesn’t mean that there aren’t some things that you can learn.”

Optimal Learning Experiences

When addressing the second theme, those who believed that at least some aspects of leadership were teachable favored interactive, experiential learning over classroom activities. Many cited learning from mentors or role models as the ideal way to learn leadership skills. Classroom didactics were viewed as having very limited value, especially when a lecture format was used.

Comments that supported the ability of individuals to learn aspects of leadership did not discount the concept of leadership being partly innate but simply focused on the teachable aspects. For example,:

“I think if you do it in the right setting, it can be good. I think giving people hands-on opportunities to maybe hear about how leaders operate and then through workshops or seminars they’re given an opportunity to see if they encapsulated what the leader has voiced as their own personal experiences, that would be the way.”

DISCUSSION

In this study of leadership perspectives of aspiring and established health care leaders, 4 themes emerged from analyzing the responses to the question: “What knowledge, skills and attitudes are needed by members of the professional staff (faculty) who aspire to leadership positions?” For the most part, aspiring and established leader groups agreed that knowledge, people skills or emotional intelligence, and vision were all characteristics of effective leaders that are critical success factors for aspiring leaders. Established leaders in our sample added a characteristic of organizational orientation that extended the description of leaders to include an understanding of the institution as well as dedication to its success, even at personal expense (a trait we have called “organizational altruism”). In describing the path that might lead to acquiring these skills, the participants expressed uncertainty about whether all of the attributes could be learned and recognized that at least some of the attributes seemed innate. However, there was concordance that experiential activities provided the best kind of instruction for those qualities that could be taught. Also, the importance of mentorship as a means of imparting leadership lessons was emphasized.

Our findings validate others’ regarding leadership competencies² while extending these findings to the specific context of health care and physicians. For example, the themes of

engaging others, having vision, empowering others, inspiring others, and having integrity that were amply represented by leaders in this study closely resemble those articulated by Kouzes and Posner as constituting 5 key leadership challenges.² At the same time, our findings resonate with those of Lobas⁸ in his call for greater attention to leadership skills and to emotional intelligence in particular in selecting physician leaders.

That this issue is gaining popularity is shown by the increasing attention being given to physician leadership training in health care institutions.⁹⁻¹² For example, a 1997 survey by Scott et al.¹⁰ of chief executive officers of leading hospitals indicated that 31% of respondents were offering some type of in-house physician leadership development programming. More recently, in a 2005 survey of medical executives, Epstein¹¹ reported that 74% of respondents cited inadequate leadership “depth on the bench,” that 70% reported growth of physician leadership development activities in their institutions, and that 71% employed training or formal education as means to effect this development. At the Cleveland Clinic, awareness of the need for physician leadership development first prompted the Practice Management course in 1990¹⁸ and later prompted its being revamped as the Leading in Health Care course in 2001 (which is currently in its fifth annual offering).¹¹ The organizational impact of these leadership development programs has been measured by the large number of innovative ideas generated from course-related activities and the high frequency (61%) of business plans developed by physicians taking these courses at the Cleveland Clinic.²⁰

The observation that established leaders espoused organizational altruism more frequently than aspiring leaders may also reflect generational perspectives regarding the importance of allegiance and paying dues. Work by Zemke et al.²¹ suggests that members of the Veterans cohort (i.e., born before 1946) and early Boomers (born 1946 to ~1950) attach greater priority to the principles of institutional allegiance and service than those born later (e.g., late Boomers and GenXers). To the extent that established leaders in our survey were, on average, older than aspiring leaders, we cannot assess whether advocacy of organizational altruism reflects a generational perspective or one ascribed to the position as established leaders.

CURRICULUM IMPLICATIONS

As was our hope in conducting the research, our findings also have important implications for designing the curriculum of programs to enhance physicians’ leadership skills and candidacy. Our findings suggest at least 4 major curricular design implications. First, our finding that established leaders’ views differ somewhat from those of aspiring leaders (e.g., regarding the importance of organizational altruism and aspects of emotional intelligence [Table 1]) creates the opportunity to incorporate some of these insights into the curriculum of our course and others. More specifically, aspiring leaders may be advantaged in their leadership preparation by knowing the traits that existing leaders seek in determining aspiring leaders’ candidacy for leadership positions. To realize this impact, our intent is to present these findings as a future part of the Cleveland Clinic Leading in Health Care course, and we offer this to others organizing similar courses.^{9-12,22} Second,

our results also support the importance of including training in emotional intelligence, strategic planning, and organizational awareness as part of existing curricula.^{8,9,20,22} Third, as another confirmation of others' findings, interviewees believed that behavioral change among physicians is better effected by participatory learning (e.g., role plays, case discussion, etc.)²² or case-based interactions²³ than by didactic lectures. Cognitive psychologists have long suggested that memory for new information is significantly enhanced by elaborating on the concepts to be learned.²⁴ Elaborations can take many forms, but generally speaking, the learner actively transforms the information presented from one form to another. In a medical leadership setting, case discussions, applying new principles to real problems or dilemmas, debate, and role play/simulations are common examples of effective and preferred elaborative strategies. It is not surprising that a review of available reports of physician leadership development courses⁹⁻¹² suggests a preference for a highly interactive, participatory format.

Finally, our results contribute to the perennial discussion of whether leadership is innate or can be learned. Kouzes and Posner² argue strongly that all aspects of leadership can be learned and that leaders are made, not born. While our results do not address the issue of "learnability" of leadership traits, they do identify those characteristics that were considered most teachable by the group sampled, which include: strategies for dealing with groups, mastery of specific bodies of knowledge (e.g., finance, regulatory issues, etc.), networking skills, planning skills, and knowledge of organizational priority. While by no means discounting the possibility that these features also can be learned, participants in this study deemed some features more likely to be innate, i.e., vision, energy, caring, and empathy.

LIMITATIONS

Several potential shortcomings of this study warrant discussion. First, the relatively small sample and the single institutional nature of the sample could limit the generalizability of our conclusions. At the same time, the fact that the current findings confirm the leadership competencies espoused by others in different work contexts² supports the robustness of our findings.

Second, the research is a qualitative analysis and lacks statistical analysis (e.g., to assess whether the higher frequency of established leadership espousing organizational altruism significantly exceeds the frequency of aspiring leaders' views). While the opportunity to perform non-parametric analysis in our assessment of group differences was raised, we deferred these analyses as we felt that statistical analysis was inappropriate in the context of our purposeful sampling approach.

Finally, because members of our sampled group differed on age and leadership level, it is difficult to ascribe differences in perspectives solely to leadership station or to discount the likely influence of generational issues. At the same time, at a practical level, the reasons for these differences may matter less than that there are differences of which aspiring leaders should be aware.

In summary, this research extends insights on leadership and leadership development to an academic medical center and, in so doing, both confirms insights from other settings

and suggests some strategies to optimize physician leadership development. The many additional questions invited by this small study (e.g., "Do these results generalize to other health care institutions and settings?"; "How can we optimally train physician leaders?"; and "What is the impact and 'return on investment' of existing physician leadership programs?") reminds us that studying physician leadership development remains embryonic and that there are many opportunities to enhance current understanding in an effort to assure optimal future leadership in health care.

ACKNOWLEDGMENT: We would like to acknowledge all the CCF faculty who generously participated and provided thoughtful responses to our questions. In addition, we would like to thank Maggie Muszka who transcribed all the wonderful ideas into text for analysis and Sherri White who assisted in the manuscript preparation.

Conflict of Interest: None disclosed.

Corresponding Author: Christine A. Taylor, PhD, Cleveland Clinic Lerner College of Medicine, 9500 Euclid Avenue - NA25, Cleveland, OH 44195, USA (e-mail: taylorc2@ccf.org).

REFERENCES

1. **Kotter J.** *Leading Change*. Boston, MA: Harvard Business School Press; 1996.
2. **Kouzes JM, Posner BZ.** *The Leadership Challenge*. San Francisco, CA: Jossey-Bass; 2002.
3. **Minvielle E.** Beyond quality management methods: meeting the challenges of health care reform. *Int J Qual Health Care*. 1997;9: 189-92.
4. **Weisbord MR.** Why organization development hasn't worked (so far) in medical centers. In: *Organization Diagnosis: A Workbook of Theory and Practice*. *Health Care Manage Rev*. 1976;1:17-28.
5. **Stoller JK.** Can physicians collaborate? A review of organizational development in healthcare. *OD Pract*. 2004;36(3):19-24.
6. **Schwartz R, Pogge C.** Physician leadership is essential to the survival of teaching hospitals. *Am J Surg*. 2000;179:462-8.
7. **Lobas JG.** Leadership in academic medicine: capabilities and conditions for organizational success. *Am J Med*. 2006;119:617-21.
8. **Schwartz RW, Pogge C, Gillis SA, Holsinger JW.** Programs for the development of physician leaders: a curricular process in its infancy. *Acad Med*. 2000;75(2):133-40.
9. **Stoller JK, Berkowitz E, Bailin P.** Physician management and leadership education at the Cleveland Clinic Foundation: program impact and experience over 14 years. *J Med Pract Manage*. 2007;22: 237-42.
10. **Scott HM, Tangalos EG, Blomberg RA, Bender CE.** Survey of physician leadership and management education. *Mayo Clin Proc*. 1997;72: 659-62.
11. **Epstein AL.** The state of physician leadership in medical groups: a study of leaders and leadership development among AMGA member organizations. *Group Pract J*. 2005;54:24-31.
12. **Leslie LK, Miotto MB, Liu GC, et al.** Training young pediatricians as leaders for the 21st century. *Pediatrics*. 2005;115:765-773.
13. **Inui TS, Frankel RM.** Evaluating the quality of qualitative research. *J Gen Intern Med*. 1991;6:485-6.
14. **Strauss A, Corbin J.** *Basics of Qualitative Research*. Newbury Park, CA: Sage Publications; 1990.
15. **Denzen NK, Lincoln YS, eds.** *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage Publications; 1994.
16. **Goleman D.** What makes a leader? *Harvard Bus Rev*. 1998;76:93-102.
17. **Goleman D, Boyatzis RE, McKee A.** *Primal Leadership: Realizing the Power of Emotional Intelligence*. Harvard Business School Press: Boston, MA; 2002.
18. **Mayer JD, Salovey P.** What is emotional intelligence? In: Salovey P, Slouyter D, eds. *Emotional Development and Emotional Intelligence: Educational Applications*. New York: Basic Books; 1997:3-31.

19. **Bossidy L, Charan R.** Execution: The Discipline of Getting Things Done. Crown: UK; 2002.
20. **Bailin PB, Bonecutter TA.** Executive program in practice management: A new concept in management education. The NAHAM Management Journal. 1991 (winter):8-11
21. **Zemke R, Raines C, Filipczak B.** Generations at Work: Managing the Clash of Veterans, Boomers, Xers, and Nexters in Your Workplace. AMACOM: New York; 2000.
22. **Conbere JP, Gibson SK.** Transforming perspectives on health care: outcomes of a management education program for physicians. J Acad Bus Adm. 2007;10:263-8.
23. **Copeland LH, Stoller JK, Hewson M, Longworth DL.** Making the continuing medical education lecture effective. Journal of Continuing Medical Education. 1998;18:227-34.
24. **Craik FIM, Lockhart RS.** Levels of processing: a framework for memory research. J Verbal Learn Verbal Behav. 1972;11:671-84.