Developing Physician-Leaders: Key Competencies and Available Programs

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Abstract

Because effective leadership is critical to organizational success, frontrunner organizations cultivate leaders for bench depth and pipeline development. The many challenges in healthcare today create a special need for great leadership. This paper reviews the leadership competencies needed by physician-leaders and current experience with developing physician-leaders in healthcare institution-sponsored programs. On the basis of this review, six key leadership competency domains are proposed: 1. technical skills and knowledge (regarding operational, financial, and information systems, human resources, and strategic planning), 2. industry knowledge (e.g., regarding clinical processes, regulation, and healthcare trends), 3. problem-solving skills, 4. emotional intelligence, 5. communication, and 6. a commitment to lifelong learning.

Review of current experience indicates that, in addition to leadership training through degree and certificate-granting programs (e.g., by universities and/or official medical societies), healthcare institutions themselves are developing intramural programs to cultivate physician-leaders. Greater attention is needed to assessing the impact and effectiveness of such programs in developing leaders and benefiting organizational outcomes.

Introduction

Four factors provide a strong rationale for developing physician-leaders (Stoller, 2004; Kornacki & Silversin, 2000; Schwartz, 1998; Schwartz &

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Pogge, 2000; Itani, 2004). They are: the complexity of healthcare organizations and of the current healthcare climate; physicians' disinclination to followership and collaboration (Stoller, 2004; Kornacki & Silversin, 2000); the traditional practice of promoting physicians to leadership positions based on clinical and/or academic skills and accomplishments rather than on leadership competencies; and general inattention to training physicians in leadership competencies. In the context of this strong need (Schwartz, 1998, Schwartz & Poggae, 2000), related questions are addressed in this paper. What competencies are needed to be an effective physician-leader? What programs are currently available within healthcare organizations to train physician-leaders?

Competencies Needed To Be An Effective Physician-Leader

As has been noted by many observers (Brook et al., 1998; Robbins, Bradley & Spicer, 2001, 2008; Taylor, Taylor & Stoller, 2009; Lane & Ross, 1998; Kindig & Lastiri-Quiros, 1989; McKenna, Gartland & Pugno, 2004; Farrell & Robbins, 1993; Chaffee, 2001), the competencies needed to be an effective physician-leader combine general leadership skills (Kouzes & Posner, 2002; Bennis, 1984; Boyatzis, 1982; Kotter, 1990), and those skills that are particularly needed to address the challenges of healthcare.(Schwartz, 1998; Schwartz & Pogge, 2000; Brook et al., 1998; Robbins, Bradley & Spicer, 2001, 2008; Taylor, Taylor & Stoller, 2009; Lane & Ross, 1998; Kindig & Lastiri-Quiros, 1989; McKenna, Gartland & Pugno, 2004; Farrell & Robbins, 1993; Chaffee, 2001; **Kochar, Robertson, & Mone, 2003).**

Skills needed by leaders in general have been amply discussed (Kornacki & Silversin, 2000; Schwartz, 1998). For example, in assessing various business sectors, Kouzes and Posner (Kouzes & Posner, 2002) have defined 5 leadership challenges:

- "Challenging the process, i.e., by searching out challenging opportunities to change, grow, innovate, and improve, and they experiment, take risks, and learn from the accompanying mistakes,
- Inspiring a shared vision, i.e., by envisioning an uplifting and ennobling future and enlisting others in a common vision by appealing to their values, interests, hopes, and dreams,
- Enabling others to act, i.e., by fostering collaboration through promoting cooperative goals and building trust, and strengthening people by giving power away, providing choice, developing competence, assigning critical tasks, and offering visible support,
- Modeling the way, i.e., by setting the example by behaving in ways

that are consistent with shared values, and achieving small wins that promote consistent progress and build commitment, and
- Encouraging the heart, i.e., by recognizing individual contributions to the success of every project, and by celebrating team accomplishments regularly."

In his study of leadership, Bennis (1984) identified four broad competencies of successful leaders:
- "Management of attention, i.e., the ability to get the attention of a group through a compelling vision that brings others to a place they have not been before,
- Management of meaning, i.e., the ability to make a vision clear to others and the ability to communicate ideas and create meaning,
- Management of trust, i.e., the ability to inspire trust through reliability and constancy, and
- Management of self, i.e., knowing one's skills and deploying them effectively."

Finally, Boyatzis (1982) has summarized great leadership using three clusters of threshold abilities and five clusters that distinguish outstanding performance. The threshold ability clusters, which are features necessary but not sufficient for great leadership, are:
- Expertise and experience in the relevant field,
- Knowledge (e.g., declarative, procedural, functional), and
- Various basic cognitive competencies, e.g., memory and deductive reasoning.

The five clusters that differentiate outstanding from average leaders relate to cognitive competencies and to emotional intelligence (EI), i.e.,:
- Cognitive competencies, e.g., systems thinking and pattern recognition,
- EI self-awareness competencies, e.g., emotional self-awareness,
- EI self-management competencies, e.g., emotional self-control, adaptability, and initiative,
- EI social awareness competencies, e.g., empathy, and
- EI relationship management competencies, e.g., developing others, teamwork.

Beyond the generic skills of effective leadership, specific competencies needed by physician-leaders are framed by the particular challenges of the healthcare setting. Recommendations about these competencies (which should inform the curricula of physician-leadership development programs) have come from three general sources: 1. Experts' assessments of the specific challenges and needs of the healthcare environment (Schwartz,

1998; Schwartz & Pogge, 2000; Farrell & Robbins, 1993; Kochar, Robertson & Mone, 2003), 2. Reported failures of existing physician-leaders, which serve to identify competencies that are needed and which, if present, might have averted the failure experience, (Lobas, 2006) and 3. Surveys of existing and aspiring physician-leaders regarding their activities as physician executives and the leadership competencies they deem important (Schwartz, 1998; Schwartz & Pogge, 2000; Lane & Ross, 1998; Kindig & Lastiri-Quiros, 1989; McKenna, Gartland & Pugno, 2004; Farrell & Robbins, 1993; Goodspeed, Gerbarg & Barrett, 2002).

Appendix 1 catalogs the competencies of physician-leaders that have been proposed in 16 available reports which represent a broad spectrum of sources, including expert opinion, surveys and interviews of healthcare leaders, and a single meta-analysis of other surveys (Schwartz & Pogge, 2000; Brooke et al, 1998; Robbins, Bradley & Spicer, 2001, 2008; Taylor, Taylor & Stoller, 2009; Lane & Ross, 1998; Kindig & Lastiri-Quiros, 1989; McKenna, Gartland & Pugno, 2004; Farrell & Robbins, 1993; Chaffee, 2001; Kochar, Robertson & Mone, 2003; Lobas, 2006; Scott et al., 1997; Leatt & Porter, 2003; Wan, 2000). On the one hand, the findings from individual surveys vary markedly in many dimensions. For example, the level of detail in specifying leadership competencies ranges from very general (e.g., interpersonal skills are important) to much more detailed specification of the competencies (i.e., specific interpersonal skills needed include teambuilding, conflict resolution, negotiation, etc.). The populations that have been surveyed to generate suggested competencies are diverse (i.e., including physician executives, other healthcare executives, physician educators, dentists, medical students, and nurses). Finally, the size of the surveyed populations varies somewhat (i.e., from 10 to 110), though most available studies include fewer than 50 subjects (Kindig & Lastiri-Quiros, 1989).

On the other hand, a review of Appendix 1 and the source studies suggests several common core competencies and six broad domains of a physician-leadership curriculum. In reviewing available reports and resources regarding healthcare leadership competencies, it is noteworthy that the competency directory of the Healthcare Leadership Alliance (2009) is the most exhaustive available listing (300 total competencies). Also, emotional intelligence (Boyatzis, 1982; Lobas, 2006; Goldman, Boyatzis & McKee, 2002; Boyatzis & McKee, 2005) and/or its component competencies—self-awareness, self-management, social awareness, and relationship management – have been frequently cited as an essential competency for physician-leaders.

These domains (and some of the "subdomains" nested within them) include:

1. Technical knowledge and skills (i.e., of operations, finance and accounting, information technology and systems, human resources [including diversity], strategic planning, legal issues in healthcare, and public policy),
2. Knowledge of healthcare (i.e., of reimbursement strategies, legislation and regulation, quality assessment and management),
3. Problem-solving prowess (i.e., around organizational strategy and project management),
4. Emotional intelligence (i.e., the ability to evaluate self and others and to manage oneself in the context of a group),
5. Communication (i.e., in leading change in groups and in individual encounters, such as in negotiation and conflict resolution), and
6. A commitment to lifelong learning.

On the basis of findings from Lobas (2006) and Taylor et al., (2009) special emphasis is placed on the need for emotional intelligence training (Lobas, 2006; Goldman, Boyatzis & McKee, 2002; Boyatzis & McKee, 2005) as a skill that is under-represented in medical school curricula and which may be eclipsed by medical training (which traditionally has emphasized individual, competitive performance) but which is critically needed to lead.

Current Programs for Developing Physician-Leaders

In reviewing available, reported experience of physician-leadership development programs, we conducted a Medline search (1950 – February 2008) using the search terms "physician-leadership," "leadership development," and "organization development." Studies describing experience with assessing the needs of physician-leaders and offering programs to train physician-leaders were selected for review. Also, the Association of American Medical Colleges website has posted a compendium of available national leadership development programs offered through medical school-based programs (N = 44 listings) and other centers, official societies, and graduate programs in business (N = 37 programs listed) (Hill, 2005). Available reports address both the need for developing physician-leaders and programs offered to train physician-leaders. In assessing the need for physician-leadership development, Epstein (2005) conducted a survey of senior executive members of the American Medical Group Association in 2005. Among the 98 respondents (19.9% response rate), 45% were the chief executive officer/president. Seventy four percent indicated that the leadership "bench" lacked depth and only 36% expressed confidence in the adequacy of a physician-leader pipeline. Seventy percent reported more activity in physician-leadership development than in the past. Seventy one percent used formal training or formal education to develop physician-leaders,

18% used coaching and/or mentoring, and 19% used targeted leadership assignments to help identify and develop leaders.

In the context of this broadly appreciated need to develop physician-leaders, two categories of physician-leadership development programs were evident in this review: 1. those offered for internal faculty or staff, mostly by healthcare organizations (hereafter called "intramural programs"), and 2. those offered for attendees outside the sponsoring organization (hereafter called "extramural programs), which include educational institutions, organized societies (e.g., the American College of Physician Executives, the American College of Healthcare Executives, members of the Healthcare Leadership Alliance, [2009] etc.), and healthcare organizations. The aforementioned compendium from the Association of American Medical Colleges cites extramural programs, which include formal degree and certificate programs. Because of the abundance of such extramural programs and because meaningfully comparing them is difficult from available information, this report focuses on "intramural" programs.

Table 1 compares the reported content areas of a selected group of five intramural programs whose content has been reported in the literature (Schwartz, 1998; Schwartz & Pogge, 2000; Kochar, Robertson & Mone, 2003; Scott, et al., 1997; Stoller, Berkowitz & Bailin, 2007). Notably, though the available descriptions preclude comparison of programs regarding the amount of time allocated to each topic and the specific content and style of presenting material, common content of intramural programs includes strategic planning, teamwork and teambuilding, understanding financial metrics, business plan development, marketing, situational leadership, process improvement, mentorship and developing people, and expense management. Content areas that appear to differentiate programs include innovation, emotional intelligence, diversity issues, generational cohort issues, healthcare policy, and time management in healthcare. Comments that expand the descriptions in Table 1 about selected programs follow.

Among the earliest described intramural programs is the Certificate of Medical Management program offered at the University of Kentucky (Schwartz, 1998; Schwartz & Pogge, 2000), which began in 1997 and offers 12 courses in full-day sessions of seven hours duration. Specific courses include "Overview of Healthcare Delivery Systems," "Organizational Behavior," "Managerial Economics," and "Introductory Accounting," with a variety of miscellaneous topics covered as well, as detailed in Table 2.

Another intramural program was first offered at the Medical College of Wisconsin (MCW) in 2000 (Kochar, Robertson & Mone, 2003). Crafted in collaboration with the faculty of the University of Wisconsin-Milwaukee

Table 1.

Summary of Curricula of Physician Leadership Development Programs Offered by Healthcare Institutions

Course	Cleveland Clinic (Leading in Health Care and Cleveland Clinic Academy)	Mayo Clinic Foundation (Career and Leadership Development)	Aucra Health (South Dakota) (Mini MBA)*	University of Kentucky Certificate in Medical Management	Medical College of Wisconsin
History of the Institution	✓	✓			
Strategic Planning	✓	✓	✓	✓	
Teamwork and Teambuilding	✓	✓		✓	✓
Understanding Financial Metrics	✓	✓	✓	✓	✓
Business Plan Development	✓	✓	✓	✓	✓
Marketing	✓		✓	✓	
Emotional Intelligence	✓		✓		
Situational Leadership	✓	✓	✓	✓	
Conflict Resolution	✓			✓	✓
Innovation	✓		✓		
Conflict of Interest	✓				
Process Improvement	✓	✓	✓		✓
Medico-legal Issues	✓				
Optimizing the Patient Experience	✓				
Diversity in Healthcare	✓				
International Business Development	✓				

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Providing Value: Bring Down Expense		✓		✓	✓
Leading Change	✓				
Communicating with the Media	✓				
Presentation Skills	✓				
Volunteerism and Giving Back	✓				
Empathic Communication	✓				
Generational Issues in the Work Place	✓				
Myers-Briggs Assessment					
360° Feedback	✓				
Education Assessment		✓			
Healthcare Policy					✓
The Healthcare Industry: Assessment and Trends	✓			✓	
Mentorship and Developing People	✓	✓	✓		✓
Ethics in Healthcare	✓				
Time Management					✓

* Offered by the University of St. Thomas, Minneapolis, MN

Table 2.

Activities Deemed Indicative of Leadership and Ratings of Methods to Develop Physician-Leaders

Category	Activity	Mean Rating (1 to 5, where 1 indicates "high importance")
Activities Deemed Indicative of Leadership	Influencing peers to adopt new approaches	1.66
	Administrative responsibility in an organization	1.75
	Volunteerism (e.g., medical society leadership)	1.92
	Teaching (medical school. residency, or continuing medical education [CME])	2.04
	Policy, legislative, regulatory body lobbying	2.05
	Presentations (CME or non-accredited programs)	2.11
	Writing and publication of studies or articles	2.42
	Clinical research	2.63
	Entrepreneurship (innovation, commercialization)	2.65
Ratings of Methods to Develop Physician-Leaders	Coaching or mentoring from a leader	1.35
	On-the-job experience in a management role	1.48
	Time or funding to support leadership activities	1.78
	Leadership skill-building programs	1.84
	Formal education	1.94
	Volunteerism (e.g., leadership in associations)	1.98
	Self-study (e.g., books and tapes)	2.14

* Based on responses from 110 physician-leaders, physician educators, and medical students

School of Business and based on feedback from the Medical College of Wisconsin faculty, this 9-day course has been offered in 3 three-day segments offered over five months. Topics covered include: managing people (e.g., succession planning, effective communication skills, negotiation and conflict resolution, leading effective teams), healthcare finance and accounting (e.g., budgeting, understanding balance sheets, income statements, and cash flow analysis), leadership (e.g., change management, assessing one's leadership style, strategic thinking), marketing (e.g., marketing and branding), healthcare informatics and information technology (e.g., information

systems and their capabilities), healthcare quality (e.g., available tools and processes, metrics, best practices), healthcare economics (e.g., reimbursement schemes and optimization, insurance and managed care trends), and time management (e.g., setting priorities, preserving and defending work-life balance, and using technology for efficient time use). In the first offering of the course, tuition was assessed and the 29 MCW faculty completing the course rated it very highly (mean 4.4, with 5 being the highest rating).

At the Cleveland Clinic, a physician leadership development program has been offered since 1990 (Stoller, Berkowitz & Bailin, 2007). An initial program, called "Practice Management," was offered in a series of Friday and Saturday sessions to a mixed group of physician-leaders and administrators. The course was revamped in 2001 and then developed as "Leading in Healthcare", which is offered to physicians and consists of 10 full weekday sessions covering the broad topics of institutional history, culture and strategy; business and accounting principles and practices; and organizational development (e.g., teambuilding and teamwork, emotional intelligence, situational leadership, etc.). As described (Stoller, Berkowitz & Bailin, 2007), the course assembles a group of approximately 35 nominated physicians who are deemed to have high potential by organizational leaders. These participants engage in off-site, participatory sessions, are assigned pre-readings for each session, and, as a practicum to consolidate the various skills presented in the course and align with the institution's priority on improvement and innovation, are asked to propose at the first meeting of the course an innovative plan to enhance clinical and/or organizational function. During this first session of the course, six proposed plans that garner the greatest interest from the group are chosen and teams are formed to develop these ideas into full-blown business plan proposals over the course of the ensuing nine months. The final session of the course is devoted to the teams' presenting to the group and to institutional leaders the fully formulated business plans. As one measure of the institutional impact and return of such a course, a tally of the business plans presented through 2005 showed that many of the ideas (61%) had been implemented in the institution.

In keeping with the suggestion that leadership training should also include experiential learning (Taylor, Taylor & Stoller, 2009), other physician-leadership training activities at the Cleveland Clinic include a leadership rotation (in which high-potential leaders meet with and shadow organizational leaders) and key committee assignments for course alumni in which they can exercise and consolidate their leadership skills.

Conclusions

In summary, comparison of a sample of five intramural physician-leadership programs offered by healthcare institutions shows a common core of offerings which address some of the competencies commonly felt to be needed by effective physician-leaders (e.g., strategic planning, financial analysis, business plan development, teambuilding, etc.). At the same time, some competencies that have been emphasized in recent studies, i.e., especially emotional intelligence, are not uniformly represented in the curricula of intramural programs. To the extent that lack of emotional intelligence has been felt to be at the root of physician-leaders' failures (Lobas, 2006), this analysis suggests that greater attention is needed to training physician-leaders in such interpersonal skills.

This analysis also identifies gaps in available knowledge regarding physician-leadership development. Specifically, although many studies propose competencies needed by physician-leaders based on querying established and aspiring physician-leaders, none of the available studies derives the recommended competencies by identifying those traits that best discriminate between poor and great physician-leaders, as has been done in studies of general leadership attributes (Kouzes & Posner, 2002; Bennis, 1984; Boyatzis, 1982). Furthermore, because all available studies of physician-leadership are cross-sectional, little is known about the acquisition, development, and maintenance of competencies of great physician-leaders. This gap in existing knowledge suggests the need for longitudinal studies, perhaps beginning in medical school, to examine when and how well leadership attributes develop and, more importantly, how to cultivate these skills optimally. Finally, in the context that traditional medical education and training may conspire against collaboration and gives relatively little attention to formal training in leadership and teamwork, this analysis invites consideration of revamping medical school and residency training program curricula to include such training. As evidence of emerging attention to this issue, some training programs are beginning to include leadership development activities (Mercardo, 2001; Stoller, et al., 2004).

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Appendix 1

Summary of Physician-Leadership Competencies

Study	Source of Proposed Competencies	
Swartz et al. (4)	Expert opinion	1. Strategic and tactical planning 2. Persuasive communication 3. Negotiation 4. Financial decision-making 5. Teambuilding 6. Conflict resolution 7. Interviewing
Kochar et al. (19)	Expert opinion	1. Managing people 2. Healthcare finance and accounting 3. Leadership 4. Marketing 5. Healthcare informatics and information technology 6. Healthcare quality 7. Healthcare economics 8. Time-management (including work-life balance)
Farrel and Robbins (13)	Expert opinion	1. Group leadership 2. Direct persuasion 3. Organizational awareness 4. Initiative 5. Relationship building 6. Planning/organizing
Lobas (20)	Interviews with 10 chairs of academic Internal Medicine departments	1. Emotional intelligence
Scott et al. (23)	Survey of hospital CEOs regarding proposed content of physician- leadership development programs	1. Quality management 2. Leadership principles 3. Strategic planning 4. Management principles 5. Economics of healthcare 6. Finance/Accounting 7. Government policy issues 8. Ethics 9. Legal issues 10. Interpersonal skills 11. Conflict resolution 12. Communication 13. Personal development issues 14. Sexual harassment 15. Diversity 16. Motivation 17. Cultivating mutual respect

Study	Source of Proposed Competencies	
Leatt and Porter (24)	Expert opinion	1. Commitment to learn continuously to lifelong learning
Kindig and Lastri Quiros (11)	Survey of physician executives regarding tasks, including time allocated to specific activities (see Appendix 2)	1. Governance 2. General internal management 3. Clinical internal management 4. Managing physicians 5. External/environmental relationships
Robbins et al. (7,8)	Expert opinion	1. Technical skills 2. Industry knowledge of clinical process and healthcare institutions 3. Analytic and conceptual reasoning 4. Interpersonal and emotional intelligence
McKenna et al. (12)	Survey of physician-leaders, educators and medical students.	1. Interpersonal and communication skills 2. Professional ethics and social responsibility 3. Continuous learning and improvement 4. Ability to build coalitions for support of change 5. Clinical excellence 6. Ability to convey a clear and complex vision 7. System-based decision-making and problem-solving 8. Ability to address the needs of multiple stakeholders
Lane and Ross (10)	Survey of 13 American College of Preventive Medicine Fellows	1. Design management and evaluate health service delivery programs to improve health of a population 2. Apply appropriate financial and business management techniques to assure efficient delivery of cost-effective health services 3. Apply organizational principles to manage a healthcare organization 4. Assure that health service activities reflect ethical standards, comply with regulatory requirements (e.g., ERISA, ADA) and incorporate risk management principles and practices

Study	Source of Proposed Competencies	
Chafee (14)	Survey of 11 Navy medical leaders (physicians, nurses, and dentists)	67 suggested traits (Appendix 2), of which the 11 most commonly cited were: 1. Teamwork 2. Vision 3. Teaching and mentoring others 4. Taking risks and encouraging others to do so 5. Excellent interpersonal skills 6. Credibility 7. Honesty 8. Integrity 9. Embracing and driving change 10. Driving for excellence and continuous improvement 11. Excellent communication skills 12. Passion for work 13. Focus on mission
Brooke et al. (6)	Survey of physician executives in outpatient settings	1. Managing healthcare resources 2. Fundamentals of business and finance 3. Development of vision and strategy 4. Communication/interpersonal skills 5. Human resources and performance management 6. Negotiating and contracting 7. Change management 8. Governance and policy development 9. Market analysis and growth 10. Applying electronic communications to healthcare 11. Ethics 12. Lifelong learning
Taylor et al. (9)	Interviews of established and aspiring physician leaders	1. Having and articulating a vision 2. Self-regulation (e.g., emotional intelligence) 3. Having an organizational orientation 4. Having knowledge both of one's clinical area and of the specific leadership role 5. Organizational altruism (voiced by established leaders)

Study	Source of Proposed Competencies	
Wan (25)	Survey of 41 healthcare executives	1. Interpersonal skills to function as a leader and as a team member 2. Ethics in healthcare 3. Understanding information technology
Hudak et al. (22)	Meta-analysis of 5 surveys of healthcare administrators	1. Managing healthcare resources 2. Leadership 3. Interpersonal skills
Healthcare Leadership Alliance (26)	Recommendation of 300 competencies in 5 domains (with 7 domain subsets)	1. Communication and relationship management (26 competencies) 2. Leadership (24 competencies) 3. Professionalism (24 competencies) 4. Knowledge of the healthcare environment (22 competencies) 5. Business knowledge and skills (36 competencies) a. Financial management (35 competencies) b. Human resources (24 competencies) c. Organizational dynamics and governance (18 competencies) d. Strategic planning and marketing (21 competencies) e. Information management (36 competencies) f. Risk management (18 competencies) g. Quality improvement (17 competencies)

Appendix 2

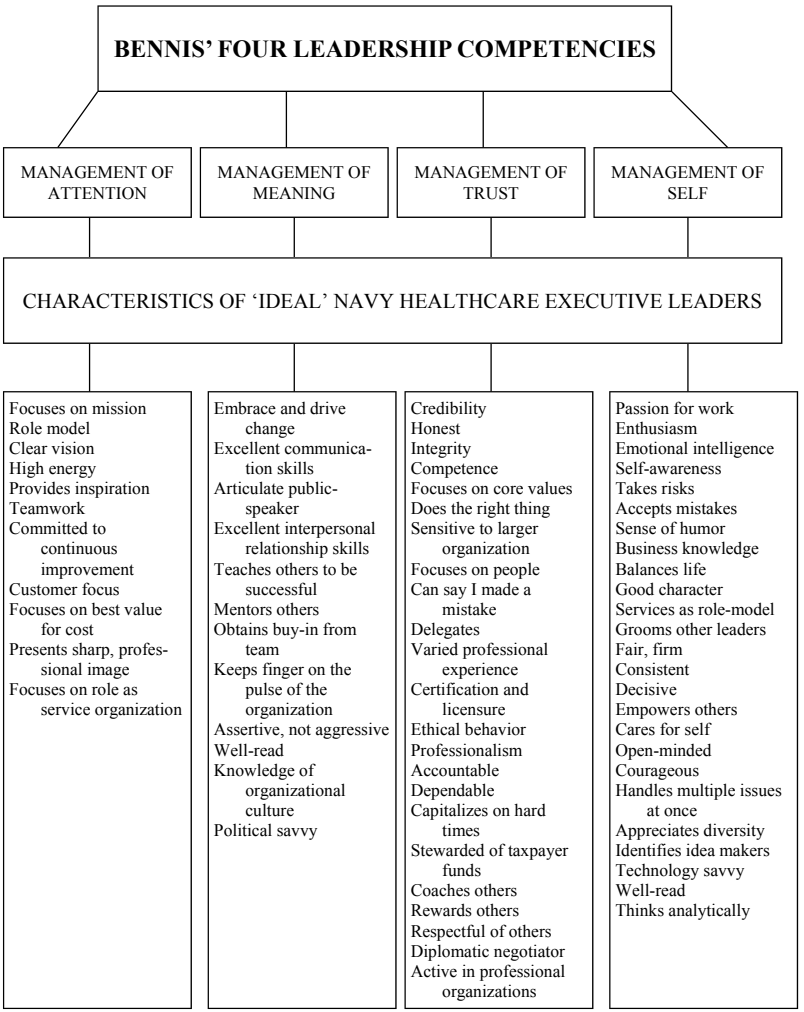
Summary of the Six Proposed Domains of Physician-Leadership Competencies in the Context of Prior Reports

Domain	Subdomains	Sources Also Citing This Competency (Reference)
Technical knowledge and skills		Schwartz & Pogge, 2000; Brooke, Hudak, Finstuen, & Trounson, 1998; Lane & Ross, 1998; Kochar, Robertson, & Mone, 2003; Scott, Tangalos, Blomberg, & Bender, 1997; Wan, 2000; "Healthcare Leadership Alliance," n.d.
	Operations	"Healthcare Leadership Alliance," n.d.
	Finance and accounting	Schwartz & Pogge, 2000; Brooke, Hudak, Finstuen, & Trounson, 1998; Lane & Ross, 1998; Kochar, Robertson, & Mone, 2003; Scott, Tangalos, Blomberg, & Bender, 1997; "Healthcare Leadership Alliance," n.d.
	Information technology and systems	Brooke, Hudak, Finstuen, & Trounson, 1998; Kochar, Robertson, & Mone, 2003; Wan, 2000; "Healthcare Leadership Alliance," n.d.
	Human resources, including diversity	Brooke, Hudak, Finstuen, & Trounson, 1998; Scott, Tangalos, Blomberg, & Bender, 1997;, "Healthcare Leadership Alliance," n.d.
	Strategic planning	Schwartz & Pogge, 2000; Scott, Tangalos, Blomberg, & Bender, 1997; "Healthcare Leadership Alliance," n.d.
	Public policy	Scott, Tangalos, Blomberg, & Bender, 1997; "Healthcare Leadership Alliance," n.d.
	Legal issues	Scott, Tangalos, Blomberg, & Bender, 1997; "Healthcare Leadership Alliance," n.d.
Problem-solving skills		Brooke, Hudak, Finstuen, & Trounson, 1998; Taylor, Taylor, & Stoller, in press; Kindig & Lastiri-Quiros, 1989; Farrell & Robbins, 1993; Kochar, Robertson, & Mone, 2003; Lobas, 2006; "Healthcare Leadership Alliance," n.d.
	Organizational strategy	Brooke, Hudak, Finstuen, & Trounson, 1998; Taylor, Taylor & Stoller, in press; Kindig & Lastiri-Quiros, 1989; Farrell & Robbins, 1993; "Healthcare Leadership Alliance," n.d.
	Project management	Kindig & Lastiri-Quiros, 1989; Farrell & Robbins, 1993; Kochar, Robertson, & Mone, 2003; "Healthcare Leadership Alliance," n.d.

Domain	Subdomains	Sources Also Citing This Competency (Reference)
Emotional intelligence		Robbins, Bradley & Spicer, 2001; Robbins, Bradley & Spicer, n.d.; Taylor, Taylor, & Stoller, in press; Lobas, 2006; "Healthcare Leadership Alliance," n.d.
Communication		Schwartz & Pogge, 2000; Brooke, Hudak, Finstuen, & Trounson, 1998; Taylor, Taylor & Stoller, in press; McKenna, Gartland & Pugno, 2004; Farrell & Robbins, 1993; Chafee, 2001; Kochar, Robertson, & Mone, 2003; Hudak, Brooke, & Finstuen, 2000; Scott, Tangalos, Blomberg & Bender, 1997; Wan, 2000; "Healthcare Leadership Alliance," n.d.
	Leading change	Brooke, Hudak, Finstuen, & Trounson, 1998; Taylor, Taylor, & Stoller, in press; Farrell & Robbins, 1993; Chafee, 2001; Kochar, Robertson, & Mone, 2003; Hudak, Brooke, & Finstuen, 2000; Scott, Tangalos, Blomberg, & Bender, 1997; Wan, 2000; Healthcare Leadership Alliance, 2009
	Negotiation	Schwartz & Pogge, 2000; Brooke, Hudak, Finstuen, & Trounson, 1998; McKenna, Gartland, & Pugno, 2004; Scott, Tangalos, Blomberg, & Bender, 1997; Healthcare Leadership Alliance, 2009
	Conflict resolution	Schwartz & Pogge, 2000; Scott, Tangalos, Blomberg, & Bender, 1997; Healthcare Leadership Alliance, 2009
Commitment to lifelong learning		McKenna, 2004; Leatt & Porter, 2003

Appendix 3

Results of a Survey of Navy Healthcare Leaders Regarding the Characteristics of the "Ideal Navy Healthcare Executive Leader" (Chafee, 2001) Classified According to Bennis (1984)



Appendix 4

Administrative Tasks Performed by Physician Executives (in Descending Order of Allocated Time)

Task	Rank Order of Time Allocated to the Task	Percent of 519 Respondents Engaged in This Task
Defining organizational goals and courses	1	94.2%
Improving organizational quality of care	2	84.8%
Developing new professional services and programs	3	75.4%
Developing and improving teaching and research	4	89.3%
Communicating organizational goals to staff	5	92.9%
Coordinating policies with other professionals	6	84.8%
Recruiting physicians for the organization	7	74.6%
Developing relationships with other organizations	8	84.4%
Dealing with community leaders	9	72.1%
Reviewing organizational financial performance	10	82.5%
Determining governing body agenda items	11	83.7%
Evaluating physician performance regarding quality	12	74.6%
Balancing costs and quality of care	13	68.6%
Terminating/cutting back services and programs	14	65.7%
Dealing with liability/malpractice/risk	15	77.5%
Developing new organizational financing approaches	16	61.1%
Interpreting trend in legislation and delivery systems	17	77.1%
Dealing with medical staff/governing board issues	18	71.4%
Dealing with information systems	19	78.5%
Improving medical staff organization/policies	20	67.1%
Disciplining or dismissing physicians	21	61.3%
Working to change legislation/regulations	22	57.9%

Task	Rank Order of Time Allocated to the Task	Percent of 519 Respondents Engaged in This Task
Dealing with patient complaints	23	77.1%
Communicating organizational goals to the public	24	58.1%
Generating philanthropic support	25	34.4%
Dealing with conflicts between specialists	26	52.3%
Determining physician privileges and duties	27	67.3%
Dealing with ethical/legal issues in patient care	28	80.3%
Personal interaction with the media	29	66.7%
Determining physician remuneration/ incentives	30	54.4%
Evaluating physician performance regarding costs	31	43.1%
Dealing with physician impairment/burnout	32	48.1%
Negotiating/administering labor contracts	33	24.4%