Chief Resident Leadership Program:
A New Jersey Chapter of the American College of Physicians Initiative

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THESIS

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LIST OF ABBREVIATIONS

ACP	American College of Physicians
CME	Continuing Medical Education
IMG	International Medical Graduates
LEAD	Leadership Enhancement and Development
LPI	Leadership Practice Inventory
NJ	New Jersey
NJ ACP	New Jersey Chapter of the American College of Physicians
US	United States

Abstract

In 2009-2010, the New Jersey Chapter of the American College of Physicians (ACP) embarked on a chief resident leadership development program offered to all Internal Medicine chief residents in New Jersey. The goal of the program was to inspire chief residents to consider leadership opportunities and to improve leadership behaviors and skills. Following a five-hour training session, chief residents were offered the opportunity to participate in leadership activities and additional training sessions over four and one-half months. Effectiveness of the entire program was measured using mixed methods with two instruments: the validated Leadership Practices Inventory (LPI) and a Leadership Survey created by the author that contained structured and open-ended questions.

Twenty-one (21) chief residents received the 5-hour training and 9 residents completed the entire program. Chief residents reported improved leadership behavior in the LPI domain "Inspire a Shared Vision", with positive trends in the other LPI domains. They reported significantly improved confidence to articulate a vision, to negotiate, and to resolve conflicts with positive trends in motivating team members, serving as a change agent, listening skills and networking. Most chief residents felt that the program increased their interest in additional leadership training. Several chief residents commented that the program expanded their view of leadership and their leadership roles. Seven of the nine chief residents who completed the entire program achieved the national ACP Leadership Enhancement and Development (LEAD) certificate.

Key Words:
Chief residents, residents, graduate education, physicians, leadership, healthcare leaders, residency, leadership training, healthcare, curriculum

INTRODUCTION

Problem and Background

The challenges of healthcare require strong leadership now and in the future. Yet, physicians rarely have well-developed leadership skills (Romano, 2004; Olson, 1997). It has been suggested that the administrative and organizational skills needed for physician leaders are not among the skills typically developed in medical school, residency training, or practice (Schwartz, et al, 2000). The Institute of Medicine, in their document *Crossing the Quality Chasm: A New Health System for the 21st Century*, states that the need for leadership has never been greater and calls for increasing physician leadership to restructure our healthcare system (Institute of Medicine, 2001).

Chief residents are recognized by multiple organizations, including the American College of Physicians (ACP), as potential future health care leaders (American College of Physicians, 2012; Warner, 2007). Alpert et al found that among pediatricians, those who had been chief residents were more likely to be in leadership positions (Alpert, 2000). Recognizing the imperative to develop future healthcare leaders, the ACP offers a Leadership Enhancement and Development (LEAD) certificate targeted to practicing internal medicine physicians. The physician must complete a series of leadership development requirements, which include attending at least seven hours of continuing medical education (CME) or highly structured chief resident activities that focus on leadership competencies (ACP LEAD, 2012) (TABLE I). Time constraints and diminished financial resources may impede chief residents from obtaining leadership training at the National ACP meetings. Support at the local Chapter level with selected

leadership training and activities should enhance the likelihood of chief residents achieving the criteria for the LEAD certificate.

Table I: Criteria for the American College of Medicine Leadership Enhancement and Development (LEAD) Certificate

A LEAD Certificate can be awarded to any member who has completed at least five out of seven of the following leadership development activities within a three-year time frame:

1. Attained or maintained active Fellowship status within the College;
2. Attended at least seven hours of CME or highly structured chief resident activities that focused on leadership competencies. At least three of these must be sponsored by the ACP at the local or the national level;
3. Participated in at least two *pathways to leadership* at the chapter level;
4. Served on a national workgroup, committee, or council of the ACP;
5. Served as a mentor/facilitator in at least one ACP sponsored mentoring event or program;
6. Participated in Leadership Day on Capitol Hill or similar local legislative or advocacy activity;
7. Demonstrated leadership competencies in the community setting. Examples include chairing a hospital committee or council, serving on a steering committee for a faith-based organization, serving on a Board of Directors for local youth, sports, or arts group.

Five Pathways to Leadership at the Chapter Level:

1. Assist with planning and hosting of your chapter's annual meeting
2. Actively participate on the chapter's council
3. Join the Chapter Leader Network
4. Share your national expertise and interest with your local chapter
5. Help your Governor implement social inclusion strategies to identify and cultivate potential leaders in diverse groups.

In November 2009, the New Jersey Chapter of the ACP (NJ ACP) launched an Internal Medicine chief resident leadership development program entitled "Training

Internal Medicine Chief Residents for Future Leadership in Healthcare: A NJ ACP Chapter Initiative." This 4 ½-month longitudinal program incorporated a 5-hour workshop in mid-November 2009, optional leadership activities and discussion groups over a 4-½ month span, and a celebratory capstone dinner meeting at the end of March 2010.

The goal of the program was to help chief residents develop basic leadership skills and knowledge, to broaden their understanding of leadership opportunities in healthcare, and encourage their further exploration into leadership opportunities and training. A corollary goal for the NJ Chapter ACP and the National ACP was to increase the number of chief residents who obtain the "LEAD" certificate.

The research arm of this project evaluates the success of the program as defined by whether the program inspires chief residents to consider leadership opportunities and whether it improves participants' leadership behaviors and self-efficacy in leadership skills.

Review of Relevant Literature

A literature review reveals few programs describing chief resident leadership training programs (Levine, 2008; Doughty, 1991). Several individual residency programs have recently developed leadership training programs for their own residency (Stoller, et al,2004; Kasuya, Nip, 2001; Ackerly, et al 2011; Duke Family Medicine Residency, 2009; Foster, et al, 2008, Kuo, et al, 2010; Hemmer, 2007). There is a paucity of published leadership training programs at the undergraduate medical education level (Goldstein, 2009; Crites, 2008). Schwartz et al (2000) suggest that a long-term educational process in leadership, rather than focal CME programs, is needed to overcome the autonomous, cultural barriers that physician training promotes and describe a number of longitudinal physician leadership programs leading to a certificate or degree. Schwartz explains that CME usually does not "(1) present the necessary breadth or depth of subject matter; (2)

demand adequate personal, extracurricular interaction with the presented material; (3) demand regular, paced effort over an extended time; (4) emphasize the teamwork necessary for the health care industry of the 21st century to survive and thrive; (5) provide specific information about the local health care environment; and (6) build a critical mass of physician leaders who ideally are from the same locale, and who have espirit de corps from having trained together." Schwartz further states that "a rudimentary knowledge of financial and leadership skills will not enable physician leaders to make the important decisions necessary to direct health care organizations. The true purpose of CME programs for development of physician leaders should be to inform all physicians of the various changes taking place in the health care industry. Therefore, CME should serve as a stimulus for those physicians who truly want to develop …(their leadership)…skills." However, Schwartz concedes that "CME at the local level can be extremely important in initiating cultural change." If we accept Schwartz' expert opinion, the modified goal of the chief resident leadership program would be to help chief residents develop basic leadership skills and knowledge to broaden their understanding of leadership opportunities and encourage their further training in leadership development.

Conceptual Frameworks

The literature was reviewed for existing conceptual frameworks for leadership education programs. The transformational models consider leadership development as a process that can be taught; this process changes and transforms people and treats leadership as a form of influence that "moves followers to accomplish more than what is usually expected of them. It is a process that often incorporates charismatic and visionary leadership" (Northouse, 2007). It considers emotions, values, ethics, standards, and long-

term goals. There is substantial evidence that transformational leadership is an effective form of leadership (Northouse, 2007). Arguably, the rapidly changing landscape of healthcare requires leaders to create a vision for the future and motivate their teams to go beyond expectations. These frameworks meshed with the vision of the Chief Resident Leadership Development Program, which sought to empower chief residents to continually build their leadership skills and to seek additional training.

One such transformational leadership model, the Five Practices of Exemplary Leadership, developed by Kouzes and Posner (2007), distills the fundamental practices shared by highly effective leaders into five domains including, "Model the Way", "Inspire a Shared Vision", "Challenge the Process", "Enable Others to Act" and "Encourage the Heart" (Table II). This model considers leadership as a process that occurs between followers and leaders, places a strong emphasis on followers' needs, values, and morals, and provides a broad view of leadership. It has been widely researched and used in leadership training and development in multiple fields including healthcare (Northouse, 2007; Kouzes & Posner, 2007). Kouzes and Posner also developed a Leadership Practices Inventory that surveys leadership practices through a validated survey instrument with strong psychometric evidence (Posner & Kouzes, 1988, 1993).

Table II: Kouzes and Posner "Five Practices of Exemplary Leadership"

Model the Way
- Find your voice by clarifying your personal values.
- Set the example by aligning actions with shared values.

Inspire a Shared Vision
- Envision the future by imagining exciting and ennobling possibilities.
- Enlist others in a common vision by appealing to shared aspirations.

Challenge the Process
- Search for opportunities by seeking innovative ways to change, grow, and improve.
- Experiment and take risks by constantly generating small wins and learning from mistakes.

Enable Others to Act
- Foster collaborations by promoting cooperative goals and building trust.
- Strengthen others by sharing power and discretion.

Encourage the Heart
- Recognize contributions by showing appreciation for individual excellence.
- Celebrate the values and victories by creating a spirit of community.

In a targeted needs analysis performed four month prior to the delivery of this curriculum (Moser, 2010), the NJ IM chief residents expressed the importance of social responsibility in leadership [17d] Therefore, "Servant Leadership", a conceptual framework which adds the concepts of values based, service oriented leadership (Sendjaya, 2008), also informed the design of the chief resident leadership program.

Additionally, Schwartz (2000) conceptualizes a formalized healthcare leadership educational process that includes competencies in leadership, strategic planning, persuasive communication, conflict resolution, team building, and negotiation skills, combined with essential knowledge in business skills and organizational behavior, with the goal of

developing physicians into change agents for local and national health care systems. These three leadership models aided the curricular development of this program.

Curricular Development

The curricular development of the chief resident leadership program is built upon Kern's Six-Step Approach to Curriculum Development (Kern, et al, 2009). A general and targeted needs analysis guided curricular development. The general needs analysis was based on literature review and the author's experience as a former associate program director of a NJ university based internal medicine residency program and leadership role as Governor and President of the New Jersey Chapter of the American College of Physicians. The targeted needs analysis, performed in July 2009, queried all NJ IM chief residents about the importance of various leadership topics, whether those topics were covered in their formal residency curriculum, and their interest in learning related to those topics. Open-ended questions were posed regarding their understanding of various leadership topics. Although all leadership topics were rated as "highly important" or "important" by the 31 respondents, they reported a low incidence for most topics being taught in their programs: political advocacy (9%); change agent ability (18%); articulating a vision (22%); financing (22%); negotiation skills (35%); conflict management (35%); motivational ability (39%); healthcare systems (39%); coalition building (39%); listening skills (43%); and team dynamics (52%). Most were interested in learning financing (87%); conflict management (74%); negotiation skills (65%); articulating a vision (65%); motivational ability (61%); healthcare systems (61%); change agent ability (56%); political advocacy (56%) and fewer reported interest in learning team dynamics (48%); coalition building (43%); and listening skills (39%). When asked to describe what effective

leadership in healthcare means to them, themes included providing a vision for change (33%); descriptions of management tasks (33%); and service to others (25%). The findings were presented in the author's MHPE 532 (Qualitative Methods) final paper and at a subsequent MHPE poster presentation (Moser, 2010). Topics of high interest to residents that were infrequently taught were included in the curriculum. Since some residents appeared unclear about differences between leadership versus management, this area was included.

A participant oriented approach, (Fitzpatrick, 2004) including leadership experts, NJ program directors' feedback about the program, NJ ACP leadership perspectives, and insights gained in the targeted needs analysis, were used in developing the curriculum. Educational strategies that promoted active learning and team learning were emphasized. In keeping with Schwartz's (2000) commentary, the program sought to provide initial instruction in several practical leadership skills, added a longitudinal component, provided networking opportunities to promote camaraderie among chief residents and encourage future leadership training exploration.

Bandura's Social Cognitive Theory (Shumaker, 1998) and Gagne's Nine Phases of Learning framework (Grendler, 2009) provided the conceptual underpinnings for the instructional strategies for the program. A goal of the program is to promote leadership behaviors. Bandura's Social Cognitive Theory posits that human functioning is a reciprocal interplay of behavior, personal factors (cognitive, affective, biological events), and environmental factors, so a multimodal approach to impact multiple areas was incorporated. For instance, skills and knowledge taught in the program were practiced in chief residents' daily activities, reflected upon through social networking blogs, and

discussed at follow up meetings. Since Bandura's theory states that behavior change and maintenance are a function of outcome expectations, the program endeavored to increase outcome expectations by demonstrating the plethora of leadership opportunities available within chief resident participants' reach. Since behavior change is a function of efficacy expectations, and a goal was to promote leadership behaviors, the program intended to increase efficacy expectations through a variety of methods including: participants review their past leadership accomplishments; provide faculty role models, including a young physician ACP leader who recently completed chief resident year; and use verbal persuasion through inspiring plenary lectures and longitudinal faculty contact. Gagne's Nine Phases provides a useful framework for an iterative learning program. Appendix B-2 and B-3 provides an outline of the application of these conceptual frameworks to program's instructional strategies.

The final program had three phases. Phase One, "Leadership in Medicine", included a five-hour workshop on leadership topics conducted on November 19, 2009 and a one-hour webinar in early December. The workshop employed a variety of pedagogies to promote active learning (Appendix A-C). The program introduced important leadership concepts, including Kouzes and Posner's "Five Practices of Exemplary Leadership" framework (Table II); described the United States Healthcare System and organizations within the healthcare system; and provided instruction in negotiation skills, conflict resolution, networking, and motivating team members. Each participant received an LPI workbook (Kouzes & Posner, 2003), which provided practical action steps to improve leadership behaviors in each leadership domain. The LEAD certificate and criteria to attain the certificate were described.

The LPI served as both an evaluation tool and an instructional activity. LPI contains a series of structured questions on leadership behaviors that correspond to five leadership domains: "Model the Way," "Inspire a Shared Vision," "Challenge the Process," "Enable Others to Act," and "Encourage the Heart". There are 6 behavioral statements per domain, each answered by the respondent using a 10-point frequency scale (10= Almost always; 1= Almost never). Participants completed the LPI survey to self-rate their leadership behaviors upon arrival. The author calculated each participant's LPI score in each domain after the initial meeting, and provided each participant with their score, the mean score in each domain for the NJ IM chief resident group, and the mean score in each domain calculated by the LPI scoring software from its database of 36,000 leader-participants. The faculty encouraged chief residents to compare their individual score with their CR group and leaders in general, to reflect whether there were areas that they wished to improve, and to use the LPI workbook as a resource to improve leadership behaviors.

Phase Two, "Leadership in Action", extended from December 2009 through March 2010 during which time chief residents were encouraged to apply learned leadership skills in their daily work as chief residents, utilize the LPI handbook as a tool to improve leadership behaviors, and pursue leadership activities at their local hospital and through the ACP. A social blog using the Facebook platform presented questions to chief residents for comment and interaction. An in-person meeting at the NJ Senate House with the NJ ACP Chapter Chair of the Health and Public Policy Committee provided chief residents with additional information on United States political system as it applies to the healthcare system, and current issues in healthcare on the state and national levels. Chief residents attended additional political advocacy meetings with state senators. During a Phase Two

session, chief resident attendees applied Kouzes and Posners' "Five Practices of Exemplary Leadership" to their current chief resident activities and discussed their successes and barriers. Chief residents developed a short vision statement about a current or planned initiative that they were leading in their home institution and received feedback from peers and faculty on their delivery.

Additionally in Phase Two, chief residents were offered opportunities to assist in a variety of roles at the NJ ACP Chapter Annual Scientific Meeting, held in February 2010, including facilitating the resident abstract poster competition, creating an informational session for medical students interested in internal medicine as a career, and assisting with student and resident medical knowledge competitions and other meeting activities. During the meeting, chief residents met with each other and leadership program faculty to report on their own progress in leadership development, plan multi-site leadership activities, and to network and socialize.

Phase Three, "Your Future as a Healthcare Leader", was a capstone, celebratory dinner meeting held on March 31, 2010.

The program agenda, programmatic goals with learning objectives, instructional strategies with rationale based underlying conceptual frameworks and list of faculty are attached in Appendix A, B and C, respectively.

METHODOLOGY

Study Design

This study used a mixed methods (qualitative and quantitative) pre/post survey design with two written survey instruments. Additionally, the number of LEAD certificates

awarded to chief resident participants was compared with the overall number of LEAD certificates awarded by the ACP for 2010-2011.

Population, Sampling Procedures and Study Setting

All NJ IM chief residents (N=43) were invited to participate in the leadership program. The author personally communicated with all allopathic and osteopathic internal medicine residency program directors in New Jersey by phone (N=20), described the program, and requested that they encourage their chief resident(s) to participate. Follow-up emails and phone calls to chief residents were performed to increase the participation rate. The Phase One workshop and Phase Three dinner meeting were held in a room at the Robert Wood Johnson Medical School, used for a variety of educational and social functions. Phase Two activities were held in a various settings including the annual ACP Chapter Scientific Meeting, Robert Wood Johnson Medical School, and the NJ State House.

Data Collection, Ethical Issues, and Instruments

This program was entirely voluntary. Program Directors did not have access to chief resident responses nor was participation tied to any resident assessments. IRB approval was obtained at University of Illinois at Chicago and Hackensack University Medical Center and permission to use the LPI instrument was obtained from Kouzes Posner International (Appendix E). Paper surveys were distributed to and completed by NJ chief residents upon arrival to the November training session and upon completion of the program at the March dinner meeting. Chief residents who were absent for the final dinner meeting completed the survey via mail during the following several weeks.

Two survey instruments were used. The LPI, described earlier, consists of 30 behavioral items. It has been tested for reliability and validity by over 36,000 multinational subjects from a full array of fields and a diversity of organizations. Cronbach's alpha

ranges between 0.70 and 0.85 for the domains using the self-rating instrument, with test-retest reliability consistently at or above 0.93 (Posner, Kouzes, 1993). (Appendix D)

The second survey, entitled "Leadership Survey," asked a series of demographic questions, structured questions on residents' perceived confidence in various leadership skills using a category rating scale (10=complete confidence, 0=no confidence at all), and open ended questions about their future roles in healthcare leadership and their ideas about effective leadership. (Appendix D) Two former chief residents and two program faculty members reviewed this survey for readability and comprehension.

Data Analysis

Results were collected and quantitative data was entered into SPSS software. For the LPI instrument, individual components in each domain were added to calculate a total score for each behavior domain. Within-subject (paired) t-tests were performed to test differences in residents' self-rated pre- versus post- training leadership behaviors and confidence. Based on the LPI characteristics, a sample of 8 residents provides 80% power to detect a difference of 2 points on an LPI domain using a within-subjects t-test. Results from chief residents who completed the program were compared with chief residents who did not, using a 2x2 (pre/post x completed/not-completed) mixed ANOVA. The responses to open-ended questions were analyzed for content and themes using the method of constant comparative analysis associated with grounded theory for data analysis (Harris 2002; 2003). Themes were member checked by two chief resident participants. The number of "LEAD" certificates awarded in 2010-2011 to NJ IM chief resident trainees was recorded and compared with the overall number of LEAD certificates awarded that year. As no residents typically obtain LEAD certificates in any given year, we also tested the hypothesis that the number of program residents obtaining a LEAD certificate would be significantly greater than zero; a

sample size of 9 residents provides 80% power to test this hypothesis by estimating a confidence interval around the proportion obtaining a LEAD certificate.

RESULTS

Participant Characteristics

Twenty-one (21) chief residents from 13 NJ internal medicine residency programs participated in Phase One of the program. Nine (9) chief residents participated in all 3 phases of the program, 2 attended at least 1 activity in Phase Two but did not attend Phase Three, and 10 did not progress past the Phase One program. All nine of the chief residents involved in the entire program completed all pre- and post-surveys. Of the 12 remaining, 11 completed the pre-Leadership survey, 9 completed the post-LPI and 8 completed the post-Leadership survey. Of the three CRs who did not complete any post-program surveys, one stated that she had difficulty receiving mail and two did not respond to follow-up emails or phone calls.

The chief residents' mean age was 30 and mean postgraduate year was 3.5. Approximately half of the chief residents were men (52% men vs. 48% women). Most were international medical graduates (72%) as distinguished from US graduates (28%) and from community programs (62%) as distinguished from university based programs (38%).

Chief residents who participated in all three phases of the program were more likely to be PGY-4 residents (7 PGY-4, 1 PGY-5, 1 PGY-3) with an almost equal distribution between US and IMG graduations (5 US, 4 IMG), medical school versus community programs (4 medical school, 5 community), and gender (5 men, 4 women). The residents who did not complete all three phases were more likely to be PGY-3 residents (10 PGY-3, 2 PGY-2), IMG graduates (11 IMG, 1 US), from community programs (5 medical school, 7 community) with an equal gender distribution (6 men, 6 women).

Leadership Practice Inventory Results

Pre-intervention, there were no differences in LPI leadership behaviors between male versus female residents, U.S. versus international graduates, or PGY-3 versus PGY-4/5 residents. At the conclusion of the program, there was a statistically significant increase in resident ratings in the LPI domain "Inspire a Shared Vision" (pre=39.3, post=44.2; $p<0.05$). All other LPI domains (Model the Way, Challenge the Process, Enable Others to Act, Encourage the Heart) had positive trends, but there were no significant differences (Table III).

There were no differences in pre-LPI domains or pre- vs. post- LPI domains in chief residents who participated in all three phases of the program versus those who did not.

Table III: Leadership Practices Inventory (LPI) Domains with Chief Resident Mean Scores Pre- Program versus Post-Program

LPI Domain	Pre-Program Score Mean (SD)	Post-Program Mean Score Mean (SD)
Model the Way	44.8 (6.0)	47.39 (5.6)
Inspire a Shared Vision	39.4 (8.3)	44.2* (6.8)
Challenge the Process	41.1 (7.7)	45.2 (6.8)
Enable Others to Act	48.3 (5.9)	50.0 (6.1)
Encourage the Heart	45.4 (8.4)	47.4 (8.8)

*$p<0.05$

Leadership Survey Results

Pre-intervention, there were no differences in self-rated leadership skills between male versus female residents or U.S. versus international graduates. PGY-3 residents rated their ability to negotiate higher than PGY-4 residents in their interactions with attending physicians (7.7 versus 6.1; $p<0.01$), supervisors (7.7 versus 5.9; $p<0.01$), administrators (7.6 versus 6.2; $p<0.01$), but not with other residents. PGY-3 residents also rated their skills higher than PGY-4 residents in "manage conflict between colleagues" (8.5 versus 7.2; $p<0.05$) and "manage conflict between colleagues and superiors" (7.9 versus 6.3; $p<0.05$).

Within the Leadership Survey, 7 of the 11 items had significant increases post-program: "negotiate with other residents" (pre=7.6, post=8.3; $p<0.01$); "negotiate with attending physicians" (pre=6.9, post=7.9; $p<0.01$); "negotiate with supervisors" (pre=6.8, post=8.2; $p<0.01$); "negotiate with administrators" (pre=6.9, post=7.6; $p<0.05$); "manage conflict between colleagues" (pre=7.8, post=8.8; $p<0.05$); "manage conflict between colleagues and superiors" (pre=7.1, post=8.3; $p<0.01$); and "articulate a vision that inspires and guides members of the organization" (pre=7.1, post=8.0; $p<0.05$). Although there was no significant change in "motivate team members to accomplish a common goal", "serve as a change agent", "practice excellent listening skills"; or "network with colleagues and healthcare professionals outside of your institution", all had upward trends (Table IV).

Table IV: Leadership Survey Items with Chief Resident Mean Scores Pre- Program versus Post-Program

Leadership Survey Item	Pre-Program Score Mean (SD)	Post-program Score Mean (SD)
Motivate team members to accomplish a common goal	7.7 (1.4)	7.9 (1.0)
Negotiate with other residents	7.6 (1.3)	8.3 (1.1)**
Negotiate with attending physicians	6.9 (1.4)	7.9 (1.6)**
Negotiate with supervisors	6.8 (1.4)	8.2 (1.1)**
Negotiate with administrators	6.9 (1.3)	7.6 (1.8)*
Manage conflict between colleagues	7.8 (1.5)	8.8 (1.0)*
Manage conflict between colleagues and superiors	7.1 (1.6)	8.3 (1.4)**
Serve as a change agent	7.3 (1.5)	8.0 (1.5)
Articulate a vision that inspires and guides members of the organization	7.1 (1.7)	8.0 (1.4)*
Practice excellent listening skills	8.2 (1.4)	8.7 (1.1)
Network with colleagues and healthcare professionals outside of your institution	6.2 (2.3)	7.0 (1.8)

* p=<0.05; **p=<0.01

Comparing survey responses between chief residents who participated in all three phases of the program versus those who did not, there were no differences in the pre-Leadership Survey items except for "negotiating with supervisors" in which the limited-time participants rated themselves higher (limited time participants 7.45, three phase participants 6.0; $p<0.05$). There were no statistically significant differences comparing pre- vs. post- Leadership Survey items between chief residents who participated in all three phases of the program versus those who did not.

LEAD Certificate Recipients

Of the nine chief residents who completed this program, seven completed all criteria for the National ACP LEAD certificate and received the LEAD certificate in April 2011 (78%, 95% CI 49%-94%). These seven awardees were the first residents to receive the national ACP LEAD certificate. They belong to a select group of 26 physicians nation-wide who received the National ACP LEAD certificate that year in this organization composed of 132,000 members.

Qualitative Results

When queried about their future leadership roles, chief residents identified similar settings pre- versus post: academics 43%, 41%; hospital 5%, 12%; medical practice 9%, 12%; national organization or political activities 14%, 6% (Table V-A). Post program, several chief residents discussed their interest in improving the health of the community.

> Resident #9 Pre: *"By being active politically and by staying informed as well. As leader, I may be also asked to donate not just my time but my monetary contributions as well."* Post: *"An advocate in the promotion of health prevention. As an ER physician and an internal medicine training, I am at an advantage in utilizing the ER as an epidemiological window to the state of health in my community is in."*

Chief residents indicated that the program improved their leadership skills. Of the 16 respondents, 75% of responses were categorized in the theme of improvement in skills with subthemes in: communication (18%); developing a vision (12%); negotiation (12%), networking (6%); and conflict resolution (6%).(Table V-B).

> A resident commented,*"It has taught me strategies which I seek to apply in each leadership role. In the face of each leadership project, I now have a basic skeleton on which I build my leadership skills."*

When asked if the program increased their interest in pursuing leadership training, 87% of the 15 respondents responded affirmatively, while two chief residents who did not complete the program responded that they were uncertain (Table V-C).

Of the 17 responses to the question, "How has this program changed your views on leadership?", 47% were categorized in the theme of broadened perspectives about leadership, 41% referred to improved knowledge about leadership traits and principles, and 35% described the impact the program had on their view of themselves as a leader (Table V-D): Residents commented,

> *"This program has given me a different perspective in the sense that others may have viewed me as a leader, but I was never acutely aware of it. Awareness of being a leader affixes responsibility to the word."*
>
> *"It inspired me and boosted my confidence to deal with stress and perform better in future projects."*
>
> *"This program expanded my vision on leadership from patient care to political life."*

When asked how the program might be improved, 50% of the 14 respondents requested more sessions, but one CR asked to make the program more concise. Four chief residents (28%), all of whom participated in three phases of the program, requested more networking opportunities with fellow chiefs (Table V-E).

> Residents commented,
> *"Organize more face-to-face meetings which help to strengthen the bond between us"*
>
> *"To have more sessions, where chief residents can discuss certain situations and play role (role-play)… To get know each other more closely, for example, to arrange picnic or pizza party for chiefs to allow them to share their experiences. When we …have been sitting and chatting about our programs, our successes and difficulties as a chief, I have learned so much."*

Tables V A-E QUALITATIVE SURVEY RESULTS

A. In what roles might you see yourself as a future healthcare leader?	Pre (21 respondents) % (N)	Post (17 respondents) % (N)
Academics	43% (9)	41% (7)
Hospital	5% (1)	12% (2)
Medical practice setting	9% (2)	12% (2)
National organizations or political activities	14% (3)	6% (1)
Unsure	9% (2)	0
Improve health of community	0	18% (3)
Example of improving community health post-program: Resident #9 Pre: *"By being active politically and by staying informed as well. As leader, I may be also asked to donate not just my time but my monetary contributions as well."* Post: *"An advocate in the promotion of health prevention. As an ER physician and an internal medicine training, I am at an advantage in utilizing the ER as an epidemiological window to the state of health in my community is in."*		

B. How has this program changed your leadership skills?	16 respondents % (N)
Improvement in skills	75% (12)
Communication	18% (3)
Developing a vision	12% (2)
Negotiation	12% (2)
Networking	6% (1)
Conflict resolution	6% (1)
Example: *"It has taught me strategies which I seek to apply in each leadership role. In the face of each leadership project, I now have a basic skeleton on which I build my leadership skills."*	

C. How has this program changed your likelihood of pursuing additional self-directed or formal leadership training?	15 respondents % (N)
Has increased interest in pursuing leadership training	87% (13)
Training sessions/programs	47% (7)
Self-directed learning	33% (5)
Uncertain if has increased interest in pursuing leadership training	13% (2)

D. How has this program changed your views on leadership?	17 respondents % (N)
Broadened perspectives about leadership	47% (8)
Improved knowledge about leadership traits and principles	41% (7)
Impacted view on their view of *themselves* as a leader	35% (6)
Examples: *"This program has given me a different perspective in the sense that others may have viewed me as a leader, but I was never acutely aware of it. Awareness of being a leader affixes responsibility to the word."* *"It inspired me and boosted my confidence to deal with stress and perform better in future projects."* *"This program expanded my vision on leadership from patient care to political life."*	

E. What changes would you suggest for this program?	14 respondents % (N)
More sessions	50% (7)
More networking opportunities between chief residents	28% (4)
More networking opportunities with fellow chiefs	28% (4)
Examples: *"Organize more face-to-face meetings which help to strengthen the bond between us"* *"To have more sessions, where chief residents can discuss certain situations and play role (role-play)… To get know each other more closely, for example, to arrange picnic or pizza party for chiefs to allow them to share their experiences. When we …have been sitting and chatting about our programs, our successes and difficulties as a chief, I have learned so much."*	

DISCUSSION

Findings

At the conclusion of the program, chief residents' self-reported leadership behaviors improved in the "Inspire a Shared Vision" LPI domain. Correlating with this increase, the chief residents also reported a post-program increase in their ability to "articulate a vision that inspires and guides members of the organization" within the Leadership Survey. The other LPI domains had upward trends, but did not reach statistical significance. "Inspire a Shared Vision" was the lowest rated domain in the pre-intervention survey and thus may have been less vulnerable to a ceiling effect.

Chief residents may have had greater motivation to improve their "Inspire a Shared Vision" behaviors compared to the other domains. Immediately after the initial training, chief residents received their individual LPI scores and compared them to the CR group's

mean scores and worldwide leaders' mean scores. Compared to the other domains, there was a greater delta between chief residents' relatively low mean score and world-wide leaders mean score in the "Inspire a Shared Vision" domain, which may have created a desire to improve this area. The program faculty specifically asked chief residents to reflect on their scores and use the LPI workbook to improve low scores, so the chief residents may have reviewed this part of the workbook more thoroughly than other parts, however, the extent of chief residents' self-directed learning was not measured in this study. Additionally, while LPI domains were taught via an interactive lecture in Phase 1 and reviewed via small group discussion in Phase 2, the "Inspire a Shared Vision" domain was additionally practiced in a Phase 2 session through role-play. Perhaps role-play was a more effective pedagogy than discussion to teach this behavior and support chief residents' learning and application in real life.

Active learning pedagogies, rather than lecture, may have had a greater impact on chief residents' leadership growth in other areas as well. Chief residents reported increased confidence in conflict resolution and negotiation at the end of the program; these areas were taught through case based learning and role-play. Increasing motivation and networking skills, taught via lecture, did not improve. Since conflict resolution and negotiation skills were explicitly taught in Phase One and all chief residents participated in Phase One, it is not surprising that there was no difference in confidence in performing these skills between chief residents who participated in all three phases versus those who did not.

Within the qualitative survey items, several chief residents indicated that the program improved their leadership skills, increased their likelihood that they would pursue

additional leadership training, and broadened their views on leadership. Several expressed to the author that they had never considered themselves a leader, and the program allowed them to see themselves in a new light. Although the survey asked the question, "How has this program changed your views on leadership?" a better question might have been, "How has this program changed your view of *you* as a leader?"

Additionally, some anecdotal observations by the author lead to further questions. Previously, in NJ, there were no formal activities for Internal Medicine chief residents in different hospitals to connect with each other. This program provided opportunities for chief residents across programs to develop programs together and share best practices with each other. In particular, the nine chief residents who participated in the longitudinal program forged relationships with each other through shared leadership activities, initiatives, and meetings. Given Schwartz' contention that effective leadership training should build a critical mass of physician leaders who ideally are from the same locale, and who have espirit de corps, it would be interesting to track whether those nine chief residents remain active in the ACP and whether their future leadership roles differed from the other chief residents.

Given the resources for a longitudinal chief resident leadership program, it would be helpful to identify the factors that correlate with likelihood of completion of the program. Within this program, PGY-4 or PGY-5 chief residents were more likely to participate in all three phases, as well as receive the LEAD certificate, compared to PGY-3 residents. However, the underlying reason for this difference is less clear. More senior residents, who have additional training, may have gained experiences that incentivize pursuit of leadership training. However, the competing service commitments of PGY-3

residents, who generally provide more ward-service coverage than PGY-4 residents, may have been a significant barrier to participating in a longitudinal leadership program. In order to mitigate scheduling barriers, the author queried PDs about best times and dates. Program Directors' support was essential to promote the program and to provide release time for sessions. Incentives to continue in the program included a certificate of leadership training for those chief residents attending Phase One and Phase Three, and, for those chief residents who participated in the requisite leadership activities and training, the national ACP LEAD certificate.

Not all educational activities were as successful. Chief residents reported that the social blog was not their preferred method of communication and most requested face-to-face meetings with faculty and CR peers instead.

For future programs, the addition of mentors to guide chief residents on an individualized basis and forge longer-term relationships would be beneficial (Priestland, 2005). Additional skills based training and feedback, whether through role-play or simulation exercises, could be added to give chief resident additional practice opportunities in a non-threatening environment and improve behavior and confidence in that area. The addition of multisource LPI assessments would elevate the outcomes from self-reported behaviors to observed behaviors.

Ultimately, programs of this type address the need to inspire our future young physicians to consider themselves as future healthcare leaders, teach basic leadership skills, and encourage them to pursue additional healthcare leadership training. Professional organizations are in a good position to deliver these programs for chief residents as they have the ability to bring various chief residents from a discipline together and create a

"leadership community" with mentors within the professional organization. In recognition of the value of this program to the ACP, this Chief Leadership Development Program was awarded national Evergreen awards in 2010 and 2011. By comparison, only 6 of the 83 ACP Chapters were awarded an Evergreen in 2011 and only 9 awards were distributed in 2010.

Limitations

There are several limitations in this study. The study did not control for maturation over the 4½ month time period. The author attempted to use a control group of IM chief residents from New York and Connecticut, but despite the support of ACP governors in those states and personal phone calls to program directors, the response rate was too low to permit meaningful comparisons. The LPI measures self-reported behaviors rather than others' observations, which might be argued to be less robust. However, LPI research has noted that while self-reported leadership behaviors are generally higher than those rated by others, the LPI tool remains a validated tool measuring leadership growth via self-reported behaviors. Additionally, use of multisource assessments would have required additional resources and tracking that was beyond the resources available for this project. The Leadership Survey similarly measured chief residents perceptions of efficacy rather than direct observation of leadership skills, as direct observation was beyond the scope and resources available for this project. A potentially confounding factor may be that simply offering a leadership program and suggesting to the chief residents that they were trained, led to their perception of growth rather than the program itself.

This program included didactic material, a longitudinal program with networking, and inclusion in a "community" of leaders. It is not clear from this study whether

individual components of the program were more or less successful since the outcomes measured the program as a whole.

Finally, while the study did demonstrate a positive impact on areas of leadership behaviors and skills, it is beyond the scope of this project to measure whether the impact will be sustained or whether it will lead to more leadership activities in the chief residents' futures.

Conclusion

Chief residents improved leadership behavior in the LPI domain "Inspire a Shared Vision" and reported improvement in their confidence to articulate a vision, negotiate and resolve conflict. Several chief residents noted that the program modified their view of leadership and their leadership roles. Most chief residents who completed the entire program achieved the ACP LEAD certificate. Based on literature review, this is the first described longitudinal leadership program specifically for chief residents or residents that draws from multiple residency programs. This award-winning leadership program, developed using a scholarly approach, could be used as a model for other similar leadership development programs within the ACP and within other medical organizations.

Appendix A: NJ Chapter ACP Chief Resident Leadership Development Program Curriculum Outline

Phase One "Leadership in Medicine" Events and Agenda

Date/Time	Event	Further Description (*Instructional method in italics*)
November 19th Workshop		
November 19, 2009 1:30PM-2:30PM	Complete surveys Introductions Icebreaker Results of Needs Assessment Survey done in July 2009	1) Describe program goals and components. Introduction to faculty. Describe LEAD certificate. 2) Icebreaker: (*Pair-share)* Chief residents break into pairs, pose question to each other "What is your greatest leadership challenge as a chief resident?" They discuss between themselves, then introduce each other to larger group with their partner's leadership challenge 3) Results of Needs Assessment Survey. *(Mini-lecture)*
November 19, 2009 2:30PM-3:15PM	What is Leadership? (Moser)	Is leadership natural or can it be acquired? Leadership concepts introduced (change agent, manager vs. leader, Kouzes Posner framework and servant leader framework) *(Interactive discussion)*
November 19, 2009 3:15PM-4PM	Conflict Resolution (Sharma)	Overview of conflict resolution is provided. *(Mini-lecture)* Chief residents are provided common residency or practice scenarios with conflict and posed the questions "What is going on? Where is the conflict? How would you resolve the conflict?" Faculty facilitators are at each table. *(Case Based Method*
4PM-4:15PM	Break	
November 19, 2009 4:15PM-4:45PM	Leadership From a Young Physician's View (Phillips)	A former chief resident who recently completed fellowship and has held national role in ACP talks about his personal journey, how to find mentors, networking ideas, how to find leadership opportunities. *(Lecture followed by question and answer)*
November 19, 2009 4:45PM-5:45PM	Negotiation Skills (Moser and faculty)	A short primer on negotiation skills, bringing in concepts learned about conflict resolution is presented followed by role play in various scenarios *(Mini-lecture followed by role play and discussion)*
5:45PM-6PM	Break and Serve Dinner	
November 19, 2009 6PM-6:45PM	Motivating Your Team (McLaughlin)	A physician leader-entrepreneur discusses methods to motivate teams to perform at their peak *(Lecture followed by discussion)*
November 19, 2009 6:45PM-7:00PM	Wrap up	Review key points. Discuss next steps.
December Evening Webinar		
December 2009 7-8PM	The HealthCare Scene- A Systems Approach (Peskin)	Background on United States healthcare system, Q&A *(webinar)*

Phase Two "Leadership in Action": Meetings and Organized Activities

Date and Time	Event	Further Description
December through January	Social media (Facebook) blog	Questions posed to chief residents with short replies
December through March	Leadership Practices Inventory (LPI) Workbook	Chief residents use workbook to improve LPI domains they would like to improve
February 5-6, 2010	NJ Chapter ACP Scientific Meeting	Chief residents had dedicated time to network with each other and program faculty. Chief residents planned leadership activities together including a book drive for indigent countries and a mentoring program for incoming foreign medical graduates in Internal Medicine residency programs in New Jersey.
March 4, 2010 6PM-8:30PM	Leadership Meeting	Chief residents and faculty engaged in small group discussion, case based learning and practice. Exercise 1: Examples of Leadership in Action: Participants write a conflict or problem that has occurred during their chief residency year that required leadership to overcome. Exercise 2:Applying the Five Practices of Leadership to a known Leader: Participants were asked to respond to the following prompt: President Obama's leadership has been praised and criticized by the media and others. Using the "Five Practices of Exemplary Leadership", how would you rate President Obama's behavior? State what he is doing well and how you would advise him to improve. Exercise 3: Applying Five Practices of Leadership to own behavior. Participants were asked to respond to the following prompt: Reviewing the Five Practices of Leadership, are there any events over the past four months in which you have applied any of these principles in your chief residency or other leadership roles? Exercise 4: Inspire a Shared Vision: Participants were asked to consider something that they would like to change in their residency program (e.g. Structure of morning report, call schedule, building a mentoring program, improved quality of lectures); identify stakeholders; identify ways to build support and then to write a vision statement in no more than 4 sentences. They were then asked to practice their vision statement out loud in front of all participants and then were critiqued by their fellow chief residents and program faculty.
March 5, 2010	Political Advocacy Day, Trenton, NJ	Chief residents met with NJ ACP Chair of Health and Public Policy committee, discussed key issues in political advocacy along with tips to becoming an effective advocate; toured the NJ Capitol Building
March – April, 2010	Political Advocacy Events	Met with State Senators and Congressmen in Trenton or at other sites

Phase Three "Your Future as a Healthcare Leader": Meeting Agenda
March 31, 2009- 6 PM-8:30 PM

Time	Event	Further Description (*Instructional method in italics*)
6PM-6:30PM	Introductions and dinner	
6:30PM-7:30PM	Leadership for the 21st Century: The Ten Tenets of Leadership (Chopra)	*Interactive lecture followed by discussion*
7:30PM-8:15PM	Discussion with Dr. Chopra and Chief Resident Leadership Development Program Faculty Resources for future leadership training	Discussion on lessons learned, changes in leadership behaviors that have been incorporated, next steps, Leadership Contract *(Discussion)* Advice on finding a mentor, leadership training opportunities *(handout and discussion)*
8:15 PM- 8:30 PM	Wrap-up and participants complete surveys	Review leadership and political advocacy activities completed by participants Review steps to meet criteria for LEAD certificate and application process

Appendix B: NJ Chapter ACP Chief Resident Leadership Development Program Curricular Learning Objectives and Instructional Strategies

B-1: Program Goals and Learning Objectives

The goal of the Chief Resident Development Program is to provide NJ internal medicine chief residents with basic leadership knowledge and skills to help prepare them for future leadership roles; broaden their perspective of healthcare leadership opportunities; encourage their further training in leadership; and fulfill the didactic requirements for the ACP LEAD certificate.
Learning Objectives (by the conclusion of the program each chief resident will be able to:)
1. Describe methods to find a leadership mentor. 2. Generate ideas of potential current and future leadership opportunities 3. Increase self-efficacy of being a leader 4. Appraise personal leadership characteristics using Kouzes & Posner's (2007)"Leadership Practices Inventory" 5. Describe how leadership traits can be learned/acquired 6. Describe the difference between a "manager" and a "leader" 7. Describe the role of leadership in "ability to articulate a vision", ability to be a change agent" "team leadership" 8. Apply learned conflict management skills, negotiation skills and motivational skills to current role as chief resident 9. Apply Kouzes and Posner's "Five Practices of Exemplary Leadership" to chief resident daily activities 10. Demonstrate basic knowledge of United States healthcare system including financing and reimbursement. 11. Obtain ACP "LEAD" certificate

B-2: Program Learning Objectives, Instructional Strategies and Descriptions

Learning Objectives (by the conclusion of the program each chief resident will be able to:)	Instructional Strategies (Component of Program)	Description and Rationale for Instructional Strategy
1. Describe methods to find a leadership mentor. 2. Generate ideas of potential current and future leadership opportunities 3. Increase self-efficacy of being a leader	**Plenary followed by large group discussion** (Phase 1) **Role-modeling** by facilitators who are healthcare leaders in academic and non-academic roles (Phase 1, 2, 3) **Lecture followed by discussion** (Phase 3) **Skills training** (Phase 1) –description below	Knowledge based objectives can be accomplished through multiple methods. For the first two objectives, they are accomplished through plenary speakers and large group discussion. Attitude objectives, such as increasing self-efficacy (the confidence that one has the capability) to be a leader, are arguably more difficult to accomplish and measure. Relying upon Bandura's Social Cognitive Theory, a multimodal approach is used to influence self-efficacy through the reciprocal interplay of personal factors, behavior and environmental factors. 1. Skills and knowledge will be taught in this workshop, practiced during the chief residents' daily leadership activities in their program, reflected upon through social networking blogs and discussion at follow-up meetings. 2. Self-efficacy will be promoted through the use of faculty role models (Table 3). Peer and faculty support will be implemented through a social networking blog. 3. Table 2B describes the Social Cognitive Theory and self-efficacy with rationale for use of role models and verbal persuasion. (Shumaker, 1998) Further Details: A young physician and former internal medicine chief resident in neighboring state who served as National ACP Chair of Associates (resident organization in ACP) described his personal experiences in finding mentors and pursuing leadership opportunities and shared anecdotes from young physician leader colleagues. This speaker is an ideal role model since he is close in age to the chief residents, was formally a chief resident 4 years prior, grew up in the NY metropolitan area and therefore chief residents are more likely to identify with him. Additional role models who are successful healthcare leaders in a variety of fields will serve as workshop facilitators. Follow-up dinner meeting speaker, Dr. Sanjiv Chopra, an internationally recognized expert on leadership, gives an exceptional, motivating and strongly persuasive plenary
4. Appraise personal leadership characteristics using Kouzes and Posner's "Leadership Practices Inventory"[3]	**Reflection and discussion**. (Phase 1 and 2) At the beginning of the Phase 1 workshop, residents complete the Leadership Practices Inventory (LPI), which is based on Kouzes and Posner's Five Practices of Exemplary Leaders framework. There is an interactive lecture about	Chief residents complete the "Leadership Challenge" questions (reference) on arrival to the workshop. The responses are scored and sent to residents for their reflection and to help them determine what areas they would like to improve. A phase 2 group meeting was added that allowed chief residents to reflect on leadership progress in the various domains and discuss it with their peers and faculty.

	Kouzes and Posner Five Practices of Exemplary Leaders framework. Phase 2 includes discussion and **pair-share** activities	
5. Describe how leadership traits can be learned/acquired	**Group discussion** (Phase 1)	Group discussion on concept whether leadership is "natural" or whether it can be taught, how are leaders created?
6. Describe the difference between a "manager" and a "leader" 7. Describe the role of leadership in "ability to articulate a vision", ability to be a change agent" "team leadership"	**Table discussion followed by larger group discussion** (Phase 1) **Lecture** (Phase 1); **Role-play-** residents practice creating and articulating a vision (Phase 1 and Phase 2)	Group is split in a stratified randomized method into 4 teams for the Phase 1 workshop. Skills in working in teams are useful and necessary for leadership. This pedagogy gives the chief residents the impact of working in teams while learning the didactic material. It promotes peer learning. Since the NJ Chief Residents are a diverse group (range of ethnicities, university vs. community programs, US Graduate vs. international medical graduate, range in ages from 20's to 40) this will strengthen the experience. Chief residents create a vision plan for a project that they wish to create and must "sell" to stakeholders. After creating the vision statement, they present to the group and provided feedback.
8. Apply learned conflict management skills, negotiation skills and motivational skills to current role as chief resident	**Case Based Method** for conflict management skills **Role play** with scenarios for negotiation skills –this will be incorporated in the next rendition of the program **Role play** with scenario for motivational skills – this will be incorporated in the next rendition of the program. (Phase 1) Practice learned leadership skills December through March as Chief Resident, blog for pointers/hints, follow-up discussion (Phase 2)	Skills training using Gagne's 9 phases of learning and Miller's pyramid frameworks. 1. Incorporate Gagne's 9 phases of learning through connecting learning phases with appropriate instructional events. For instance, conflict management skills will be taught through attention grabbing scenario, review of objectives, mini-lecture to retrieve information, case-based method for acquisition and performance phases, group discussion to assess performance. Chief residents will have opportunity to use newly learned skills/knowledge when they return to work (generalizing with new examples). 2. Miller's pyramid: Chief residents will "know how" and "show how" at the time of the workshop, then move up the pyramid to "does" upon return to chief resident activities. Report back on activities through social networking blog and/or follow-up dinner meeting
9. Apply Kouzes and Posner's "Five Practices of Exemplary Leadership" to chief resident daily activities	**Individual work** from December through March using LPI workbook**, pair share and small group discussion** at a meeting (Phase 2)	Chief residents are encouraged to use the Leadership Practices Inventory Workbook to enhance domains of leadership they choose to improve. An additional phase 2 group meeting allowed chief resident to discuss their progress in the various domains with each other.
10. Demonstrate basic knowledge of United States healthcare system including financing and reimbursement.	**Webinar with discussion** (Phase 2)	Initial rendition was a webinar lecture followed by discussion. Future renditions may include a "pretest" to reactivate knowledge. A webinar was necessary due to scheduling issues.
11. Obtain ACP	Mini-lecture on LEAD	"LEAD" certificate requires 7 hours of CME or structure learning

“LEAD” certificate	certificate Didactic workshop and dinner meeting Planned optional Leadership activities	activities on leadership plus outlined leadership activities (Appendix)

B-3: Application of Conceptual Models to Program's Instructional Strategies

Application of Bandura's Social Cognitive Theory to Program's Instructional Strategies

Social Cognitive Theory	Corresponding Instructional Strategies
Human functioning is a reciprocal interplay of behavior, personal factors (cognitive, affective, biological events), and environmental factors.	Program will include aspects that allow interplay of behavior, personal factors and environmental factors
Behavior change and maintenance are a function of : outcome expectations	Increase outcome expectations by demonstrating to chief residents the plethora of leadership opportunities available and within their reach
Behavior change and maintenance are a function of : efficacy expectations (the person's belief in capabilities/outcomes, not necessarily the true capabilities or outcomes). Efficacy Expectations derived by: 1. Performance accomplishments- mastery over difficult/feared task- MOST potent (past accomplishments will be discussed in this program) 2. Vicarious experience- role model – must have struggled- should be similar (age/gender) – best if has clear rewarding outcome Verbal persuasion- Physiological state- high arousal can decrease efficacy and impair performance (not covered)	Increase efficacy expectations through a variety of methods. 1. Performance accomplishments: discuss past leadership accomplishments, most difficult leadership challenge to date 2. Role models: faculty role models are chosen that represent a variety of potential healthcare leadership positions and include a young leader who is similar in age to the chief resident participants (Table 3- Program Faculty) 3. Verbal persuasion through plenary lectures, facilitators, peers

Application of Gagne's Nine Phases of Learning to Program's Instructional Strategies

Gagne's Nine Phases of Learning	Corresponding Instructional Strategies
Preparation for Learning I. Attending II. Expectancy III. Retrieval	Preparation is performed during Phase 1, at the beginning of the workshop. In order to set the stage and provide stimulus for learning, chief residents are reminded about crisis situations that have occurred in their own hospitals that required leadership as well as the current US health care crisis. The program's goals and the workshop's learning objectives are outlined. Retrieval is encouraged through residents giving examples when they needed to demonstrate leadership. The chief resident targeted needs analysis findings are reviewed. (slides demonstrating introduction are attached) The chief residents also complete a "Leadership Practices Inventory" in which they self-assess their leadership behaviors. At Phase 2 and Phase 3 meetings, programmatic goals and objectives of the session are briefly outlined, and a few sentences of what has been learned so far are included.
Acquisition and performance IV. Selective perception of stimulus features V. Semantic encoding VI. Retrieval and responding VII. Reinforcement	Each learning event, whether a lecture, discussion or activity, is strengthened through consideration of the acquisition and performance phases. Information learned is stored in working memory then manipulated through discussion, case based method and reflection in order to allow chief residents to apply the newly learned concepts to their current leadership positions and aid in the transfer to long term memory. Given the longitudinal and iterative nature of the program, chief residents must retrieve and respond to concepts learned in the Phase 1 workshop during the Phase 2 discussion meetings and reflection exercises. For instance, the five practices of exemplary leadership are reviewed in the Phase 1 workshop, reviewed and manipulated during Phase 2 using case based method and reflection. US healthcare systems and political advocacy concepts are discussed via webinar, and two months later reviewed during discussion at a visit to the Senate House. Chief residents receive feedback during discussions and have the opportunity to present a "vision statement" where they are critiqued by peers and faculty on the content of the statement and the quality of their delivery.
Transfer of learning VIII. Cueing retrieval IX. Generalizability	Cueing retrieval is accomplished through end of program "Leadership Practices Inventory" in which the chief resident self-assesses their own leadership behaviors and compare them to their behaviors pre-intervention. The generalizability is aided by reminding chief residents that learned leadership skills are transferable past chief residency duties into their future leadership roles.

Appendix C: NJ Chapter ACP Chief Resident Leadership Development Program Faculty (with titles held at time of program)

Sanjiv Chopra, MD, FACP: Professor of Medicine, Faculty Dean for Continuing Education, Harvard Medical School; Senior Consultant in Hepatology, Beth Israel Deaconess Medical Center, Boston, Massachusetts

George DiFerdinando, Jr., MD, FACP: Adjunct Professor of Epidemiology UMDNJ-School of Public Health; Coordinator of The New Jersey Center for Public Health Preparedness at UMDNJ-New Brunswick, NJ.

Michael McLaughlin, MD: Co-founder, co-owner, and Chief Scientific Officer of Peloton Advantage, Parsippany, NJ.

Eileen M. Moser, MD, FACP, Governor, ACP New Jersey Chapter Northern Region, Assistant Dean for Medical Education; Clinical Associate Professor of Medicine;
Touro University College of Medicine, Hackensack, NJ

Steven R. Peskin, MD, MBA, FACP: Executive Vice President and Chief Medical Officer of MediMedia USA, Yardley, PA / Chatham, NJ; Attending Physician at Eric B. Chandler Health Center, New Brunswick, NJ.

Lawrence Phillips, MD, FACP: Assistant Professor of Medicine, New York University, New York, NY; Former Chair, American College of Physicians Council of Associates.

Ranita Sharma, MD, FACP: Program Director, Internal Medicine Residency Program, Director, Medical Grand Rounds, Assistant Professor, UMDNJ-Robert Wood Johnson Medical School, New Brunswick.

Alex Stagnaro-Green, MD, MHPE, FACP: Senior Associate Dean of Academic Affairs, Professor of Medicine, Professor of Obstetrics and Gynecology, Touro University College of Medicine, Hackensack, NJ.

Sara L. Wallach, MD, FACP: Vice Chairman and Program Director, Monmouth Medical Center, Long Branch, NJ.

Appendix D: Survey Tools

Appendix D1: Leadership Surveys

Dear NJ Internal Medicine Chief Resident:

Please complete the following information:

Name: _____

Name of Residency Program: _____

City/Town of Residency Program: _____

Medical School Attended: _____

State/Country of Medical School: _____

Your Age: _____

Your Gender: Male_____ Female_____

Name: _____ Program: _____

LEADERSHIP SURVEY **(pre-course survey)**

DIRECTIONS: Rate how confident you are in your ability to accomplish the stated activities. In the space provided to the right of each task, indicate your degree of confidence, from 0 (no confidence at all) to 100 (complete confidence). Thank you.

0 1 2 3 4 5 6 7 8 9 10
No confidence at all — Moderate amount of confidence — Complete confidence

---

TASKS	**CONFIDENCE (0-10)**
1. Motivate team members to accomplish a common goal.	_____
2. Negotiate (resolve a divergence of interests, be they real or perceived, where common interests also exist) with other residents.	_____
3. Negotiate (resolve a divergence of interests, be they real or perceived, where common interests also exist) with attending physicians.	_____
4. Negotiate (resolve a divergence of interests, be they real or perceived, where common interests also exist) with supervisors.	_____
5. Negotiate (resolve a divergence of interests, be they real or perceived, where common interests also exist) with administrators.	_____
6. Manage conflict between colleagues.	_____
7. Manage conflict between colleagues and superiors.	_____
8. Serve as a "Change Agent" (a person whose presence or thought processes cause a change from the traditional way of handling or thinking about a problem).	_____
9. Articulate a vision that inspires and guides members of the organization.	_____
10. Practice excellent listening skills.	_____
11. Network with colleagues and healthcare professionals outside of your institution.	_____

Name: _____ Program: _____

- Please describe what effective leadership in health care means to you.

- In what role(s) might you see yourself as a future healthcare leader?

Name: _____ Program: _____

LEADERSHIP SURVEY **(post-program survey)**

DIRECTIONS: Rate how confident you are in your ability to accomplish the stated activities. In the space provided to the right of each task, indicate your degree of confidence, from 0 (no confidence at all) to 100 (complete confidence). Thank you.

0 1 2 3 4 5 6 7 8 9 10
No confidence at all — Moderate amount of confidence — Complete confidence

---

TASKS	**CONFIDENCE (0-10)**
1. Motivate team members to accomplish a common goal.	_____
2. Negotiate (resolve a divergence of interests, be they real or perceived, where common interests also exist) with other residents.	_____
3. Negotiate (resolve a divergence of interests, be they real or perceived, where common interests also exist) with attending physicians.	_____
4. Negotiate (resolve a divergence of interests, be they real or perceived, where common interests also exist) with supervisors.	_____
5. Negotiate (resolve a divergence of interests, be they real or perceived, where common interests also exist) with administrators.	_____
6. Manage conflict between colleagues.	_____
7. Manage conflict between colleagues and superiors.	_____
8. Serve as a "Change Agent" (a person whose presence or thought processes cause a change from the traditional way of handling or thinking about a problem).	_____
9. Articulate a vision that inspires and guides members of the organization.	_____
10. Practice excellent listening skills.	_____
11. Network with colleagues and healthcare professionals outside of your institution.	_____

Name: _____ Program: _____

1. Please describe what effective leadership in health care means to you.

2. In what role(s) might you see yourself as a future healthcare leader?

3. How has this program changed your views on leadership?

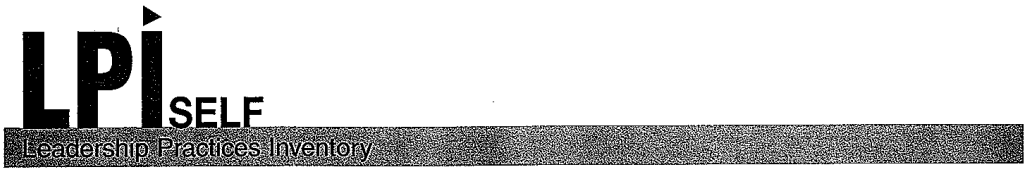
4. How has this program changed your leadership skills?

5. How has this program changed your likelihood of pursuing additional self-directed or formal leadership training?

6. What did you learn in this program that was particularly helpful?

7. What changes would you suggest for this program?

Appendix D2: Leadership Practices Inventory- Self-Assessment Used Pre- and Post-Course



by JAMES M. KOUZES
& BARRY Z. POSNER

INSTRUCTIONS

Write your name in the space provided at the top of the next page. Below your name, you will find thirty statements describing various leadership behaviors. Please read each statement carefully, and using the RATING SCALE on the right, ask yourself:

"How frequently do I engage in the behavior described?"

- Be realistic about the extent to which you *actually* engage in the behavior.
- Be as honest and accurate as you can be.
- DO NOT answer in terms of how you would like to behave or in terms of how you think you should behave
- DO answer in terms of how you typically behave on most days, on most projects, and with most people.
- Be thoughtful about your responses. For example, giving yourself 10s on all items is most likely not an accurate description of your behavior. Similarly, giving yourself all 1s or all 5s is most likely not an accurate description either. Most people will do some things more or less often than they do other things.
- If you feel that a statement does not apply to you, it's probably because you don't frequently engage in the behavior. In that case, assign a rating of 3 or lower.

For each statement, decide on a response and then record the corresponding number in the box to the right of the statement. After you have responded to all thirty statements, go back through the LPI one more time to make sure you have responded to each statement. *Every* statement *must* have a rating.

The RATING SCALE runs from 1 to 10. Choose the number that best applies to each statement.

1	=	Almost Never
2	=	Rarely
3	=	Seldom
4	=	Once in a While
5	=	Occasionally
6	=	Sometimes
7	=	Fairly Often
8	=	Usually
9	=	Very Frequently
10	=	Almost Always

When you have completed the LPI-Self, please return it to:

_____

_____

_____

Thank you.

Your Name:_____

To what extent do you typically engage in the following behaviors? Choose the response number that best applies to each statement and record it in the box to the right of that statement.

1. I set a personal example of what I expect of others.
2. I talk about future trends that will influence how our work gets done.
3. I seek out challenging opportunities that test my own skills and abilities.
4. I develop cooperative relationships among the people I work with.
5. I praise people for a job well done.
6. I spend time and energy making certain that the people I work with adhere to the principles and standards we have agreed on.
7. I describe a compelling image of what our future could be like.
8. I challenge people to try out new and innovative ways to do their work.
9. I actively listen to diverse points of view.
10. I make it a point to let people know about my confidence in their abilities.
11. I follow through on the promises and commitments that I make.
12. I appeal to others to share an exciting dream of the future.
13. I search outside the formal boundaries of my organization for innovative ways to improve what we do.
14. I treat others with dignity and respect.
15. I make sure that people are creatively rewarded for their contributions to the success of our projects.
16. I ask for feedback on how my actions affect other people's performance.
17. I show others how their long-term interests can be realized by enlisting in a common vision.
18. I ask "What can we learn?" when things don't go as expected.
19. I support the decisions that people make on their own.
20. I publicly recognize people who exemplify commitment to shared values.
21. I build consensus around a common set of values for running our organization.
22. I paint the "big picture" of what we aspire to accomplish.
23. I make certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on.
24. I give people a great deal of freedom and choice in deciding how to do their work.
25. I find ways to celebrate accomplishments.
26. I am clear about my philosophy of leadership.
27. I speak with genuine conviction about the higher meaning and purpose of our work.
28. I experiment and take risks, even when there is a chance of failure.
29. I ensure that people grow in their jobs by learning new skills and developing themselves.
30. I give the members of the team lots of appreciation and support for their contributions.

Appendix E: IRB Forms and Permission for LPI tool

Please note: UIC - IRB Exempt Form, Appendix K and Appendix P are submitted under a separate attachment.

Hackensack University Medical Center IRB was also obtained.

UIC UNIVERSITY OF ILLINOIS AT CHICAGO

Office for the Protection of Research Subjects (OPRS)
Institutional Review Board
FWA# 00000083

203 AOB (MC 672)
1737 West Polk Street
Chicago, IL 60612-7227
Phone: 312 996-1711 Fax: 312 413-2929
www.research.uic.edu/irb/default.htm

FORM – Claim of Exemption Application

Version 5.0 4/25/09

To Be Completed By the Investigator	*For OPRS Use Only*
Date Application Completed: 11-4-09	IRB Protocol #
Application Document Version #	Assigned IRB

I. Research Title: NJ Chapter American College of Physicians Chief Resident Leadership Training Program

II. Contact Information

Who should be the primary person contacted by OPRS if further information about this protocol is needed? This person may be someone other than the PI or other individuals listed as key research personnel (i.e., Administrative Coordinator).

Do you wish to grant this individual RISCWeb access to this research protocol?
☐ Yes ☐ No

Name (Last, First)		Title
Moser, Eileen		**MD**
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Phone Number	Fax Number	
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III. Personnel

A. Principal Investigator

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B. Faculty Sponsor – required when PI is a student, fellow or resident

Name (Last, First)	Degree(s)	University Status/Title
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October 13, 2009

Eileen Moser
9-10 6th Street
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Email: emcpmoser@gmail.com

Dear Ms. Moser:

Thank you for your request to use the Leadership Practices Inventory (LPI) in your dissertation. We are willing to allow you to ***reproduce*** the instrument in written form, as outlined in your request, at no charge. If you prefer to use our electronic distribution of the LPI (vs. making copies of the print materials) you will need to separately contact Lisa Shannon (lshannon@wiley.com) directly for instructions and payment. Permission to use either the written or electronic versions requires the following agreement:

(1) That the LPI is used only for research purposes and is not sold or used in conjunction with any compensated management development activities;
(2) That copyright of the LPI, or any derivation of the instrument, is retained by Kouzes Posner International, and that the following copyright statement is included on all copies of the instrument; "Copyright 8 2003 James M. Kouzes and Barry Z. Posner. All rights reserved. Used with permission",
(3) That one (1) **electronic** copy of your dissertation and one (1) copy of all papers, reports, articles, and the like which make use of the LPI data be sent **promptly** to our attention; and,
(4) That you agree to allow us to include an abstract of your study and any other published papers utilizing the LPI on our various websites.

If the terms outlined above are acceptable, would you indicate so by signing one (1) copy of this letter and returning it to us. Best wishes for every success with your research project.

Cordially,

Ellen Peterson
Permissions Editor
epeterson@scu.edu

I understand and agree to abide by these conditions:

(Signed)_____Date: _____
Expected Date of Completion is: _____

Appendix F: Qualitative Comments

PRE-INTERVENTION

Please describe what effective leadership in healthcare means to you.

1. A leader who comes with a plan that assures access for healthcare to all patients and maximizes their benefit and safety and care and working with other third parties to share with them this goal.
2. I think it is someone who is an agent of change. It has to involve speaking the truth always, putting patient care first, advocate for patients, residents, and the profession as a whole, and thinking outside the box. Being a leader means being both a visionary and a practical thinker. This person has to be a motivator and be able to connect with all within the profession.
3. I believe effective leadership in health care means to recognize personal and system core issues and develop/implement goals/plans. Effective leadership involves managing, teaching and inspiring those around you to strive to achieve common goals. It means taking into account resources, financial, social, societal, and individual interests.
4. An effective leader in healthcare is one who has a clear vision of the future, the changes that need to be made to improve the current system and a clear and concise plan on how to implement changes such that everyone benefits. The important qualities which contribute towards effective leadership are good communication skills, patience, and good listening skills.
5. I believe in setting a good example/standard that others can follow, setting goals and having a good plan on how to attain those goals, motivating people- praising them when they do great and discussing with them one-on-one when they don't do as great on something. Recognizing loopholes/weakness in our program and having ideas on how to improve them. Being able to bring up issues from residents to faculty so it can be resolved and then resident s can work in better conditions.
6. Effective negotiation among healthcare professionals. Solid thoughts and vision. Good knowledge of the subject. Policy maker.
7. Making co-workers strive for a common goal and make them aspire for a common vision. Getting away from ordering excessive laboratory tests and practice more clinical medicine for judicious use of resources.
8. Effective healthcare in leadership is the idea at leading people to a common goal. This is done through example setting and vision sharing. It also includes managerial skills of daily activities, jobs as …..team member.
9. Being a leader means the ability to utilize innovative means to achieve the best outcome for the patient especially when resources are limited and when pressure of time is applied.
10. Assess healthcare needs of a particular group of people or community. Devise strategies to address identified healthcare needs. Partner with other providers of

healthcare in the community to address the problems of the community. Inspire people in the community to adopt healthy lifestyles.

11. Effective leadership includes understanding goals of individual programs, developing improved ideals. Important to identify the needs of community and find innovative ways to educate the public.
12. Someone who has a vision and willing to workout that particular vision and implementing it. Having good communication skills that can negotiate between different parties.
13. Medicine currently is a very disorganized sector. All doctors feel that they have to protect themselves from all threats. There is no organized society that tracks others. Effective healthcare leader would unite all doctors everywhere, help them in troubled times, mold team from airline/lawyer/industries
14. An effective leader who inspires and creates a vision for others to follow. One who sets standards of integrity and commitment. One who pulls others interests above one's own. Stands by his/her subordinates through their good and bad times.
15. Inspiring others to apply medical knowledge effectively to achieve superior patient care.
16. (no response)
17. Having the ability to formulate a vision and see it carried through in terms of bringing other physicians and healthcare workers on board as supporters of your idea. This encompasses having a position from which you will be heard and establishing the respect from your colleagues so that they will take your lead.
18. Advocate for patient's rights as well as doctor's rights in the light of changes to come. Inspiring to do more in order to strive for professionalism including all 5 pillars of it.
19. Ability to inspire team members. Prevent problems rather than trying it solve. Excellent communication and interpersonal skills. Effective time management . Ability to detach professional and personal lives.
20. Leader is a very strong personality who is able to inspire a team to the best job in taking care of patient and provide a efficient preventative measures for community.
21. Effective leadership means being able to manage and handle both the usual and unusual situations in a proper and effective ways, being able to motivate all team members and ensure growth of both program and people in their jobs.

PRE-INTERVENTION

In what role(s) might you see yourself as a future healthcare leader?

1. Establishing guidelines for treating and screening disease.
2. I can see myself as a teacher wherever I end up. I also think I might be interested in running a fellowship program.
3. I see myself as a leader in academic medicine and an active participant in national medical societies implementing positive change.

4. As a future healthcare leader, I see myself in an academic institution, taking part in clinical, research and academic activities.
5. I ‘m not sure!
6. Would like to head/partner a subspecialty group/private practice.
7. Through active role in ACP.
8. ? Perhaps as a program director or a professor.
9. By being active politically and by staying informed as well. As leader, I may be also asked to donate not just my time but my monetary contributions as well.
10. Educator on healthcare issues. Coordinator of a healthcare program.
11. I imagine that I will be involved in teaching medical students to develop good physician/leaders. I hope to be involved with community service, possibly with educational presentations.
12. At present, I am not sure as I am not exactly aware of what different roles there are. Maybe right now it’s just implementing this and in the future maybe policy making that will have an impact.
13. (no response)
14. Educating/attached to an Internal Medicine Residency program teaching residents. Giving my share to field of Internal Medicine.
15. Chief Medical Officer. Departmental Chair. Dean. Leader of large medical practice.
16. (no response)
17. I can see myself in more than a few roles in the future. Most notable as an academic physician I would at this time see myself pursuing a career at a teaching hospital with a role as faculty.
18. Political representative/ practice manager.
19. Hospital setup. Clinical field.
20. I would like to stay with residents as a faculty, to teach, to communicate with all those talented residents, and take care of patients together with residents.

POST INTERVENTION

Please describe what effective leadership in healthcare means to you.

1. Sharing a common vision between all health care professionals and model the way.
2. Being a good listener, empowering others to follow their vision, articulate my vision and being a socially responsible physician.
3. Effective leadership means listening to others, inspire to work/build common goal/purpose with balance resources/interests and perception to future needs.
4. (no response)
5. Effective leadership-assess the situation in a short time and delegates appropriately duties to the right parties and ensures they do it correctly- and gives help if necessary.
6. Good ___ even if you do not agree with the other party. Excellent negotiating skills to push for a common goal. Always see the big picture. Always on the lookout for new changes with a predicted positive impact.
7. To have a vision of what healthcare should be, strive towards it and motivate others also. Embrace new changes when traditional ways are inept.
8. (no response)
9. Effective leadership means the ability to bring the two parties (Democrats/Republicans) together towards a consensus on the future of our healthcare. The leader should be inspirational enough to unite both parties.
10. Envisioning a future where the large majority of Americans (>95%) have access to effective health care irrespective of their ethnic and social backgrounds and selling it to the American people despite their initial skepticism.
11. Effective leadership involves being able to understand challenges, finding ways to motivate others believe in effective ideals.
12. (no response)
13. (no response)
14. (no response)
15. Leading physicians and health care providers toward the common goal of delivering more effective, less costly, and more streamlined health care for our patients.
16. Honesty, effective communication, vision.
17. Inspiring doctors around you to do better than they have the day before.
18. Be able to balance excellent patient care with reasonable quality of life of healthcare employees while maintaining a foot on the ground, standardizing guidelines and implementing/encouraging new visions that have a proven record of success.
19. Proactive and an agent of change with a clear vision. Persistent, emergent, tolerant of stress. Honest, dependable, and responsible. Creative, knowledgeable, with good communication and interpersonal skills.
20. It means: to educate residents, patients, and their families in order to provide excellent patient care, to protect patients' rights, to advocate needs of physicians.

21. Being in a leadership position and being able to achieve the goals and appropriate plans for the organization/institution with excellent patient care and high standards as well as cooperative relationships with team members based on respect.

In what role(s) might you see yourself as a future healthcare leader?

1. Program director.
2. Involved in the ACP, mentoring future leaders and talking to students about being an advocate for their patients and for medicine.
3. I would see myself as an attending physician on faculty contributing to patient needs and helping to better develop the system of healthcare delivery.
4. (no response)
5. An attending physician- conducting rounds with residents, RNs, pharmacists and students.
6. I am pursuing ID fellowship and would like to work in area of public health or in infection control – hospital based job.
7. As a facilitator.
8. (no response)
9. I see myself as an advocate in the promotion of health prevention. As an ER physician and an internal medicine training, I am at an advantage in utilizing the ER as an epidemiological window to the state of health in my community is in.
10. (no response)
11. I envision having focus on preventative care in my primary care practice. I wish to find opportunities to improve community education.
12. (no response)
13. (no response)
14. (no response)
15. Practice manager, Chief Medical Officer, CEO, Chief of Division, Chair of Department, or Dean.
16. Educating my community on healthcare.
17. Hopefully as a teacher or at a minimum a role model (for those who) work with me
18. Head of clinic – CEO of locum tenens
19. Academics, teaching and research
20. I can see myself in academic position. I love our teaching rounds, I love to teach. Recently we have implemented interdisciplinary rounds, where nurses, social workers, pharmacy participate in discussion of every patient's care. We learn from each other a lot during those rounds.
21. Faculty member in academic institution.

How has this program changed your views on leadership?

1. Characteristically the idea that leadership is different from just management was very appealing.

2. It has shown me there is more than one way to be a leader.
3. This program allows you to examine and encourage insightful ways to improve your leadership skills. It allows for periodic review of goals and methods. Leadership skills take time/effort to build and execute effectively.
4. (no response)
5. I learned the qualities of a good leader and how to analyze the situation.
6. New ideas about looking at issues. Loved the "elevator speech" concept. Negotiation skills improved.
7. Yes, broadened my horizons and exposed me to various ways changes can be brought about.
8. (no response)
9. This program has given me a different perspective in the sense that others may have viewed me as a leader, but I was never acutely aware of it. Awareness of being a leader affixes responsibility to the WORD.
10. It has stimulated and taught me leadership principles and strategies, which I had never known nor applied before.
11. This program has helped me understand good strategies to motivate others to share a common goal. Also, I have learned ways to improve communication.
12. (no response)
13. (no response)
14. (no response)
15. It has made me more reflective on other leaders' styles.
16. Having key principles are greatly needed for being a leader.
17. I now strongly believe that leadership is easier to achieve and is not only for those who seek it.
18. It introduced divergence of points of view as part of successful leadership.
19. This leadership program was very useful and aptly designed. It made me realize the mistakes I would have avoided, and the "challenges" that I could have handled more efficiently. It broadened my vision regarding conflict resolution between people working in different strata. It inspired me and boosted my confidence to deal with stress and perform better in future projects. It's never too late to perform better!
20. This program expanded my vision on leadership from patient care to political life.
21. Better understanding of effective leadership in terms of influence, standards, future plans, relationships.

How has this program changed your leadership skills?

1. I can negotiate more flexibly now.
2. It has shown me the power of listening.
3. Program allows you to broaden your scope on many possibilities you can have to affect the healthcare field and lead by example with integrity.

4. (no response)
5. I look forward to attending programs which will improve the leadership qualities in me.
6. Same as above (question 3)
7. Could not make full use of the program as I was unable to attend a number of sessions.
8. (no response)
9. Residency promotes routine which can lead to monotony. This was one aspect (program) during my last year that inspired me.
10. It has taught me strategies which I seek to apply in each leadership role. In the face of each leadership project, I now have a basic skeleton on which I build my leadership skills.
11. The program has helped m e to be reflective on areas, especially on communication, that I can improve in my leadership.
12. (no response)
13. (no response)
14. (no response)
15. It has made me more apt to network with my colleagues in order to reach my leadership goals.
16. Increased my interest.
17. I have become more vocal on the hospital committees.
18. It gave me blocks to build on a solid base for the future, role models to follow and organizational skills.
19. With respect to a) conflict resolution b) developing a vision c) and has reinforced many other leadership qualities.
20. Thanks to the program, I have learned theory of leadership and have tried to apply on practice during this year. I think I have improved my skills significantly by the end of the year. Probably, I would be a perfect chief resident next year, if I would be offered this position again.
21. Improved my leadership skills in general, it was very helpful meeting and contacting expert leaders and sharing information, opinions with other health care leaders.

How has this program changed your likelihood of pursuing additional self-directed or formal leadership training?

1. I am not sure I am going to formal training in this subject.
2. Yes, for the positive.
3. Inspired me to seek opportunities in daily practice to improve patient care. I will pursue additional self-directed leadership training.
4. (no response)

5. I look forward to attending programs which will improve the leadership qualities in me.
6. Definitely would like to pursue additional training and would like to read up.
7. In future, yes.
8. (no response)
9. It gave me inspiration to better myself.
10. A lot.
11. I have increased motivation to have more self-directed leadership training, and pursuing leadership opportunities.
12. (no response)
13. (no response)
14. (no response)
15. Yes; I am already completing an advanced leadership course through Rutgers University and an MBA with Masters in Medical Management.
16. Increased my interest.
17. Not sure yet.
18. I will pursue leadership training whenever the opportunity is made available within the restraints of a busy fellowship – more often and aggressive pursuance after fellowship.
19. A.) I am more interested to participate in leadership workshops. B.) I am more interested to read books about leadership. C.) I am more reflective in the decisions I take on a daily basis as a chief.
20. I would like to continue leadership training.
21. Very much, I wish to have more time and more sessions in leadership training.

What did you learn in this program that was particularly helpful?

1. Negotiation skills
2. Listening and empowering others has always been something that I struggle with. This program has taught me how that can be helpful.
3. The importance of leadership, developing goals, having integrity and embracing challenges.
4. (no response)
5. (no response)
6. Negotiation skills
7. Networking
8. (no response)
9. At times, conflict and tincture of time = resolution. Restraint is not only for those who are in delirium.
10. Applying the 5 principles of leadership in each leadership role.
11. The major components of five pearls of leadership.
12. (no response)

13. (no response)
14. (no response)
15. How to analyze other leaders' leadership styles.
16. Meeting other chief residents and sharing ideas
17. I learned a lot about the needs of others and the role I can fill by helping them including the ___
18. Negotiation skills
19. A.) Conflict resolution. B.) Developing a vision.
20. I am more comfortable in conflict resolution, in delegating of tasks, in counseling of patients.
21. (no response)

What changes would you suggest for this program?

1. I would like to have more formal talks and clearer syllabus with certain subjects and goals to be accomplished.
2. Meeting more frequently.
3. Meet earlier (in the academic year).
4. (no response)
5. Program should be more concise.
6. More sessions. Repeat sessions (at least twice). More leaders from different fields.
7. (no response)
8. (no response)
9. Already being addressed, I guess, but social media platform.
10. Organize more face-to-face meetings which help to strengthen the bond between us.
11. None.
12. (no response)
13. (no response)
14. (no response)
15. Begin with examples from day-to-day chief resident activities. Then expand on how those problems/issues address leadership challenges and how we can solve them.
16. (no response)
17. Perhaps more lateral networking between the chiefs.
18. Role play – public relations with the members of the Young physicians counsel
19. A.)More sessions. B.) Smaller sessions with more interaction. C.) conducting the workshop earlier (August) to "train" the new chief residents and having a second session after 4-6 months with feedback discussion. D.) Having a portal to discuss about challenges and how they were tackled (at least once a month- may be a blog)
20. 1.) To have more sessions, where chief residents can discuss certain situations and play role (let's say in conflict resolutions). I have found those exercises very helpful. 2.) To get know each other more close, for example, to arrange picnic or pizza party for chiefs to allow them to share their experiences. When we have a

snow storm in the morning of the second day of ACP meeting and had a free time, when we have been sitting and chatting about our programs, our successes and difficulties as a chief, I have learned so much.

21. I think we still need more training sessions.

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Curriculum Vitae

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EDUCATION

Undergraduate	Georgetown University, Washington, DC Bachelors of Science, Biology	1978-1982
Medical	University of Medicine and Dentistry of NJ – New Jersey Medical School Newark, NJ M.D.	1983-1987
Professional	University of Illinois Chicago, IL Masters in Health Professions Education, M.H.P.E.	2007-2012 (anticipated)

POST-DOCTORAL TRAINING

Internship	University of Medicine and Dentistry of NJ – New Jersey Medical School Newark, NJ Internal Medicine	1987-1988
Residency	University of Medicine and Dentistry of NJ – New Jersey Medical School Newark, NJ Internal Medicine	1988-1990
Traineeship	Harvard Macy Educators in Health Professions Boston, MA	2006

LICENSURE

Pennsylvania	License No. MD440109	Exp. 12/31/12
New Jersey	License No. MA05256400	Exp. 6/30/11
New York	License No. 254877	Exp. 8/31/11

CERTIFICATION

Medical License	National Board of Medical Examiners	1988
Specialty	Diplomate, American Board of Internal Medicine	1990

Sub-Specialty	Geriatrics, Certificate of Added Qualification 1994	
Recertification	Internal Medicine (2000, 2010)	Exp. 2020
	Geriatrics (2000)	Exp. 2014

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NARCOTICS CERTIFICATION: CDS AND DEA INFORMATION

NJ CDS: D052823
DEA: BM2459142 Exp. 1/31/14
National Provider ID 1457425811

UNIVERSITY APPOINTMENTS

Interim Vice Dean for Academic Affairs	Penn State College of Medicine	6/1/12- present
Associate Dean for Clinical Education	Penn State College of Medicine	6/1/10-5/31/12
Associate Professor of Medicine	Penn State College of Medicine	6/1/10- present
Assistant Dean for Medical Education	Touro Univ. College of Medicine	2008-5/30/10
Director of Clinical Education	Touro Univ. College of Medicine	2007-2008
Clinical Associate Professor	Touro Univ. College of Medicine	2007-2010
Director of Resident Professional Development	New Jersey Medical School	2005-2007
Associate Dean for Faculty Development	New Jersey Medical School	2004-2005
Assistant Professor of Medicine	New Jersey Medical School	1995-2007
Associate Program Director Internal Medicine Residency Program	New Jersey Medical School	1995-2004

HOSPITAL APPOINTMENTS

Attending Physician	Penn State Hershey Medical Center	6/1/10-present
Attending Physician	Hackensack Univ. Medical Center Hackensack, NJ	2007-6/10
Attending Physician	University Hospital Newark, NJ	2004-2007
Associate Chief of Medicine for Education	Department of Veterans Affairs New Jersey Health Care System East Orange, NJ	2003-2004

Assistant Chief of Medicine for Education	Department of Veterans Affairs New Jersey Health Care System East Orange, NJ	1994-2003
Staff Physician	Department of Veterans Affairs New Jersey Health Care System East Orange, NJ	1990-2004

HONORS AND AWARDS

- Eta Chapter of Pennsylvania of the Alpha Omega Alpha Honor Medical Society (AOA) 2012
- Evergreen Award, National American College of Physicians for Program "NJ Chapter Chief Resident Leadership Program" 2011
- Evergreen Award, National American College of Physicians for Program "A General and Targeted Needs Assessment for the NJ Chapter Chief Resident Leadership Program: Success Begins with Planning" 2010
- Excellence in Teaching, Division of Academic Medicine, Geriatrics and Community Programs, New Jersey Medical School 2006
- Golden Apple Nominee, New Jersey Medical School 2006
- Special Contribution Award, Department of Veterans Affairs-
  - New Jersey Health Care System (VA-NJHCS) 2004
- Bronze Leaf Award for Patient Care, VA- NJHCS 2004
- Bronze Leaf Award for Patient Care, VA- NJHCS 2002
- Excellence in Resident Teaching Award, New Jersey Medical School 2001
- Silver Leaf Award for Patient Care, VA- NJHCS 2001
- Golden Apple Award Nominee, New Jersey Medical School 2000
- Veterans Affairs Health Care Innovation Award- National Nominee 2000
  "Creation of an Academic Observation Unit"
- First Annual Housestaff Teaching Appreciation Award, New Jersey Medical School 1999
- Silver Leaf Award for Patient Care, VA- NJHCS 1999
- Bronze Leaf Award for Patient Care, VA- NJHCS 1999

MAJOR COMMITTEE ASSIGNMENTS

National:

- American College of Physicians (ACP), Northern Governor, NJ Chapter, 2006-2010
- ACP Executive Committee, Board of Governors, 2009-2010

- ACP Board of Governors, 2006-2010
- ACP Chair, Reference Committee, Spring 2009
- ACP Reference Committee, 2006-2009
- ACP Chair, Chapters Subcommittee, 2009-2010
- ACP Chapters Subcommittee, 2008-2010
- ACP Resolutions Task Force, 2009
- ACP Postgraduate/Chapter Education Management Advisory Committee, 2010-present
- ACP National Resident Abstract Competition Reviewer and Judge, 2005-present
- American Board of Internal Medicine Item Reviewer, 1996-1997

Medical School:

- Chair, Clerkship Directors Group. Penn State College of Medicine, 2010-5/2012
- Chair, OSCE Steering Committee. Penn State College of Medicine, 2010-5/2012
- Co-Chair, Curriculum Renewal Committee. Penn State College of Medicine, 2011-present
- Chair, Clinical Curriculum Renewal Committee. Penn State College of Medicine, 2010-2011
- Member, Academic Team. Penn State College of Medicine, 2010-present
- Member, Woodward Steering Group. Penn State College of Medicine, 2010-present
- Member, OSA/OME Group. Penn State College of Medicine, 2010-present
- Member, Academic Management Committee. Penn State College of Medicine, 2010-present
- Ex-officio member, Academic Progress Committee. Penn State College of Medicine, 2010-
- present
- Ex-officio member, CUMED Oversight. Penn State College of Medicine, 2010-present
- Ex-officio member, CUMED III/IV. Penn State College of Medicine, 2010-present
- Ex-officio member, CUMED I/II. Penn State College of Medicine, 2010-present
- Chair, Committee on Curriculum. Touro University College of Medicine, 2008-2009
- LCME Self-Study Executive Committee. Touro University College of Medicine, 2007, 2008
- Chair, LCME Self-Study Subcommittee on Educational Programs, Touro University College
- of Medicine, 2008-2009
- Chair, LCME Self-Study Subcommittee on Medical Students, Touro University College of
- Medicine, 2007
- LCME Self-Study Subcommittee on Educational Programs, Touro University College of
- Medicine, 2007
- LCME Self-Study Subcommittee on Faculty, Touro University College of Medicine, 2007
- TouroMed Executive Committee, Touro University College of Medicine, 2007-2010
- Clinical Curriculum Committee, New Jersey Medical School, 2005-2007
- Jubilee Curriculum Steering Committee, New Jersey Medical School, 2003-2006
- LCME Self-Study Committee, New Jersey Medical School, 2003-2004
- Primary Care Consortium Retreat Committee, New Jersey Medical School, 2006
- Primary Care Consortium Medical Education Research Committee, New Jersey Medical
- School, 2005-2006
- Chair, Search for Associate Dean for Student Affairs Committee, New Jersey Medical
- School, 2005
- Chair, Primary Care Consortium Retreat Committee, New Jersey Medical School, 2005
- Dean's Committee, VA-NJHCS representative, New Jersey Medical School, 1995-1996

Hospital:

- Coordinator, Palliative Care Consult Team, VA-NJHCS, 2003-2004
- Medication Error Aggregate Team, VA-NJHCS, 2002-2004
- Utilization Review Committee, VA-NJHCS, 1999-2002
- Prime Care Committee, VA-NJHCS, 1993-1997
- Residency Support Committee, VA-NJHCS, 1992-1997
- Beneficial Travel, VA NJ Health Care System, VA-NJHCS, 1993-1994
- Chair, Housestaff Rearrangement Committee, VA-NJHCS, 1994-1995
- Commodity Standards Committee, VA-NJHCS, 1990-1996

Department:

- Leadership Committee, Division of Academic Medicine, Geriatrics and Community Programs, Department of Internal Medicine, New Jersey Medical School, 2004–2007
- Chair, Education Committee, Division of Academic Medicine, Geriatrics and Community Programs, Department of Internal Medicine, New Jersey Medical School, 2005-2006
- Research Committee, Division of Academic Medicine, Geriatrics and Community Programs,
- Department of Internal Medicine, New Jersey Medical School, 2005-2006
- Chair, Resident Clinical Competency Committee, Internal Medicine Residency Program,
- Department of Medicine, New Jersey Medical School, 1994-2004
- Education Committee, Department of Medicine, New Jersey Medical School, 2002-2004
- Continuity Clinic Committee, Department of Medicine, New Jersey Medical School, 1992-1993

EDITORIAL BOARDS

Ad Hoc	*Medical Education*	*2012*
	Health Psychology Review	*2010*
	Journal of Graduate Medical Education	2009

MEMBERSHIPS, OFFICES, AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES

- Fellow in the American College of Physicians (FACP), member since 1990, elected to Fellowship 2001
- ACP Member, PA Chapter, 2010-present
- ACP President, NJ Chapter, 2008-2010
- ACP Governor, Northern Region, 2006-2010
- ACP Board of Governors, 2006-2010
- ACP Executive Committee, Board of Governors, 2009-2010
- ACP Chair, Reference Committee, Spring 2009
- ACP Reference Committee, 2006-2009

- ACP Chair, Chapters Subcommittee, 2009-2010
- ACP Chapters Subcommittee, 2008-2010
- ACP Resolutions Task Force, 2009
- ACP National Resident Abstract Competition reviewer and judge, 2005-present
- ACP NJ Chapter Executive Council, 2000-2010
- ACP NJ Chapter Secretary, 2005-2006
- ACP NJ Chapter Co-Chair, Scientific Committee, 2006-2007
- ACP NJ Chapter Scientific Committee, 2001-2010
- ACP NJ Chapter Health and Public Policy Committee, 2004-2010
- ACP NJ Chapter Chair, Membership Committee, 2006-2008
- ACP NJ Chapter Membership Committee, 2005-2010
- ACP NJ Chapter Chair, Resident Research Committee, 2002-2006
- ACP NJ Chapter Resident Research Committee, 2000-2006
- ACP NJ Chapter Moderator, Associate Abstract Competition, 2003-2006
- ACP National Leadership Day participant, 2003, 2004,2007,2008
- Association of American Medical Colleges, Member, 2004-present
- Association of American Medical Colleges, Women's Liaison Officer for Touro University College of Medicine, 2007-2010
- North East Group on Educational Affairs (NEGEA), Member, 2004-present
- NEGEA Abstract Competition Reviewer, 2010
- Society of General Internal Medicine, Member, 2008-2010
- Medical Society of New Jersey, Member, 2007-2010
- International Assoc. of Medical Science Educators, Member, 2005-2006, 2010-present
- Harvard Macy Educators in Health Professions participant, 2006
- Association of Program Directors in Internal Medicine, Member, 1995-2005

GRANT HISTORY

- American College of Physicians Chapter Development Fund. "Chief Resident Leadership Program: A NJ Chapter ACP Initiative"
  2009-2010
  Amount Awarded - $5000

- Principle Investigator, Suat Akgun, M.D., Co-Investigator, Eileen M. Moser, M.D
  National Heart, Lung, and Blood Institute, "Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT)"
  1994-2002
  Amount awarded - $52,000

MAJOR TEACHING EXPERIENCE

22. PROGRAM CREATION:

Undergraduate Medical Education:

Associate Dean for Clinical Education- PSCOM 2010-present

Co-Chair, Curriculum Renewal Committee- PSCOM 2010-present

Chair, Clinical Curriculum Renewal Committee- PSCOM 2010-present

Assistant Dean for Medical Education – TouroMed 2008- 2010
Responsible for creation and evaluation of the integrated 4-year curriculum at TouroMed

Director of Clinical Education – TouroMed 2007- 2008
Responsible for creation of the 4 year clinical education and first year curriculum at TouroMed

Course Director and Creator – UMDNJ-NJMS 2006-2007
Health Beliefs and Behavior
Mandatory 70-hour course for third year medical students

Graduate Medical Education:

Creator and Co-instructor- NJ Chapter ACP 11/09-2010
"Chief Resident Leadership Development Program: A New Jersey Chapter ACP Initiative"
NJ Internal Medicine chief residents receive leadership knowledge/skills instruction and mentoring in an annual, recurring longitudinal 5-month program.

Creator and Instructor - UMDNJ-NJMS 2005- 2007
"Chief Residents as Educators –
A Resident Teaching Skills Improvement Program"
Chief residents from 6 departments attend train-the-trainer workshops then give longitudinal resident teaching skills training to over 250 residents using a syllabus designed by me.

Creator and Instructor- UMDNJ-NJMS 2005-2007
"Psychiatry Residents Teaching Skills Improvement Program"
Biannual 7-hour workshops

Continuing Medical Education:

Moser EM, Sinz E, Galvan D, Rudy S. Using Simulation September 2011
for Assessment, High Stakes, Low Stakes.
Penn State College of Medicine, Hershey, PA.

Diabetes Foundation – American College of Physicians May 2009

Program Planning Committee and Panel Discussant
"Advances in Diabetes Care in the Primary Care Setting"
Cosponsored by Diabetes Foundation and NJ ACP
Atlantic City, NJ

Scientific Committee — 2002-2010
NJ Chapter American College of Physicians
Iselin, NJ

Co- Chair, Scientific Committee — January 2007
Co-Moderator of Annual Scientific Session
NJ Chapter American College of Physicians, Iselin, NJ

Diabetes Foundation – American College of Physicians — November 2006
Program Planning Committee and Event Moderator
"Current Management of the Patient with Type 2 Diabetes"
Cosponsored event by Diabetes Foundation and ACP
Franklin Lakes, NJ

Chair, Primary Care Retreat Committee for First Annual — October 2005
Primary Care Retreat and Event Moderator
"Primary Care Research and Education:
Strengthening Our Common Ties"
UMDNJ – NJMS
First Annual Primary Care Retreat attended by faculty from 4 departments.
Long Branch, New Jersey

Primary Care Retreat Committee — September 2006
Retreat entitled "Research in Primary Care:
Strengthening Methodology and Other Skills"
UMDNJ - NJMS
Newark, New Jersey

"End of Life Care, Teaching Medical Residents" — 2001
Creator and Facilitator of this 7-week faculty development course
VA-NJ Health Care System

23. LECTURES AND WORKSHOPS:

Facilitator. Leadership Enhancement and Development — April 18, 2012
Pre-course at
American College of Physicians Internal Medicine 2011
San Diego, CA

"Journey to 2020: How Do We Prepare Our Students?" — March 6, 2012
New York Medical College Medical Education Grand Rounds
Valhalla, New York

Lubitz R, Moser EM. "Identifying Your Strengths and Putting Them to Work" — November 16, 2011
ACP Leadership Enhancement and Development Webinar For Young Physicians
ACP Illinois Downstate Council of Young Physicians and PA Council of Young Physicians

"Curricular Trends Across the Med Ed Continuum" — October 28, 2011
York Hospital Medical Education Retreat
York, PA

Presenter and panel discussant, "Conflict Management" — October 24, 2011
Southeastern PA Chapter ACP
King of Prussia, PA

Faculty Development Workshop. University Park. — October 14, 2011
University Park, PA

"Hot Trends in Medical Education" — September 23, 2011
Department of Psychiatry Education Retreat
Penn State College of Medicine
Hershey, PA

Moser E. "OSCE and Assessment of the Healthcare Provider. *Using Simulation for Assessment: High Stakes Low Stakes.* Penn State College of Medicine, Penn State Hershey Medical Center. Hershey, PA. — September 9, 2011

Moser E. "Standard Setting and Blueprinting" — September 9, 2011
Using Simulation for Assessment: High Stakes Low Stakes. Penn State College of Medicine, Penn State Hershey Medical Center. Hershey, PA.

Simons R, Haidet P, Moser EM. "Critical thinking: a. Implications for Clinical Practice and Medical Education" — September 6, 2011
Department of Medicine Grand Rounds
Penn State College of Medicine
Hershey, PA

"Commitment to Strategic Plan" Chapter Leader Networking Session — April 6, 2011
American College of Physicians Internal Medicine 2011
San Diego, CA

Facilitator. Leadership Enhancement and Development Pre-course at — April 6, 2011
American College of Physicians Internal Medicine 2011
San Diego, CA

"Competency Assessment". Moser EM, Downing SM Site Affiliate Meeting Penn State College of Medicine Hershey, PA	March 30, 2011
"The Evolving Landscape of Medical Education" Department of Medicine Grand Rounds Penn State College of Medicine Hershey, PA	February 8, 2011
"What is Leadership?" Plenary at Chief Resident Leadership Development Program: A NJ Chapter American College of Physicians Initiative UMDNJ- Robert Wood Johnson Medical School New Brunswick, NJ	November 18, 2010
"Negotiation Skills for Physician Leaders." Workshop at Chief Resident Leadership Development Program: A NJ Chapter American College of Physicians Initiative UMDNJ- Robert Wood Johnson Medical School New Brunswick, NJ	November 18, 2010
"Learning and Assessment." Workshop at Junior Faculty Development Program Penn State College of Medicine Hershey, PA	October 15, 2010
Moderator. "Embracing the Future: Strategic Planning for Chapters" Chapter Leader Networking Session. American College of Physicians Internal Medicine 2010 Toronto, Canada	April 21, 2010
"Brief Motivational Interviewing: Help Your Patients Change Risky Health Behaviors" (designed for residents and medical students). Moser EM, Platt H. Workshop at NJ Chapter American College of Physicians Annual Scientific Session Iselin, NJ	February 5, 2010
"Clinical Decision Making and EBM" Schwartz A, Kim S, O'Rourke K., Moser E. (moderator) Workshop at NJ Chapter American College of Physicians Annual Scientific Session Iselin, NJ	February 6, 2010
"What is Leadership?" Plenary at Chief Resident Leadership Development Program: A NJ Chapter American College of Physicians Initiative UMDNJ- Robert Wood Johnson Medical School	November 19, 2009

New Brunswick, NJ

"Negotiation Skills for Physician Leaders." Workshop at Chief Resident Leadership Development Program: A NJ Chapter American College of Physicians Initiative UMDNJ- Robert Wood Johnson Medical School New Brunswick, NJ	November 19, 2009
"Structuring Your Chapter for Success: What You Need to Know on Day #1" Governor-Elect workshop at American College of Physicians Board of Governors Meeting Scottsdale, Arizona	October 1, 2009
Panel Discussant: "UME Symposium: Gateway to Where?" NEGEA Conference Hershey, Pennsylvania	May 1, 2009
"Better Teaching for all Learners" *Co-creator and co-instructor for series of four workshops delivered to TouroMed and Hackensack University Medical Center faculty*	2008
"Avoiding Trouble Spots" Governors-Elect workshop at American College of Physicians Board of Governors Meeting Minneapolis, Minnesota	September 2008
"Success in Medicine: Vision and Balance" Internal Medicine Residency Graduation Key Note Address UMDNJ- Robert Wood Johnson Medical School New Brunswick, NJ	May 2008
"Giving Feedback – Round Two". Grand Rounds, TouroMed	August 2008
"Herding Cats: Chief Residents as Teaching Skills Trainers And Managers", Grand Rounds, TouroMed	March 2008
"Improving Patient Satisfaction and Health Outcomes: Evidence-Based Patient Centered Interviewing" Fortin A, Moser EM, Prisch S. Workshop at New Jersey American College of Physicians Annual Scientific Session" Iselin, NJ	February 2008
"Women's Networking" facilitator. ACP Internal Medicine annual meetings	2007-2011
"One Minute Preceptor" Surgery resident workshop UMDNJ-NJMS	March 2007

"How Do We Learn Best?" May 2007
Surgery resident workshop
UMDNJ-NJMS

"Chief Residents as Teaching Skills Trainers: A Solution to the Dilemma of Housestaff Development" May 2006
Workshop at Ottawa International Conference on Clinical Competence.
New York

Small group teaching sessions for NJMS courses: 2004-2006
a. Cultural Competency
b. Introduction to Clinical Science
c. Doctor – Patient Relationship
d. Problem Based Learning

Lectures, discussions and small group sessions 1990-2007
for Internal Medicine Residents and Medical Students
covering a broad range of topics, several times a month.
UMDNJ-NJMS and VA – NJHCS

"How to Prepare and Match in an Internal Medicine Residency Program" Co-presented with VJ Rajput, MD February 2006
NJ Chapter American College of Physicians
Annual Scientific Meeting
Iselin, New Jersey

"Current and Future Research Projects: How Can We Collaborate?" October 2005
Primary Care Retreat
Long Branch, New Jersey

"PowerPoint: A Learner's Friend or Foe? Applying Adult Learning Principles to Lectures" June 2005
Workshop for Physiology Faculty
UMDNJ – NJMS

"How to Be a Great Resident Teacher in Five Minutes or Less" March 2005
Obstetrics and Gynecology Grand Rounds
UMDNJ-NJMS

"How to Be a Great Resident Teacher in Five Minutes or Less" 2005
Pediatrics, Medicine, General Surgery and Neurology resident workshops
UMDNJ-NJMS

Moderator, Resident Abstract Competition 2003-2006
NJ Chapter American College of Physicians

Annual Scientific Meeting.
Iselin, New Jersey

Moderator, "Consumer Driven Health Care" panel — February 2006
NJ Chapter American College of Physicians
Annual Scientific Meeting, Iselin, New Jersey

"Efficient and Effective Training of Residents — March 2000
in Ambulatory Care" workshop
"Performance Improvement in Primary Care Program"
VA Regional Meeting- Veterans Integrated Service Network III

Research Training-

Mentor, Debra Byler, MD — 2011-present
Mentor, Brandon Smith, MD, — 2010-present
Junior Faculty Development Program, PSCOM

Mentor, Dr. Ruby Samuel, — 2006-2008
Internal Medicine Resident, New Jersey Medical School

Mentor of four Chief Residents, including — 2006
Workshop and abstract presentations
New Jersey Medical School

Mentor, Primary Care Chief Residents' — 1998-2004
Research Projects
New Jersey Medical School

Instruction to Department of Medicine, Penn State Hershey Medical Center

Clinic Preceptor for Medical Residents, ½ day bimonthly — 6/10- present

Instruction to Department of Medicine, New Jersey Medical School

Morning Report Preceptor for Medical Residents — 2004-2010
New Jersey Medical School

Clinic Preceptor for Medical Residents — 12/04 -6/19/07
UMD Care, University Hospital
2 days weekly

Morning Report Preceptor, once to thrice weekly — 1990-2004
VA – NJ Health Care System

Ward Attending to Medical Students and Residents, — 1990-2004
General Medical Wards/Observation Unit
VA- NJ Health Care System
6-10 months a year

Medical Consult Attending for Third Year Medical Residents, — 1990-2004
2-3 months yearly
VA- NJ Health Care System

Mentor, Internal Medicine Chief Residents and Primary Care Chief Resident VA- NJ Health Care System	1992-2004
Primary Care Clinic Attending, supervising Third Year Medical Students and Internal Medicine Residents 3 days weekly. VA- NJ Health Care System	1990-2004

PRINCIPLE CLINICAL AND HOSPITAL SERVICE RESPONSIBILITIES

Attending Physician	Penn State Hershey Medical Center	2010-present
Clinical Assistant General Internal Medicine	Hackensack University Medical Center	2007-2010
Clinic Attending and Hospitalist	University Hospital	2004-2007
Associate Chief of Medicine for Education	VA-NJHCS	2003-2004
Assistant Chief of Medicine for Resident Education	VA-NJHCS	1994-2003
Ward Attending (6-10 months/yr.) Teaching Service	VA-NJHCS	1994-2004
Primary Care Clinic Attending (3 days/week year round)	VA-NJHCS	1990-2004
Coordinator, Palliative Care Consult Team	VA-NJHCS	2003-2004

MAJOR ADMINISTRATIVE RESPONSIBILITIES

Interim Vice Dean for Educational Affairs	Penn State College of Medicine	6/1/12-present
Associate Dean for Clinical Education	Penn State College of Medicine	2010-5/31/12

Assistant Dean for Medical Education	Touro Univ. College of Medicine	2008-2010
Director of Clinical Education	Touro Univ. College of Medicine	2007-2008
Director of Resident Professional Development	New Jersey Medical School	2005-2007
Course Director, Health Beliefs and Behaviors	New Jersey Medical School	2006-2007
Chair, Associate Dean for Student Affairs Search Committee	New Jersey Medical School	2005
Associate Dean for Faculty Development	New Jersey Medical School	2004-2005
Associate Program Director Internal Medicine Residency	New Jersey Medical School	1995-2004
Associate Chief of Medicine for Education	VA-NJHCS	2003-2004
Chair, Clinical Competency Committee, Internal Medicine Residency Program	New Jersey Medical School	1995-2004
Assistant Chief of Medicine for Resident Education	VA-NJHCS	1994-2003
Director and Architect, Observation Unit	VA-NJHCS	1997-2002
Devised and directed residency program rotation for residents incorporating outpatient and observation unit patients		
Faculty Director and Architect, Primary Care Chief Resident Program	VA-NJHCS	1998-2004
Coordinator, Ambulatory Track for Third Year Medical Students	VA-NJHCS	1997-2001
Director, Continuity Clinic for for Medical Residents	VA-NJHCS	1992-1996

PEER REVIEWED ARTICLES

Moser EM, Stagnaro-Green A. Teaching Behavior Change Concepts and Skills during the Third-Year Medicine Clerkship. Academic Medicine. 2009; 84(7): 851-8.

Moser EM, Kothari N, Stagnaro-Green A. Chief Residents as Educators: An Effective Model of Housestaff Education. Teaching and Learning in Medicine. 2008; 20 (4): 323-8.

Major cardiovascular events in hypertensive patients randomized to doxazosin vs chlorthalidone: the antihypertensive and lipid-lowering treatment to prevent heart attack trial (ALLHAT). ALLHAT Collaborative Research Group. JAMA. 2000;283:1967-75.

Relationship of Antihypertensive Treatment Regimens and Change in Blood Pressure to Risk for Heart Failure in Hypertensive Patients Randomly Assigned to Doxazosin or Chlorthalidone: Further Analyses from the Antihypertensive and Lipid-Lowering treatment to prevent Heart Attack Trial. ALLHAT Collaborative Research Group. Annals of Internal Medicine. 2002;137:313-320.

Fan-Havard P, Sanchorawala V, Oh J, Moser EM, Smith SP. Concurrent use of foscarnet and ciprofloxacin may increase the propensity for seizures. Annals of Pharmacology. 1994. (7-8):869-72.

ABSTRACTS

Moser EM. Chief Residents as Leaders: Ready, Willing and Able? Abstract presentation. RIME- AAMC Conference. Washington, DC, November 2010. .

Moser EM. Chief Resident Leadership Development Program: Needs Analysis Impacts Curriculum. Masters in Health Professions Education Summer Conference. Chicago, IL, July, 2010.

Moser EM. Chief Residents as our future leaders: What do they think they need to know? Poster Presentation. North East Group on Educational Affairs. Hartford, CT. March, 2010.

Stefan C, Coira D, Stefan A, Moser EM. Integrating Neuroscience and Psychiatry/Behavioral Sciences among courses in a new medical school. International Association of Medical Science Educators. Leiden, The Netherlands. June, 2009.

Stefan AM, Moser EM, Guilinao M, Stefan C. The Life Stages course as a multifaceted component of a new curriculum. International Association of Medical Science Educators. Leiden, The Netherlands. June, 2009.

Stefan AM, Moser EM, Stefan C. Designing a "Histology without Borders" longitudinal program in a new and integrated curriculum. American Association of Clinical Anatomists. Cleveland, OH, July, 2009.

Gannon PJ, Metzger KA, Moser EM, Kheck N, Wallach PM, Stagnaro-Green A. Anatomy of human life: Moving ahead from considering an embalmed cadaver as your first patient. American Association of Anatomists – Federation of American Societies for Experimental Biology. New Orleans, LA, April, 2009.

Stagnaro-Green A, Moser EM, Gannon P, Metzger K, Wallach P. Thinking outside the box when the box does not exist: The creation of a novel curriculum. International Association of Medical Education. Prague, 2008.

Wallach PM, Stagnaro-Green AS, Moser EM, Tepper H. Creating a new medical school: The TouroMed experience. Poster Presentation. International Association of Medical Education. Prague, 2008.

Samuels R, Moser EM. INH induced fulminant hepatitis: How much screening is enough? American College of Physicians Internal Medicine 2008, Resident Abstract Competition Semi-Finalist. Washington, DC, May 2008.

Moser EM, Wallach PM, Gannon PJ, Metzger K, Stagnaro-Green A. Every educator's dream: Building a novel curriculum unencumbered by the past. Paper Presentation, Masters in Health Professions Education Summer Conference. Chicago, IL, July 2008.

Gannon PJ, Metzger KA, Moser EM, Stagnaro-Green A, Wallach PM. Anatomy of human life: From conception to farewell - A new four year program. Late Breaking Abstract #387, American Association of Anatomists – Federation of American Societies for Experimental Biology. San Diego, CA, April, 2008

Moser EM, Stagnaro-Green A. Teaching behavior change: Creation of a Health Beliefs and Behavior course." Short Communication and Poster Presentation. North East Group on Educational Affairs. Stony Brook, NY, June, 2007

Moser EM, Kothari N, Stagnaro-Green A. "Residents as teachers: Are some specialties better teachers?" RIME – AAMC conference, Seattle, WA, November 2006.

Moser EM. "Creating a Health Beliefs and Behavior Course for third year medical students. Harvard Macy Conference. Poster Presentation. Boston, MA, May, 2006

Moser EM, Cennimo D, Maher J, Seiden J, Williams S, Stagnaro-Green A. Chief residents as teaching skills trainers: A solution to the dilemma of housestaff development. Ottawa International Conference on Clinical Competence. New York, NY, May 2006. Abstract and workshop.

Moser EM, Kotari N, Stagnaro-Green A. Residents as teachers: Are some specialties better teachers? Poster Presentation, North East Group on Educational Affairs, Philadelphia, PA, March, 2006

Moser EM, Chang VT, Brown S. End-of-Life curriculum development for faculty and residents in a large urban residency program. Journal of Palliative Medicine. 2001;4 (4):546-547.